Transportation Analysis

1200 Foster Street
DRI# 1932
City of Atlanta, Georgia

Prepared for:
Anthony Harper

October 2008
019772000

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EXECUTIVE SUMMARY

This report presents the analyses of the anticipated traffic impacts associated with the proposed 1200 Foster Redevelopment. The 11.74-acre site is located along the west side of Foster Street, south of Huff Road, in the City of Atlanta, Georgia. Because the project is a mixed-use development exceeding 400,000 square feet (SF), the proposed development is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review. This document is being submitted under GRTA's non-expedited review process.

The proposed development plan consists of 466 residential dwelling units (including 20 live/work units), 58,000 SF of retail space, and 87,000 SF of office space. The development is scheduled to be completed in one phase by the year 2011. This review reports on the expansion project as a single phase with build-out of 2011.

The results of the detailed intersection analysis of the eleven (11) study intersections for the 2008 Existing, 2011 No-Build (includes 2.5% per year background traffic growth for 3 years and the Gables Westside development, but excludes trips generated by the proposed development), and 2011 Build conditions (includes background traffic plus trips generated by the proposed development) identify improvements that will be necessary in order to maintain the operational standards, as defined by GRTA's Technical Guidelines, within the study network. Listed on the following pages, by intersection number as described in the report, are the 2008 Existing, 2011 No-Build, and 2011 Build Improvements.

2008 Existing recommended improvements (includes existing traffic volumes):

#4 – Howell Mill Road at 17th Street

- Install a signal, if warranted

Projected 2011 No-Build recommended improvements (includes background growth but does not include the 1200 Foster Street DRI project traffic).

#4 – Howell Mill Road at 17th Street

- Install a signal, if warranted

#8 – Northside Drive at 17th Street

- Optimize timings

#9 – Northside Drive at 14th Street

- Optimize timings (which slightly impacts intersections #10 and #11)

2011 Build recommended improvements (includes the 1200 Foster Street DRI project traffic).

#2 – Huff Road at Ellsworth Industrial Boulevard

- Provide a separate southbound right-turn lane

#3 – Huff Road at Foster Street

- Provide a separate northbound right-turn lane
- Install a traffic signal, if warranted, to be coordinated with the existing signal at Howell Mill Road and Huff Road

#4 – Howell Mill Road at 17th Street

- Install a signal, if warranted

#5 – Howell Mill Road at Huff Road

- Provide a separate eastbound right-turn lane
- Coordinate signal with Huff Road at Foster Street, if that signal is warranted

#8 – Northside Drive at 17th Street

- Optimize timings

#9 – Northside Drive at 14th Street

- Convert the southbound left-turn lane into a shared through-left lane (a third receiving lane for this modification currently exists on the south leg of the intersection)
- Optimize timings (which slightly impacts #10 and #11)

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analyses of the anticipated traffic impacts associated with the proposed 1200 Foster Redevelopment. The 11.74-acre site is located along Foster Street, south of Huff Road, in the City of Atlanta, Georgia. Because the project is a mixed-use development exceeding 400,000 square feet, the proposed development is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review. This document is being submitted under GRTA's non-expedited review process.

The proposed development plan consists of 466 residential dwelling units (including 20 live/work units), 58,000 SF of retail space, and 87,000 SF of office space. The development is scheduled to be completed in one phase by the year 2011. This review reports on the expansion project as a single phase with build-out of 2011.

A detailed summary of the proposed development program is provided in **Table 1**.

Table 1
1200 Foster Street DRI
Proposed Development Program

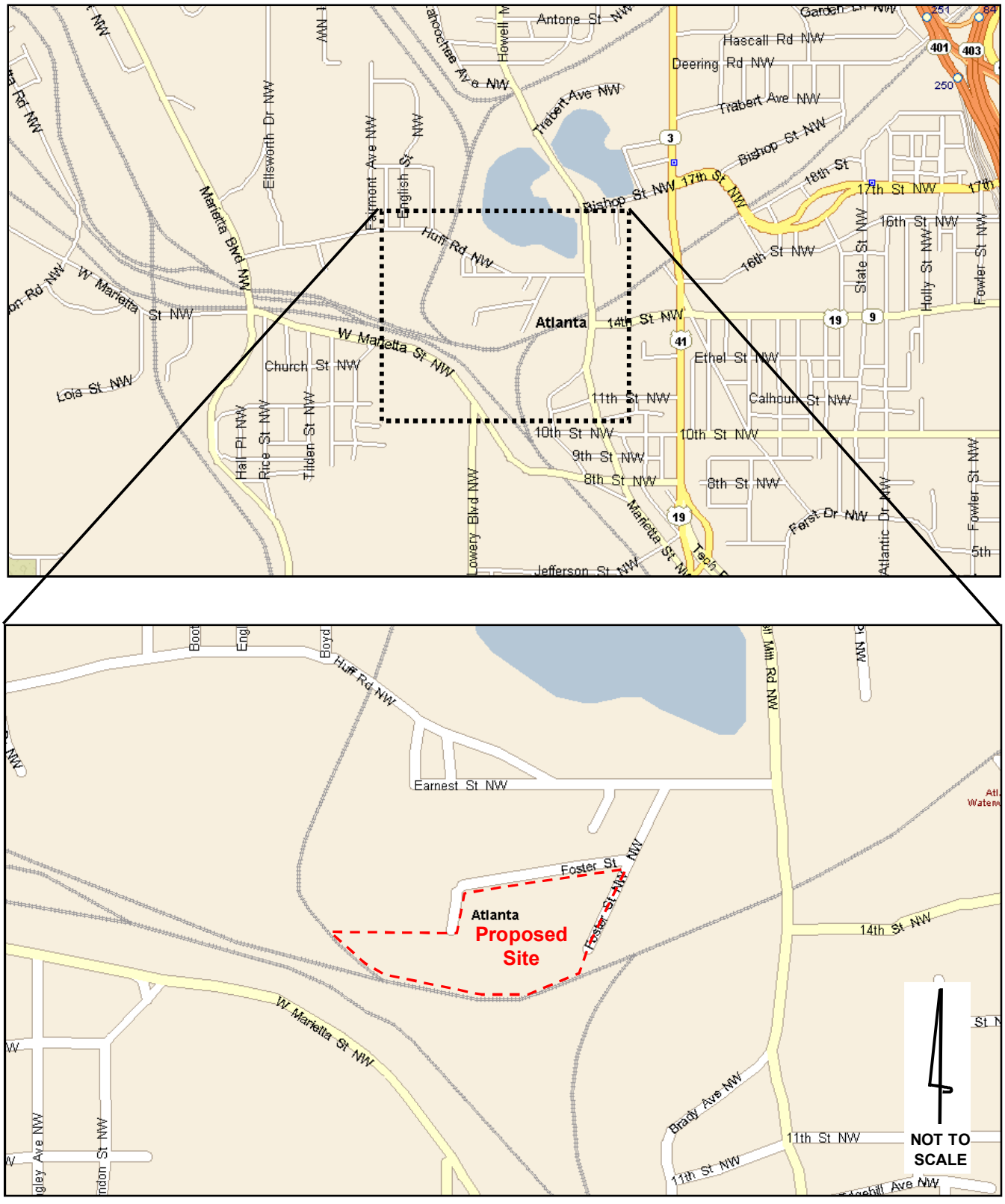
	Residential	Office	Retail
Block A	N/A	84,000 square feet	56,000 square feet
Block B	370 dwelling units	N/A	N/A
Block C	96 dwelling units	3,000 square feet	2,000 square feet
Total Site	466 dwelling units	87,000 square feet	58,000 square feet

Figure 1 illustrates the project's location and **Figure 2** provides an aerial photograph of the area surrounding the site.

1.2 Site Plan Review

The proposed development plan is divided into three blocks: Block A, Block B and Block C. Block A contains 8 buildings, 6 of which are existing buildings that will be renovated and remain on the site. This block includes surface parking and an extensive pedestrian network, and will not include residential use. Blocks B and C will include residential units; parking is to be provided within two (2) parking decks. The entire site is connected by sidewalks and internal roads and driveways. The proposed Beltline project is located directly to the south of the site and will provide additional transit options for the development.

Figure 3 is a small-scale copy of the site plan. A full-size site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the Review Package.



Kimley-Horn and Associates, Inc.	**1200 Foster Street DRI Transportation Analysis**	**Site Location**	**Figure 1**

Kimley-Horn and Associates, Inc.	1200 Foster Street DRI Transportation Analysis	Aerial Photograph	Figure 2

Figure 3

Site Plan

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

PLAN KEY

PROPERTY LINE
PROPOSED BUILDING
PROPOSED CURB AND GUTTER
PROPOSED SIDEWALK
BUILDING SETBACK LINE
PROPOSED STREET ACCESS
EXISTING R.O.W. LINE
EXISTING CONTOUR
EXISTING ROADWAY LANEAGE
PROPOSED ROADWAY LANEAGE

LOCATION MAP
SCALE AS SHOWN

GENERAL NOTES

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SUMMARY TABLE

SITE ACREAGE
NET LOT AREA (NLA): 11.74 TOTAL ACRES (511,338 SF)
GROSS LAND AREA (GLA): 13.57 TOTAL ACRES (591,095 SF)

PROPOSED DEVELOPMENT:
RESIDENTIAL (512,000 SF TOTAL; 466 TOTAL UNITS)
- BLOCK A: 0 SF; 0 UNITS
- BLOCK B: 390,000 SF; 350 UNITS (FLATS)
  22,000 SF; 20 UNITS (LIVE-WORK UNITS)
- BLOCK C: 100,000 SF; 96 UNITS

NON-RESIDENTIAL (145,000 SF TOTAL)
- BLOCK A: 140,000 SF (84,000 SF OFFICE; 56,000 SF RETAIL)
- BLOCK B: 0 SF
- BLOCK C: 5,000 SF (3,000 SF OFFICE; 2,000 SF RETAIL)

DENSITY: 39.69 RESIDENTIAL UNITS PER ACRE

FLOOR AREA RATIO:
RESIDENTIAL: 0.866

NON-RESIDENTIAL: 0.284

PARKING:
RESIDENTIAL:

	RATIO	ALLOWABLE
MIN.	1 PER UNIT	466
MAX.	2 PER UNIT	932

NON-RESIDENTIAL:

	RATIO	ALLOWABLE
MIN.	1 PER 600	242
MAX.	1 PER 300	483

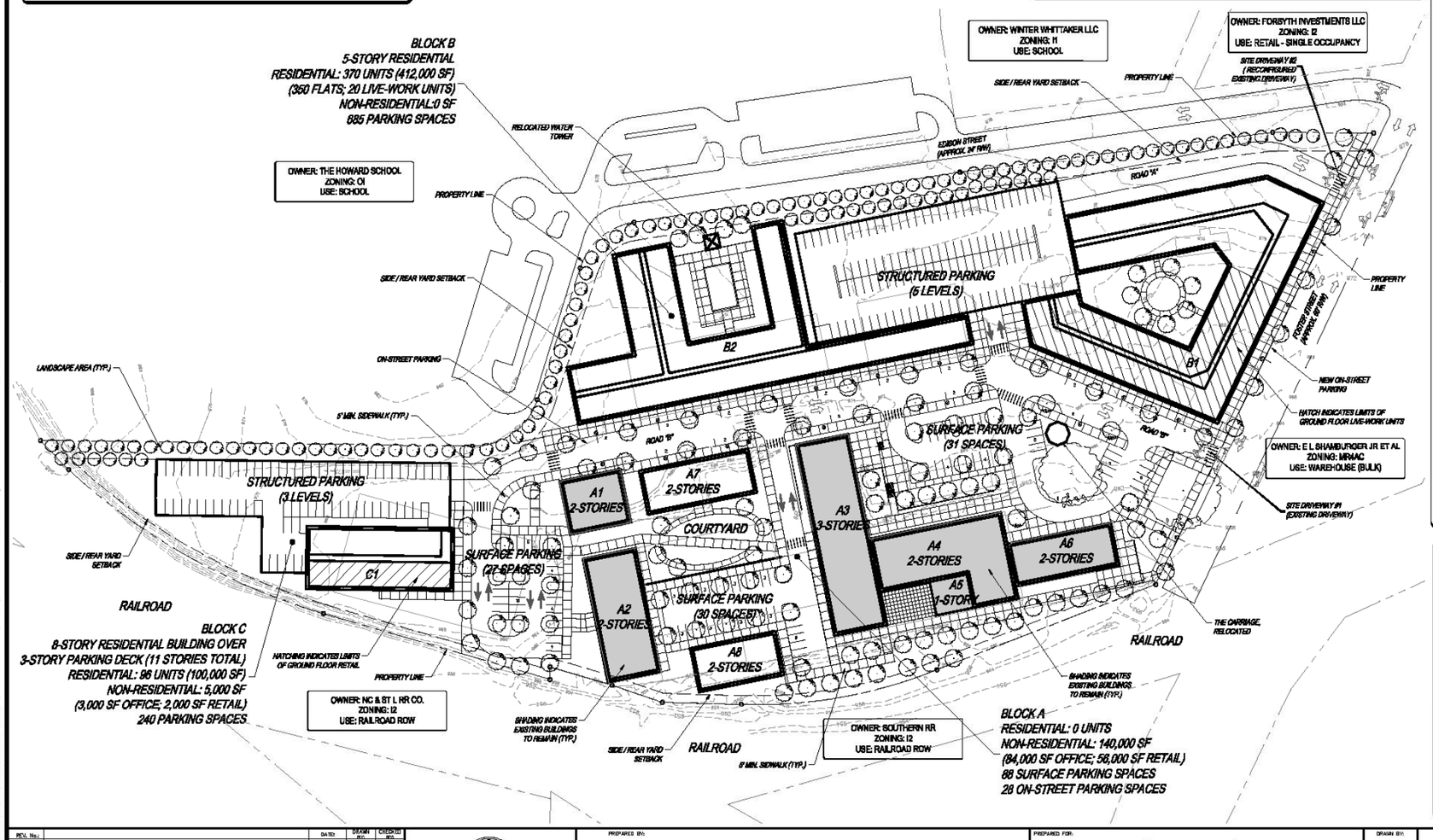
TOTAL PARKING SPACES REQUIRED (MIN): 708 SPACES
TOTAL PARKING SPACES REQURED (MAX): 1,415 SPACES
TOTAL PARKING SPACES PROVIDED: 1,041 SPACES

BLOCK A: 116 PARKING SPACES
BLOCK B: 685 PARKING SPACES
BLOCK C: 240 PARKING SPACES

OPEN SPACE:
- USABLE OPEN SPACE PROVIDED: 177,329 SF
- RATIO: 0.30

IMPERVIOUS AREA: 264,800 SF (APPROX. 52% OF SITE)

NOTES
- SPECIFIC BREAKDOWN OF PROPOSED USES OF INDIVIDUAL BUILDINGS WITHIN EACH BLOCK IS UNKNOWN AT THIS TIME.
- NO JURISDICTIONAL WATERS ON-SITE.
- NO PROPOSED BIKE LANES, PATHS OR TRAILS.
- EXISTING USES ON-SITE CONSIST OF STORAGE, RESIDENTIAL, LIVE/WORK, RESIDENTIAL/OFFICE, REFINISING SHOP AND VACANT BUILDINGS (16 EXISTING STRUCTURES, ±179,000 SF).
- SOME EXISTING BUILDING STRUCTURES TO BE DEMOLISHED (STORAGE, VACANT BUILDINGS. SOME EXISTING BUILDINGS TO REMAIN AS NOTED (5 EXISTING STRUCTURES TO REMAIN, ± 140,000 SF).
- SINGLE-PHASE DEVELOMPENT.
- ALL CONTOURS, PROPERTY LINES AROUND THE PERIMETER OF THE SITE, AND RIGHT-OF-WAY WIDTHS OBTAINED FROM ARCHITECT'S MASTER PLAN.
- OFF-SITE PROPERTY LINES APPROXIMATED USING FULTON COUNTY GIS.
- PROPOSED INTERNAL ROADS TO BE PRIVATE ROADS.



REV. No.:		DATED	DRAWN BY:	CHECKED BY:

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0 60 120
SCALE IN FEET

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1200 FOSTER STREET, DRI #1932

Atlanta, Georgia

GRTA DRI SITE PLAN

PROJECT NO: 019772000 | SCALE: 1" = 60' | DATE: 10-22-08 | SHEET NO: 1 OF 1

Drawing name: K:\ATL_TPTO\019772000_1200 Foster\CADD Site Plan\CADD\GRTA Site Plan_24x36.dwg Oct 22, 2008 11:36am by: anderson

1.3 Site Access

Two full-movement site driveways are currently proposed for the development, both along Foster Street. The first driveway (North Driveway #1) is located along Foster Street at an existing access point just south of the entrance to the Howard School, and provides direct access to one of the on-site parking decks. The driveway located on the south (South Driveway #2) is an existing driveway providing access for the current buildings (which will be converted as Block A) approximately 330' to the south of North Driveway #1. This driveway extends into the proposed development, providing access to all proposed uses and facilitating internal circulation.

See the referenced conceptual plan for a visual representation of access to the proposed sites.

1.4 Bicycle and Pedestrian Facilities

The proposed development is incorporating sidewalks on both sides of the internal roadways and driveways, as well as through public courtyards and parking areas. All new sidewalks will connect with currently existing sidewalks where possible. Bicycle facilities are not currently in place along the Huff Road corridor, but should be available along the Beltline when constructed.

1.5 Transit Facilities

The proposed development is located along MARTA bus route 1 – Coronet Way, which has 15-20 minute headways. Route 1 begins at the Georgia State MARTA station, traveling along Huff Road and Ellsworth Industrial Boulevard, circling at its northernmost point along Moores Mill Road.

The proposed Beltline transit system is also expected to pass near the site, providing alternate modes of transportation to and from the proposed development. Also, the Beltline is expected to intersect with five MARTA rail stations.

2.0 TRAFFIC ANALYSES METHODOLOGY AND ASSUMPTIONS

2.1 Growth Rate

Background traffic is defined as expected traffic on the roadway network in future year(s) absent the construction and opening of the proposed project. Historical traffic count data from the Georgia DOT was reviewed for the area surrounding the proposed expansion, and growth rates along all roadways were agreed upon during the methodology meeting with GRTA, ARC, DeKalb County, and GDOT staff. A 2.5% per year background traffic growth rate was used for all roadways within the study network from 2008 to 2011. In addition to the background growth rate, traffic projected as a result of the adjacent Gables residential development was also included in the background traffic projections. This background grown is consistent with GRTA's Letter of Understanding.

2.2 Traffic Data Collection

Due to the 14th Street Bridge project, traffic patterns along Northside Drive are not currently representative of typical conditions; therefore, it was agreed that historical counts should be used for the intersections at Northside Drive/Hemphill Avenue/14th Street. These counts were performed during 2004, and have been grown at the recommended 2.5% per year growth rate to obtain projected 2008 "existing" volumes. The remaining intersections studied in this analysis were counted on weekdays in January and September 2008.

The weekday morning and afternoon peak hours varied between the 11 intersections. The AM and PM peak hours for each intersection are provided in **Table 2**.

Table 2
Intersection Turning Movement Count Summary

	Intersection	Year Counted	AM Peak	PM Peak
1	Huff Road at Marietta Boulevard	2008	7:45-8:45	5:00-6:00
2	Huff Road at Ellsworth Industrial Boulevard	2008	8:15-9:15	4:45-5:45
3	Huff Road at Foster Street	2008	8:15-9:15	5:00-6:00
4	Howell Mill Road at 17th Street	2008	8:15-9:15	5:00-6:00
5	Howell Mill Road at Huff Road	2008	8:15-9:15	5:00-6:00
6	Howell Mill Road at 14th Street	2008	8:15-9:15	4:30-5:30
7	Howell Mill Road at 10th Street	2008	8:15-9:15	5:00-6:00
8	Northside Drive at 17th Street	2008	8:30-9:30	5:15-6:15
9	Northside Drive at 14th Street	2004/2008	8:00-9:00	5:00-6:00
10	14th Street at Hemphill Avenue	2004/2008	8:00-9:00	5:00-6:00
11	Northside Drive at Hemphill Avenue	2008	8:00-9:00	5:00-6:00

These study intersections are listed in *Section 3.4 Study Network Determination*. Raw count data is provided in the appendix.

2.3 Detailed Intersection Analysis

Level of Service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F being the worst. **Table 3** illustrates LOS thresholds for unsignalized and signalized intersections. Level of service analyses were conducted at all intersections within the study network using *Synchro Professional, Version 6.0*.

Level of Service for signalized intersections is reported for the intersection as a whole. One or more movements at an intersection may experience a low LOS, while the intersection as a whole may operate at the LOS standard.

Level of Service for unsignalized intersections, with stop control on the minor street only, is reported for the side street approach. Low Levels of service for side street approaches are not uncommon, as vehicles may experience delay in turning onto a major roadway.

Table 3 Level of Service Criteria Unsignalized and Signalized Intersections			
Unsignalized Intersections		**Signalized Intersections**	
Level-of-Service	**Average Control Delay (sec/veh)**	**Level-of-Service**	**Average Control Delay (sec/veh)**
A	≤ 10	A	≤ 10.0
B	> 10 and ≤ 15	B	> 10.0 and ≤ 20.0
C	> 15 and ≤ 25	C	> 20.0 and ≤ 35.0
D	> 25 and ≤ 35	D	> 35.0 and ≤ 55.0
E	> 35 and ≤ 50	E	> 55.0 and ≤ 80.0
F	> 50	F	> 80.0

Source: 2000 Highway Capacity Manual

Volume to Capacity (v/c) ratio is also used to describe the operating characteristics of a road segment or intersection in relation to its capacity. The *Highway Capacity Manual* describes the v/c ratio as the ratio of traffic demand on a roadway facility divided by the facility's available capacity. V/C is often referred to as the degree of saturation. A facility with a v/c ratio between 0 and 1 operates with excess capacity; however, values above 1.0 indicate an excess of demand, or a facility operating over capacity.

3.0 STUDY NETWORK

3.1 Gross Trip Generation

As stated in *Section 1.1 Introduction*, the proposed development plan consists of a development program that consists of 466 residential dwelling units, 58,000 square feet of retail space, and 87,000 square feet of office space. This report presents trips generated based on total build-out (2011) of the project.

As discussed and agreed upon with GRTA, ARC, City of Atlanta, and GDOT staff, trips associated with the proposed development were estimated using equations provided in the *ITE Trip Generation Manual, Seventh Edition (2003)* when available.

Gross projected trips anticipated to be generated by the proposed development are displayed in **Table 4**.

Table 4 Gross Trip Generation							
Land Use	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
Build-Out (Year 2011)							
Residential - 466 d.u.	*220*	1,476	1,475	46	186	178	96
Office - 87,000 SF	*710*	599	599	148	20	30	146
Retail - 58,000 SF	*820*	2,383	2,383	69	44	210	227
Total		**4,458**	**4,457**	**263**	**250**	**418**	**469**

3.2 Trip Distribution

The directional distribution and assignment of new project trips was based on results obtained from engineering judgment and discussions with GRTA staff at the methodology meeting.

3.3 Operational Standards

For the purposes of this traffic analysis, two intersection operational standards are report. First, a level of service (LOS) standard of D was used for all intersections and segments within the study network. If, however, an intersection or segment currently operates at LOS E or LOS F during an existing peak period, the LOS standard for that peak period becomes LOS E, consistent with GRTA's Letter of Understanding. Second, a volume to capacity (v/c) ratio standard of 1.2 was used for all intersections and segments within the study network.

3.4 Study Network Determination

A general study area was determined using GRTA's 7% rule. This rule recommends that all intersections and segments be analyzed which are impacted to the extent that the traffic from the proposed site is 7% or more of the service volume of the facility (at a previously established LOS standard) be considered for analysis. The study area was agreed upon during methodology discussions with GRTA, ARC, GDOT, and Emory staff, and consists of the following intersections, as listed in GRTA's Letter of Understanding:

Intersection #1 – Marietta Boulevard at Huff Road (Signalized)
Intersection #2 – Huff Road at Ellsworth Drive (Unsignalized)
Intersection #3 – Huff Road at Foster Street (Unsignalized)
Intersection #4 – Howell Mill Road at 17th Street (Unsignalized)
Intersection #5 – Howell Mill Road at Huff Road (Signalized)
Intersection #6 – Howell Mill Road at 14th Street (Signalized)
Intersection #7 – Howell Mill Road at 10th Street (Signalized)
Intersection #8 – Northside Drive at 17th Street (Signalized)
Intersection #9 – Northside Drive at 14th Street (Signalized)
Intersection #10 – 14th Street at Hemphill Avenue (Signalized)
Intersection #11 – Northside Drive at Hemphill Avenue (Signalized)

Each of the above listed intersections was analyzed for Existing 2008 Conditions, the 2011 No-Build Conditions, and the 2011 Build Conditions. The 2011 No-Build conditions represent the existing traffic volumes grown at

2.5% per year from 2008 to 2011. The 2011 Build conditions add the projected trips associated with the development to the 2011 No-Build conditions.

The additional proposed site access points listed below were only analyzed for 2011 Build Conditions:

Intersection #12 – Foster Street at Proposed North Driveway #1
Intersection #13 – Foster Street at Proposed South Driveway #2

All of the study intersections were analyzed for the weekday AM and PM peak hours as discussed in *Section 2.2 Traffic Data Collection*.

3.5 Existing Facilities

The following section provides a written description of the study area roadway facilities.

Foster Street

- Foster Street is a two-lane roadway that begins at Huff Road and extends south to a dead-end. The roadway runs primarily north-south, and GDOT classifies this road as an Urban Local Street.

Huff Road

- Huff Road is a two-lane roadway that begins at Marietta Boulevard and runs east-west until it ends at Howell Mill Road. GDOT classifies this road as an Urban Collector Road. The posted speed along Huff Road is 35 MPH, and the ADT along the roadway is 8,810 vpd based upon GDOT 2007 counts.

Ellsworth Industrial Boulevard

- Ellsworth Industrial Boulevard is a north-south oriented, two-lane undivided roadway that begins at Huff Road in the south and intersects with Chattahoochee Avenue to the north. GDOT classifies the road as an Urban Local Street, and the ADT along the roadway is 6,320 vpd based upon GDOT 2007 counts.

Howell Mill Road

- Howell Mill Road is a four-lane roadway that begins at W. Marietta Street and runs primarily north-south to its termination point at Northside Parkway (north of Moores Mill Road). This road is classified as an Urban Minor Arterial. The posted speed limit along Howell Mill Road in the vicinity of the project is 35 MPH, and the ADT along the roadway is 15,940 vpd based upon GDOT 2007 counts.

Northside Drive (US-41)

- Northside Drive is a six-lane undivided roadway that runs north-south in the vicinity of the project. This road is classified as an Urban Principal Arterial. The posted speed limit along Northside Drive is 35 MPH, and the ADT along the roadway is 22,170 vpd according to GDOT 2007 counts.

10th Street

- 10th Street is a four-lane undivided roadway in the vicinity of the project that begins to the east at Monroe Drive and ends just west of Howell Mill Road at Brady Avenue. This road is classified as an Urban Collector Street. The posted speed limit along 10th Street is 35 MPH, and the ADT along the roadway is 18,340 vpd based upon GDOT 2007 counts.

14th Street

- 14th Street is a four-lane undivided roadway in the vicinity of the project that begins to the east at Piedmont Avenue and ends at Howell Mill Road in the west. This road is classified as an Urban

Collector Street. The posted speed limit along 14th Street is 35 MPH, and the ADT along the roadway is 12,240 vpd based upon GDOT 2007 counts.

17th Street

- 17th Street is a four-lane undivided roadway in the vicinity of the project that begins east of Peachtree Street and ends at Howell Mill Road in the west. This road is classified as an Urban Collector Street. The posted speed limit along 17th Street is 35 MPH.

Hemphill Avenue

- Hemphill Avenue is a four-lane undivided roadway that begins to the south at Ferst Drive (on Georgia Tech's campus), and extends to the north, where it intersects with 14th Street and Northside Drive. This road is classified as an Urban Local Street.

Roadway classification descriptions are provided in **Table 5**.

Table 5
Roadway Classification

Roadway	Number Of Through Lanes	Posted Speed Limit (MPH)	GDOT Functional Classification
Foster Street	2	25	Urban Local Street
Huff Road	2	35	Urban Collector Road
Ellsworth Industrial Boulevard	2	35	Urban Local Street
Howell Mill Road	4	35	Urban Minor Arterial
Northside Drive	6	35	Urban Principal Arterial
10th Street	4	35	Urban Collector Street
14th Street	4	35	Urban Collector Street
17th Street	4	35	Urban Collector Street
Hemphill Avenue	4	25	Urban Local Street

4.0 TRIP GENERATION

As mentioned previously, trips associated with the proposed expansion were estimated using methods agreed upon during the methodology meeting with GRTA, ARC, City of Atlanta, and GDOT staff. Equations provided in the *ITE Trip Generation Manual, Seventh Edition (2003)* were used when available.

Mixed-use vehicle trip reductions were taken according to the *ITE Trip Generation Handbook, June 2004*. Total daily internal capture and vehicle trip reduction between all land uses was calculated to be 14.67 percent and total PM peak hour internal capture is expected to be 13.53 percent.

As per the Letter of Understanding, alternative transportation mode (walking, bicycling, and transit) reductions were applied after the mixed-use reductions at 5 percent for all uses within the proposed development, as agreed upon during methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff.

Pass-by vehicle trip reductions were then taken at a rate of 34% for the daily and PM peak trips associated with the proposed retail uses. This reduction is consistent with values recommended in the *ITE Trip Generation Handbook, 2004*, and is lower than GRTA's threshold of 15% of adjacent street traffic.

The adjusted gross (with mixed-use and alternative mode reductions applied) trips generated and analyzed in this report are listed below in **Table 6**.

Table 6
Adjusted Gross Trip Generation

Land Use	Daily Traffic	AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit
Build-Out (Year 2011)					
Gross Trips	**8,915**	**263**	**250**	**418**	**469**
Mixed-Use Reductions	*-1,308*	*0*	*0*	*-60*	*-60*
Alternate Mode Reductions	*-380*	*-12*	*-12*	*-17*	*-21*
Pass-by Reductions	*-1,332*	*0*	*0*	*-62*	*-61*
Adjusted Gross Trips	**5,895**	**251**	**238**	**279**	**327**

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

Project trip distribution (both new and removed trips) was based on engineering judgment and a review of land use densities in the area using aerial mapping. The proposed trip distribution is as follows:

Residential

- To/from the north – 20%
- To/from the south – 20%
- To/from the east – 30%
- To/from the west along Huff Road – 30%

Office

- To/from the north – 15%
- To/from the south – 10%
- To/from the east – 25%
- To/from the west along Huff Road – 50%

Retail

- To/from the north – 15%
- To/from the south – 10%
- To/from the east – 25%
- To/from the west along Huff Road – 50%

Figures 4 through **6** display the expected trip percentages by land use for the project throughout the roadway study network. Where applicable close to the site, separate assignments are shown by parcel to account for the

Marietta Boulevard

Ellsworth Industrial Boulevard

Howell Mill Road

Northside Drive

Huff Road

17TH Street

14TH Street

10TH Street

Hemphill Avenue

Foster Street

North Driveway #1

South Driveway #2

Proposed Site

NOT TO SCALE

LEGEND

- Turning Movement
- Existing Traffic Signal
- XX Percent Trips In
- (XX) Percent Trips Out

Figure 4

Residential Distribution

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

Figure 5

Office Distribution

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

Marietta Boulevard

Ellsworth Industrial Boulevard

Howell Mill Road

Northside Drive

Huff Road

17TH Street

14TH Street

10TH Street

Hemphill Avenue

Foster Street

North Driveway #1

South Driveway #2

Proposed Site

15%

NOT TO SCALE

LEGEND

- Turning Movement
- Existing Traffic Signal
- XX Percent Trips In
- (XX) Percent Trips Out

Figure 6

Retail Distribution

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

locations of proposed driveways for each parcel. These percentages were applied to the new trips calculated for the project (see Table 6), and the volumes were assigned to the roadway network. The expected peak hour project trips generated by the proposed development are shown in **Figure 7**.

6.0 TRAFFIC ANALYSIS

6.1 Existing 2008 Traffic

The observed existing peak hour traffic volumes (as well as pedestrian volumes and heavy vehicle factors) were input into *Synchro 6.0*, along with the existing traffic signal cycle lengths, splits, and offsets, and an Existing 2008 Conditions analysis was performed. The results of the operational analysis are displayed in **Table 7**.

Table 7
Existing 2008 Intersection Operation
(delay in seconds)

	Intersection	Control	AM Peak Hour		PM Peak Hour	
			LOS	v/c	LOS	v/c
1	Huff Road at Marietta Boulevard	Signal	A (8.8)	0.40	B (19.8)	0.60
2	Huff Road at Ellsworth Industrial Boulevard	Stop	D (26.2)	0.51	C (17.9)	0.40
3	Huff Road at Foster Street	Stop	C (21.2)	**	B (12.8)	**
4	Howell Mill Road at 17th Street	Stop	F (896.6)	2.70	F (Err)	4.24
5	Howell Mill Road at Huff Road	Signal	C (22.1)	0.73	B (19.8)	0.69
6	Howell Mill Road at 14th Street	Signal	A (9.5)	0.56	B (13.3)	0.51
7	Howell Mill Road at 10th Street	Signal	A (9.6)	0.41	B (10.5)	0.39
8	Northside Drive at 17th Street	Signal	D (39.0)	0.89	E (62.9)	1.02
9	Northside Drive at 14th Street	Signal	C (26.0)	0.59	E (62.1)	0.98
10	14th Street at Hemphill Avenue	Signal	C (28.5)	0.29	C (32.5)	0.56
11	Northside Drive at Hemphill Avenue	Signal	B (10.3)	0.52	B (10.6)	0.55

** v/c not provided for all-way stop control intersection configuration.

As shown in Table 9, three of the study intersections currently operate at a Level of Service of E or F during at least one peak hour. Per GRTA's Technical Guidelines and Letter of Understanding, LOS standards are therefore lowered to LOS E for the respective analysis time periods.

Given the adjusted LOS standards, one intersection currently operates below the operational standards during at least one peak hour. A traffic signal at the intersection of Howell Mill Road & 17th Street would most likely be warranted based on current traffic volumes, and would improve the level of service at this intersection. The geometric improvements made to the system to elevate the operational standards to the acceptable standards are listed below, by intersection:

2008 Existing recommended improvements (includes existing traffic volumes):

#4 – Howell Mill Road at 17th Street
- Install a signal, if warranted

Figure 7

Project Trips

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

Given the above improvement, the Existing 2008 Improved Conditions intersection levels of service and v/c ratios are displayed in **Table 8** below. The Existing 2008 Conditions laneage and peak hour traffic volumes are shown in **Figure 8**.

Table 8
Existing 2008 Intersection Operation IMPROVED
(delay in seconds)

Intersection		Control	AM Peak Hour		PM Peak Hour	
			LOS	v/c	LOS	v/c
4	Howell Mill Road at 17th Street	Signal	A (8.6)	0.69	B (14.0)	0.82

6.2 Projected 2011 No-Build Traffic

To account for growth in traffic in the vicinity of the proposed development, the existing traffic volumes were grown at 2.5% per year along all roadway links within the study network from 2008 to 2011. Additionally, traffic projected for the proposed Gables Westside development, to be located across Foster Street from this DRI, was included as background traffic in addition to the 2.5% growth rate. The Gables development is currently proposing to build 231 apartment units and will provide driveway access along Foster Street. The residential distribution and assignment used for this DRI was applied to the Gables development in order to estimate potential Gables traffic at the study intersections.

These projected no-build volumes, along with existing roadway geometry, and existing signal timings were input into *Synchro 6.0* and an analysis of the projected 2011 No-Build Conditions was performed. The results are displayed below in **Table 9.**

Table 9
Projected 2011 No-Build Intersection Operation
(delay in seconds)

Intersection		Control	LOS Standard	AM Peak Hour		PM Peak Hour	
				LOS	v/c	LOS	v/c
1	Huff Road at Marietta Boulevard	Signal	D	A (9.5)	0.47	C (23.5)	0.65
2	Huff Road at Ellsworth Industrial Boulevard	Stop	D	D (29.6)	0.52	C (22.1)	0.48
3	Huff Road at Foster Street	Stop	D	C (18.6)	**	B (14.3)	**
4	Howell Mill Road at 17th Street	Stop	E	F (Err)	3.55	F (Err)	5.98
5	Howell Mill Road at Huff Road	Signal	D	C (33.6)	0.87	C (22.6)	0.75
6	Howell Mill Road at 14th Street	Signal	D	A (9.8)	0.61	B (13.4)	0.57
7	Howell Mill Road at 10th Street	Signal	D	A (9.4)	0.44	B (10.7)	0.44
8	Northside Drive at 17th Street	Signal	D AM/ E PM	D (49.8)	0.92	F (87.7)	1.16
9	Northside Drive at 14th Street	Signal	D AM/ E PM	C (29.5)	0.65	F (82.4)	1.07
10	14th Street at Hemphill Avenue	Signal	D	C (28.3)	0.32	D (39.0)	0.61
11	Northside Drive at Hemphill Avenue	Signal	D	B (10.2)	0.57	B (10.9)	0.59

** v/c not provided for all-way stop control intersection configuration.

Figure 8

Existing 2008 Conditions

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

Maintaining existing signal timings and roadway geometry, three intersections are projected to operate below the operational standards during at least one peak hour for the year 2011 No-Build Conditions. Intersection timing improvements were made to appropriate study intersections and operational improvements were made to specific intersections until each intersection's operation was elevated to an appropriate range, as defined by GRTA's Technical Guidelines. The geometric improvements made to the system to elevate the operational standards to the acceptable standards are listed below, by intersection:

Projected 2011 No-Build recommended improvements (includes background growth but does not include the 1200 Foster Street DRI project traffic).

#4 – Howell Mill Road at 17th Street

- Install a signal, if warranted

#8 – Northside Drive at 17th Street

- Optimize timings

#9 – Northside Drive at 14th Street

- Optimize timings (which slightly impacts #10 and #11)

Given the above improvements, the projected 2011 No-Build Improved Conditions intersection levels of service and v/c ratios are displayed in **Table 10** below. The projected 2011 Non-Build Improved Conditions laneage and traffic volumes are shown in **Figure 9**.

Table 10
Projected 2011 No-Build Intersection Operation IMPROVED
(delay in seconds)

Intersection		Control	LOS Standard	AM Peak Hour		PM Peak Hour	
				LOS	v/c	LOS	v/c
4	Howell Mill Road at 17th Street	Stop	E	A (9.8)	0.73	B (16.5)	0.85
8	Northside Drive at 17th Street	Signal	D AM/ E PM	D (42.0)	0.93	E (65.1)	1.05
9	Northside Drive at 14th Street	Signal	D AM/ E PM	C (27.6)	0.63	E (72.0)	1.09
10	14th Street at Hemphill Avenue	Signal	D	C (29.4)	0.31	C (28.0)	0.60
11	Northside Drive at Hemphill Avenue	Signal	D	B (10.3)	0.57	B (10.4)	0.56

Figure 9

Projected 2011 "No-Build" Conditions

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

6.3 Projected 2011 Build Traffic

The traffic associated with the proposed 1200 Foster Street development was added to the 2011 No-Build volumes. These volumes, along with existing roadway geometry and signal timings were input into *Synchro 6.0* and an analysis of the projected 2011 Build Conditions was performed. The results of the analysis are displayed in **Table 11**. An analysis of the proposed two site driveways was also performed and results provided in the table.

Table 11
Projected 2011 Build Intersection Operation
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour		PM Peak Hour	
				LOS	v/c	LOS	v/c
1	Huff Road at Marietta Boulevard	Signal	D	B (11.5)	0.57	D (36.8)	0.82
2	Huff Road at Ellsworth Industrial Boulevard	Stop	D	F (54.5)	0.73	E (37.7)	0.66
3	Huff Road at Foster Street	Stop	D	F (87.2)	**	F (99.8)	**
4	Howell Mill Road at 17th Street	Stop	E	F (Err)	5.08	F (Err)	9.73
5	Howell Mill Road at Huff Road	Signal	D	E (73.3)	1.07	D (40.5)	0.97
6	Howell Mill Road at 14th Street	Signal	D	B (10.9)	0.67	B (14.4)	0.65
7	Howell Mill Road at 10th Street	Signal	D	A (9.3)	0.46	B (10.8)	0.47
8	Northside Drive at 17th Street	Signal	D AM/ E PM	D (51.5)	0.95	F (96.4)	1.18
9	Northside Drive at 14th Street	Signal	D AM/ E PM	C (31.1)	0.68	F (98.8)	1.13
10	14th Street at Hemphill Avenue	Signal	D	C (28.5)	0.33	D (45.7)	0.63
11	Northside Drive at Hemphill Avenue	Signal	D	A (9.9)	0.57	B (11.0)	0.59
12	Foster Street at North Driveway #1	Stop	D	B (12.8)	0.26	C (17.3)	0.34
13	Foster Street at South Driveway #2	Stop	D	A (9.4)	0.11	B (10.7)	0.30

** v/c not provided for all-way stop control intersection configuration.

As shown in Table 11, maintaining existing roadway geometry and signal timing, and adding both background traffic growth as well as the traffic associated with the 1200 Foster Street project causes six of the study intersections to be projected to operate below the operational standards during at least one peak hour scenario for the 2011 Build Conditions. Operational improvements were made to the roadway network until each intersection's operation was elevated to an appropriate range as defined by GRTA's Technical Guidelines. The 2011 Build improvements made to the system are listed below, by intersection:

2011 Build recommended improvements (includes the 1200 Foster Street DRI project traffic).

#2 – Huff Road at Ellsworth Industrial Boulevard

- Provide a separate southbound right-turn lane

#3 – Huff Road at Foster Street

- Provide a separate northbound right-turn lane
- Install a traffic signal, if warranted, to be coordinated with the existing signal at Howell Mill Road and Huff Road

#4 – Howell Mill Road at 17th Street

- Install a signal, if warranted

#5 – Howell Mill Road at Huff Road

- Provide a separate eastbound right-turn lane
- Coordinate signal with Huff Road at Foster Street, if that signal is warranted

#8 – Northside Drive at 17th Street

- Optimize timings

#9 – Northside Drive at 14th Street

- Convert the southbound left-turn lane into a shared through-left lane (a third receiving lane for this modification currently exists on the south leg of the intersection)
- Optimize timings (which slightly impacts #10 and #11)

Given the above recommended improvements, the 2011 Build Improved Conditions intersection levels of service and v/c ratios are displayed in **Table 12** below. The projected 2011 Build Improved Conditions laneage and traffic volumes are shown in **Figure 10**.

It should be noted that intersection #2 – Huff Road at Ellsworth Industrial Boulevard is still projected to operate at LOS E for the southbound approach; however, volumes do not appear to warrant a signal based on the assumptions in this study. It is not uncommon for side-street stop approaches to experience higher delays. When future developments along the western portion of Huff Road are constructed, a signal should be investigated further as traffic volumes increase along both roads.

Table 12
2011 Build Intersection Operation IMPROVED
(delay in seconds)

Intersection		Control	LOS Standard	AM Peak Hour		PM Peak Hour	
				LOS	v/c	LOS	v/c
2	Huff Road at Ellsworth Industrial Boulevard	Stop	D	E (44.7)*	0.67	C (24.4)	0.45
3	Huff Road at Foster Street	Stop	D	B (17.3)	0.72	B 16.7)	0.79
4	Howell Mill Road at 17th Street	Stop	E	B (12.2)	0.79	C (23.5)	0.91
5	Howell Mill Road at Huff Road	Signal	D	C (24.8)	0.78	C (26.3)	0.79
8	Northside Drive at 17th Street	Signal	D AM/ E PM	D (44.7)	0.94	E (72.9)	1.07
9	Northside Drive at 14th Street	Signal	D AM/ E PM	C (28.3)	0.63	E (70.1)	1.10
10	14th Street at Hemphill Avenue	Signal	D	C (29.0)	0.33	C (28.3)	0.64
11	Northside Drive at Hemphill Avenue	Signal	D	B (10.2)	0.57	B (11.9)	0.60

Figure 10

Projected 2011 "Build" Conditions

1200 Foster Street DRI Transportation Analysis

Kimley-Horn and Associates, Inc.

* Recommendations improve intersection operation, but not to the level of service standard. Improvements noted are the maximum that are deemed reasonable at this time.

7.0 IDENTIFICATION OF PROGRAMMED PROJECTS

The 2008-2013 *TIP, STIP, RTP, GDOT's Construction Work Program, the Northside Drive Corridor Study,* and the *Upper West Side LCI study* were reviewed for currently programmed transportation projects within the vicinity of the proposed development. Several projects are programmed for the area surrounding the study network. Area projects are shown graphically in **Figure 11**. Information about the projects is included in the Appendix.

1. **GDOT # 0004493**
   ARC # AT-AR-BP303
   Improvements to the streetscape along Marietta Street from West Marietta Street to the Atlanta city limits. It will repair sidewalks where needed and add sidewalks where none exist. It will also add "Share the Road" signage for bicyclists.

2. **GDOT # 0001792**
   ARC # AR-H-600
   I-75/85 Bridge and HOV Interchange at 15th Street in City of Atlanta.

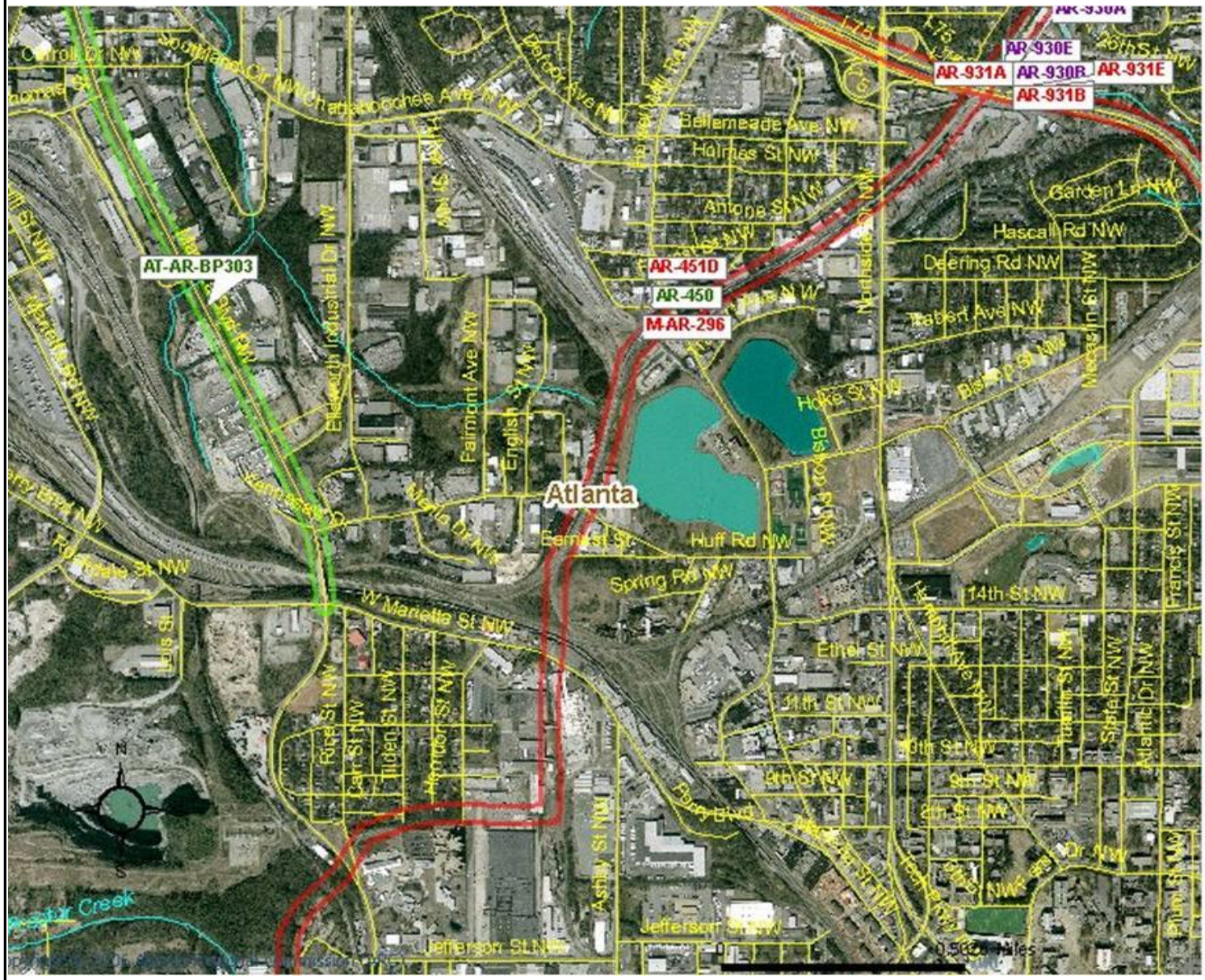
3. **GDOT # 0007683**
   ARC # AR-450
   The BeltLine, a 22-mile loop of historic railroad that encircles downtown and midtown, is a unique opportunity to increase greenspace, improve transit, connect neighborhoods and foster livable communities. The BeltLine will connect 45 in-town neighborhoods with parks, transit and trails for commuters, bicyclists and pedestrians. The line will spur economic development and enhance mobility. Funding associated with this line item will create more than 33 miles of multi-use trails in a new linear park that will connect 40 Atlanta parks. The multi-use trails include the core 22-mile loop plus various extensions to increase connectivity to parks and trails surrounding the BeltLine.

4. **ARC # AR-451D**
   The BeltLine; Funding associated with this line will be used to implement a light rail transit service along the northwestern quadrant of the corridor.

5. **ARC # M-AR-296**
   This project funding will be utilized for the environmental analysis phase of the BeltLine transit project, which will be conducted in accordance with Federal NEPA requirements.

The Midtown Alliance is working with GDOT on the 14th Street and 15th Street bridges over the Downtown Connector. The design calls for widening the bridge to six (6) travel lanes with a landscaped median. At Fowler Street, 14th Street will taper to five (5) travel lanes with a landscaped median.

As discussed in GDOT Project #0001792, the 15th Street Bridge will cross over the Downtown Connector and connect Atlantic Station with Midtown. This bridge is intended for HOV access but the possibility of general access is still being discussed.



Kimley-Horn and Associates, Inc.	**1200 Foster Street DRI Transportation Analysis**	**Programmed Improvements**	**Figure 11**

Northside Drive Corridor Study performed by URS and accepted by the City of Atlanta

Northside Drive @ Tenth Street

- Add eastbound and westbound left-turn lanes
- Remove northbound channelized right-turn lane
- Improve pedestrian facilities by repairing and adding pedestrian signal heads, push buttons, and crosswalk striping across the south leg of the intersection
- Repair the sidewalk along the eastbound approach

- Make connections of Ethel Street and Eighth Street on the east side of Northside Drive and signalize both intersections
- Construct a raised median along Northside Drive to prohibit left-turn maneuvers at mid-block locations and provide pedestrian refuge islands at major intersections
- Widen all bridges and underpasses to provide six general-use lanes and two transit lanes along entire length of Northside Drive study corridor
- Institute higher frequency and higher quality-of-service transit along the entire length of the Northside Drive study corridor (bus rapid transit, light rail, etc.)
- Reduce the number of curb-cuts along Northside Drive wherever practical
- Provide mid-block on-street parking along Northside Drive at retail locations when possible (with on-street parking prohibited during peak hours for use as travel lanes)

Upper Westside LCI Study:

- Northside Drive @ Tenth Street
  - Improve sight distance
  - Provide improved pedestrian crosswalks and refuge areas
- Improve sidewalks and street lighting on both sides of the street along Tenth Street from Northside Drive to Brady Avenue
- Construct a small park (open space) at Watkins Street @ Ninth Street
- Close Hemphill Avenue at Fourteenth Street (creating a dead end), allowing only pedestrian (and bicycle) access from Fourteenth onto Hemphill

8.0 INGRESS/EGRESS ANALYSIS

Both proposed driveways for this development along Foster Street (North Driveway #1 and South Driveway #2) are each proposed to have one ingress lane and one egress lane. The 2011 Build Conditions analysis assumed this laneage, and the results did not indicate a need for additional turn lanes at either driveway.

9.0 INTERNAL CIRCULATION ANALYSIS

Internal circulation will occur between all of the uses along the proposed internal road and driveways. Additionally, vehicles will be able to circulate within each parking structure. Pedestrians will be able to traverse easily between uses on site using sidewalks and walkways proposed in the development.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The future development complies with the City of Atlanta's Future Land Use map, which shows this area as mixed-use.

11.0 NON-EXPEDITED CRITERIA

11.1 Vehicle Miles of Travel

Table 13 displays the reduction in traffic generation due to internal capture and alternative mode reductions. No pass-by trip reductions are associated with healthcare land uses.

Table 13
Vehicle Mile Reduction

	Build-Out Total
Daily Gross Trip Generation	8,915
(-) Mixed-use reductions (internal capture)	-1,308
(-) Alternative modes	-380
(-) Pass-by trips	-1,332
Net Trips	5,895

11.2 Transportation and Traffic Analysis

11.2.1 Planned and Programmed Improvements

The proposed project is not anticipated to preclude any transportation infrastructure improvement projects as identified by the City of Atlanta.

11.2.2 Preserving Regional Mobility

This proposed project is located near the main arterials of Howell Mill Road, Marietta Boulevard, and Northside Drive. These arterials provide access to the major interstates and highways in the Atlanta area. MARTA also provides a bus route which travel less than ¼ mile from the site along Huff Road. This route connects to the Midtown MARTA rail station along 10th Street.

11.2.3 Safe and Efficient Operations

All intersections within the development will provide safe pedestrian crossing features, including marked crosswalks and curb extensions.

11.2.4 Minimize Congestion

The recommendations as described in this report are targeted at reducing vehicular congestion to standards as described earlier in this report. Recommendations reflect the goal of vehicular congestion mitigation, while giving priority to pedestrian and bicycle safety.

11.3 Relationship of Existing Development and Infrastructure

The development is located in an area where the existing infrastructure is adequate to serve the needs of the development upon build-out (2011).

12.0 ARC'S AIR QUALITY BENCHMARK

The proposed development is a mixed-use development that will include approximately 87,000 square feet of office area, 58,000 square feet of retail area and 466 residential units (including 20 live/work units).

The residential density for the development is approximately 39 dwelling units per acre; therefore, ARC criteria (1b) is met for a 6% VMT reduction.

Using the general DRI equation of 1,800 square feet per residential dwelling unit, the total residential area is approximately 838,800 square feet. Using this figure, neither of the density target levels in ARC criteria (2) is met. However, if the proposed residential area of 512,000 square feet is used for this calculation, 87,000 square feet of office is greater than 10% of the gross floor area and a 4% VMT reduction would be allowed.

The proposed development is located within ¼ mile from an existing MARTA bus stop along Huff Road. Therefore, ARC criteria (4) is met for a 3% VMT reduction.

Finally, the proposed development will contain a pedestrian network within the site, and will provide connections to sidewalks where possible along Foster Street. Pedestrians will be able to access other uses within the proposed development via this network. This anticipated pedestrian internal network that connects to adjoining uses meets the ARC criteria (6e) for a 5% VMT reduction.

The proposed development earns a score of 14% VMT reduction for the ARC criteria, or 18% if criteria (2) is met. These reductions are displayed in **Table 14**.

Table 14 ARC VMT Reductions	
Mixed-use projects where Residential is the dominant use	
Density target – greater than 15 du/acre	-6%
Mixed-Use target – more than 10% office use (if actual SF is used)	-0% / -4%
Project is located within ¼ mile of a bus stop	-3%
Bike/ped networks in development that connect to adjoining uses	-5%
Total Reductions	**14% / 18%**

Appendix

Site Photos

Kimley-Horn and Associates, Inc.
817 West Peachtree Street, NW
The Biltmore, Suite 601
Atlanta, GA 30308-1121

1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 1 of 9

Photo No. 1	Photo No. 2
	
Remarks: Huff Road @ Foster Street, looking north	Remarks: Huff Road @ Foster Street, looking east

Photo No. 3	Photo No. 4
	
Remarks: Huff Road @ Foster Street, looking west	Remarks: Howell Mill Road @ 17th Street, looking north

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008

Photo No. 5	Photo No. 6
	
Remarks: Howell Mill Road @ 17th Street, looking east	Remarks: Howell Mill Road @ 17th Street, looking south

Photo No. 7	Photo No. 8
	
Remarks: Howell Mill Road @ Huff Road, looking north	Remarks: Howell Mill Road @ Huff Road, looking east

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 3 of 9

Photo No. 9	Photo No. 10
	
Remarks: Howell Mill Road @ Huff Road, looking south	Remarks: Howell Mill Road @ Huff Road, looking west

Photo No. 11	Photo No. 12
	
Remarks: Howell Mill Road @ 14th Street, looking west	Remarks: Howell Mill Road @ 14th Street, looking south

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 4 of 9

Photo No. 13	Photo No. 14
	
Remarks: Howell Mill Road @ 14th Street, looking north	Remarks: Howell Mill Road @ 10th Street, looking south

Photo No. 15	Photo No. 16
	
Remarks: Howell Mill Road @ 10th Street, looking west	Remarks: Howell Mill Road @ 10th Street, looking north

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008

Photo No. 17	Photo No. 18
	
Remarks: Howell Mill Road @ 10th Street, looking east	Remarks: Huff Road @ Ellsworth Drive, looking west

Photo No. 19	Photo No. 20
	
Remarks: Huff Road @ Ellsworth Drive, looking south	Remarks: Huff Road @ Ellsworth Drive, looking east

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 6 of 9

Photo No. 21	Photo No. 22
	
Remarks: Marietta Boulevard @ Huff Road, looking west	Remarks: Marietta Boulevard @ Huff Road, looking north

Photo No. 23	Photo No. 24
	
Remarks: Hemphill Avenue @ 14th Street, looking north	Remarks: Hemphill Avenue @ 14 Street, looking south

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 7 of 9

Photo No. 25	Photo No. 26
	
Remarks: Hemphill Avenue @ 14th Street, looking west	Remarks: Northside Drive @ Hemphill Avenue, looking south

Photo No. 27	Photo No. 28
	
Remarks: Northside Drive @ Hemphill Avenue, looking north	Remarks: Northside Drive @ 14th Street, looking east

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1200 Foster Street DRI #1932

Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 8 of 9

Photo No. 29	Photo No. 30
	
Remarks: Northside Drive @ 14th Street, looking north	Remarks: Northside Drive @ 17th Street, looking east

Photo No. 31	Photo No. 32
	
Remarks: Northside Drive @ 17th Street, looking north	Remarks: Northside Drive @ 17th Street, looking south

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1200 Foster Street DRI #1932

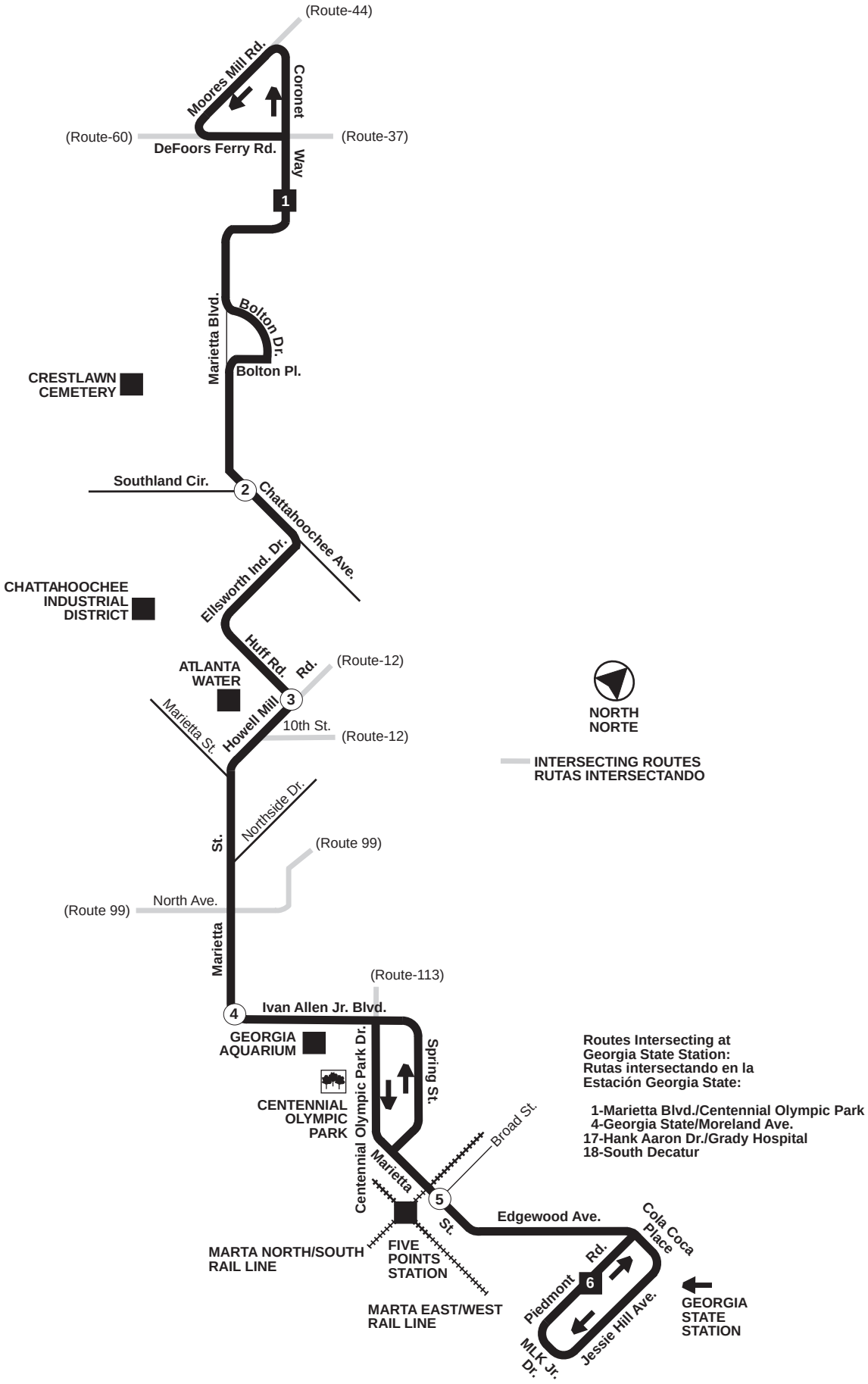
Photograph Sheet

KHA Job No.: 019772000
KHA Rep.: RW
Date: October 22, 2008
Page: 9 of 9

Photo No. 33	Photo No. 34
	
Remarks: Northside Drive @ 17th Street, looking west	Remarks:

Photo No. 35	Photo No. 36
Remarks:	Remarks:

Transit Information


(Route-44)
Moores Mill Rd.
Coronet Way
(Route-60)
DeFoors Ferry Rd.
(Route-37)
1
Marietta Blvd.
Bolton Dr.
Bolton Pl.
CRESTLAWN CEMETERY
Southland Cir.
2
Chattahoochee Ave.
Ellsworth Ind. Dr.
CHATTAHOOCHEE INDUSTRIAL DISTRICT
Huff Rd.
Rd.
(Route-12)
ATLANTA WATER
3
Howell Mill
Marietta St.
10th St.
(Route-12)
NORTH
NORTE
INTERSECTING ROUTES
RUTAS INTERSECTANDO
St.
Northside Dr.
(Route 99)
North Ave.
(Route 99)
Marietta
(Route-113)
4
Ivan Allen Jr. Blvd.
GEORGIA AQUARIUM
Centennial Olympic Park Dr.
Spring St.
CENTENNIAL OLYMPIC PARK
Broad St.
Marietta
5
St.
Edgewood Ave.
Cola Coca Place
MARTA NORTH/SOUTH RAIL LINE
FIVE POINTS STATION
Rd.
Piedmont
6
MARTA EAST/WEST RAIL LINE
MLK Jr. Dr.
Jessie Hill Ave.
GEORGIA STATE STATION
Routes Intersecting at
Georgia State Station:
Rutas intersectando en la
Estación Georgia State:
1-Marietta Blvd./Centennial Olympic Park
4-Georgia State/Moreland Ave.
17-Hank Aaron Dr./Grady Hospital
18-South Decatur

Route 1 - Marietta Blvd./Centennial Oly. Park Weekday Schedule

- Southbound Schedule
- Northbound Schedule

- Return to Route 1 home
- View Universal Access optimized version of this information

Southbound Schedule

Timepoint Abbreviations

Coronet Way & Pine Grove	Cor&Pin
Chattahoochee & Southland	Cha&Sou
Huff Rd & Howell Mill	Huf&How
Marietta & Ivan Allen	Mar&Iva
Marietta & Broad	Mar&Bro
Georgia State Station	Geo

Notes	Cor&Pin	Cha&Sou	Huf&How	Mar&Iva	Mar&Bro	Geo
	--	--	04:49a	04:54a	04:59a	05:05a
	--	--	05:09a	05:14a	05:19a	05:25a
	--	--	05:29a	05:34a	05:39a	05:45a
	05:34a	05:41a	05:47a	05:54a	05:59a	06:05a
	05:52a	06:00a	06:07a	06:14a	06:19a	06:25a
	06:12a	06:20a	06:27a	06:34a	06:39a	06:45a
	06:32a	06:40a	06:47a	06:54a	06:59a	07:05a
	06:52a	07:00a	07:07a	07:14a	07:19a	07:25a
	07:12a	07:20a	07:27a	07:34a	07:39a	07:45a
	07:32a	07:40a	07:47a	07:54a	07:59a	08:05a
	07:52a	08:00a	08:07a	08:14a	08:19a	08:25a
	08:12a	08:20a	08:27a	08:34a	08:39a	08:45a
	08:32a	08:40a	08:47a	08:54a	08:59a	09:05a
	08:54a	09:01a	09:07a	09:14a	09:19a	09:25a

	09:14a	09:21a	09:27a	09:34a	09:39a	09:45a
	09:44a	09:51a	09:57a	10:04a	10:09a	10:15a
	10:14a	10:21a	10:27a	10:34a	10:39a	10:45a
	10:44a	10:51a	10:57a	11:04a	11:09a	11:15a
	11:14a	11:21a	11:27a	11:34a	11:39a	11:45a
	11:44a	11:51a	11:57a	**12:04p**	**12:09p**	**12:15p**
Notes	**Cor&Pin**	**Cha&Sou**	**Huf&How**	**Mar&Iva**	**Mar&Bro**	**Geo**
	12:14p	**12:21p**	**12:27p**	**12:34p**	**12:39p**	**12:45p**
	12:44p	**12:51p**	**12:57p**	**01:04p**	**01:09p**	**01:15p**
	01:14p	**01:21p**	**01:27p**	**01:34p**	**01:39p**	**01:45p**
	01:44p	**01:51p**	**01:57p**	**02:04p**	**02:09p**	**02:15p**
	02:14p	**02:21p**	**02:27p**	**02:34p**	**02:39p**	**02:45p**
	02:44p	**02:51p**	**02:57p**	**03:04p**	**03:09p**	**03:15p**
	03:12p	**03:20p**	**03:27p**	**03:34p**	**03:39p**	**03:45p**
	03:32p	**03:40p**	**03:47p**	**03:54p**	**03:59p**	**04:05p**
	03:52p	**04:00p**	**04:07p**	**04:14p**	**04:19p**	**04:25p**
	04:12p	**04:20p**	**04:27p**	**04:34p**	**04:39p**	**04:45p**
	04:32p	**04:40p**	**04:47p**	**04:54p**	**04:59p**	**05:05p**
	04:52p	**05:00p**	**05:07p**	**05:14p**	**05:19p**	**05:25p**
	05:12p	**05:20p**	**05:27p**	**05:34p**	**05:39p**	**05:45p**
	05:32p	**05:40p**	**05:47p**	**05:54p**	**05:59p**	**06:05p**
	05:52p	**06:00p**	**06:07p**	**06:14p**	**06:19p**	**06:25p**
	06:12p	**06:20p**	**06:27p**	**06:34p**	**06:39p**	**06:45p**
	06:42p	**06:50p**	**06:57p**	**07:04p**	**07:09p**	**07:15p**
	07:15p	**07:21p**	**07:27p**	**07:34p**	**07:39p**	**07:45p**
	07:45p	**07:51p**	**07:57p**	**08:04p**	**08:09p**	**08:15p**
	08:15p	**08:21p**	**08:27p**	**08:34p**	**08:39p**	**08:45p**
	08:45p	**08:51p**	**08:57p**	**09:04p**	**09:09p**	**09:15p**
	09:15p	**09:21p**	**09:27p**	**09:34p**	**09:39p**	**09:45p**
	09:45p	**09:51p**	**09:57p**	**10:04p**	**10:09p**	**10:15p**
	10:15p	**10:21p**	**10:27p**	**10:34p**	**10:39p**	**10:45p**
	10:45p	**10:51p**	**10:57p**	**11:04p**	**11:09p**	**11:15p**
	11:15p	**11:21p**	**11:27p**	**11:34p**	**11:39p**	**11:45p**
Notes	**Cor&Pin**	**Cha&Sou**	**Huf&How**	**Mar&Iva**	**Mar&Bro**	**Geo**

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Northbound Schedule

Timepoint Abbreviations

Georgia State Station	Geo
Marietta & Broad	Mar&Bro
Marietta & Ivan Allen	Mar&Iva
Huff Rd & Howell Mill	Huf&How
Chattahoochee & Southland	Cha&Sou
Coronet Way & Pine Grove	Cor&Pin

Notes	Geo	Mar&Bro	Mar&Iva	Huf&How	Cha&Sou	Cor&Pin
	05:20a	05:25a	05:32a	05:39a	05:45a	05:56a
	05:40a	05:45a	05:52a	05:59a	06:05a	06:17a
	06:00a	06:06a	06:15a	06:22a	06:29a	06:41a
	06:20a	06:26a	06:35a	06:42a	06:49a	07:01a
	06:40a	06:46a	06:55a	07:02a	07:09a	07:21a
	07:00a	07:06a	07:15a	07:22a	07:29a	07:41a
	07:20a	07:26a	07:35a	07:42a	07:49a	08:01a
	07:40a	07:46a	07:55a	08:02a	08:09a	08:21a
	08:00a	08:06a	08:15a	08:22a	08:29a	08:41a
	08:20a	08:26a	08:35a	08:42a	08:49a	09:01a
	08:40a	08:46a	08:55a	09:02a	09:08a	09:19a
	09:00a	09:05a	09:12a	09:19a	09:25a	09:36a
	09:30a	09:35a	09:42a	09:49a	09:55a	10:06a
	10:00a	10:05a	10:12a	10:19a	10:25a	10:36a
	10:30a	10:35a	10:42a	10:49a	10:55a	11:06a
	11:00a	11:05a	11:12a	11:19a	11:25a	11:36a
	11:30a	11:35a	11:42a	11:49a	11:55a	**12:06p**
	12:00p	**12:05p**	**12:12p**	**12:19p**	**12:25p**	**12:36p**
	12:30p	**12:35p**	**12:42p**	**12:49p**	**12:55p**	**01:06p**
	01:00p	**01:05p**	**01:12p**	**01:19p**	**01:25p**	**01:36p**
Notes	**Geo**	**Mar&Bro**	**Mar&Iva**	**Huf&How**	**Cha&Sou**	**Cor&Pin**
	01:30p	**01:35p**	**01:42p**	**01:49p**	**01:55p**	**02:06p**
	02:00p	**02:05p**	**02:12p**	**02:19p**	**02:25p**	**02:36p**
	02:30p	**02:35p**	**02:42p**	**02:49p**	**02:55p**	**03:06p**
	03:00p	**03:05p**	**03:14p**	**03:21p**	**03:28p**	**03:40p**
	03:20p	**03:25p**	**03:34p**	**03:41p**	**03:48p**	**04:00p**
	03:40p	**03:45p**	**03:54p**	**04:01p**	**04:08p**	**04:20p**
	04:00p	**04:05p**	**04:14p**	**04:21p**	**04:28p**	**04:40p**
	04:20p	**04:25p**	**04:34p**	**04:41p**	**04:48p**	**05:00p**
	04:40p	**04:45p**	**04:54p**	**05:01p**	**05:08p**	**05:20p**

05:00p	**05:05p**	**05:14p**	**05:21p**	**05:28p**	**05:40p**
05:20p	**05:25p**	**05:34p**	**05:41p**	**05:48p**	**06:00p**
05:40p	**05:45p**	**05:54p**	**06:01p**	**06:08p**	**06:20p**
06:00p	**06:05p**	**06:14p**	**06:21p**	**06:28p**	**06:40p**
06:20p	**06:25p**	**06:34p**	**06:41p**	**06:48p**	**07:00p**
06:40p	**06:45p**	**06:54p**	**07:01p**	**07:07p**	**07:17p**
07:00p	**07:04p**	**07:11p**	**07:16p**	**07:22p**	**07:32p**
07:30p	**07:34p**	**07:41p**	**07:46p**	**07:52p**	**08:02p**
08:00p	**08:04p**	**08:11p**	**08:16p**	**08:22p**	**08:32p**
08:30p	**08:34p**	**08:41p**	**08:46p**	**08:52p**	**09:02p**
09:00p	**09:04p**	**09:11p**	**09:16p**	**09:22p**	**09:32p**
09:30p	**09:34p**	**09:41p**	**09:46p**	**09:52p**	**10:02p**
10:00p	**10:04p**	**10:11p**	**10:16p**	**10:22p**	**10:32p**
10:30p	**10:34p**	**10:41p**	**10:46p**	**10:52p**	**11:02p**
11:00p	**11:04p**	**11:11p**	**11:16p**	**11:22p**	**11:32p**
11:30p	**11:34p**	**11:41p**	**11:46p**	**11:52p**	00:02a
00:00a	00:04a	00:11a	00:16a	00:22a	00:32a

Notes	**Geo**	**Mar&Bro**	**Mar&Iva**	**Huf&How**	**Cha&Sou**	**Cor&Pin**

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Vendor Opportunities | Board of Directors | MARTA Police | Contact Us | Feedback

Last Updated: 07/03/2008 11:26

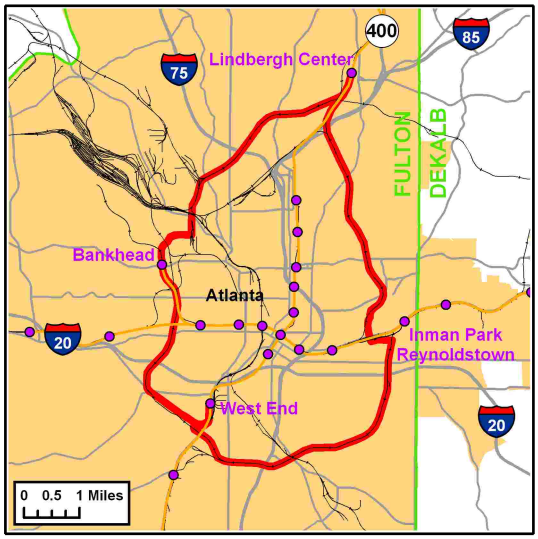
Future Roadway/Intersection Projects

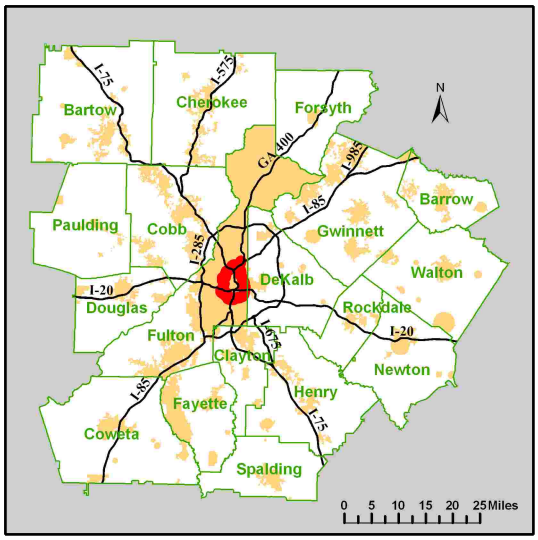
AR-450

Atlanta Region - Envision6 Transportation Plan

PROJECT FACT SHEET

Short Title	BELT LINE TRANSPORTATION CORRIDOR - MULTI-USE PATH LINKING LINDBERGH CENTER TO INMAN PARK TO WEST END TO HOWELL STATION TO LINDBERGH CENTER
GDOT Project No.	0007683
Federal ID No.	CSSTP-0007-00(683)
Status	Programmed
Detailed Description and Justification	The BeltLine, a 22-mile loop of historic railroad that encircles downtown and midtown, is a unique opportunity to increase greenspace, improve transit, connect neighborhoods and foster livable communities. The BeltLine will connect 45 in-town neighborhoods with parks, transit and trails for commuters, bicyclists and pedestrians. The line will spur economic development and enhance mobility. Funding associated with this line item will create more than 33 miles of multi-use trails in a new linear park that will connect 40 Atlanta parks. The multi-use trails include the core 22-mile loop plus various extensions to increase connectivity to parks and trails surrounding the BeltLine.
Service Type	Bicycle/Pedestrian Facility
Sponsor	City of Atlanta
Jurisdiction	City of Atlanta
Existing Thru Lane	N/A (applicable for road projects only)
Planned Thru Lane	N/A (applicable for road projects only)
Corridor Length	20.6 miles (not applicable for all project types)
Network Year	2020 (required if modeled for conformity)
Completion Date	2020
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)





Phase Status & Funding Information		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	Local Jurisdiction/Municipality Funds	2007	$0,000	$0,000	$0,000	$0,000	$0,000
PE	STP - Urban (>200K) (ARC)	2009	$2,000,000	$1,600,000	$0,000	$0,000	$400,000
ROW	STP - Urban (>200K) (ARC)	2009	$15,500,000	$12,400,000	$0,000	$0,000	$3,100,000
ROW	STP - Urban (>200K) (ARC)	2010	$3,000,000	$2,000,000	$0,000	$0,000	$1,000,000
CST	STP - Urban (>200K) (ARC)	2011	$3,000,000	$2,000,000	$0,000	$0,000	$1,000,000
CST	Local Jurisdiction/Municipality Funds	LR 2014-2020	$35,000,000	$0,000	$0,000	$0,000	$35,000,000
				$18,000,000	$0,000	$0,000	$40,500,000

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

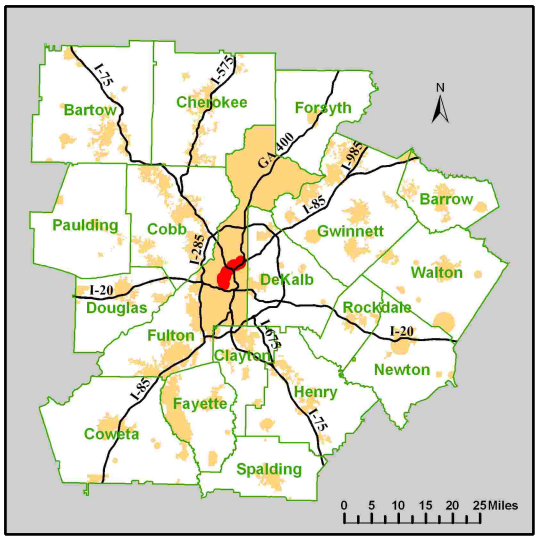
Report Generated: 6/25/2008

AR-451D

Atlanta Region - Envision6 Transportation Plan

PROJECT FACT SHEET

Short Title	BELT LINE TRANSPORTATION CORRIDOR - TRANSIT SERVICE IN THE NORTHWEST QUADRANT
GDOT Project No.	N/A
Federal ID No.	
Status	Long Range
Detailed Description and Justification	The BeltLine, a 22-mile loop of historic railroad that encircles downtown and midtown, is a unique opportunity to increase greenspace, improve transit, connect neighborhoods and foster livable communities. The BeltLine will connect 45 in-town neighborhoods with parks, transit and trails for commuters, bicyclists and pedestrians. The line will spur economic development and enhance mobility. Funding associated with this line will be used to implement a light rail transit service along the northwestern quadrant of the corridor.
Service Type	Fixed Guideway Transit Capital
Sponsor	MARTA
Jurisdiction	City of Atlanta
Existing Thru Lane	N/A (applicable for road projects only)
Planned Thru Lane	N/A (applicable for road projects only)
Corridor Length	6.5 miles (not applicable for all project types)
Network Year	2030 (required if modeled for conformity)
Completion Date	2030
Analysis Level	In the Region's Air Quality Conformity Analysis



Phase Status & Funding Information		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
CST	Local Jurisdiction/Municipality Funds	LR 2021-2030	$266,000,000	$0,000	$0,000	$0,000	$266,000,000
				$0,000	$0,000	$0,000	$266,000,000

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

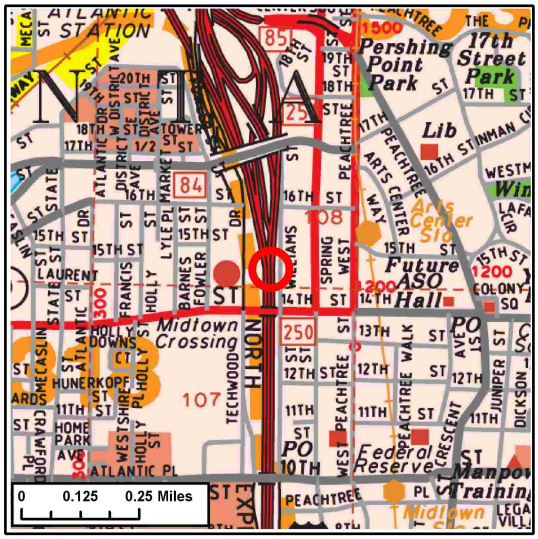
Report Generated: 6/25/2008

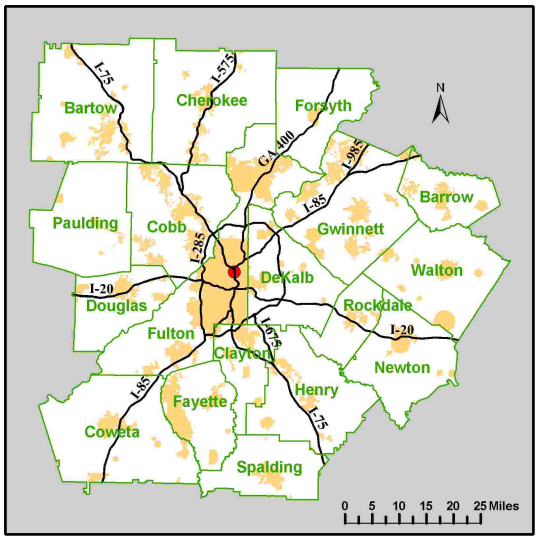
AR-H-600

Atlanta Region - Envision6 Transportation Plan

PROJECT FACT SHEET

Short Title	I-75/85 BRIDGE AND MANAGED LANES INTERCHANGE AT 15TH STREET IN CITY OF ATLANTA
GDOT Project No.	0001792
Federal ID No.	NHS-0001-00(792)
Status	Long Range
Detailed Description and Justification	Addition of new HOV ramp access from the Downtown Connector to a newly constructed 15th Street bridge to allow HOV access into Midtown, Georgia Tech, and Atlantic Station. There will be no general purpose access allowed on the bridge.
Service Type	Managed Lanes - Auto / Bus
Sponsor	GDOT
Jurisdiction	City of Atlanta
Existing Thru Lane	N/A (applicable for road projects only)
Planned Thru Lane	N/A (applicable for road projects only)
Corridor Length	0.5 miles (not applicable for all project types)
Network Year	2020 (required if modeled for conformity)
Completion Date	2020
Analysis Level	In the Region's Air Quality Conformity Analysis





Phase Status & Funding Information		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	National Highway System	2005	$0,000	$0,000	$0,000	$0,000	$0,000
ROW	General Federal Aid - 2014-2030	LR 2014-2020	$58,329,000	$46,663,200	$11,665,800	$0,000	$0,000
CST	General Federal Aid - 2014-2030	LR 2014-2020	$61,594,000	$49,275,200	$12,318,800	$0,000	$0,000
				$95,938,400	$23,984,600	$0,000	$0,000

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

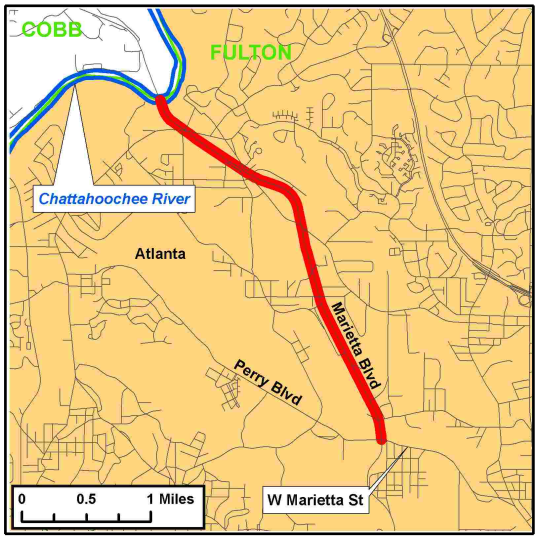
Report Generated: 6/25/2008

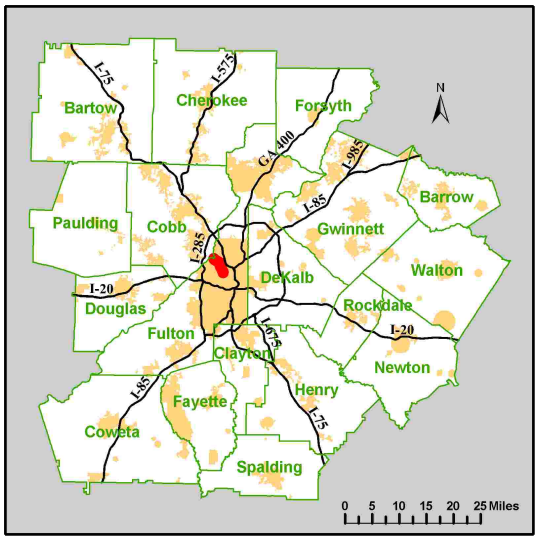
AT-AR-BP303

Atlanta Region - Envision6 Transportation Plan

PROJECT FACT SHEET

Short Title	MARIETTA BOULEVARD PEDESTRIAN AND BICYCLING IMPROVEMENTS FROM WEST MARIETTA STREET TO ATLANTA CITY LIMITS
GDOT Project No.	0004493
Federal ID No.	CM-0004-00(493)
Status	Programmed
Detailed Description and Justification	Improvements to the streetscape along Marietta Street from West Marietta Street to the Atlanta city limits. It will repair sidewalks where needed and add sidewalks where none exist. It will also add "Share the Road" signage for bicyclists.
Service Type	Bicycle/Pedestrian Facility
Sponsor	City of Atlanta
Jurisdiction	City of Atlanta
Existing Thru Lane	N/A (applicable for road projects only)
Planned Thru Lane	N/A (applicable for road projects only)
Corridor Length	3.3 miles (not applicable for all project types)
Network Year	2010 (required if modeled for conformity)
Completion Date	2010
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)





Phase Status & Funding Information		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	STP - Urban (>200K) (ARC)	2004	$0,000	$0,000	$0,000	$0,000	$0,000
ROW	STP - Urban (>200K) (ARC)	2004	$0,000	$0,000	$0,000	$0,000	$0,000
CST	STP - Urban (>200K) (ARC)	2009	$1,590,000	$1,272,000	$0,000	$0,000	$318,000
				$1,272,000	$0,000	$0,000	$318,000

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

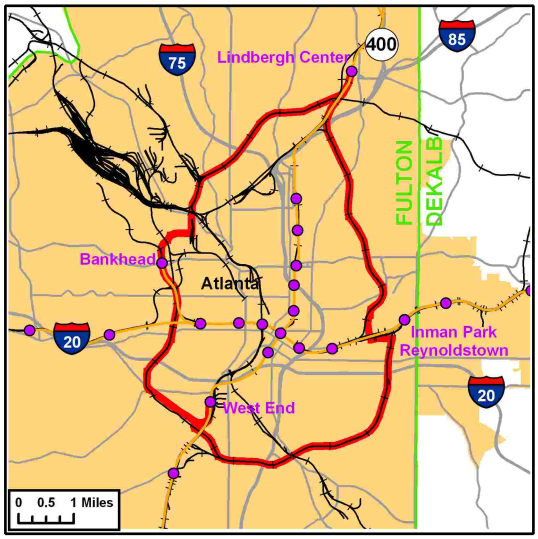
Report Generated: 6/25/2008

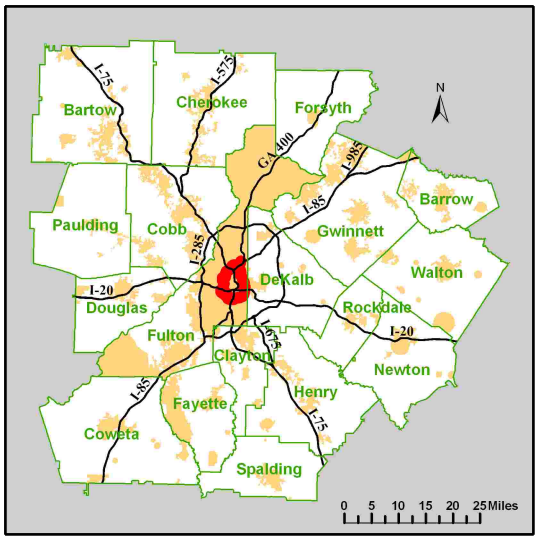
M-AR-296

Atlanta Region - Envision6 Transportation Plan

PROJECT FACT SHEET

Short Title	BELTLINE ENVIRONMENTAL IMPACT
GDOT Project No.	TBD
Federal ID No.	
Status	Programmed
Detailed Description and Justification	This project funding will be utilized for the environmental analysis phase of the BeltLine transit project, which will be conducted in accordance with Federal NEPA requirements.
Service Type	Studies
Sponsor	MARTA
Jurisdiction	City of Atlanta
Existing Thru Lane	N/A (applicable for road projects only)
Planned Thru Lane	N/A (applicable for road projects only)
Corridor Length	N/A miles (not applicable for all project types)
Network Year	2010 (required if modeled for conformity)
Completion Date	2009
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)





Phase Status & Funding Information		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	SAFETEA-LU Earmark	2008	$0,000	$0,000	$0,000	$0,000	$0,000

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

Report Generated: 6/25/2008

Trip Generation and Volume Worksheets

Peak Hour Turning Movement Counts

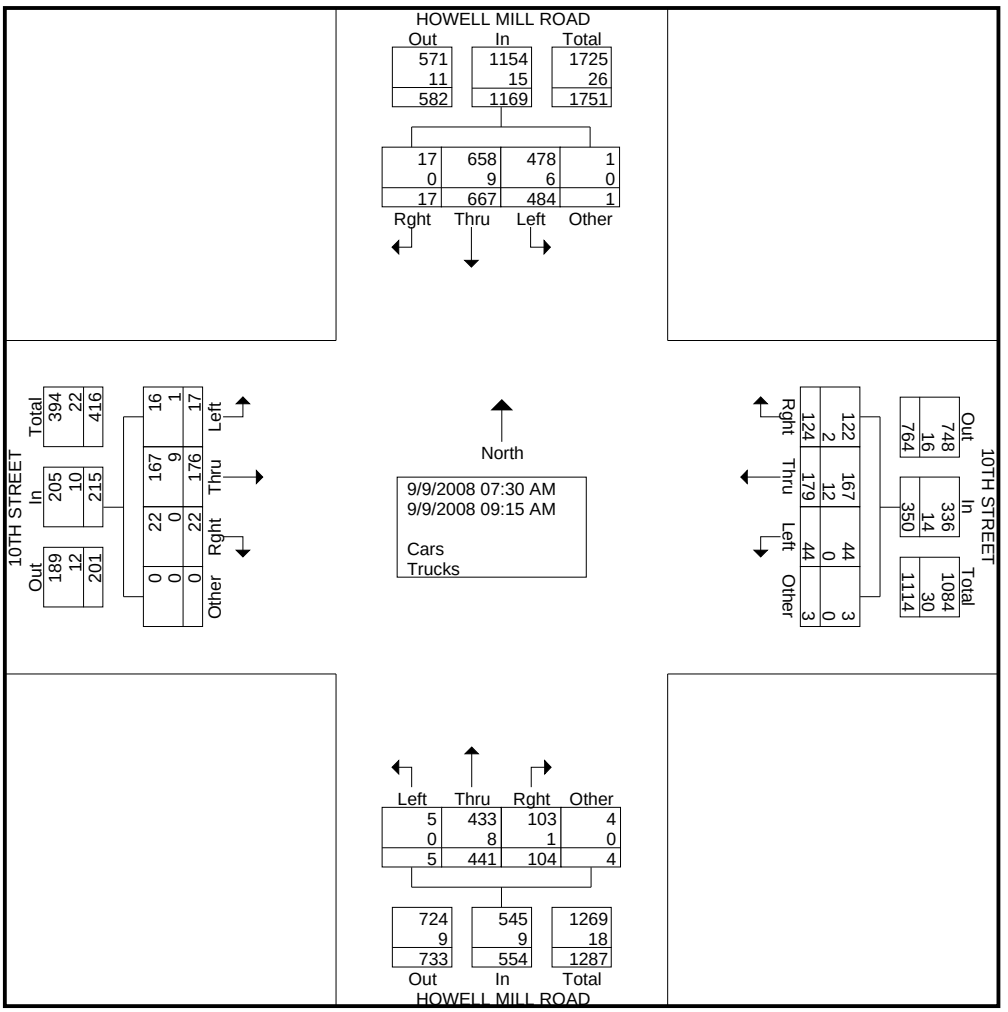
All Traffic Data Services, Inc

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

File Name : 10thStreet@HowellMillAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound					10TH STREET Westbound					HOWELL MILL ROAD Northbound					10TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:30 AM	60	71	4	0	135	4	18	9	1	32	0	55	13	1	69	1	23	2	0	26	262
07:45 AM	60	94	0	0	154	3	20	18	0	41	0	60	14	1	75	4	29	2	0	35	305
Total	120	165	4	0	289	7	38	27	1	73	0	115	27	2	144	5	52	4	0	61	567
08:00 AM	51	82	1	0	134	6	21	21	0	48	0	46	8	1	55	0	24	5	0	29	266
08:15 AM	67	92	1	1	161	4	25	13	0	42	2	64	12	1	79	4	20	0	0	24	306
08:30 AM	63	89	0	0	152	3	21	24	2	50	2	53	15	0	70	1	34	3	0	38	310
08:45 AM	74	98	4	0	176	11	19	14	0	44	0	51	15	0	66	3	19	6	0	28	314
Total	255	361	6	1	623	24	86	72	2	184	4	214	50	2	270	8	97	14	0	119	1196
09:00 AM	72	81	3	0	156	6	26	8	0	40	0	58	16	0	74	2	17	2	0	21	291
09:15 AM	37	60	4	0	101	7	29	17	0	53	1	54	11	0	66	2	10	2	0	14	234
Grand Total	484	667	17	1	1169	44	179	124	3	350	5	441	104	4	554	17	176	22	0	215	2288
Apprch %	41.4	57.1	1.5	0.1		12.6	51.1	35.4	0.9		0.9	79.6	18.8	0.7		7.9	81.9	10.2	0		
Total %	21.2	29.2	0.7	0	51.1	1.9	7.8	5.4	0.1	15.3	0.2	19.3	4.5	0.2	24.2	0.7	7.7	1	0	9.4	
Cars	478	658	17	1	1154	44	167	122	3	336	5	433	103	4	545	16	167	22	0	205	2240
% Cars	98.8	98.7	100	100	98.7	100	93.3	98.4	100	96	100	98.2	99	100	98.4	94.1	94.9	100	0	95.3	97.9
Trucks	6	9	0	0	15	0	12	2	0	14	0	8	1	0	9	1	9	0	0	10	48
% Trucks	1.2	1.3	0	0	1.3	0	6.7	1.6	0	4	0	1.8	1	0	1.6	5.9	5.1	0	0	4.7	2.1

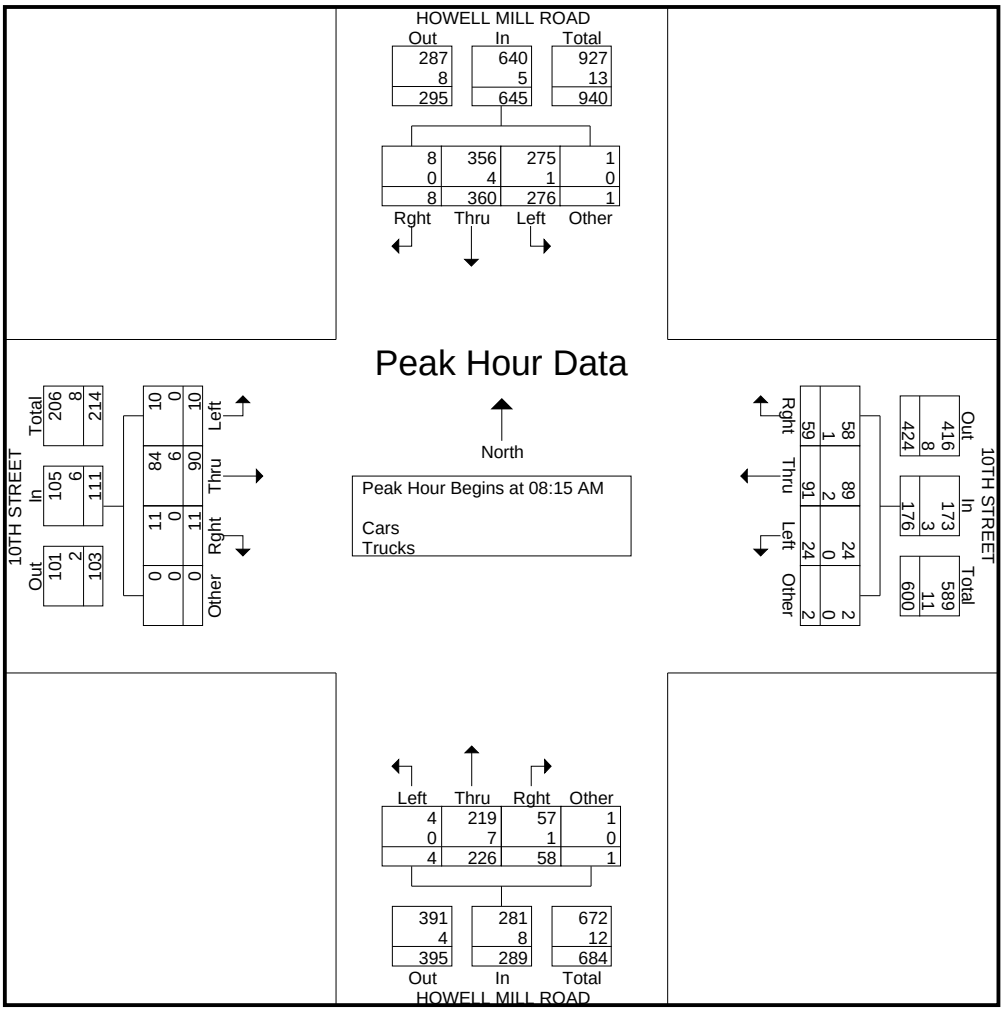


All Traffic Data Services, Inc

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

File Name : 10thStreet@HowellMillAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	HOWELL MILL ROAD Southbound					10TH STREET Westbound					HOWELL MILL ROAD Northbound					10TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	67	92	1	**1**	161	4	25	13	0	42	**2**	**64**	12	**1**	**79**	**4**	20	0	0	24	306
08:30 AM	63	89	0	0	152	3	21	**24**	**2**	**50**	2	53	15	0	70	1	**34**	3	0	**38**	310
08:45 AM	**74**	**98**	**4**	0	**176**	**11**	19	14	0	44	0	51	15	0	66	3	19	**6**	0	28	**314**
09:00 AM	72	81	3	0	156	6	**26**	8	0	40	0	58	**16**	0	74	2	17	2	0	21	291
Total Volume	276	360	8	1	645	24	91	59	2	176	4	226	58	1	289	10	90	11	0	111	1221
% App. Total	42.8	55.8	1.2	0.2		13.6	51.7	33.5	1.1		1.4	78.2	20.1	0.3		9	81.1	9.9	0		
PHF	.932	.918	.500	.250	.916	.545	.875	.615	.250	.880	.500	.883	.906	.250	.915	.625	.662	.458	.000	.730	.972
Cars	275	356	8	1	640	24	89	58	2	173	4	219	57	1	281	10	84	11	0	105	1199
% Cars	99.6	98.9	100	100	99.2	100	97.8	98.3	100	98.3	100	96.9	98.3	100	97.2	100	93.3	100	0	94.6	98.2
Trucks	1	4	0	0	5	0	2	1	0	3	0	7	1	0	8	0	6	0	0	6	22
% Trucks	0.4	1.1	0	0	0.8	0	2.2	1.7	0	1.7	0	3.1	1.7	0	2.8	0	6.7	0	0	5.4	1.8



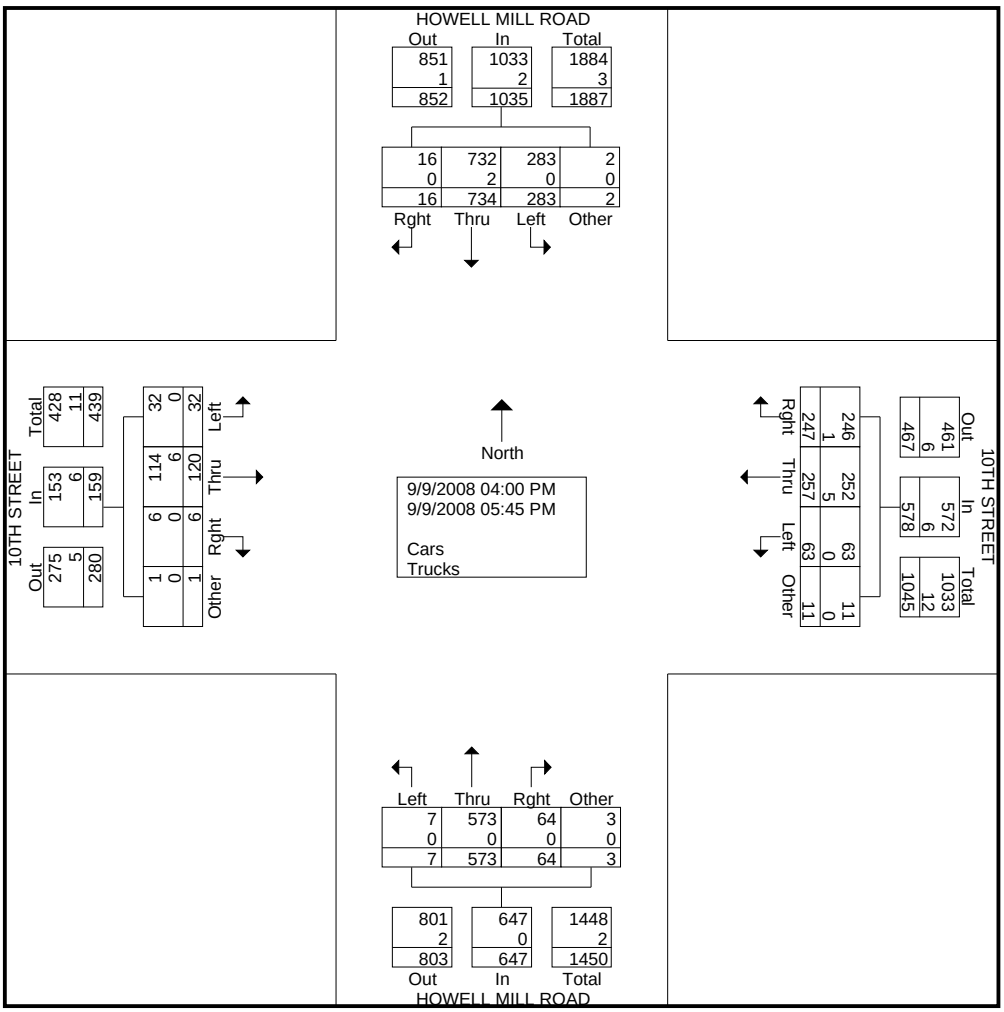
All Traffic Data Services, Inc

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

File Name : 10thStreet@HowellMillPM
Site Code : 00000000
Start Date : 9/9/2008

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound					10TH STREET Westbound					HOWELL MILL ROAD Northbound					10TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	31	79	1	0	111	9	16	20	9	54	1	62	4	1	68	3	13	2	0	18	251
04:15 PM	35	83	2	0	120	9	22	29	0	60	0	54	7	0	61	1	15	1	0	17	258
04:30 PM	27	76	2	0	105	6	32	30	0	68	1	64	8	0	73	4	13	0	1	18	264
04:45 PM	33	85	1	0	119	10	37	24	1	72	1	65	7	1	74	5	10	0	0	15	280
Total	126	323	6	0	455	34	107	103	10	254	3	245	26	2	276	13	51	3	1	68	1053
05:00 PM	36	110	1	0	147	5	26	34	0	65	1	68	8	0	77	5	13	1	0	19	308
05:15 PM	35	107	3	0	145	6	43	39	0	88	1	79	6	0	86	5	16	0	0	21	340
05:30 PM	40	96	1	0	137	9	40	33	0	82	1	87	17	0	105	6	22	2	0	30	354
05:45 PM	46	98	5	2	151	9	41	38	1	89	1	94	7	1	103	3	18	0	0	21	364
Total	157	411	10	2	580	29	150	144	1	324	4	328	38	1	371	19	69	3	0	91	1366
Grand Total	283	734	16	2	1035	63	257	247	11	578	7	573	64	3	647	32	120	6	1	159	2419
Apprch %	27.3	70.9	1.5	0.2		10.9	44.5	42.7	1.9		1.1	88.6	9.9	0.5		20.1	75.5	3.8	0.6		
Total %	11.7	30.3	0.7	0.1	42.8	2.6	10.6	10.2	0.5	23.9	0.3	23.7	2.6	0.1	26.7	1.3	5	0.2	0	6.6	
Cars	283	732	16	2	1033	63	252	246	11	572	7	573	64	3	647	32	114	6	1	153	2405
% Cars	100	99.7	100	100	99.8	100	98.1	99.6	100	99	100	100	100	100	100	100	95	100	100	96.2	99.4
Trucks	0	2	0	0	2	0	5	1	0	6	0	0	0	0	0	0	6	0	0	6	14
% Trucks	0	0.3	0	0	0.2	0	1.9	0.4	0	1	0	0	0	0	0	0	5	0	0	3.8	0.6

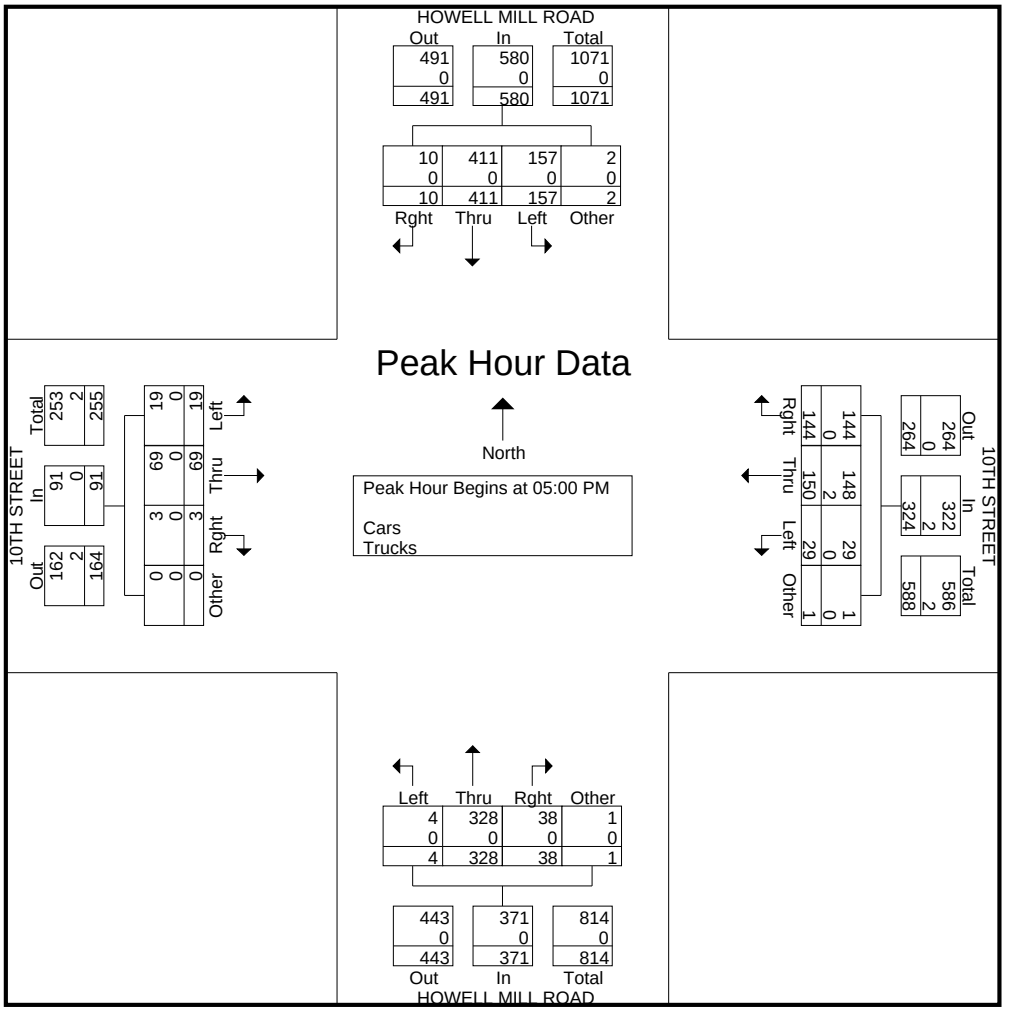


All Traffic Data Services, Inc

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

File Name : 10thStreet@HowellMillPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	HOWELL MILL ROAD Southbound					10TH STREET Westbound					HOWELL MILL ROAD Northbound					10TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	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	36	**110**	1	0	147	5	26	34	0	65	**1**	68	8	0	77	5	13	1	0	19	308
05:15 PM	35	107	3	0	145	6	**43**	**39**	0	88	1	79	6	0	86	5	16	0	0	21	340
05:30 PM	40	96	1	0	137	**9**	40	33	0	82	1	87	**17**	0	**105**	**6**	**22**	**2**	0	**30**	354
05:45 PM	**46**	98	**5**	**2**	**151**	9	41	38	**1**	**89**	1	**94**	7	**1**	103	3	18	0	0	21	**364**
Total Volume	157	411	10	2	580	29	150	144	1	324	4	328	38	1	371	19	69	3	0	91	1366
% App. Total	27.1	70.9	1.7	0.3		9	46.3	44.4	0.3		1.1	88.4	10.2	0.3		20.9	75.8	3.3	0		
PHF	.853	.934	.500	.250	.960	.806	.872	.923	.250	.910	1.000										
Cars	157	411	10	2	580	29	148	144	1	322	4	328	38	1	371	19	69	3	0	91	1364
% Cars	100	100	100	100	100	100	98.7	100	100	99.4	100	100	100	100	100	100	100	100	0	100	99.9
Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Trucks	0	0	0	0	0	0	1.3	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.1



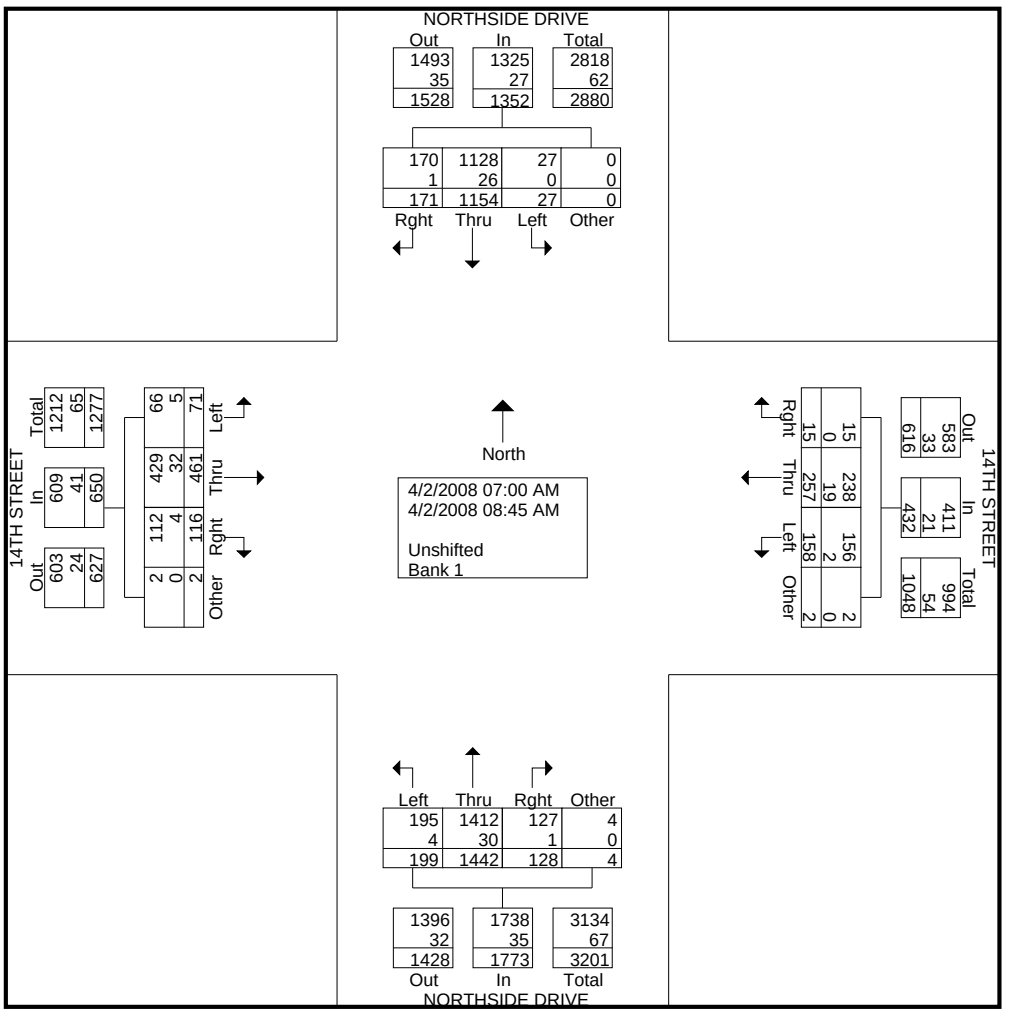
All Traffic Data Services, Inc

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

File Name : 14thSt@NSideDrAM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 1

Groups Printed- Unshifted - Bank 1

	NORTHSIDE DRIVE Southbound					14TH STREET Westbound					NORTHSIDE DRIVE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:00 AM	5	127	10	0	142	14	23	0	0	37	21	124	14	1	160	3	44	11	1	59	398
07:15 AM	1	135	11	0	147	13	17	3	0	33	39	128	12	0	179	8	48	16	0	72	431
07:30 AM	2	165	7	0	174	17	16	3	0	36	20	200	20	1	241	11	54	14	0	79	530
07:45 AM	5	135	31	0	171	23	42	3	0	68	27	195	25	0	247	8	70	14	0	92	578
Total	13	562	59	0	634	67	98	9	0	174	107	647	71	2	827	30	216	55	1	302	1937
08:00 AM	4	159	25	0	188	21	39	0	2	62	29	202	14	0	245	12	65	14	0	91	586
08:15 AM	4	138	25	0	167	26	47	1	0	74	20	203	16	0	239	11	49	11	0	71	551
08:30 AM	3	157	31	0	191	19	27	4	0	50	20	196	13	2	231	12	70	14	0	96	568
08:45 AM	3	138	31	0	172	25	46	1	0	72	23	194	14	0	231	6	61	22	1	90	565
Total	14	592	112	0	718	91	159	6	2	258	92	795	57	2	946	41	245	61	1	348	2270
Grand Total	27	1154	171	0	1352	158	257	15	2	432	199	1442	128	4	1773	71	461	116	2	650	4207
Apprch %	2	85.4	12.6	0		36.6	59.5	3.5	0.5		11.2	81.3	7.2	0.2		10.9	70.9	17.8	0.3		
Total %	0.6	27.4	4.1	0	32.1	3.8	6.1	0.4	0	10.3	4.7	34.3	3	0.1	42.1	1.7	11	2.8	0	15.5	
Unshifted	27	1128	170	0	1325	156	238	15	2	411	195	1412	127	4	1738	66	429	112	2	609	4083
% Unshifted	100	97.7	99.4	0	98	98.7	92.6	100	100	95.1	98	97.9	99.2	100	98	93	93.1	96.6	100	93.7	97.1
Bank 1	0	26	1	0	27	2	19	0	0	21	4	30	1	0	35	5	32	4	0	41	124
% Bank 1	0	2.3	0.6	0	2	1.3	7.4	0	0	4.9	2	2.1	0.8	0	2	7	6.9	3.4	0	6.3	2.9

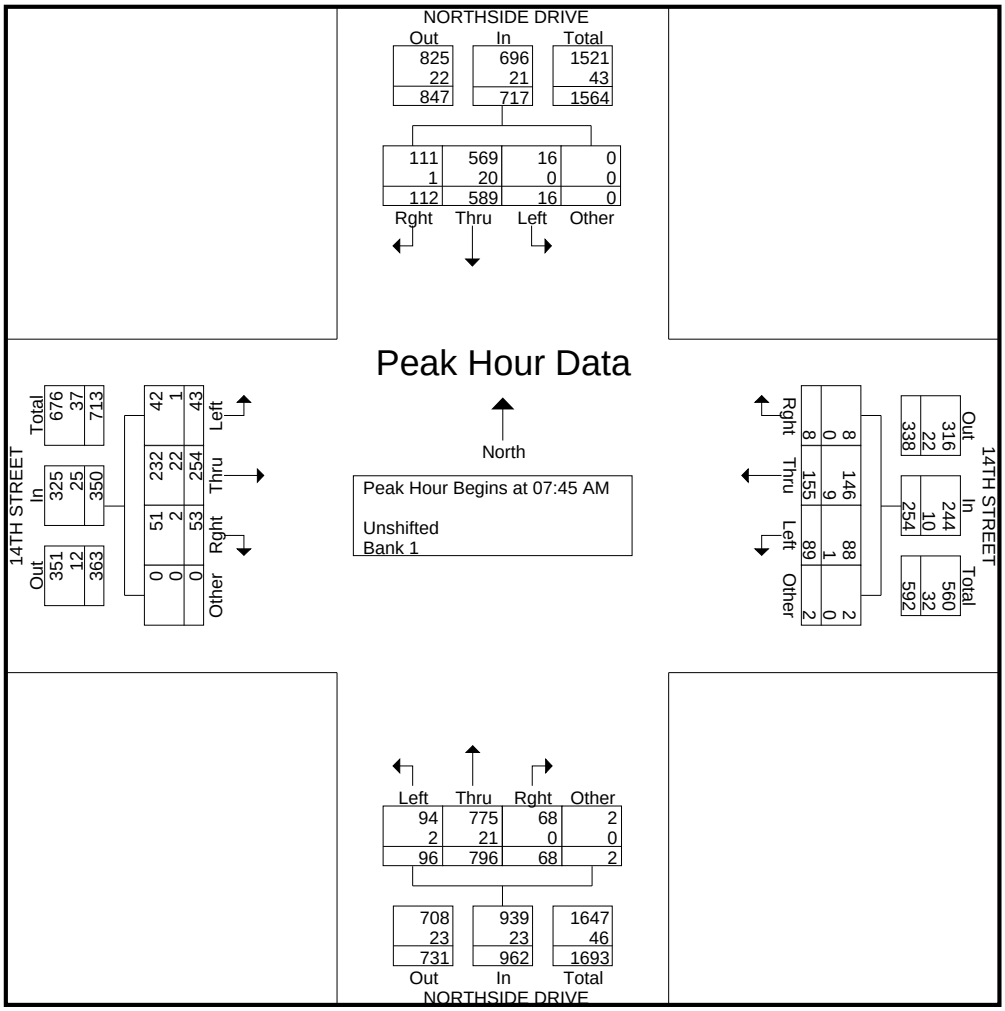


All Traffic Data Services, Inc

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

File Name : 14thSt@NSideDrAM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 2

	NORTHSIDE DRIVE Southbound					14TH STREET Westbound					NORTHSIDE DRIVE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	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	**5**	135	**31**	0	171	23	42	3	0	68	27	195	**25**	0	**247**	8	**70**	**14**	0	92	578
08:00 AM	4	**159**	25	0	188	21	39	0	**2**	62	**29**	202	14	0	245	**12**	65	14	0	91	**586**
08:15 AM	4	138	25	0	167	**26**	**47**	1	0	**74**	20	**203**	16	0	239	11	49	11	0	71	551
08:30 AM	3	157	31	0	**191**	19	27	**4**	0	50	20	196	13	**2**	231	12	70	14	0	**96**	568
Total Volume	16	589	112	0	717	89	155	8	2	254	96	796	68	2	962	43	254	53	0	350	2283
% App. Total	2.2	82.1	15.6	0		35	61	3.1	0.8		10	82.7	7.1	0.2		12.3	72.6	15.1	0		
PHF	.800	.926	.903	.000	.938	.856	.824	.500	.250	.858	.828	.980	.680	.250	.974	.896	.907	.946	.000	.911	.974
Unshifted	16	569	111	0	696	88	146	8	2	244	94	775	68	2	939	42	232	51	0	325	2204
% Unshifted																					
Bank 1	0	20	1	0	21	1	9	0	0	10	2	21	0	0	23	1	22	2	0	25	79
% Bank 1	0	3.4	0.9	0	2.9	1.1	5.8	0	0	3.9	2.1	2.6	0	0	2.4	2.3	8.7	3.8	0	7.1	3.5



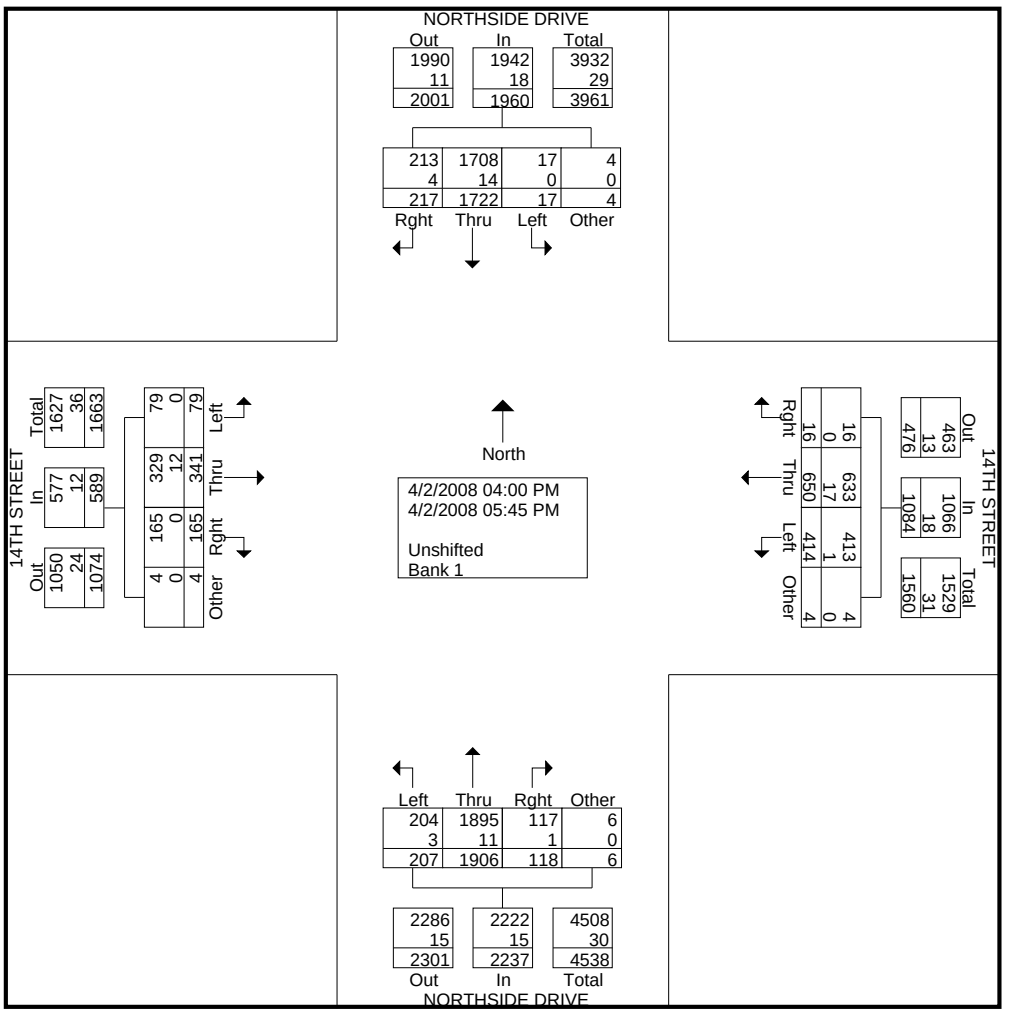
All Traffic Data Services, Inc

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

File Name : 14thSt@NSideDrPM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 1

Groups Printed- Unshifted - Bank 1

	NORTHSIDE DRIVE Southbound					14TH STREET Westbound					NORTHSIDE DRIVE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	2	264	22	0	288	29	69	1	1	100	14	229	14	0	257	14	43	37	1	95	740
04:15 PM	0	201	26	1	228	42	68	1	1	112	19	233	17	3	272	7	42	22	0	71	683
04:30 PM	6	259	25	3	293	46	66	2	0	114	25	230	9	0	264	9	45	17	0	71	742
04:45 PM	4	261	27	0	292	57	82	3	0	142	28	238	19	1	286	8	41	14	0	63	783
Total	12	985	100	4	1101	174	285	7	2	468	86	930	59	4	1079	38	171	90	1	300	2948
05:00 PM	2	211	30	0	243	56	84	3	0	143	23	253	16	1	293	12	49	26	0	87	766
05:15 PM	0	232	32	0	264	53	95	2	0	150	36	239	15	1	291	12	46	23	3	84	789
05:30 PM	2	137	37	0	176	63	103	1	2	169	31	255	12	0	298	9	38	18	0	65	708
05:45 PM	1	157	18	0	176	68	83	3	0	154	31	229	16	0	276	8	37	8	0	53	659
Total	5	737	117	0	859	240	365	9	2	616	121	976	59	2	1158	41	170	75	3	289	2922
Grand Total	17	1722	217	4	1960	414	650	16	4	1084	207	1906	118	6	2237	79	341	165	4	589	5870
Apprch %	0.9	87.9	11.1	0.2		38.2	60	1.5	0.4		9.3	85.2	5.3	0.3		13.4	57.9	28	0.7		
Total %	0.3	29.3	3.7	0.1	33.4	7.1	11.1	0.3	0.1	18.5	3.5	32.5	2	0.1	38.1	1.3	5.8	2.8	0.1	10	
Unshifted	17	1708	213	4	1942	413	633	16	4	1066	204	1895	117	6	2222	79	329	165	4	577	5807
% Unshifted	100	99.2	98.2	100	99.1	99.8	97.4	100	100	98.3	98.6	99.4	99.2	100	99.3	100	96.5	100	100	98	98.9
Bank 1	0	14	4	0	18	1	17	0	0	18	3	11	1	0	15	0	12	0	0	12	63
% Bank 1	0	0.8	1.8	0	0.9	0.2	2.6	0	0	1.7	1.4	0.6	0.8	0	0.7	0	3.5	0	0	2	1.1



All Traffic Data Services, Inc

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

File Name : 14thSt@NSideDrPM
Site Code : 00000000
Start Date : 4/2/2008
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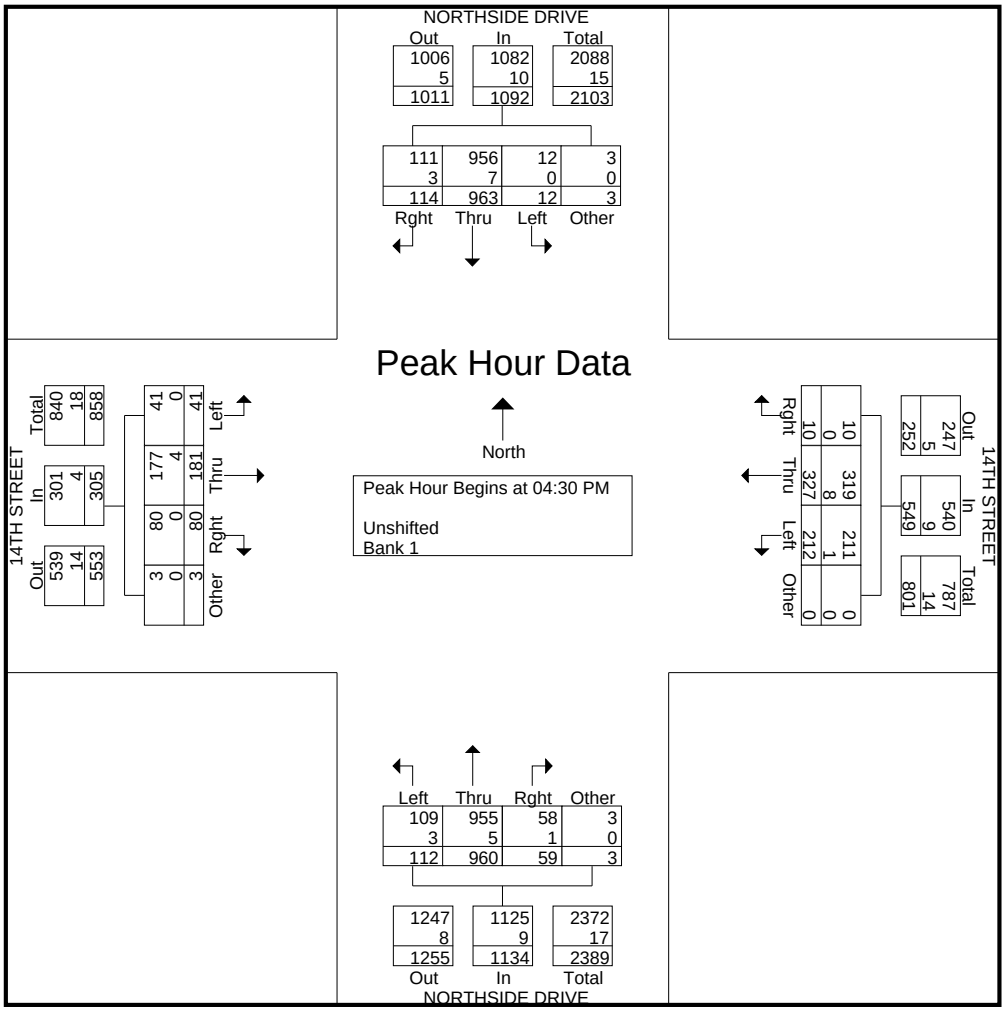
	NORTHSIDE DRIVE Southbound					14TH STREET Westbound					NORTHSIDE DRIVE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**6**	259	25	**3**	**293**	46	66	2	0	114	25	230	9	0	264	9	45	17	0	71	742
04:45 PM	4	**261**	27	0	292	**57**	82	**3**	0	142	28	238	**19**	**1**	286	8	41	14	0	63	783
05:00 PM	2	211	30	0	243	56	84	3	0	143	23	**253**	16	1	**293**	**12**	**49**	**26**	0	**87**	766
05:15 PM	0	232	**32**	0	264	53	**95**	2	0	**150**	**36**	239	15	1	291	12	46	23	**3**	84	**789**
Total Volume	12	963	114	3	1092	212	327	10	0	549	112	960	59	3	1134	41	181	80	3	305	3080
% App. Total	1.1	88.2	10.4	0.3		38.6	59.6	1.8	0		9.9	84.7	5.2	0.3		13.4	59.3	26.2	1		
PHF	.500	.922	.891	.250	.932	.930	.861	.833	.000	.915	.778	.949	.776	.750	.968	.854	.923	.769	.250	.876	.976
Unshifted	12	956	111	3	1082	211	319	10	0	540	109	955	58	3	1125	41	177	80	3	301	3048
% Unshifted																					
Bank 1	0	7	3	0	10	1	8	0	0	9	3	5	1	0	9	0	4	0	0	4	32
% Bank 1	0	0.7	2.6	0	0.9	0.5	2.4	0	0	1.6	2.7	0.5	1.7	0	0.8	0	2.2	0	0	1.3	1.0



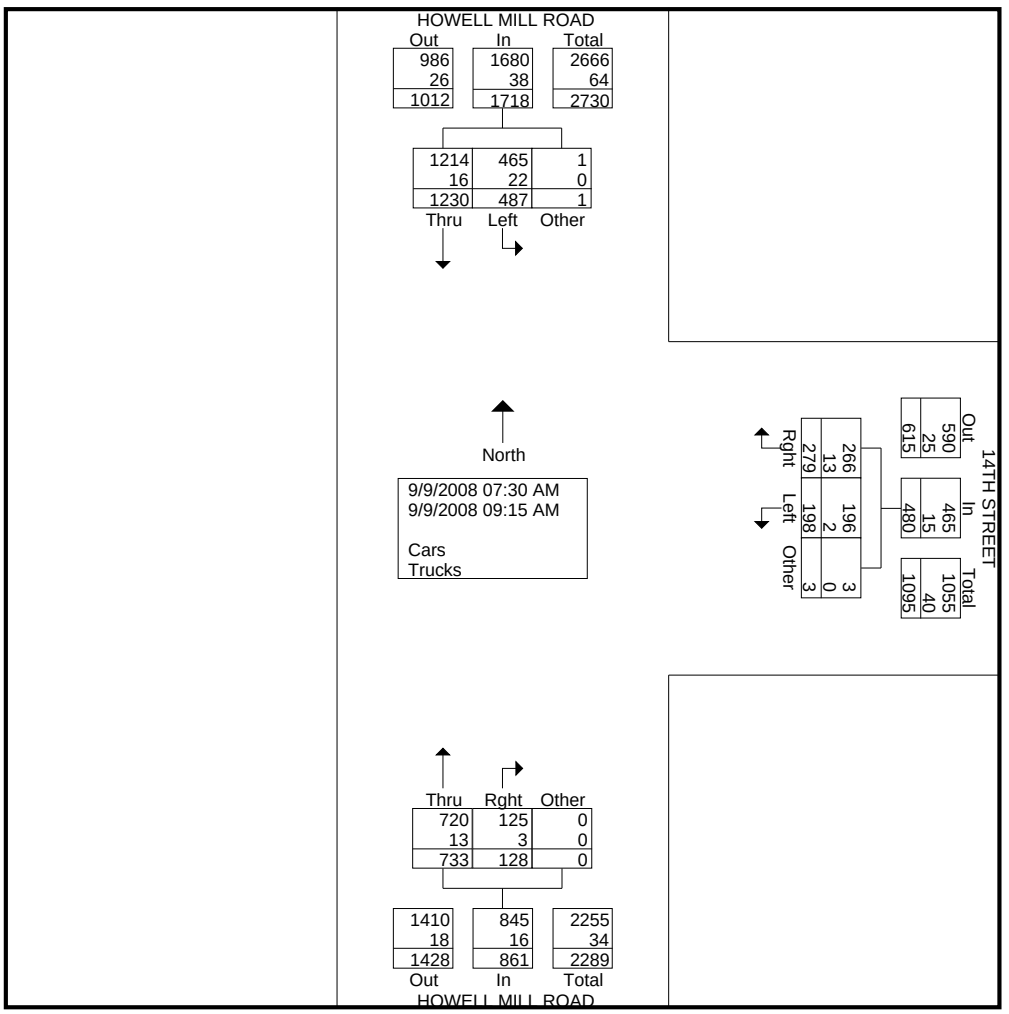
All Traffic Data Services, Inc

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

File Name : 14thStreet@HowellMillAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound				14TH STREET Westbound				HOWELL MILL ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	App. Total	Int. Total
07:30 AM	41	137	0	178	22	21	0	43	87	13	0	100	321
07:45 AM	41	145	1	187	25	25	3	53	100	17	0	117	357
Total	82	282	1	365	47	46	3	96	187	30	0	217	678
08:00 AM	61	129	0	190	22	57	0	79	87	14	0	101	370
08:15 AM	59	148	0	207	24	43	0	67	104	20	0	124	398
08:30 AM	70	172	0	242	25	30	0	55	66	16	0	82	379
08:45 AM	81	187	0	268	20	29	0	49	109	11	0	120	437
Total	271	636	0	907	91	159	0	250	366	61	0	427	1584
09:00 AM	69	166	0	235	32	34	0	66	99	11	0	110	411
09:15 AM	65	146	0	211	28	40	0	68	81	26	0	107	386
Grand Total	487	1230	1	1718	198	279	3	480	733	128	0	861	3059
Apprch %	28.3	71.6	0.1		41.2	58.1	0.6		85.1	14.9	0		
Total %	15.9	40.2	0	56.2	6.5	9.1	0.1	15.7	24	4.2	0	28.1	
Cars	465	1214	1	1680	196	266	3	465	720	125	0	845	2990
% Cars	95.5	98.7	100	97.8	99	95.3	100	96.9	98.2	97.7	0	98.1	97.7
Trucks	22	16	0	38	2	13	0	15	13	3	0	16	69
% Trucks	4.5	1.3	0	2.2	1	4.7	0	3.1	1.8	2.3	0	1.9	2.3

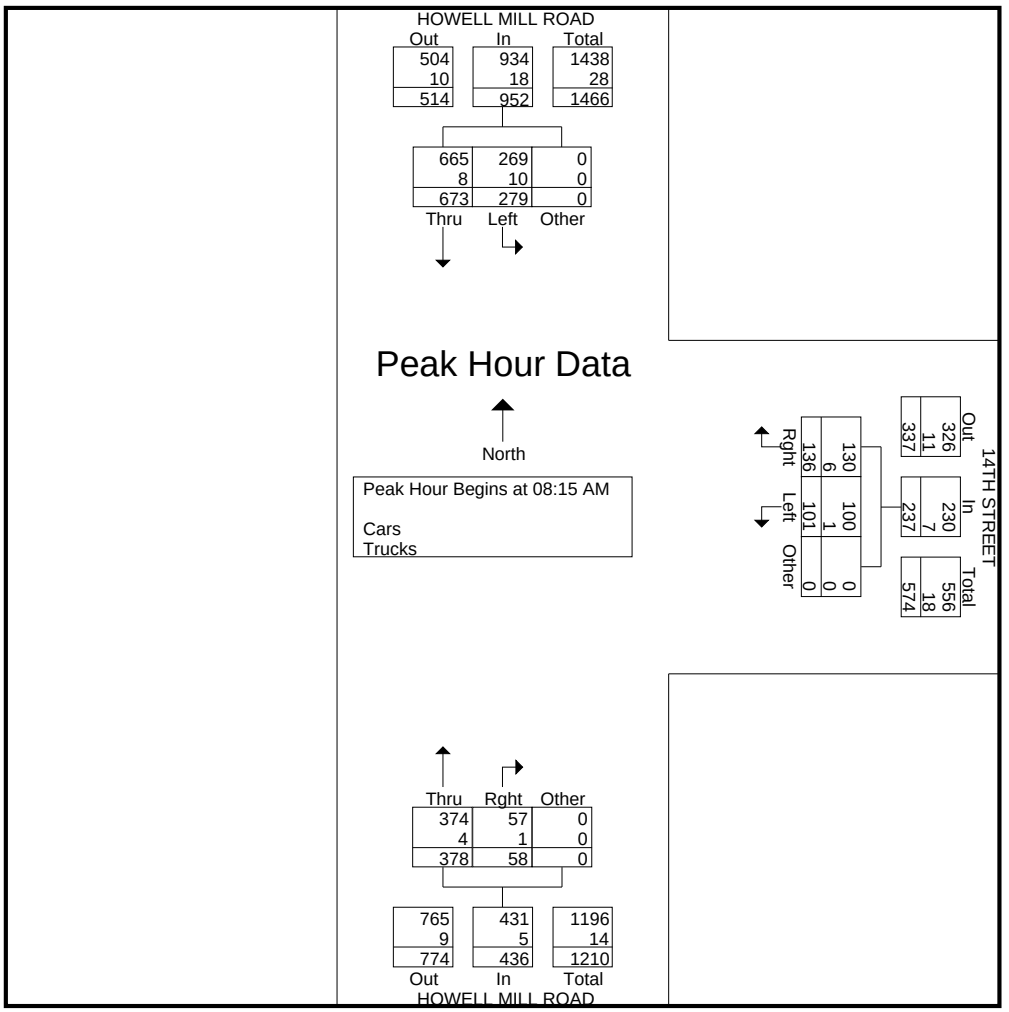


All Traffic Data Services, Inc

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

File Name : 14thStreet@HowellMillAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	HOWELL MILL ROAD Southbound				14TH STREET Westbound				HOWELL MILL ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:15 AM													
08:15 AM	59	148	0	207	24	**43**	0	**67**	104	**20**	0	**124**	398
08:30 AM	70	172	0	242	25	30	0	55	66	16	0	82	379
08:45 AM	**81**	**187**	0	**268**	20	29	0	49	**109**	11	0	120	**437**
09:00 AM	69	166	0	235	**32**	34	0	66	99	11	0	110	411
Total Volume	279	673	0	952	101	136	0	237	378	58	0	436	1625
% App. Total	29.3	70.7	0		42.6	57.4	0		86.7	13.3	0		
PHF	.861	.900	.000	.888	.789	.791	.000	.884	.867	.725	.000	.879	.930
Cars	269	665	0	934	100	130	0	230	374	57	0	431	1595
% Cars	96.4	98.8	0	98.1	99.0	95.6	0	97.0	98.9	98.3	0	98.9	98.2
Trucks	10	8	0	18	1	6	0	7	4	1	0	5	30
% Trucks	3.6	1.2	0	1.9	1.0	4.4	0	3.0	1.1	1.7	0	1.1	1.8



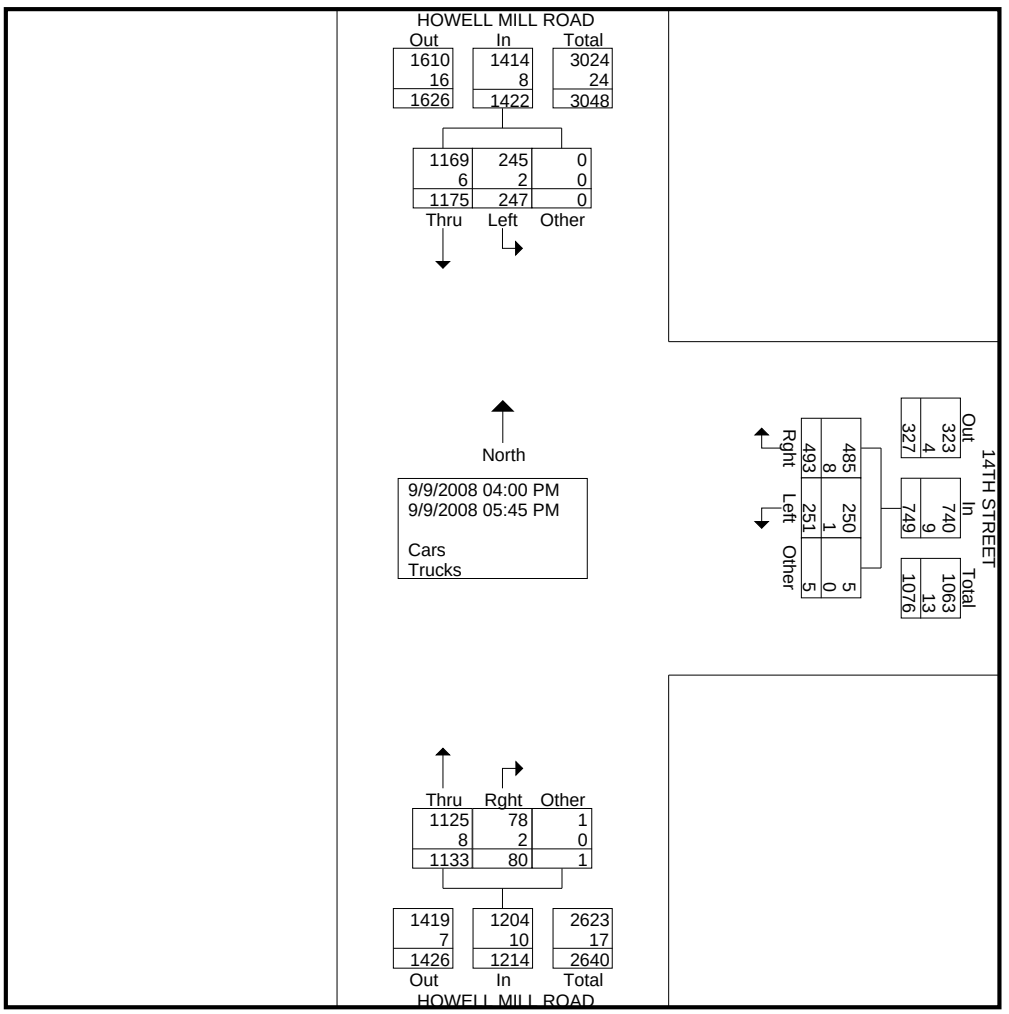
All Traffic Data Services, Inc

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

File Name : 14thStreet@HowellMillPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound				14TH STREET Westbound				HOWELL MILL ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	30	143	0	173	22	52	0	74	115	13	1	129	376
04:15 PM	39	150	0	189	34	53	0	87	136	8	0	144	420
04:30 PM	26	155	0	181	27	52	0	79	151	16	0	167	427
04:45 PM	39	164	0	203	46	75	0	121	154	10	0	164	488
Total	134	612	0	746	129	232	0	361	556	47	1	604	1711
05:00 PM	32	164	0	196	41	56	0	97	145	17	0	162	455
05:15 PM	37	143	0	180	36	82	0	118	168	7	0	175	473
05:30 PM	22	130	0	152	25	66	5	96	138	5	0	143	391
05:45 PM	22	126	0	148	20	57	0	77	126	4	0	130	355
Total	113	563	0	676	122	261	5	388	577	33	0	610	1674
Grand Total	247	1175	0	1422	251	493	5	749	1133	80	1	1214	3385
Apprch %	17.4	82.6	0		33.5	65.8	0.7		93.3	6.6	0.1		
Total %	7.3	34.7	0	42	7.4	14.6	0.1	22.1	33.5	2.4	0	35.9	
Cars	245	1169	0	1414	250	485	5	740	1125	78	1	1204	3358
% Cars	99.2	99.5	0	99.4	99.6	98.4	100	98.8	99.3	97.5	100	99.2	99.2
Trucks	2	6	0	8	1	8	0	9	8	2	0	10	27
% Trucks	0.8	0.5	0	0.6	0.4	1.6	0	1.2	0.7	2.5	0	0.8	0.8

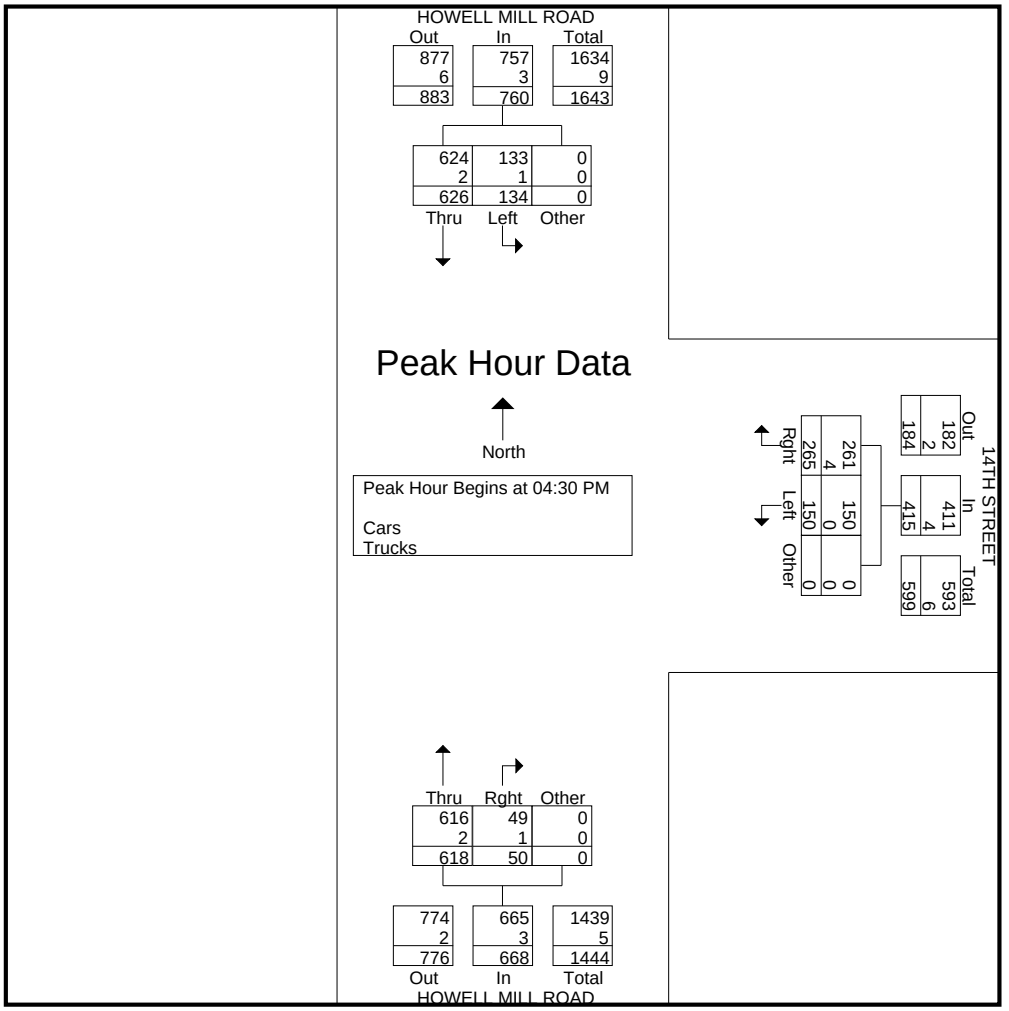


All Traffic Data Services, Inc

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

File Name : 14thStreet@HowellMillPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	HOWELL MILL ROAD Southbound				14TH STREET Westbound				HOWELL MILL ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	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	26	155	0	181	27	52	0	79	151	16	0	167	427
04:45 PM	**39**	**164**	0	**203**	**46**	75	0	**121**	154	10	0	164	**488**
05:00 PM	32	164	0	196	41	56	0	97	145	**17**	0	162	455
05:15 PM	37	143	0	180	36	**82**	0	118	**168**	7	0	**175**	473
Total Volume	134	626	0	760	150	265	0	415	618	50	0	668	1843
% App. Total	17.6	82.4	0		36.1	63.9	0		92.5	7.5	0		
PHF	.859	.954	.000	.936	.815	.808	.000	.857	.920	.735	.000	.954	.944
Cars	133	624	0	757	150	261	0	411	616	49	0	665	1833
% Cars	99.3	99.7	0	99.6	100	98.5	0	99.0	99.7	98.0	0	99.6	99.5
Trucks	1	2	0	3	0	4	0	4	2	1	0	3	10
% Trucks	0.7	0.3	0	0.4	0	1.5	0	1.0	0.3	2.0	0	0.4	0.5



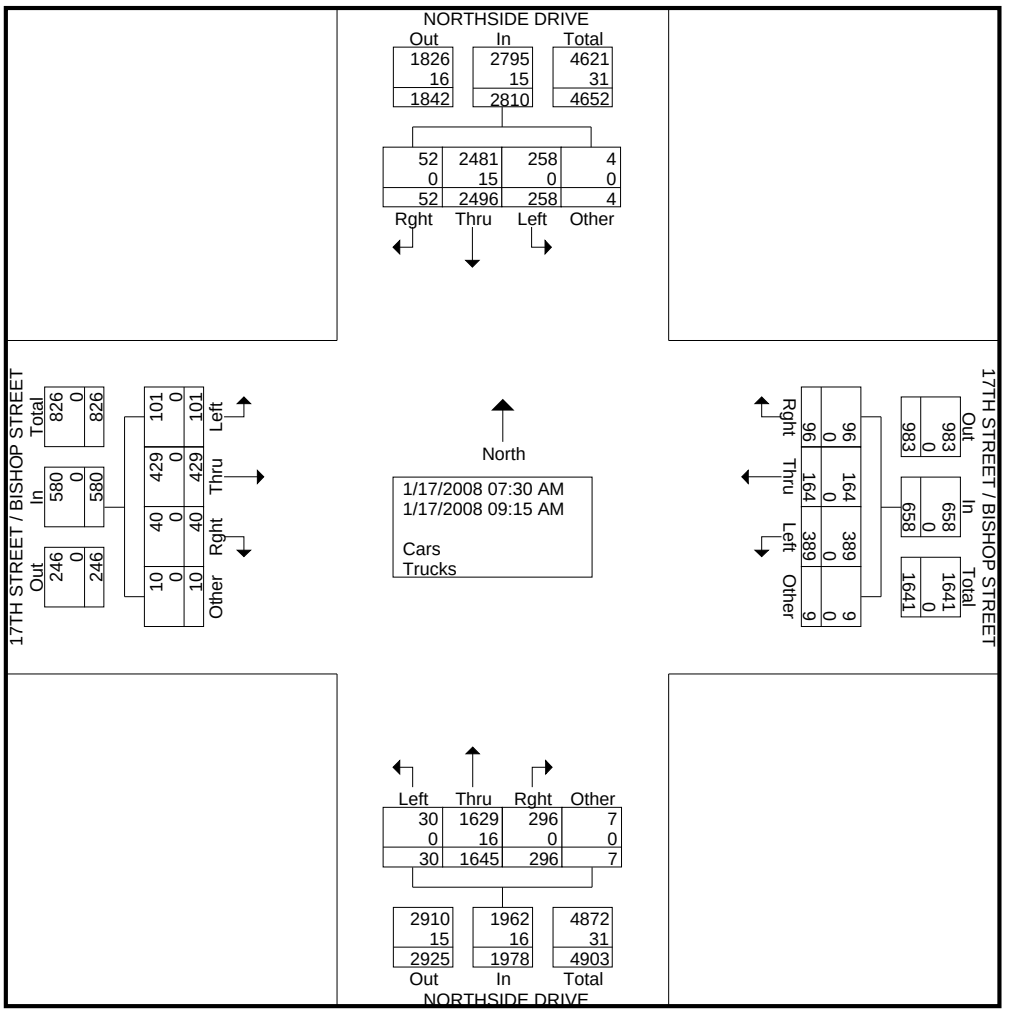
All Traffic Data Services, Inc.

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

File Name : 17th-BishopSt@NorthsideDrAM
Site Code : 00000000
Start Date : 1/17/2008
Page No : 1

Groups Printed- Cars - Trucks

	NORTHSIDE DRIVE Northbound					NORTHSIDE DRIVE Southbound					17TH STREET / BISHOP STREET Eastbound					17TH STREET / BISHOP STREET Westbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:30 AM	3	224	19	1	247	8	202	4	0	214	5	14	7	2	28	24	9	11	1	45	534
07:45 AM	2	243	23	2	270	20	291	4	1	316	6	26	5	0	37	36	13	5	0	54	677
Total	5	467	42	3	517	28	493	8	1	530	11	40	12	2	65	60	22	16	1	99	1211
08:00 AM	1	204	32	0	237	20	334	2	0	356	11	48	1	1	61	38	17	12	2	69	723
08:15 AM	2	200	38	0	240	39	348	9	0	396	17	48	3	2	70	43	22	6	1	72	778
08:30 AM	1	215	44	1	261	43	300	11	0	354	18	54	4	2	78	57	27	14	0	98	791
08:45 AM	5	187	48	2	242	34	369	11	2	416	17	77	7	1	102	54	30	12	2	98	858
Total	9	806	162	3	980	136	1351	33	2	1522	63	227	15	6	311	192	96	44	5	337	3150
09:00 AM	5	193	51	0	249	51	347	5	0	403	14	85	6	2	107	52	22	16	1	91	850
09:15 AM	11	179	41	1	232	43	305	6	1	355	13	77	7	0	97	85	24	20	2	131	815
Grand Total	30	1645	296	7	1978	258	2496	52	4	2810	101	429	40	10	580	389	164	96	9	658	6026
Apprch %	1.5	83.2	15	0.4		9.2	88.8	1.9	0.1		17.4	74	6.9	1.7		59.1	24.9	14.6	1.4		
Total %	0.5	27.3	4.9	0.1	32.8	4.3	41.4	0.9	0.1	46.6	1.7	7.1	0.7	0.2	9.6	6.5	2.7	1.6	0.1	10.9	
Cars	30	1629	296	7	1962	258	2481	52	4	2795	101	429	40	10	580	389	164	96	9	658	5995
% Cars	100	99	100	100	99.2	100	99.4	100	100	99.5	100	100	100	100	100	100	100	100	100	100	99.5
Trucks	0	16	0	0	16	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	31
% Trucks	0	1	0	0	0.8	0	0.6	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.5

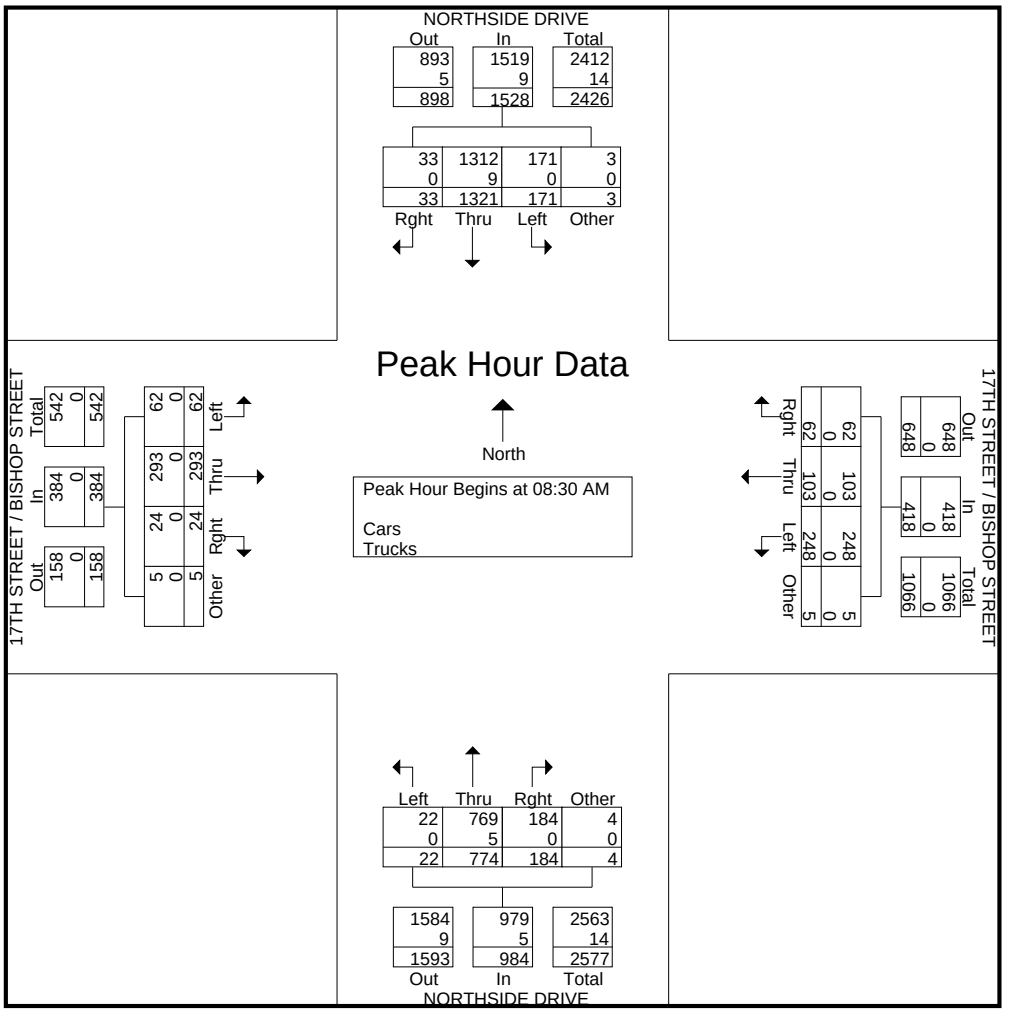


All Traffic Data Services, Inc.

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

File Name : 17th-BishopSt@NorthsideDrAM
Site Code : 00000000
Start Date : 1/17/2008
Page No : 2

	NORTHSIDE DRIVE Northbound					NORTHSIDE DRIVE Southbound					17TH STREET / BISHOP STREET Eastbound					17TH STREET / BISHOP STREET Westbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30 AM																					
08:30 AM	1	**215**	44	1	**261**	43	300	**11**	0	354	**18**	54	4	**2**	78	57	27	14	0	98	791
08:45 AM	5	187	48	**2**	242	34	**369**	11	**2**	**416**	17	77	**7**	1	102	54	**30**	12	**2**	98	**858**
09:00 AM	5	193	**51**	0	249	**51**	347	5	0	403	14	**85**	6	2	**107**	52	22	16	1	91	850
09:15 AM	**11**	179	41	1	232	43	305	6	1	355	13	77	7	0	97	**85**	24	**20**	2	**131**	815
Total Volume	22	774	184	4	984	171	1321	33	3	1528	62	293	24	5	384	248	103	62	5	418	3314
% App. Total	2.2	78.7	18.7	0.4		11.2	86.5	2.2	0.2		16.1	76.3	6.2	1.3		59.3	24.6	14.8	1.2		
PHF	.500	.900	.902	.500	.943	.838	.895	.750	.375	.918	.861	.862	.857	.625	.897	.729	.858	.775	.625	.798	.966
Cars	22	769	184	4	979	171	1312														
% Cars	100	99.4	100	100	99.5	100	99.3	100	100	99.4	100	100	100	100	100	100	100	100	100	100	99.6
Trucks	0	5	0	0	5	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	14
% Trucks	0	0.6	0	0	0.5	0	0.7	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.4



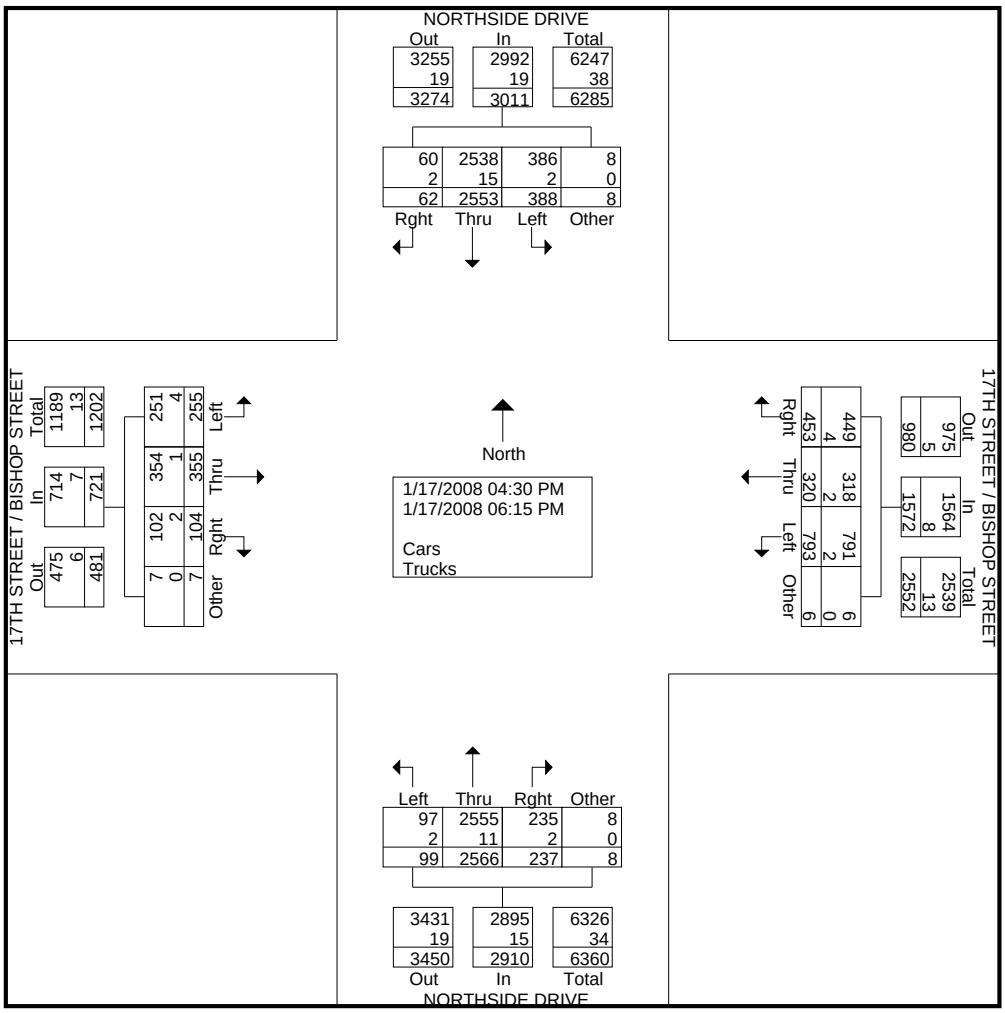
All Traffic Data Services, Inc.

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

File Name : 17th-BishopSt@NorthsideDrPM
Site Code : 00000000
Start Date : 1/17/2008
Page No : 1

Groups Printed- Cars - Trucks

	NORTHSIDE DRIVE Northbound					NORTHSIDE DRIVE Southbound					17TH STREET / BISHOP STREET Eastbound					17TH STREET / BISHOP STREET Westbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:30 PM	9	301	27	2	339	41	213	16	1	271	36	31	10	1	78	99	21	45	0	165	853
04:45 PM	11	331	26	1	369	35	300	10	2	347	34	37	8	0	79	112	21	53	1	187	982
Total	20	632	53	3	708	76	513	26	3	618	70	68	18	1	157	211	42	98	1	352	1835
05:00 PM	13	356	40	0	409	37	332	6	0	375	29	38	6	0	73	99	34	52	1	186	1043
05:15 PM	12	291	36	2	341	62	389	8	1	460	48	49	5	2	104	110	51	55	0	216	1121
05:30 PM	13	328	25	0	366	59	327	13	0	399	28	50	9	1	88	88	50	47	1	186	1039
05:45 PM	13	325	32	1	371	54	357	2	2	415	36	53	26	0	115	95	45	57	0	197	1098
Total	51	1300	133	3	1487	212	1405	29	3	1649	141	190	46	3	380	392	180	211	2	785	4301
06:00 PM	15	333	29	0	377	48	334	4	0	386	21	40	19	2	82	96	49	77	2	224	1069
06:15 PM	13	301	22	2	338	52	301	3	2	358	23	57	21	1	102	94	49	67	1	211	1009
Grand Total	99	2566	237	8	2910	388	2553	62	8	3011	255	355	104	7	721	793	320	453	6	1572	8214
Apprch %	3.4	88.2	8.1	0.3		12.9	84.8	2.1	0.3		35.4	49.2	14.4	1		50.4	20.4	28.8	0.4		
Total %	1.2	31.2	2.9	0.1	35.4	4.7	31.1	0.8	0.1	36.7	3.1	4.3	1.3	0.1	8.8	9.7	3.9	5.5	0.1	19.1	
Cars	97	2555	235	8	2895	386	2538	60	8	2992	251	354	102	7	714	791	318	449	6	1564	8165
% Cars	98	99.6	99.2	100	99.5	99.5	99.4	96.8	100	99.4	98.4	99.7	98.1	100	99	99.7	99.4	99.1	100	99.5	99.4
Trucks	2	11	2	0	15	2	15	2	0	19	4	1	2	0	7	2	2	4	0	8	49
% Trucks	2	0.4	0.8	0	0.5	0.5	0.6	3.2	0	0.6	1.6	0.3	1.9	0	1	0.3	0.6	0.9	0	0.5	0.6

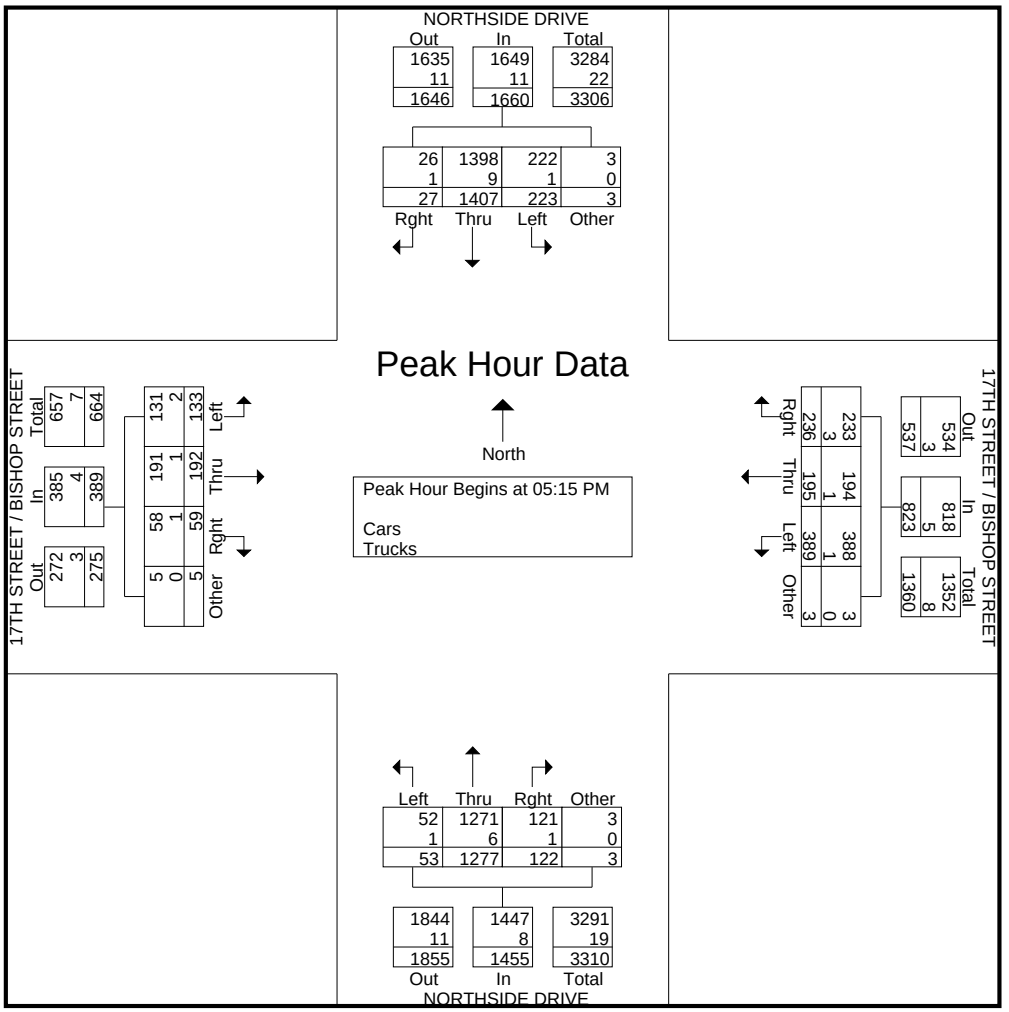


All Traffic Data Services, Inc.

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

File Name : 17th-BishopSt@NorthsideDrPM
Site Code : 00000000
Start Date : 1/17/2008

	NORTHSIDE DRIVE Northbound					NORTHSIDE DRIVE Southbound					17TH STREET / BISHOP STREET Eastbound					17TH STREET / BISHOP STREET Westbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:15 PM																					
05:15 PM	12	291	**36**	**2**	341	**62**	**389**	8	1	**460**	**48**	49	5	**2**	104	**110**	**51**	55	0	216	**1121**
05:30 PM	13	328	25	0	366	59	327	**13**	0	399	28	50	9	1	88	88	50	47	1	186	1039
05:45 PM	13	325	32	1	371	54	357	2	**2**	415	36	**53**	**26**	0	**115**	95	45	57	0	197	1098
06:00 PM	**15**	**333**	29	0	**377**	48	334	4	0	386	21	40	19	2	82	96	49	**77**	**2**	**224**	1069
Total Volume	53	1277	122	3	1455	223	1407	27	3	1660	133	192	59	5	389	389	195	236	3	823	4327
% App. Total	3.6	87.8	8.4	0.2		13.4	84.8	1.6	0.2		34.2	49.4	15.2	1.3		47.3	23.7	28.7	0.4		
PHF	.883	.959	.847	.375	.965	.899	.904	.519	.375	.902	.693	.906	.567	.625	.846	.884	.956	.766	.375	.919	.965
Cars	52	1271					1398														
% Cars	98.1	99.5	99.2	100	99.5	99.6	99.4	96.3	100	99.3	98.5	99.5	98.3	100	99.0	99.7	99.5	98.7	100	99.4	99.4
Trucks	1	6	1	0	8	1	9	1	0	11	2	1	1	0	4	1	1	3	0	5	28
% Trucks	1.9	0.5	0.8	0	0.5	0.4	0.6	3.7	0	0.7	1.5	0.5	1.7	0	1.0	0.3	0.5	1.3	0	0.6	0.6



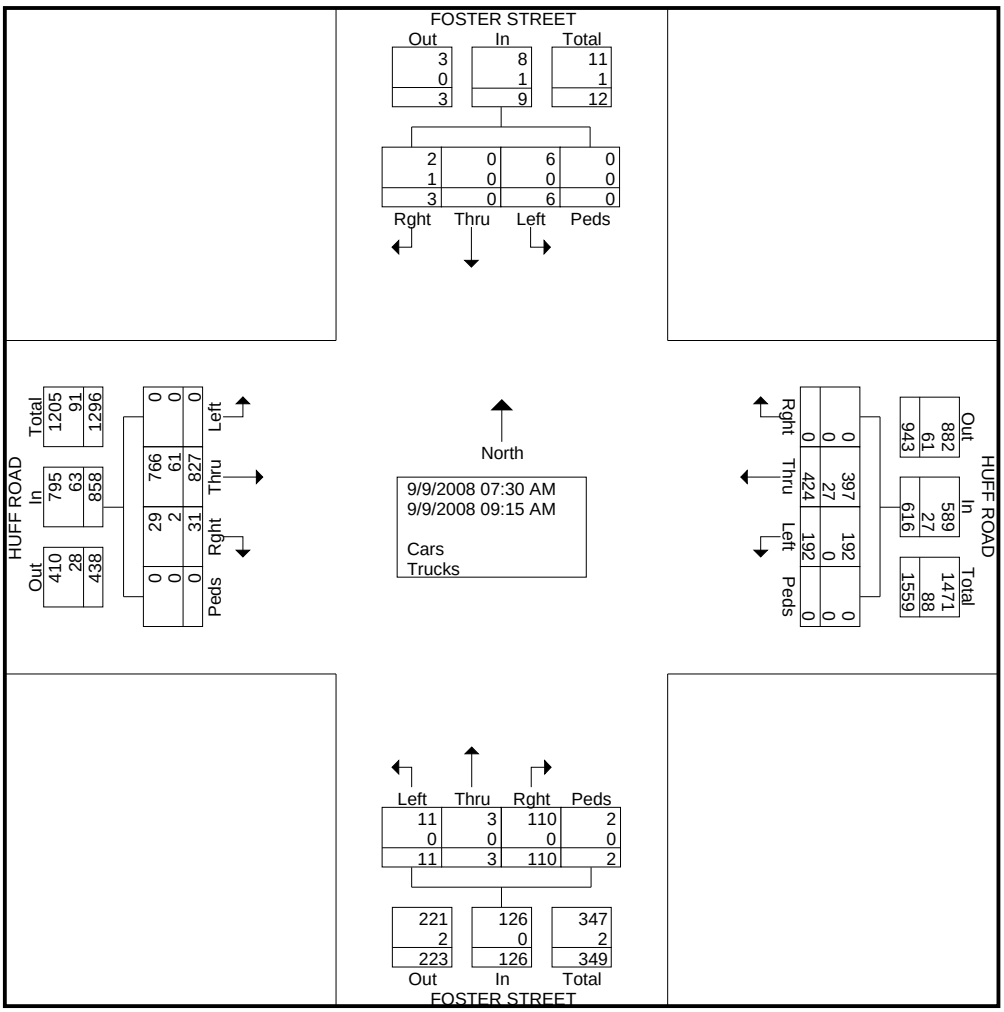
All Traffic Data Services, Inc

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

File Name : FosterSt@HuffRdAM
Site Code : 00000000
Start Date : 9/9/2008

Groups Printed- Cars - Trucks

	FOSTER STREET Southbound					HUFF ROAD Westbound					FOSTER STREET Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Int. Total
07:30 AM	1	0	0	0	1	15	43	0	0	58	1	0	8	0	9	0	78	1	0	79	147
07:45 AM	1	0	0	0	1	41	49	0	0	90	0	0	17	0	17	0	75	3	0	78	186
Total	2	0	0	0	2	56	92	0	0	148	1	0	25	0	26	0	153	4	0	157	333
08:00 AM	0	0	0	0	0	52	49	0	0	101	2	0	19	0	21	0	95	4	0	99	221
08:15 AM	1	0	1	0	2	54	41	0	0	95	5	3	37	0	45	0	64	10	0	74	216
08:30 AM	0	0	1	0	1	16	46	0	0	62	2	0	15	0	17	0	99	8	0	107	187
08:45 AM	1	0	1	0	2	7	53	0	0	60	0	0	6	1	7	0	148	1	0	149	218
Total	2	0	3	0	5	129	189	0	0	318	9	3	77	1	90	0	406	23	0	429	842
09:00 AM	1	0	0	0	1	4	77	0	0	81	0	0	5	1	6	0	142	0	0	142	230
09:15 AM	1	0	0	0	1	3	66	0	0	69	1	0	3	0	4	0	126	4	0	130	204
Grand Total	6	0	3	0	9	192	424	0	0	616	11	3	110	2	126	0	827	31	0	858	1609
Apprch %	66.7	0	33.3	0		31.2	68.8	0	0		8.7	2.4	87.3	1.6		0	96.4	3.6	0		
Total %	0.4	0	0.2	0	0.6	11.9	26.4	0	0	38.3	0.7	0.2	6.8	0.1	7.8	0	51.4	1.9	0	53.3	
Cars	6	0	2	0	8	192	397	0	0	589	11	3	110	2	126	0	766	29	0	795	1518
% Cars	100	0	66.7	0	88.9	100	93.6	0	0	95.6	100	100	100	100	100	0	92.6	93.5	0	92.7	94.3
Trucks	0	0	1	0	1	0	27	0	0	27	0	0	0	0	0	0	61	2	0	63	91
% Trucks	0	0	33.3	0	11.1	0	6.4	0	0	4.4	0	0	0	0	0	0	7.4	6.5	0	7.3	5.7

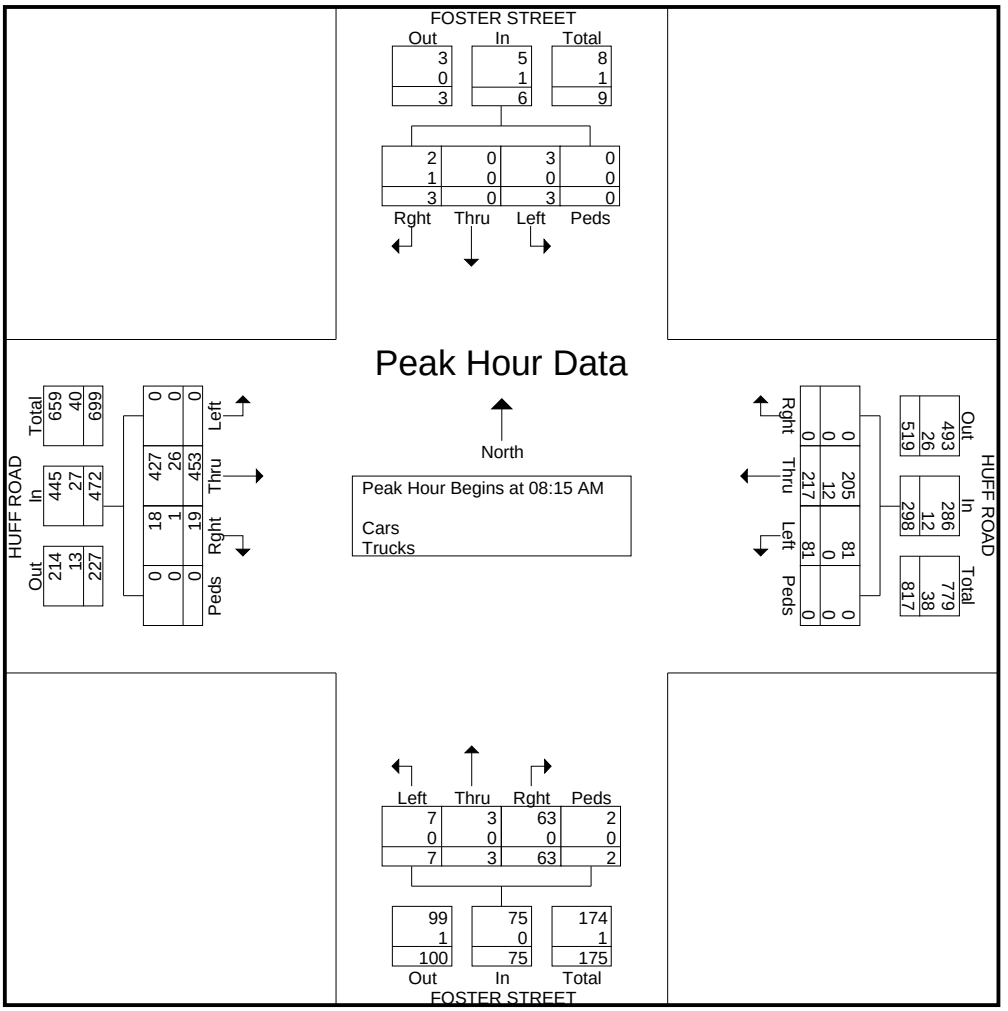


All Traffic Data Services, Inc

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

File Name : FosterSt@HuffRdAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	FOSTER STREET Southbound					HUFF ROAD Westbound					FOSTER STREET Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	**1**	0	**1**	0	**2**	**54**	41	0	0	**95**	**5**	**3**	**37**	0	**45**	0	64	**10**	0	74	216
08:30 AM	0	0	1	0	1	16	46	0	0	62	2	0	15	0	17	0	99	8	0	107	187
08:45 AM	1	0	1	0	2	7	53	0	0	60	0	0	6	**1**	7	0	**148**	1	0	**149**	218
09:00 AM	1	0	0	0	1	4	**77**	0	0	81	0	0	5	1	6	0	142	0	0	142	**230**
Total Volume	3	0	3	0	6	81	217	0	0	298	7	3	63	2	75	0	453	19	0	472	851
% App. Total	50	0	50	0		27.2	72.8	0	0		9.3	4	84	2.7		0	96	4	0		
PHF	.750	.000	.750	.000	.750	.375	.705	.000	.000	.784	.350	.250	.426	.500	.417	.000	.765	.475	.000	.792	.925
Cars	3	0	2	0	5	81	205	0	0	286	7	3	63	2	75	0	427	18	0	445	811
% Cars	100	0	66.7	0	83.3	100	94.5	0	0	96.0	100	100	100	100	100	0	94.3	94.7	0	94.3	95.3
Trucks	0	0	1	0	1	0	12	0	0	12	0	0	0	0	0	0	26	1	0	27	40
% Trucks	0	0	33.3	0	16.7	0	5.5	0	0	4.0	0	0	0	0	0	0	5.7	5.3	0	5.7	4.7



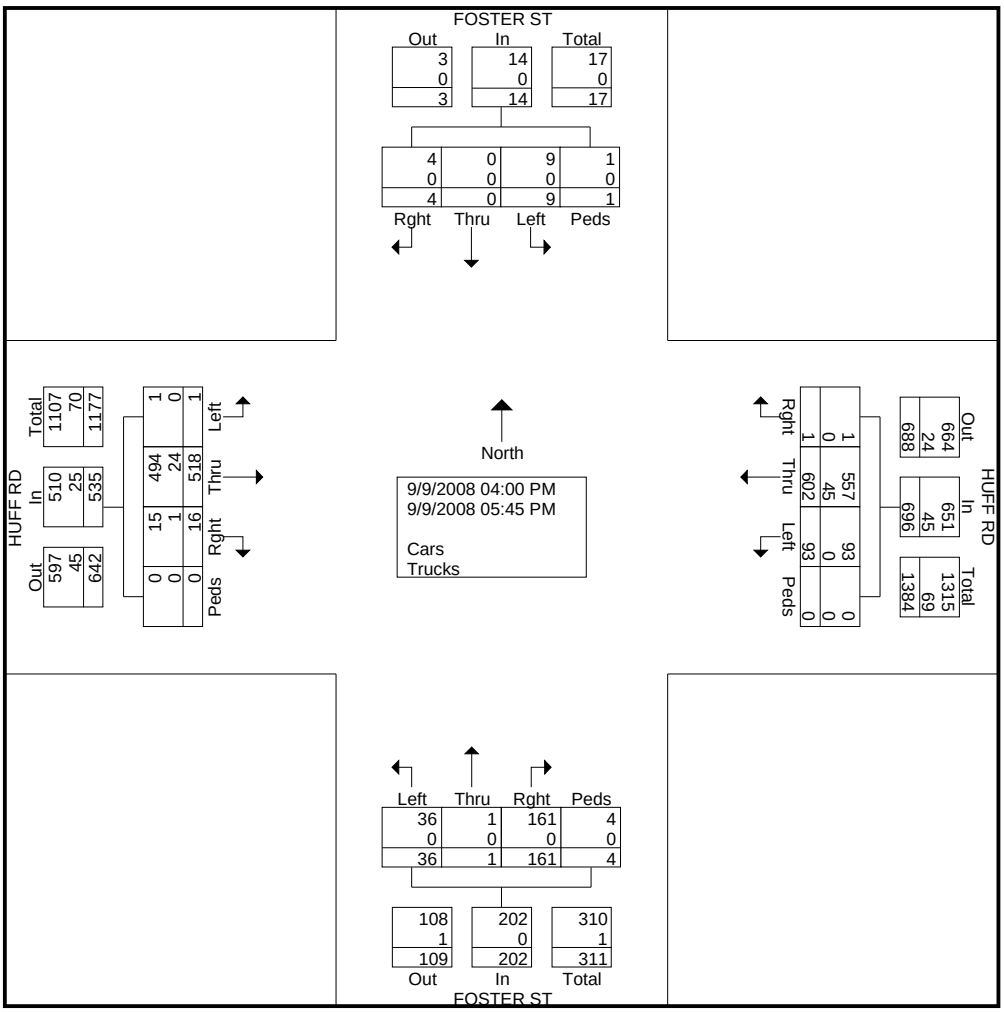
All Traffic Data Services, Inc

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

File Name : FosterSt@HuffRdPM
Site Code : 00000000
Start Date : 9/9/2008

Groups Printed- Cars - Trucks

	FOSTER ST Southbound					HUFF RD Westbound					FOSTER ST Northbound					HUFF RD Eastbound					
Start Time	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Int. Total
04:00 PM	2	0	4	0	6	17	70	0	0	87	4	0	18	0	22	0	73	2	0	75	190
04:15 PM	4	0	0	0	4	13	84	0	0	97	4	0	15	1	20	0	48	2	0	50	171
04:30 PM	0	0	0	0	0	10	88	0	0	98	4	0	10	0	14	1	68	6	0	75	187
04:45 PM	2	0	0	1	3	7	61	0	0	68	3	0	18	0	21	0	66	1	0	67	159
Total	8	0	4	1	13	47	303	0	0	350	15	0	61	1	77	1	255	11	0	267	707
05:00 PM	0	0	0	0	0	8	70	1	0	79	3	1	19	1	24	0	72	1	0	73	176
05:15 PM	0	0	0	0	0	20	88	0	0	108	3	0	27	0	30	0	61	2	0	63	201
05:30 PM	0	0	0	0	0	13	68	0	0	81	5	0	14	1	20	0	70	1	0	71	172
05:45 PM	1	0	0	0	1	5	73	0	0	78	10	0	40	1	51	0	60	1	0	61	191
Total	1	0	0	0	1	46	299	1	0	346	21	1	100	3	125	0	263	5	0	268	740
Grand Total	9	0	4	1	14	93	602	1	0	696	36	1	161	4	202	1	518	16	0	535	1447
Apprch %	64.3	0	28.6	7.1		13.4	86.5	0.1	0		17.8	0.5	79.7	2		0.2	96.8	3	0		
Total %	0.6	0	0.3	0.1	1	6.4	41.6	0.1	0	48.1	2.5	0.1	11.1	0.3	14	0.1	35.8	1.1	0	37	
Cars	9	0	4	1	14	93	557	1	0	651	36	1	161	4	202	1	494	15	0	510	1377
% Cars	100	0	100	100	100	100	92.5	100	0	93.5	100	100	100	100	100	100	95.4	93.8	0	95.3	95.2
Trucks	0	0	0	0	0	0	45	0	0	45	0	0	0	0	0	0	24	1	0	25	70
% Trucks	0	0	0	0	0	0	7.5	0	0	6.5	0	0	0	0	0	0	4.6	6.2	0	4.7	4.8

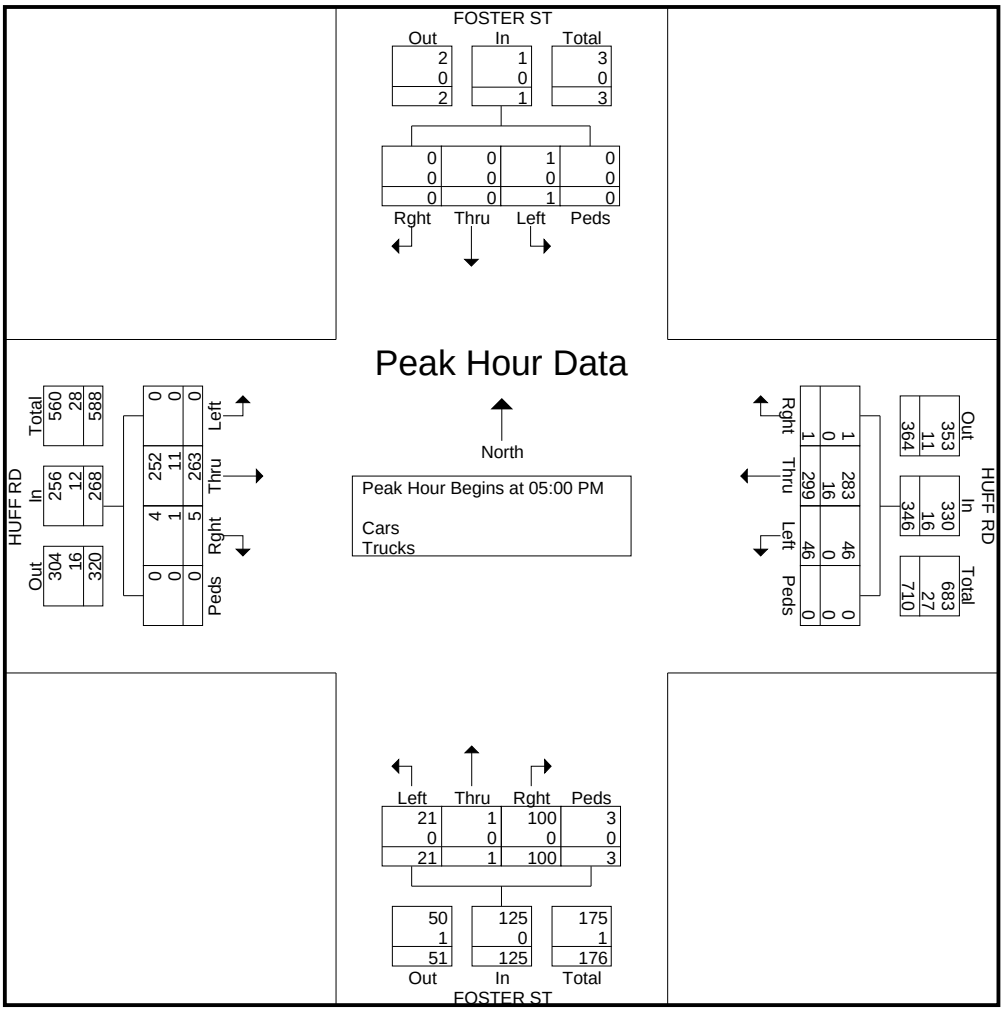


All Traffic Data Services, Inc

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

File Name : FosterSt@HuffRdPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	FOSTER ST Southbound					HUFF RD Westbound					FOSTER ST Northbound					HUFF RD Eastbound					
Start Time	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	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	0	0	0	0	8	70	**1**	0	79	3	**1**	19	**1**	24	0	**72**	1	0	**73**	176
05:15 PM	0	0	0	0	0	**20**	**88**	0	0	**108**	3	0	27	0	30	0	61	**2**	0	63	**201**
05:30 PM	0	0	0	0	0	13	68	0	0	81	5	0	14	1	20	0	70	1	0	71	172
05:45 PM	**1**	0	0	0	**1**	5	73	0	0	78	**10**	0	**40**	1	**51**	0	60	1	0	61	191
Total Volume	1	0	0	0	1	46	299	1	0	346	21	1	100	3	125	0	263	5	0	268	740
% App. Total	100	0	0	0		13.3	86.4	0.3	0		16.8	0.8	80	2.4		0	98.1	1.9	0		
PHF	.250	.000	.000	.000	.250	.575	.849	.250	.000	.801	.525	.250	.625	.750	.613	.000	.913	.625	.000	.918	.920
Cars	1	0	0	0	1	46	283	1	0	330	21	1	100	3	125	0	252	4	0	256	712
% Cars	100	0	0	0	100	100	94.6	100	0	95.4	100	100	100	100	100	0	95.8	80.0	0	95.5	96.2
Trucks	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	11	1	0	12	28
% Trucks	0	0	0	0	0	0	5.4	0	0	4.6	0	0	0	0	0	0	4.2	20.0	0	4.5	3.8



Traffic Data Collection, Inc.

Charlotte - Atlanta - Hilton Head

Ph 404 459-9114 Fax 404 459-9113

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Counter: 2446
Counted By: WCC
Weather: Mild
Other: URS

File Name : 04706-04
Site Code : 00470604
Start Date : 10/20/2004
Page No : 1

Groups Printed- Cars - Trucks & Buses

	Northside Dr Northbound					Northside Dr Southbound					Repair Shop Ent Eastbound					Hemphill Ave Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	96	0	0	96	14	88	0	0	102	0	0	0	0	0	0	0	21	0	21	219
07:15 AM	0	143	0	0	143	39	89	0	0	128	0	0	0	0	0	0	0	21	1	22	293
07:30 AM	1	155	0	1	157	42	116	1	1	160	0	0	0	0	0	0	0	21	0	21	338
07:45 AM	0	166	0	1	167	68	155	0	0	223	0	0	0	0	0	0	0	27	0	27	417
Total	1	560	0	2	563	163	448	1	1	613	0	0	0	0	0	0	0	90	1	91	1267
08:00 AM	0	170	0	0	170	73	148	0	0	221	0	0	0	0	0	0	0	24	1	25	416
08:15 AM	2	182	0	0	184	51	167	0	0	218	0	0	0	0	0	0	0	21	0	21	423
08:30 AM	0	174	8	0	182	72	143	0	0	215	0	0	0	0	0	1	0	33	0	34	431
08:45 AM	1	191	0	0	192	73	219	0	1	293	0	0	0	0	0	0	0	27	6	33	518
Total	3	717	8	0	728	269	677	0	1	947	0	0	0	0	0	1	0	105	7	113	1788
Break																					
04:30 PM	0	187	0	0	187	53	217	0	0	270	0	0	0	0	0	0	0	69	3	72	529
04:45 PM	0	181	0	0	181	68	231	0	0	299	0	0	0	0	0	0	0	73	0	73	553
Total	0	368	0	0	368	121	448	0	0	569	0	0	0	0	0	0	0	142	3	145	1082
05:00 PM	0	197	0	1	198	48	222	1	0	271	0	6	0	0	6	0	10	100	0	110	585
05:15 PM	0	224	0	0	224	59	251	0	0	310	0	0	0	1	1	0	0	80	1	81	616
05:30 PM	0	252	0	0	252	58	275	0	0	333	0	0	0	1	1	0	0	85	1	86	672
05:45 PM	0	255	0	0	255	52	259	0	0	311	0	0	0	0	0	0	0	105	2	107	673
Total	0	928	0	1	929	217	1007	1	0	1225	0	6	0	2	8	0	10	370	4	384	2546
06:00 PM	0	204	0	0	204	42	191	0	0	233	0	0	0	0	0	0	0	108	0	108	545
06:15 PM	0	216	0	1	217	48	196	0	0	244	0	0	0	0	0	0	0	94	0	94	555
Grand Total	4	2993	8	4	3009	860	2967	2	2	3831	0	6	0	2	8	1	10	909	15	935	7783
Apprch %	0.1	99.5	0.3	0.1		22.4	77.4	0.1	0.1		0.0	75.0	0.0	25.0		0.1	1.1	97.2	1.6		
Total %	0.1	38.5	0.1	0.1	38.7	11.0	38.1	0.0	0.0	49.2	0.0	0.1	0.0	0.0	0.1	0.0	0.1	11.7	0.2	12.0	

Traffic Data Collection, Inc.
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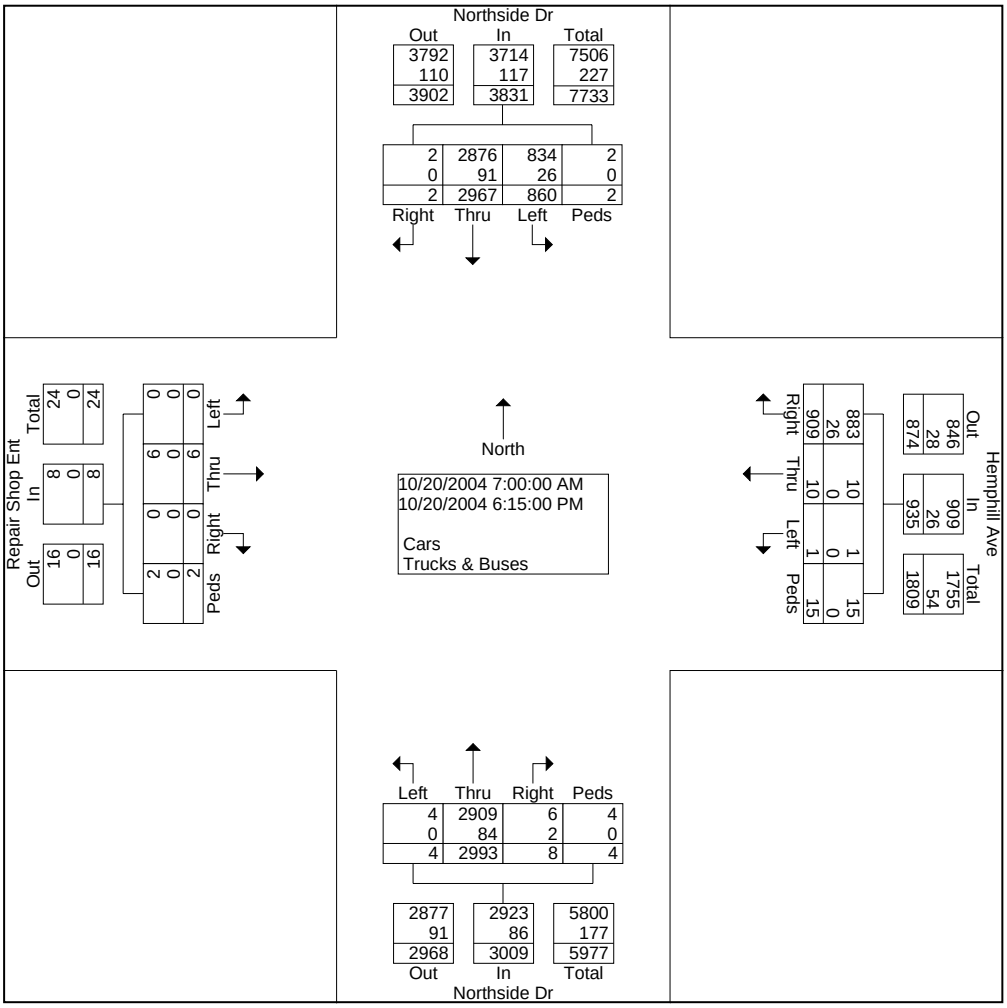
File Name : 04706-04
Site Code : 00470604
Start Date : 10/20/2004
Page No : 2



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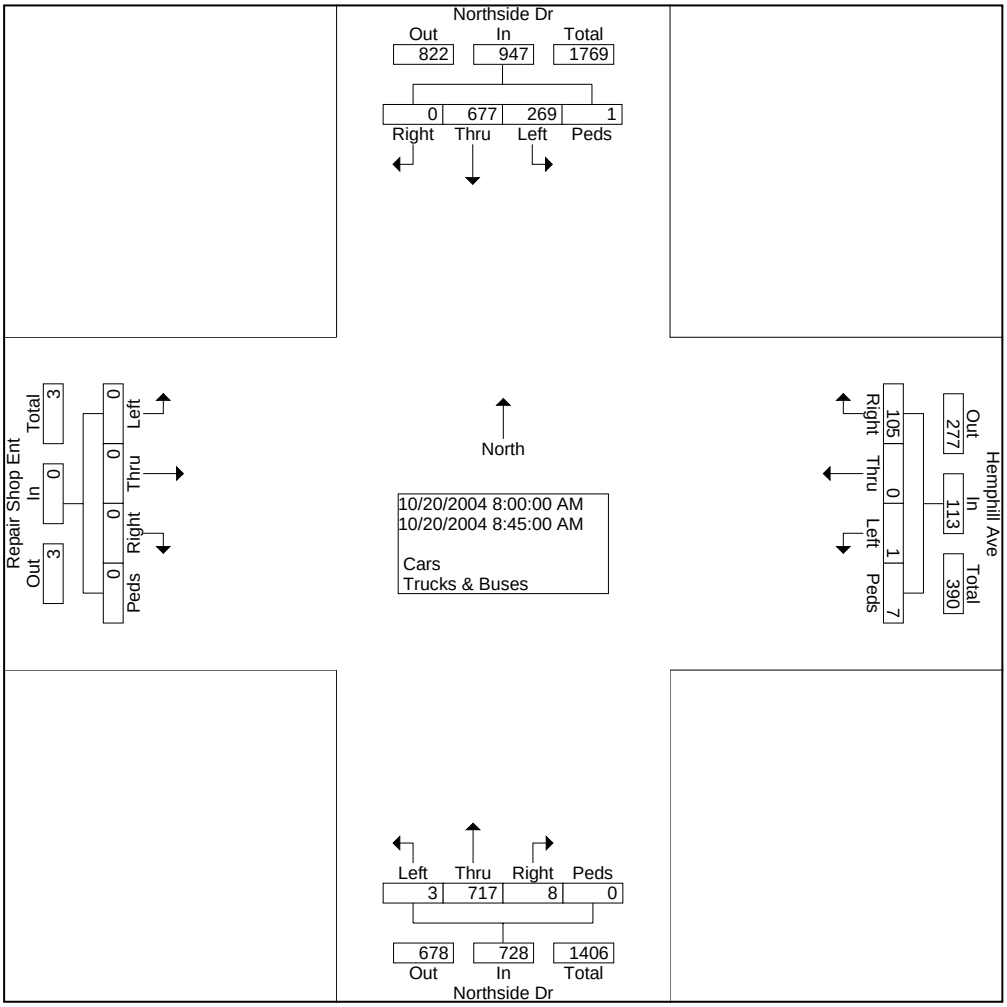
File Name : 04706-04
Site Code : 00470604
Start Date : 10/20/2004
Page No : 3

	Northside Dr Northbound					Northside Dr Southbound					Repair Shop Ent Eastbound					Hemphill Ave Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	3	717	8	0	728	269	677	0	1	947	0	0	0	0	0	1	0	105	7	113	1788
Percent	0.4	98.5	1.1	0.0		28.4	71.5	0.0	0.1		0.0	0.0	0.0	0.0		0.9	0.0	92.9	6.2		
08:45 Volume	1	191	0	0	192	73	219	0	1	293	0	0	0	0	0	0	0	27	6	33	518
Peak Factor																					0.863
High Int.	08:45 AM					08:45 AM					6:45:00 AM					08:30 AM					
Volume	1	191	0	0	192	73	219	0	1	293	0	0	0	0	0	1	0	33	0	34	
Peak Factor					0.948					0.808										0.831	



Traffic Data Collection, Inc.
Charlotte - Atlanta - Hilton Head
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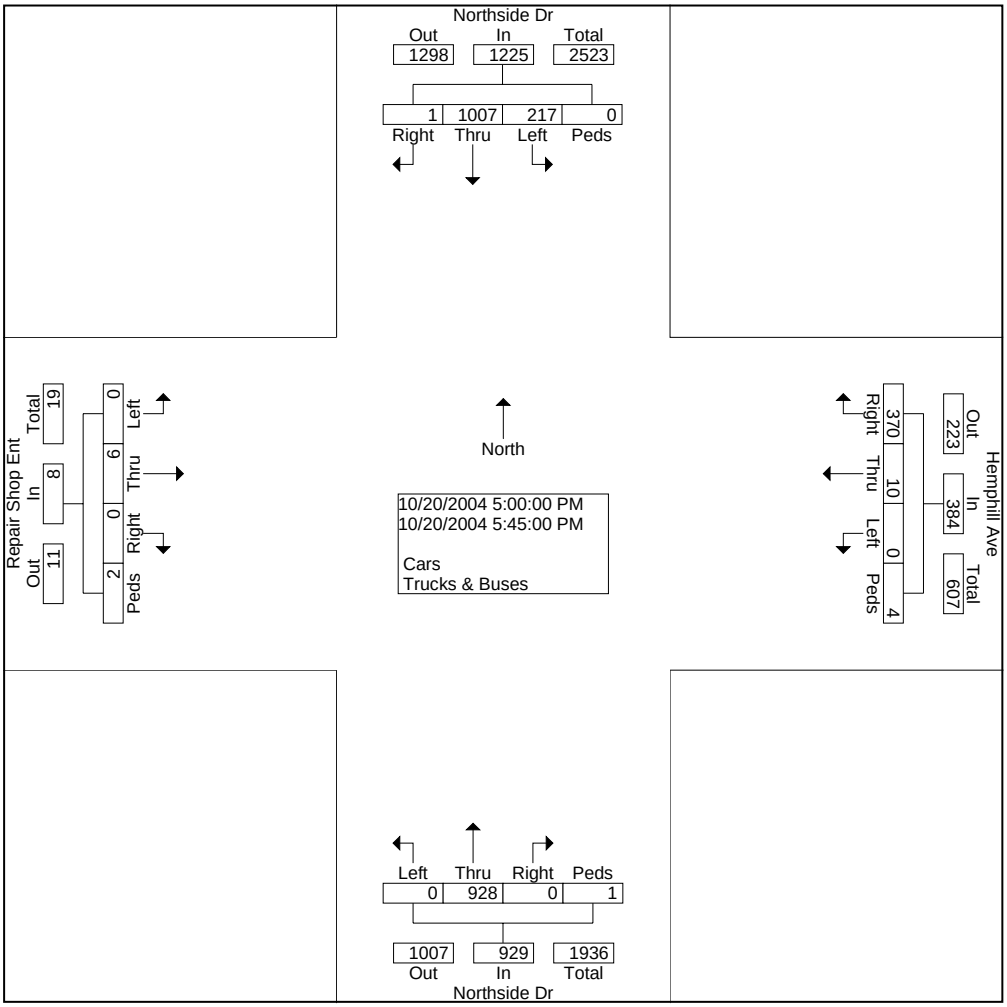
File Name : 04706-04
Site Code : 00470604
Start Date : 10/20/2004
Page No : 4

	Northside Dr Northbound					Northside Dr Southbound					Repair Shop Ent Eastbound					Hemphill Ave Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 12:00 PM to 06:15 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	928	0	1	929	217	1007	1	0	1225	0	6	0	2	8	0	10	370	4	384	2546
Percent	0.0	99.9	0.0	0.1		17.7	82.2	0.1	0.0		0.0	75.0	0.0	25.0		0.0	2.6	96.4	1.0		
05:45 Volume	0	255	0	0	255	52	259	0	0	311	0	0	0	0	0	0	0	105	2	107	673
Peak Factor																					0.946
High Int.	05:45 PM					05:30 PM					05:00 PM					05:00 PM					
Volume	0	255	0	0	255	58	275	0	0	333	0	6	0	0	6	0	10	100	0	110	
Peak Factor					0.911					0.920					0.333					0.873	



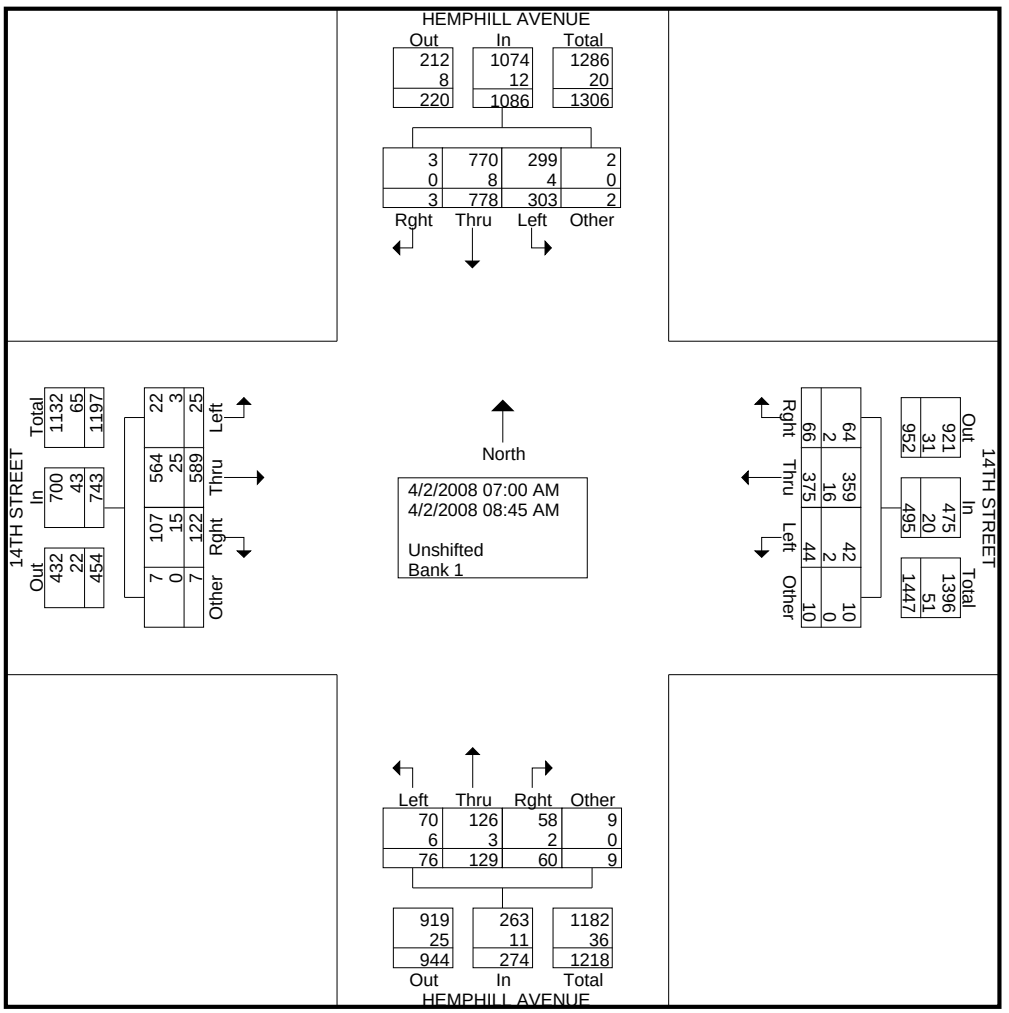
All Traffic Data Services, Inc

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

File Name : HemphillAve@14thStAM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 1

Groups Printed- Unshifted - Bank 1

	HEMPHILL AVENUE Southbound					14TH STREET Westbound					HEMPHILL AVENUE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:00 AM	25	69	1	0	95	4	31	2	0	37	6	10	6	0	22	1	49	8	0	58	212
07:15 AM	20	58	0	0	78	1	29	6	1	37	7	12	3	0	22	1	50	16	2	69	206
07:30 AM	48	83	1	0	132	6	37	7	1	51	3	15	6	1	25	4	64	20	0	88	296
07:45 AM	39	105	0	1	145	8	53	9	2	72	10	16	8	0	34	4	81	26	2	113	364
Total	132	315	2	1	450	19	150	24	4	197	26	53	23	1	103	10	244	70	4	328	1078
08:00 AM	48	122	0	1	171	8	47	8	2	65	13	17	11	5	46	2	93	15	0	110	392
08:15 AM	40	127	0	0	167	3	60	14	1	78	18	23	10	0	51	7	89	14	0	110	406
08:30 AM	45	114	0	0	159	5	58	11	0	74	5	13	4	3	25	4	78	13	2	97	355
08:45 AM	38	100	1	0	139	9	60	9	3	81	14	23	12	0	49	2	85	10	1	98	367
Total	171	463	1	1	636	25	225	42	6	298	50	76	37	8	171	15	345	52	3	415	1520
Grand Total	303	778	3	2	1086	44	375	66	10	495	76	129	60	9	274	25	589	122	7	743	2598
Apprch %	27.9	71.6	0.3	0.2		8.9	75.8	13.3	2		27.7	47.1	21.9	3.3		3.4	79.3	16.4	0.9		
Total %	11.7	29.9	0.1	0.1	41.8	1.7	14.4	2.5	0.4	19.1	2.9	5	2.3	0.3	10.5	1	22.7	4.7	0.3	28.6	
Unshifted	299	770	3	2	1074	42	359	64	10	475	70	126	58	9	263	22	564	107	7	700	2512
% Unshifted	98.7	99	100	100	98.9	95.5	95.7	97	100	96	92.1	97.7	96.7	100	96	88	95.8	87.7	100	94.2	96.7
Bank 1	4	8	0	0	12	2	16	2	0	20	6	3	2	0	11	3	25	15	0	43	86
% Bank 1	1.3	1	0	0	1.1	4.5	4.3	3	0	4	7.9	2.3	3.3	0	4	12	4.2	12.3	0	5.8	3.3

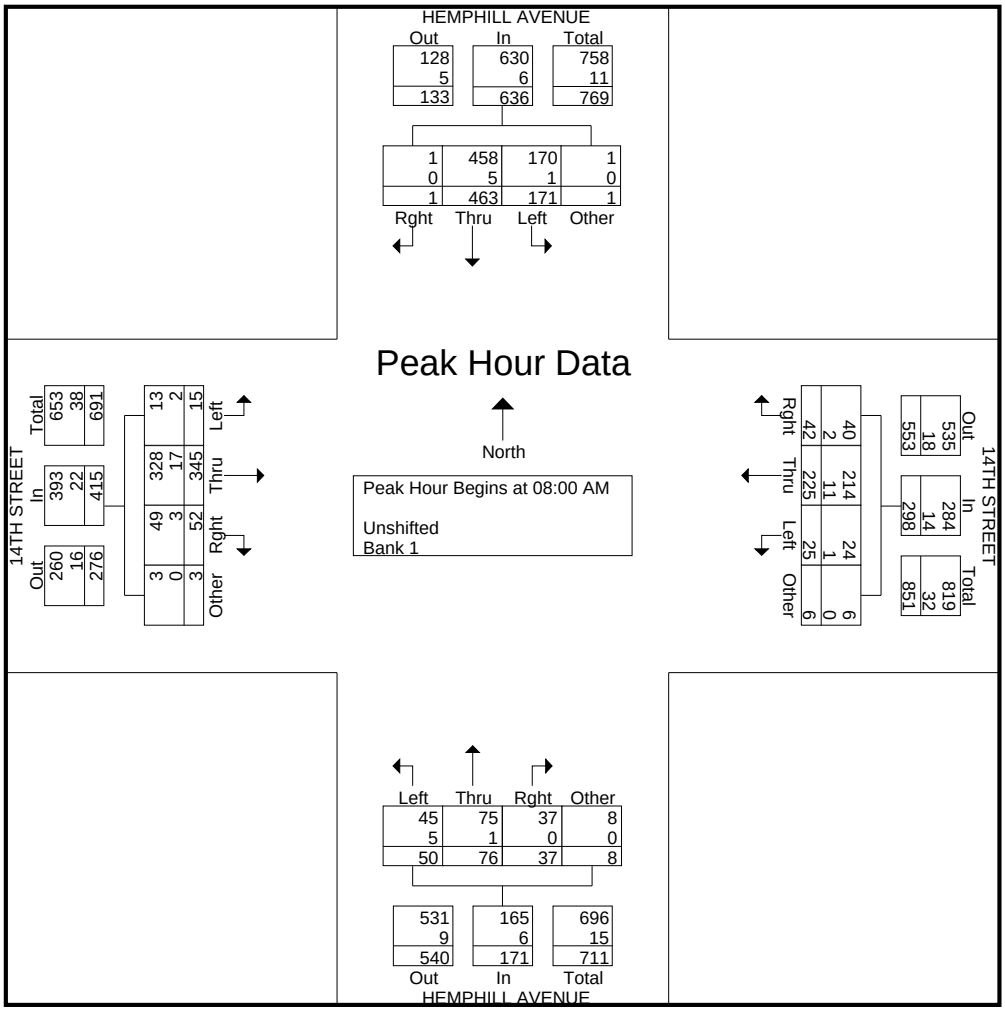


All Traffic Data Services, Inc

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

File Name : HemphillAve@14thStAM
Site Code : 00000000
Start Date : 4/2/2008

	HEMPHILL AVENUE Southbound					14TH STREET Westbound					HEMPHILL AVENUE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	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	**48**	122	0	**1**	**171**	8	47	8	2	65	13	17	11	**5**	46	2	**93**	**15**	0	**110**	392
08:15 AM	40	**127**	0	0	167	3	**60**	**14**	1	78	**18**	**23**	10	0	**51**	**7**	89	14	0	110	**406**
08:30 AM	45	114	0	0	159	5	58	11	0	74	5	13	4	3	25	4	78	13	**2**	97	355
08:45 AM	38	100	**1**	0	139	**9**	60	9	**3**	**81**	14	23	**12**	0	49	2	85	10	1	98	367
Total Volume	171	463	1	1	636	25	225	42	6	298	50	76	37	8	171	15	345	52	3	415	1520
% App. Total	26.9	72.8	0.2	0.2		8.4	75.5	14.1	2		29.2	44.4	21.6	4.7		3.6	83.1	12.5	0.7		
PHF	.891	.911	.250	.250	.930	.694	.938	.750	.500	.920	.694	.826	.771	.400	.838	.536	.927	.867	.375	.943	.936
Unshifted	170	458	1	1	630	24	214	40	6	284	45	75	37	8	165	13	328	49	3	393	1472
% Unshifted																					
Bank 1	1	5	0	0	6	1	11	2	0	14	5	1	0	0	6	2	17	3	0	22	48
% Bank 1	0.6	1.1	0	0	0.9	4.0	4.9	4.8	0	4.7	10.0	1.3	0	0	3.5	13.3	4.9	5.8	0	5.3	3.2



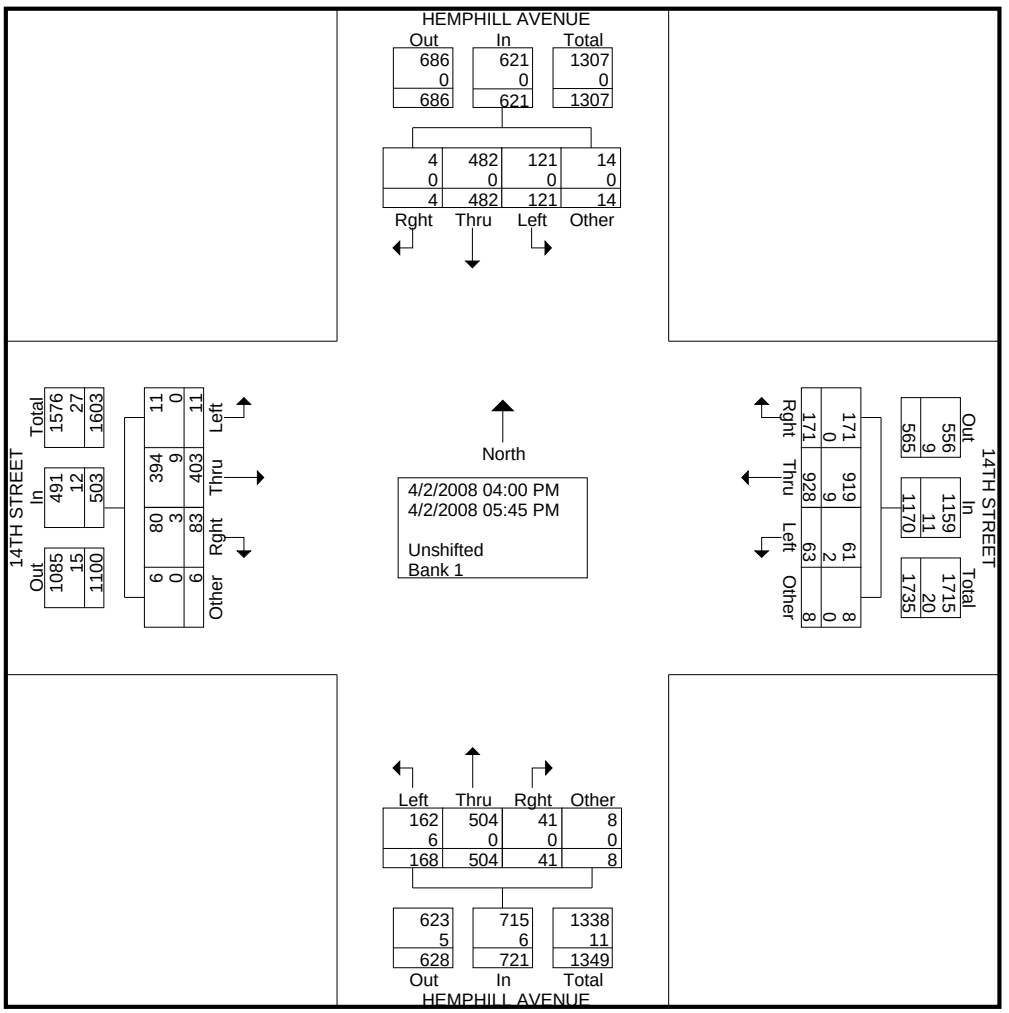
All Traffic Data Services, Inc

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

File Name : HemphillAve@14thStPM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 1

Groups Printed- Unshifted - Bank 1

	HEMPHILL AVENUE Southbound					14TH STREET Westbound					HEMPHILL AVENUE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	24	47	1	4	76	7	78	32	0	117	13	54	6	0	73	4	49	12	1	66	332
04:15 PM	14	60	0	2	76	7	94	13	2	116	21	60	8	2	91	1	46	11	1	59	342
04:30 PM	16	50	0	5	71	7	96	20	1	124	14	66	6	2	88	2	46	13	0	61	344
04:45 PM	9	35	0	2	46	6	132	21	1	160	22	59	3	1	85	1	56	6	2	65	356
Total	63	192	1	13	269	27	400	86	4	517	70	239	23	5	337	8	197	42	4	251	1374
05:00 PM	16	63	2	1	82	4	121	19	1	145	27	70	4	0	101	0	58	11	1	70	398
05:15 PM	21	63	0	0	84	13	121	16	3	153	26	60	4	2	92	1	51	9	1	62	391
05:30 PM	11	71	0	0	82	5	164	18	0	187	22	66	3	0	91	2	44	10	0	56	416
05:45 PM	10	93	1	0	104	14	122	32	0	168	23	69	7	1	100	0	53	11	0	64	436
Total	58	290	3	1	352	36	528	85	4	653	98	265	18	3	384	3	206	41	2	252	1641
Grand Total	121	482	4	14	621	63	928	171	8	1170	168	504	41	8	721	11	403	83	6	503	3015
Apprch %	19.5	77.6	0.6	2.3		5.4	79.3	14.6	0.7		23.3	69.9	5.7	1.1		2.2	80.1	16.5	1.2		
Total %	4	16	0.1	0.5	20.6	2.1	30.8	5.7	0.3	38.8	5.6	16.7	1.4	0.3	23.9	0.4	13.4	2.8	0.2	16.7	
Unshifted	121	482	4	14	621	61	919	171	8	1159	162	504	41	8	715	11	394	80	6	491	2986
% Unshifted	100	100	100	100	100	96.8	99	100	100	99.1	96.4	100	100	100	99.2	100	97.8	96.4	100	97.6	99
Bank 1	0	0	0	0	0	2	9	0	0	11	6	0	0	0	6	0	9	3	0	12	29
% Bank 1	0	0	0	0	0	3.2	1	0	0	0.9	3.6	0	0	0	0.8	0	2.2	3.6	0	2.4	1

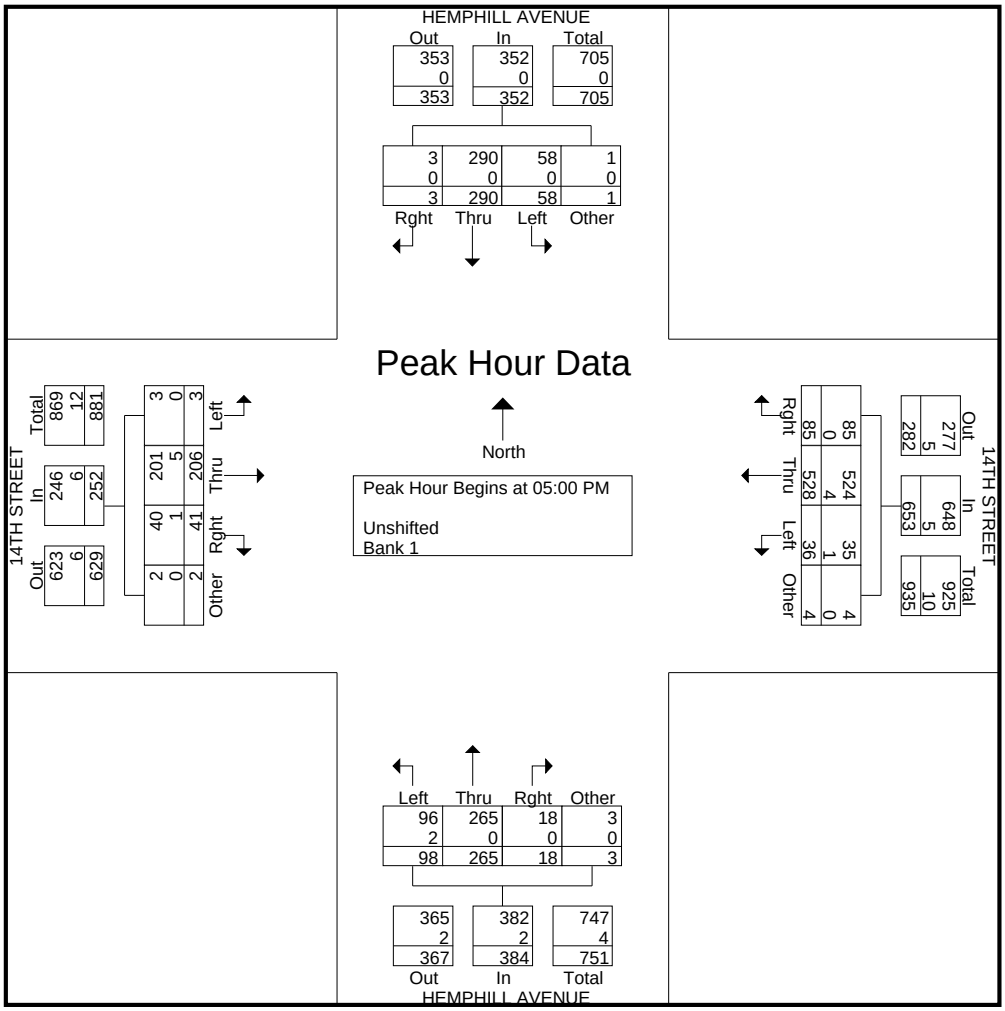


All Traffic Data Services, Inc

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

File Name : HemphillAve@14thStPM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 2

	HEMPHILL AVENUE Southbound					14TH STREET Westbound					HEMPHILL AVENUE Northbound					14TH STREET Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	16	63	**2**	**1**	82	4	121	19	1	145	**27**	**70**	4	0	**101**	0	**58**	**11**	**1**	**70**	398
05:15 PM	**21**	63	0	0	84	13	121	16	**3**	153	26	60	4	**2**	92	1	51	9	1	62	391
05:30 PM	11	71	0	0	82	5	**164**	18	0	**187**	22	66	3	0	91	**2**	44	10	0	56	416
05:45 PM	10	**93**	1	0	**104**	**14**	122	**32**	0	168	23	69	**7**	1	100	0	53	11	0	64	**436**
Total Volume	58	290	3	1	352	36	528	85	4	653	98	265	18	3	384	3	206	41	2	252	1641
% App. Total	16.5	82.4	0.9	0.3		5.5	80.9	13	0.6		25.5	69	4.7	0.8		1.2	81.7	16.3	0.8		
PHF	.690	.780	.375	.250	.846	.643	.805	.664	.333	.873	.907	.946	.643	.375	.950	.375	.888	.932	.500	.900	.941
Unshifted	58	290	3	1	352	35	524	85	4	648	96	265	18	3	382	3	201	40	2	246	1628
% Unshifted																					
Bank 1	0	0	0	0	0	1	4	0	0	5	2	0	0	0	2	0	5	1	0	6	13
% Bank 1	0	0	0	0	0	2.8	0.8	0	0	0.8	2.0	0	0	0	0.5	0	2.4	2.4	0	2.4	0.8



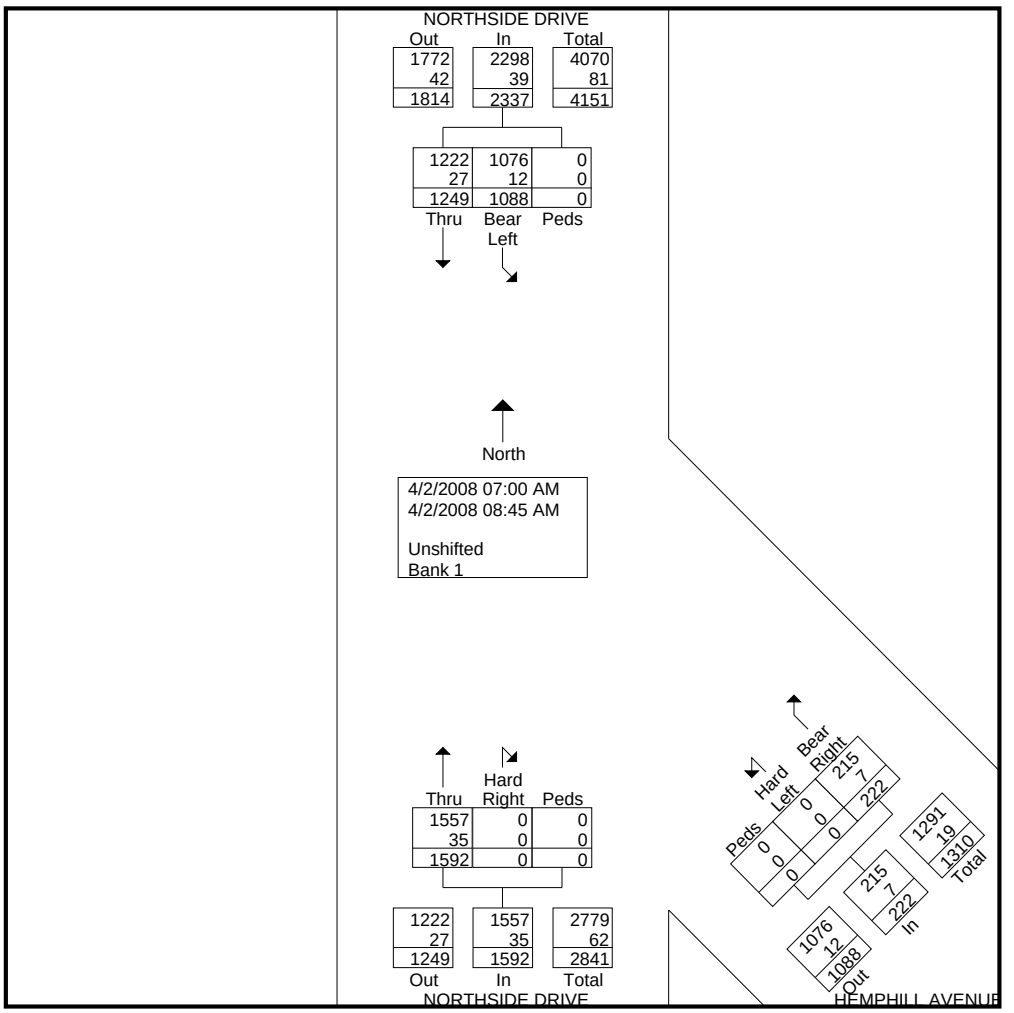
All Traffic Data Services, Inc

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

File Name : HemphillAve@NSideDrAM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 1

Groups Printed- Unshifted - Bank 1

	NORTHSIDE DRIVE Southbound				HEMPHILL AVENUE Northwestbound				NORTHSIDE DRIVE Northbound				
Start Time	Bear Left	Thru	Peds	App. Total	Hard Left	Bear Right	Peds	App. Total	Thru	Hard Right	Peds	App. Total	Int. Total
07:00 AM	96	129	0	225	0	16	0	16	132	0	0	132	373
07:15 AM	79	150	0	229	0	15	0	15	178	0	0	178	422
07:30 AM	132	175	0	307	0	27	0	27	222	0	0	222	556
07:45 AM	149	154	0	303	0	31	0	31	204	0	0	204	538
Total	456	608	0	1064	0	89	0	89	736	0	0	736	1889
08:00 AM	172	168	0	340	0	26	0	26	199	0	0	199	565
08:15 AM	169	143	0	312	0	40	0	40	251	0	0	251	603
08:30 AM	155	181	0	336	0	31	0	31	201	0	0	201	568
08:45 AM	136	149	0	285	0	36	0	36	205	0	0	205	526
Total	632	641	0	1273	0	133	0	133	856	0	0	856	2262
Grand Total	1088	1249	0	2337	0	222	0	222	1592	0	0	1592	4151
Apprch %	46.6	53.4	0		0	100	0		100	0	0		
Total %	26.2	30.1	0	56.3	0	5.3	0	5.3	38.4	0	0	38.4	
Unshifted	1076	1222	0	2298	0	215	0	215	1557	0	0	1557	4070
% Unshifted	98.9	97.8	0	98.3	0	96.8	0	96.8	97.8	0	0	97.8	98
Bank 1	12	27	0	39	0	7	0	7	35	0	0	35	81
% Bank 1	1.1	2.2	0	1.7	0	3.2	0	3.2	2.2	0	0	2.2	2

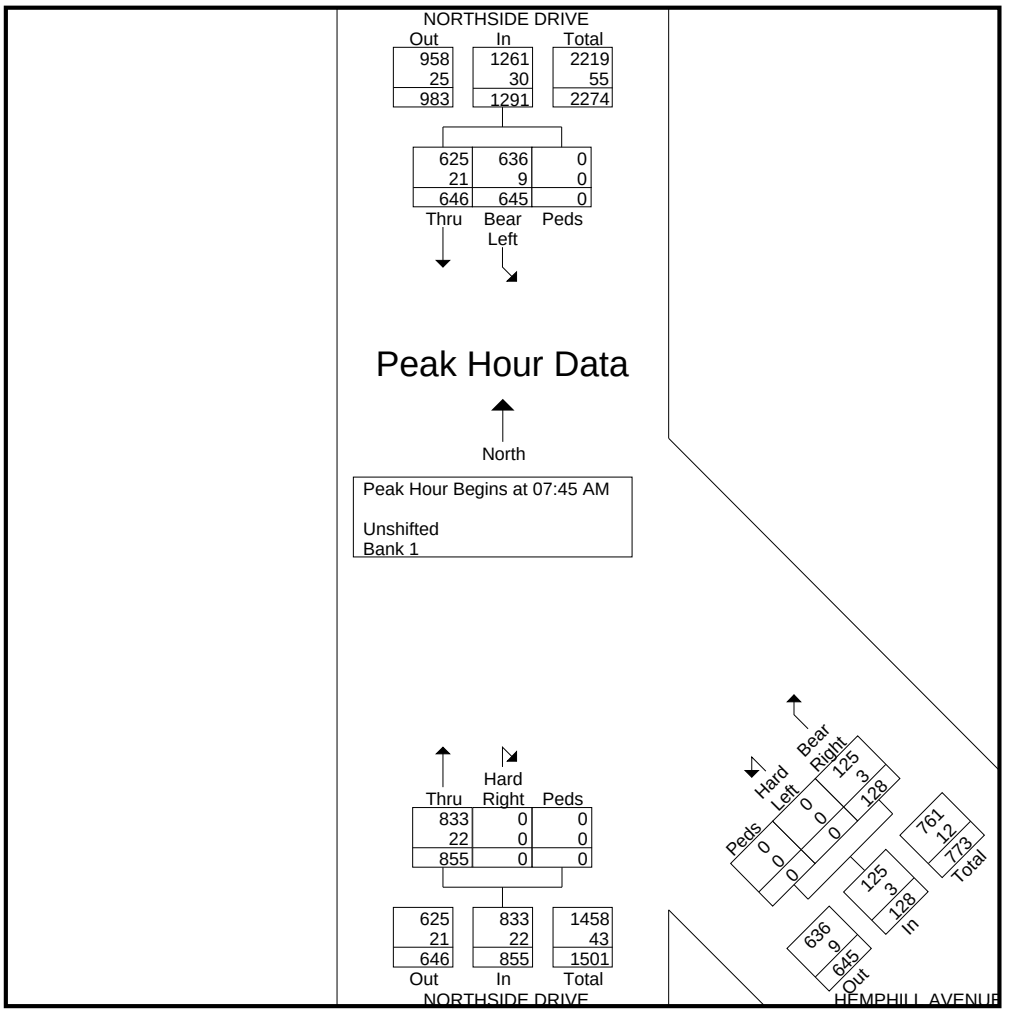


All Traffic Data Services, Inc

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

File Name : HemphillAve@NSideDrAM
Site Code : 00000000
Start Date : 4/2/2008

	NORTHSIDE DRIVE Southbound				HEMPHILL AVENUE Northwestbound				NORTHSIDE DRIVE Northbound				
Start Time	Bear Left	Thru	Peds	App. Total	Hard Left	Bear Right	Peds	App. Total	Thru	Hard 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	149	154	0	303	0	31	0	31	204	0	0	204	538
08:00 AM	**172**	168	0	**340**	0	26	0	26	199	0	0	199	565
08:15 AM	169	143	0	312	0	**40**	0	**40**	**251**	0	0	**251**	**603**
08:30 AM	155	**181**	0	336	0	31	0	31	201	0	0	201	568
Total Volume	645	646	0	1291	0	128	0	128	855	0	0	855	2274
% App. Total	50	50	0		0	100	0		100	0	0		
PHF	.938	.892	.000	.949	.000	.800	.000	.800	.852	.000	.000	.852	.943
Unshifted	636	625	0	1261	0	125	0	125	833	0	0	833	2219
% Unshifted	98.6	96.7	0	97.7	0	97.7	0	97.7	97.4	0	0	97.4	97.6
Bank 1	9	21	0	30	0	3	0	3	22	0	0	22	55
% Bank 1	1.4	3.3	0	2.3	0	2.3	0	2.3	2.6	0	0	2.6	2.4



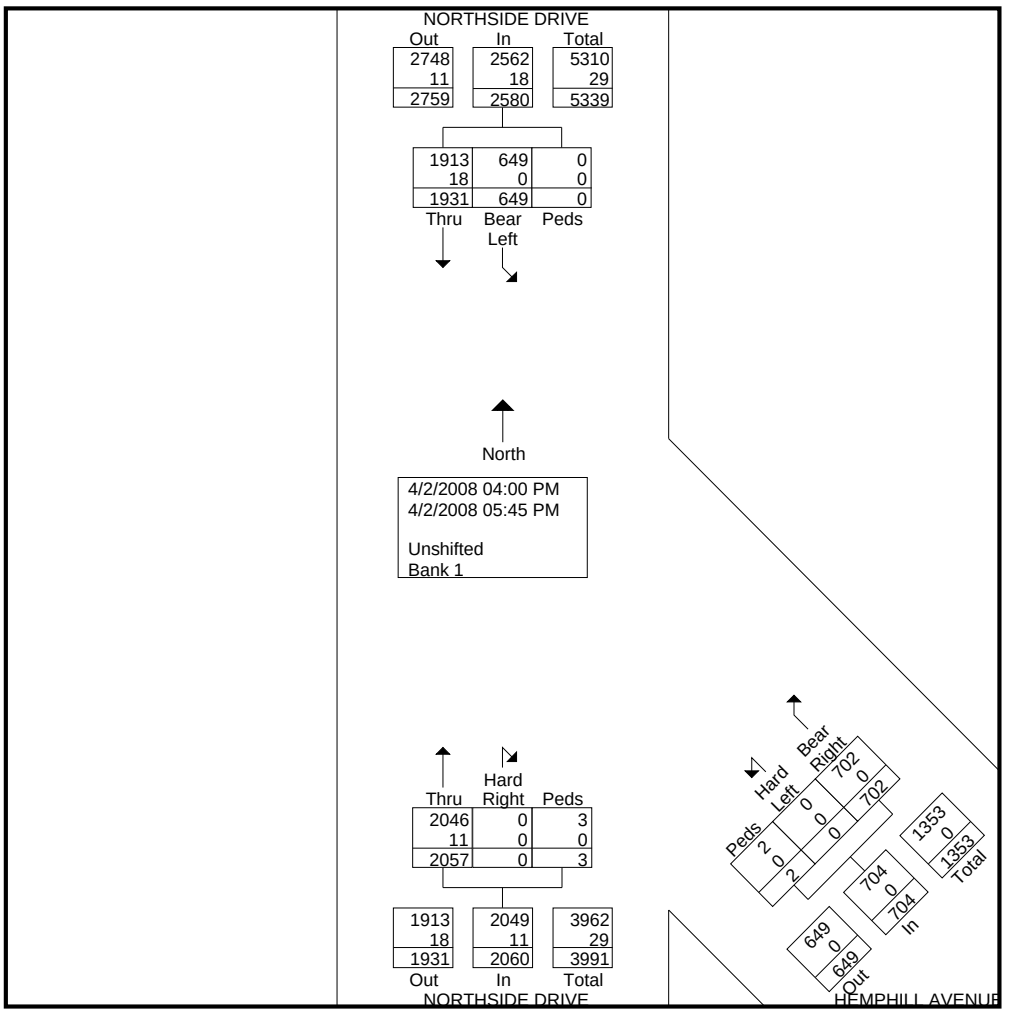
All Traffic Data Services, Inc

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

File Name : HemphillAve@NSideDrPM
Site Code : 00000000
Start Date : 4/2/2008
Page No : 1

Groups Printed- Unshifted - Bank 1

	NORTHSIDE DRIVE Southbound				HEMPHILL AVENUE Northwestbound				NORTHSIDE DRIVE Northbound				
Start Time	Bear Left	Thru	Peds	App. Total	Hard Left	Bear Right	Peds	App. Total	Thru	Hard Right	Peds	App. Total	Int. Total
04:00 PM	76	283	0	359	0	101	0	101	240	0	0	240	700
04:15 PM	78	230	0	308	0	82	0	82	235	0	0	235	625
04:30 PM	80	278	0	358	0	78	2	80	271	0	0	271	709
04:45 PM	58	298	0	356	0	98	0	98	280	0	0	280	734
Total	292	1089	0	1381	0	359	2	361	1026	0	0	1026	2768
05:00 PM	88	240	0	328	0	90	0	90	276	0	0	276	694
05:15 PM	84	267	0	351	0	83	0	83	236	0	3	239	673
05:30 PM	86	156	0	242	0	91	0	91	263	0	0	263	596
05:45 PM	99	179	0	278	0	79	0	79	256	0	0	256	613
Total	357	842	0	1199	0	343	0	343	1031	0	3	1034	2576
Grand Total	649	1931	0	2580	0	702	2	704	2057	0	3	2060	5344
Apprch %	25.2	74.8	0		0	99.7	0.3		99.9	0	0.1		
Total %	12.1	36.1	0	48.3	0	13.1	0	13.2	38.5	0	0.1	38.5	
Unshifted	649	1913	0	2562	0	702	2	704	2046	0	3	2049	5315
% Unshifted	100	99.1	0	99.3	0	100	100	100	99.5	0	100	99.5	99.5
Bank 1	0	18	0	18	0	0	0	0	11	0	0	11	29
% Bank 1	0	0.9	0	0.7	0	0	0	0	0.5	0	0	0.5	0.5

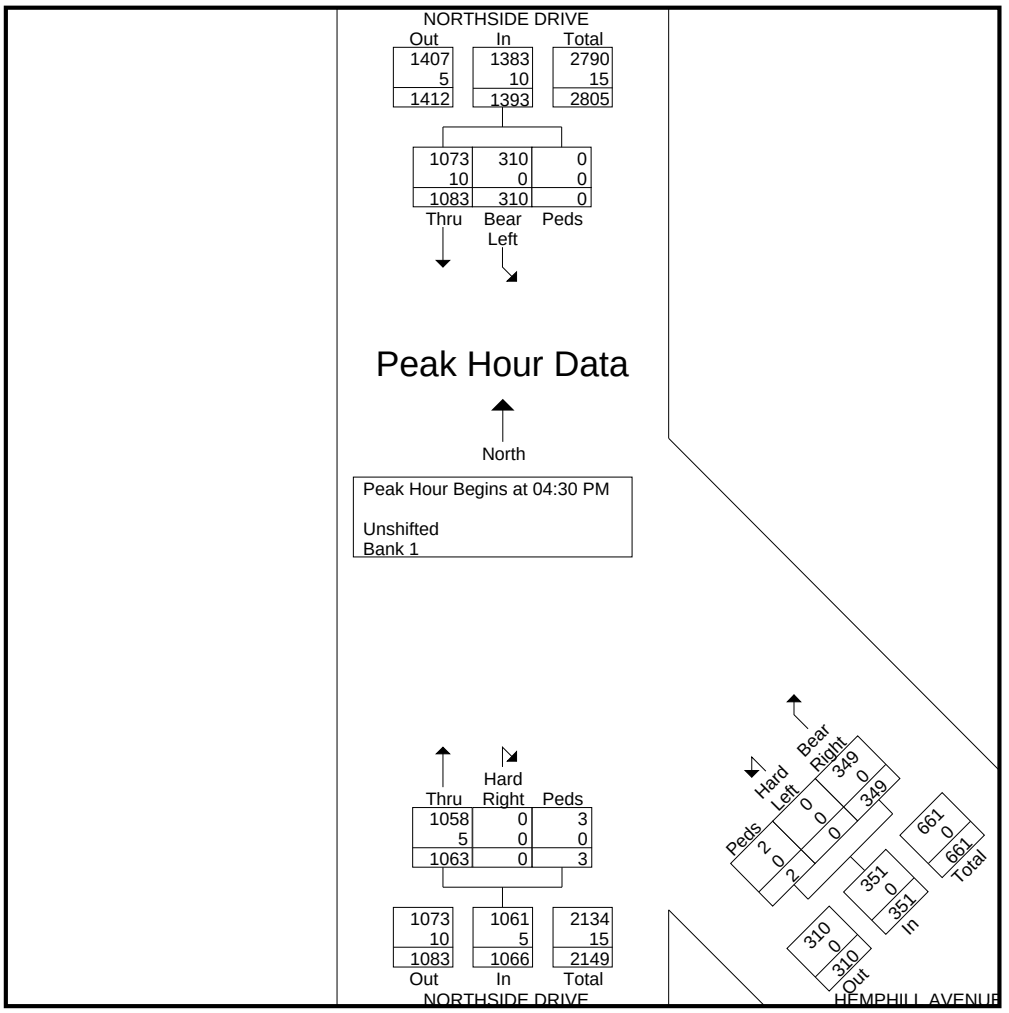


All Traffic Data Services, Inc

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

File Name : HemphillAve@NSideDrPM
Site Code : 00000000
Start Date : 4/2/2008

	NORTHSIDE DRIVE Southbound				HEMPHILL AVENUE Northwestbound				NORTHSIDE DRIVE Northbound				
Start Time	Bear Left	Thru	Peds	App. Total	Hard Left	Bear Right	Peds	App. Total	Thru	Hard 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	80	278	0	**358**	0	78	**2**	80	271	0	0	271	709
04:45 PM	58	**298**	0	356	0	**98**	0	**98**	**280**	0	0	**280**	**734**
05:00 PM	**88**	240	0	328	0	90	0	90	276	0	0	276	694
05:15 PM	84	267	0	351	0	83	0	83	236	0	**3**	239	673
Total Volume	310	1083	0	1393	0	349	2	351	1063	0	3	1066	2810
% App. Total	22.3	77.7	0		0	99.4	0.6		99.7	0	0.3		
PHF	.881	.909	.000	.973	.000	.890	.250	.895	.949	.000	.250	.952	.957
Unshifted	310	1073	0	1383	0	349	2	351	1058	0	3	1061	2795
% Unshifted	100	99.1	0	99.3	0	100	100	100	99.5	0	100	99.5	99.5
Bank 1	0	10	0	10	0	0	0	0	5	0	0	5	15
% Bank 1	0	0.9	0	0.7	0	0	0	0	0.5	0	0	0.5	0.5



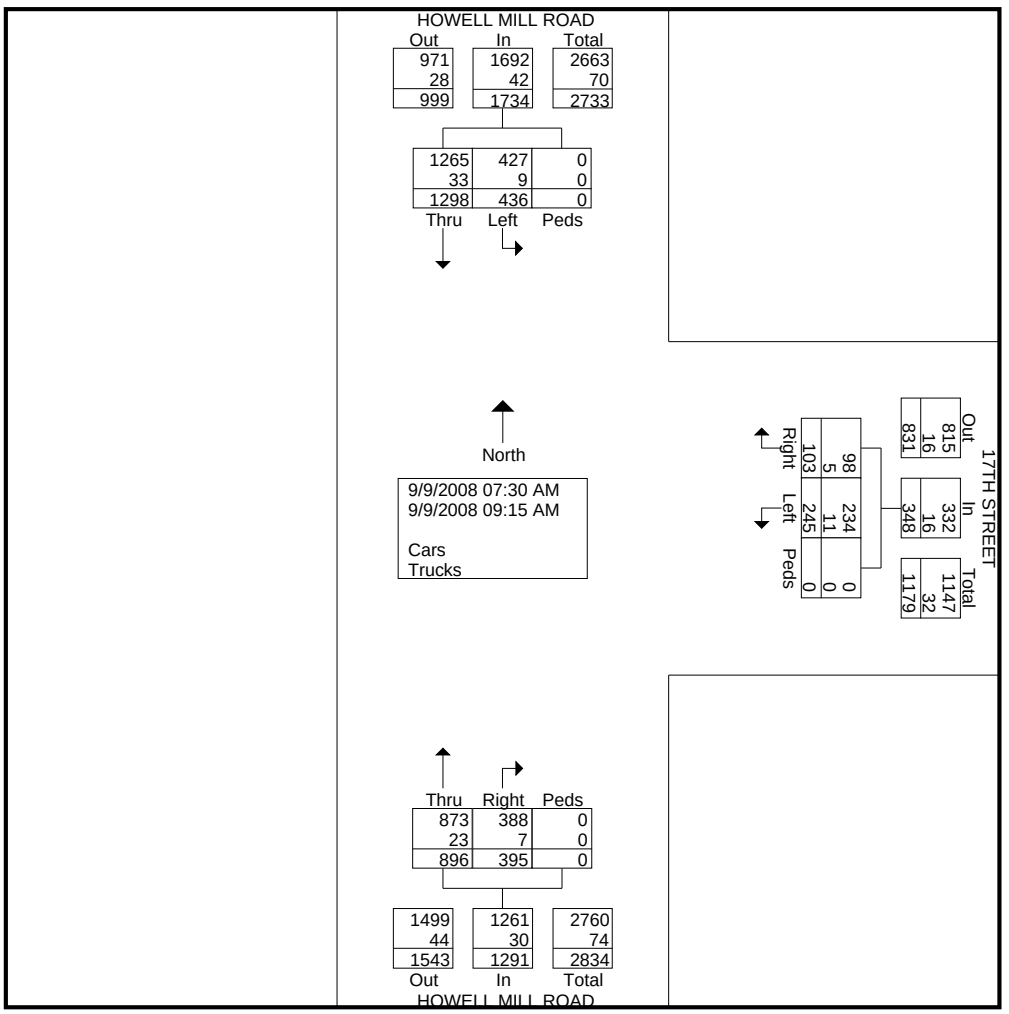
All Traffic Data Services, Inc

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

File Name : HowellMill@17thStreetAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound				17TH STREET Westbound				HOWELL MILL ROAD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:30 AM	50	142	0	192	27	9	0	36	99	54	0	153	381
07:45 AM	47	166	0	213	31	11	0	42	110	57	0	167	422
Total	97	308	0	405	58	20	0	78	209	111	0	320	803
08:00 AM	60	138	0	198	38	12	0	50	125	47	0	172	420
08:15 AM	68	127	0	195	25	10	0	35	110	62	0	172	402
08:30 AM	67	179	0	246	27	14	0	41	122	57	0	179	466
08:45 AM	68	202	0	270	34	13	0	47	118	43	0	161	478
Total	263	646	0	909	124	49	0	173	475	209	0	684	1766
09:00 AM	41	190	0	231	29	15	0	44	111	43	0	154	429
09:15 AM	35	154	0	189	34	19	0	53	101	32	0	133	375
Grand Total	436	1298	0	1734	245	103	0	348	896	395	0	1291	3373
Apprch %	25.1	74.9	0		70.4	29.6	0		69.4	30.6	0		
Total %	12.9	38.5	0	51.4	7.3	3.1	0	10.3	26.6	11.7	0	38.3	
Cars	427	1265	0	1692	234	98	0	332	873	388	0	1261	3285
% Cars	97.9	97.5	0	97.6	95.5	95.1	0	95.4	97.4	98.2	0	97.7	97.4
Trucks	9	33	0	42	11	5	0	16	23	7	0	30	88
% Trucks	2.1	2.5	0	2.4	4.5	4.9	0	4.6	2.6	1.8	0	2.3	2.6

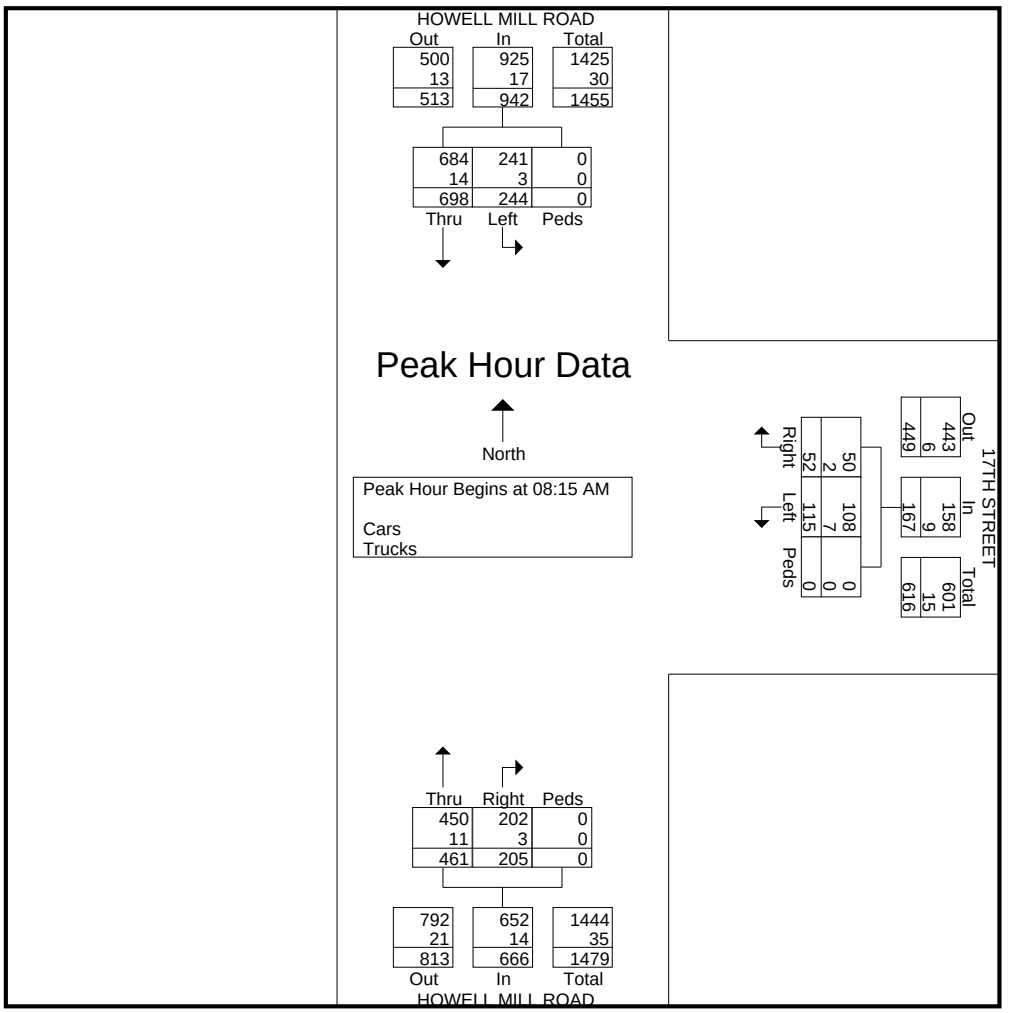


All Traffic Data Services, Inc

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

File Name : HowellMill@17thStreetAM
Site Code : 00000000
Start Date : 9/9/2008

	HOWELL MILL ROAD Southbound				17TH STREET Westbound				HOWELL MILL ROAD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:15 AM													
08:15 AM	**68**	127	0	195	25	10	0	35	110	**62**	0	172	402
08:30 AM	67	179	0	246	27	14	0	41	**122**	57	0	**179**	466
08:45 AM	68	**202**	0	**270**	**34**	13	0	**47**	118	43	0	161	**478**
09:00 AM	41	190	0	231	29	**15**	0	44	111	43	0	154	429
Total Volume	244	698	0	942	115	52	0	167	461	205	0	666	1775
% App. Total	25.9	74.1	0		68.9	31.1	0		69.2	30.8	0		
PHF	.897	.864	.000	.872	.846	.867	.000	.888	.945	.827	.000	.930	.928
Cars	241	684	0	925	108	50	0	158	450	202	0	652	1735
% Cars	98.8	98.0	0	98.2	93.9	96.2	0	94.6	97.6	98.5	0	97.9	97.7
Trucks	3	14	0	17	7	2	0	9	11	3	0	14	40
% Trucks	1.2	2.0	0	1.8	6.1	3.8	0	5.4	2.4	1.5	0	2.1	2.3



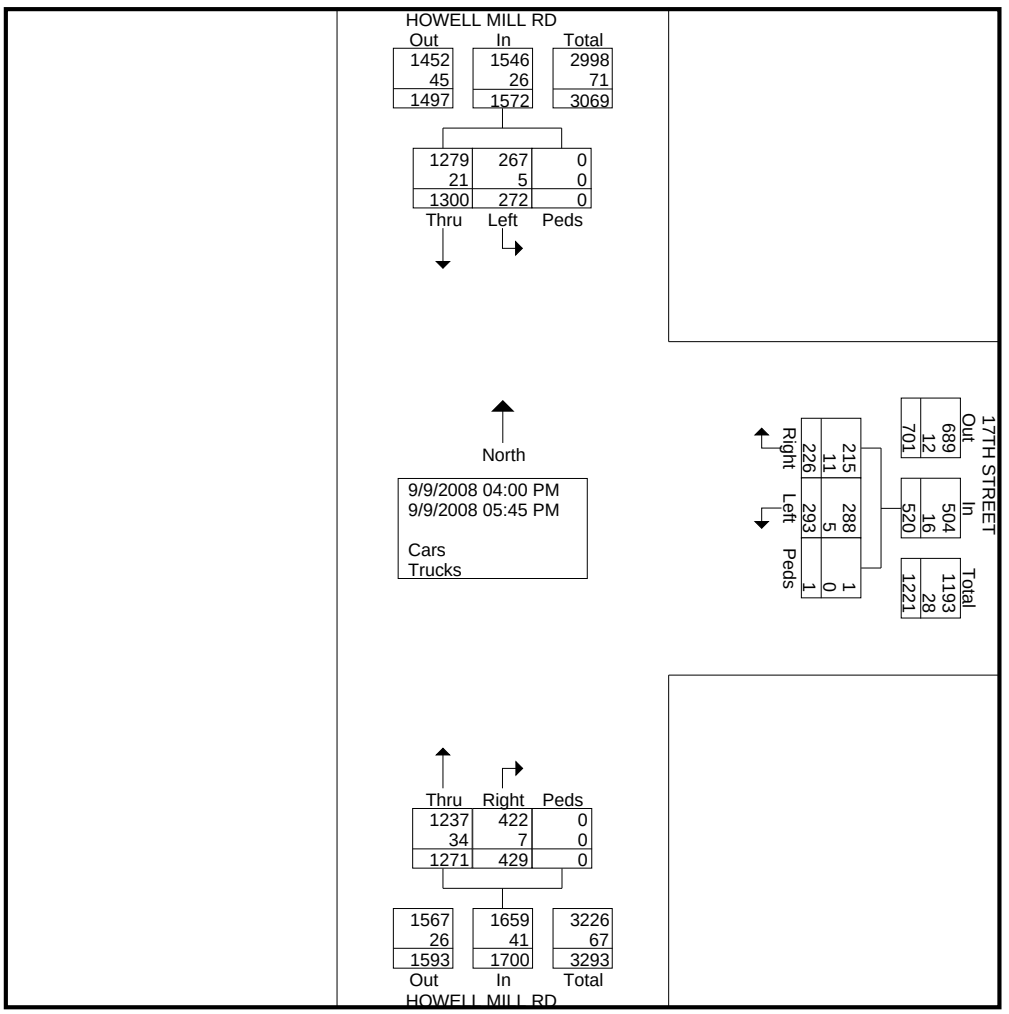
All Traffic Data Services, Inc

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

File Name : HowellMill@17thStreetPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL RD Southbound				17TH STREET Westbound				HOWELL MILL RD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	24	145	0	169	40	22	0	62	125	34	0	159	390
04:15 PM	34	142	0	176	38	19	0	57	126	59	0	185	418
04:30 PM	29	145	0	174	40	45	0	85	163	53	0	216	475
04:45 PM	37	136	0	173	46	28	1	75	179	40	0	219	467
Total	124	568	0	692	164	114	1	279	593	186	0	779	1750
05:00 PM	16	174	0	190	36	20	0	56	168	49	0	217	463
05:15 PM	37	185	0	222	34	23	0	57	204	65	0	269	548
05:30 PM	61	176	0	237	26	33	0	59	153	63	0	216	512
05:45 PM	34	197	0	231	33	36	0	69	153	66	0	219	519
Total	148	732	0	880	129	112	0	241	678	243	0	921	2042
Grand Total	272	1300	0	1572	293	226	1	520	1271	429	0	1700	3792
Apprch %	17.3	82.7	0		56.3	43.5	0.2		74.8	25.2	0		
Total %	7.2	34.3	0	41.5	7.7	6	0	13.7	33.5	11.3	0	44.8	
Cars	267	1279	0	1546	288	215	1	504	1237	422	0	1659	3709
% Cars	98.2	98.4	0	98.3	98.3	95.1	100	96.9	97.3	98.4	0	97.6	97.8
Trucks	5	21	0	26	5	11	0	16	34	7	0	41	83
% Trucks	1.8	1.6	0	1.7	1.7	4.9	0	3.1	2.7	1.6	0	2.4	2.2

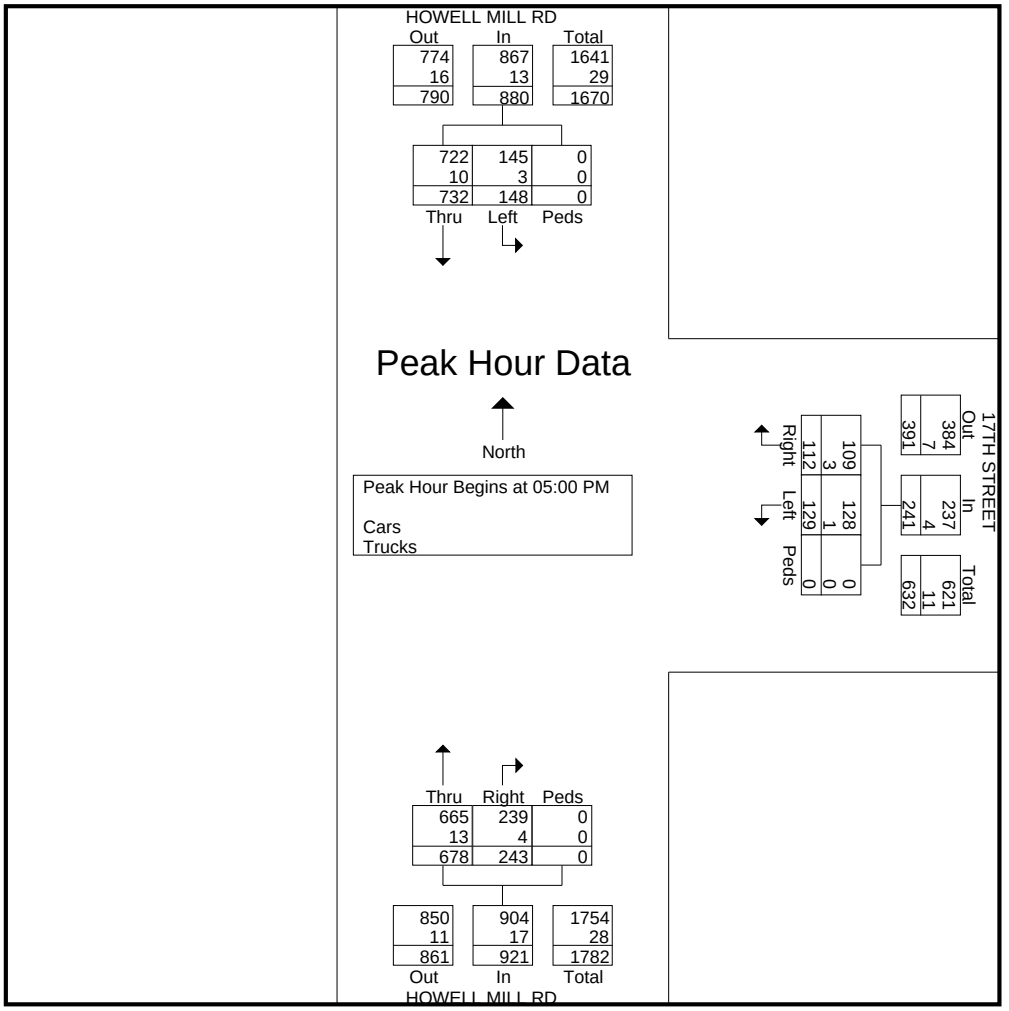


All Traffic Data Services, Inc

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

File Name : HowellMill@17thStreetPM
Site Code : 00000000
Start Date : 9/9/2008

	HOWELL MILL RD Southbound				17TH STREET Westbound				HOWELL MILL RD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	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	16	174	0	190	**36**	20	0	56	168	49	0	217	463
05:15 PM	37	185	0	222	34	23	0	57	**204**	65	0	**269**	**548**
05:30 PM	**61**	176	0	**237**	26	33	0	59	153	63	0	216	512
05:45 PM	34	**197**	0	231	33	**36**	0	**69**	153	**66**	0	219	519
Total Volume	148	732	0	880	129	112	0	241	678	243	0	921	2042
% App. Total	16.8	83.2	0		53.5	46.5	0		73.6	26.4	0		
PHF	.607	.929	.000	.928	.896	.778	.000	.873	.831	.920	.000	.856	.932
Cars	145	722	0	867	128	109	0	237	665	239	0	904	2008
% Cars	98.0	98.6	0	98.5	99.2	97.3	0	98.3	98.1	98.4	0	98.2	98.3
Trucks	3	10	0	13	1	3	0	4	13	4	0	17	34
% Trucks	2.0	1.4	0	1.5	0.8	2.7	0	1.7	1.9	1.6	0	1.8	1.7



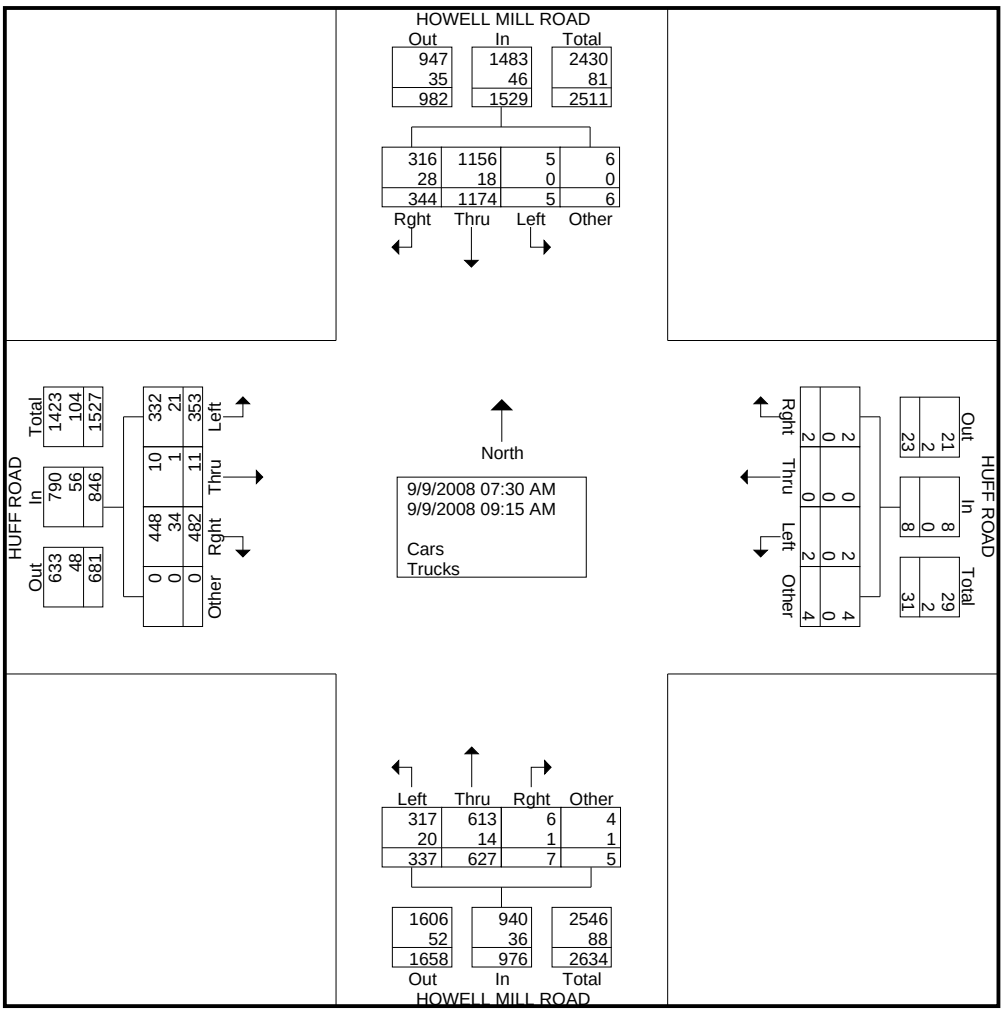
All Traffic Data Services, Inc

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

File Name : HowellMill@HuffRdAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound					HUFF ROAD Westbound					HOWELL MILL ROAD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:30 AM	0	139	29	0	168	1	0	2	1	4	37	80	0	0	117	38	2	46	0	86	375
07:45 AM	0	143	41	3	187	0	0	0	0	0	50	78	0	0	128	41	2	58	0	101	416
Total	0	282	70	3	355	1	0	2	1	4	87	158	0	0	245	79	4	104	0	187	791
08:00 AM	1	120	49	0	170	0	0	0	1	1	50	68	1	0	119	47	3	66	0	116	406
08:15 AM	0	119	69	0	188	1	0	0	0	1	68	91	0	0	159	57	1	54	0	112	460
08:30 AM	1	177	34	2	214	0	0	0	2	2	38	63	2	3	106	51	0	56	0	107	429
08:45 AM	1	189	25	1	216	0	0	0	0	0	38	92	1	2	133	43	0	66	0	109	458
Total	3	605	177	3	788	1	0	0	3	4	194	314	4	5	517	198	4	242	0	444	1753
09:00 AM	0	164	45	0	209	0	0	0	0	0	22	80	0	0	102	34	3	68	0	105	416
09:15 AM	2	123	52	0	177	0	0	0	0	0	34	75	3	0	112	42	0	68	0	110	399
Grand Total	5	1174	344	6	1529	2	0	2	4	8	337	627	7	5	976	353	11	482	0	846	3359
Apprch %	0.3	76.8	22.5	0.4		25	0	25	50		34.5	64.2	0.7	0.5		41.7	1.3	57	0		
Total %	0.1	35	10.2	0.2	45.5	0.1	0	0.1	0.1	0.2	10	18.7	0.2	0.1	29.1	10.5	0.3	14.3	0	25.2	
Cars	5	1156	316	6	1483	2	0	2	4	8	317	613	6	4	940	332	10	448	0	790	3221
% Cars	100	98.5	91.9	100	97	100	0	100	100	100	94.1	97.8	85.7	80	96.3	94.1	90.9	92.9	0	93.4	95.9
Trucks	0	18	28	0	46	0	0	0	0	0	20	14	1	1	36	21	1	34	0	56	138
% Trucks	0	1.5	8.1	0	3	0	0	0	0	0	5.9	2.2	14.3	20	3.7	5.9	9.1	7.1	0	6.6	4.1

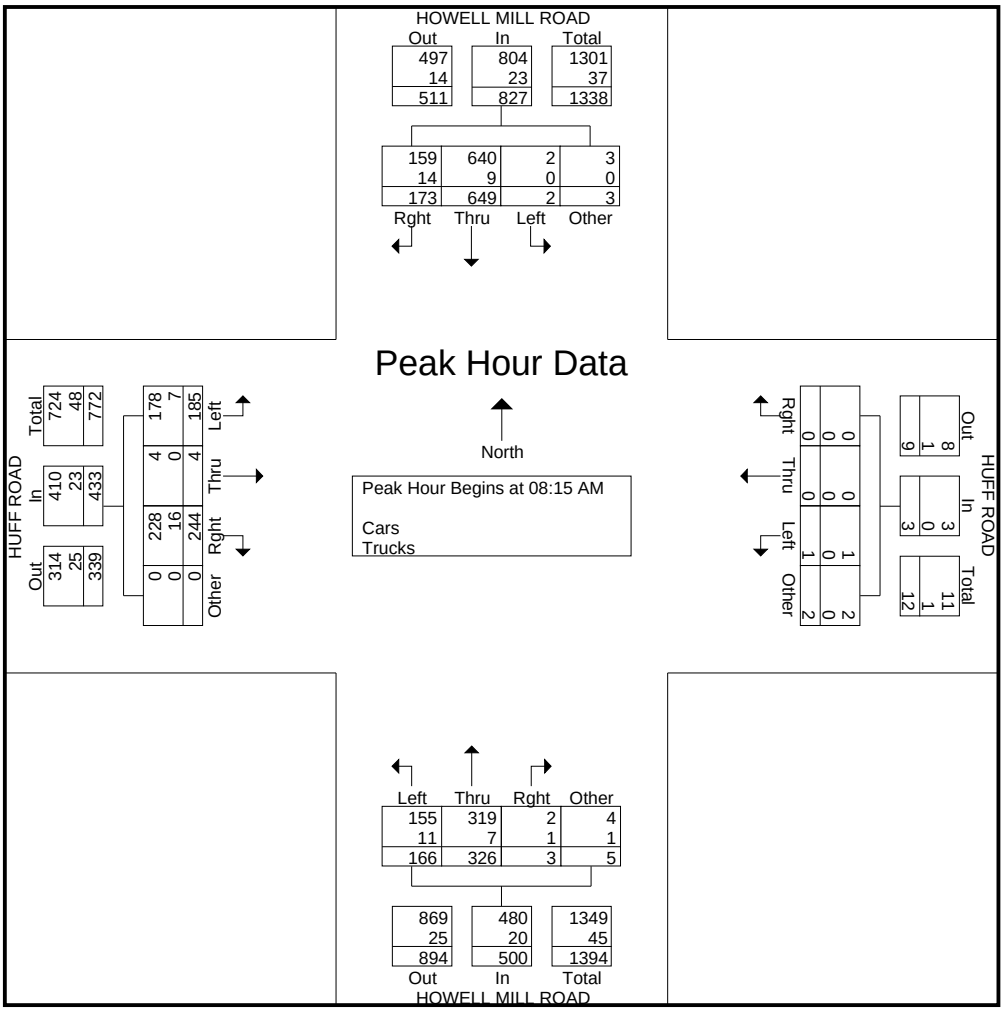


All Traffic Data Services, Inc

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

File Name : HowellMill@HuffRdAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	HOWELL MILL ROAD Southbound					HUFF ROAD Westbound					HOWELL MILL ROAD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	0	119	**69**	0	188	**1**	0	0	0	1	**68**	91	0	0	**159**	**57**	1	54	0	**112**	**460**
08:30 AM	**1**	177	34	**2**	214	0	0	0	**2**	**2**	38	63	**2**	**3**	106	51	0	56	0	107	429
08:45 AM	1	**189**	25	1	**216**	0	0	0	0	0	38	**92**	1	2	133	43	0	66	0	109	458
09:00 AM	0	164	45	0	209	0	0	0	0	0	22	80	0	0	102	34	**3**	**68**	0	105	416
Total Volume	2	649	173	3	827	1	0	0	2	3	166	326	3	5	500	185	4	244	0	433	1763
% App. Total	0.2	78.5	20.9	0.4		33.3	0	0	66.7		33.2	65.2	0.6	1		42.7	0.9	56.4	0		
PHF	.500	.858	.627	.375	.957	.250	.000	.000	.250	.375	.610	.886	.375	.417	.786	.811	.333	.897	.000	.967	.958
Cars	2	640	159	3	804	1	0	0	2	3	155	319	2	4	480	178	4	228	0	410	1697
% Cars	100	98.6	91.9	100	97.2	100	0	0	100	100	93.4	97.9	66.7	80.0	96.0	96.2	100	93.4	0	94.7	96.3
Trucks	0	9	14	0	23	0	0	0	0	0	11	7	1	1	20	7	0	16	0	23	66
% Trucks	0	1.4	8.1	0	2.8	0	0	0	0	0	6.6	2.1	33.3	20.0	4.0	3.8	0	6.6	0	5.3	3.7



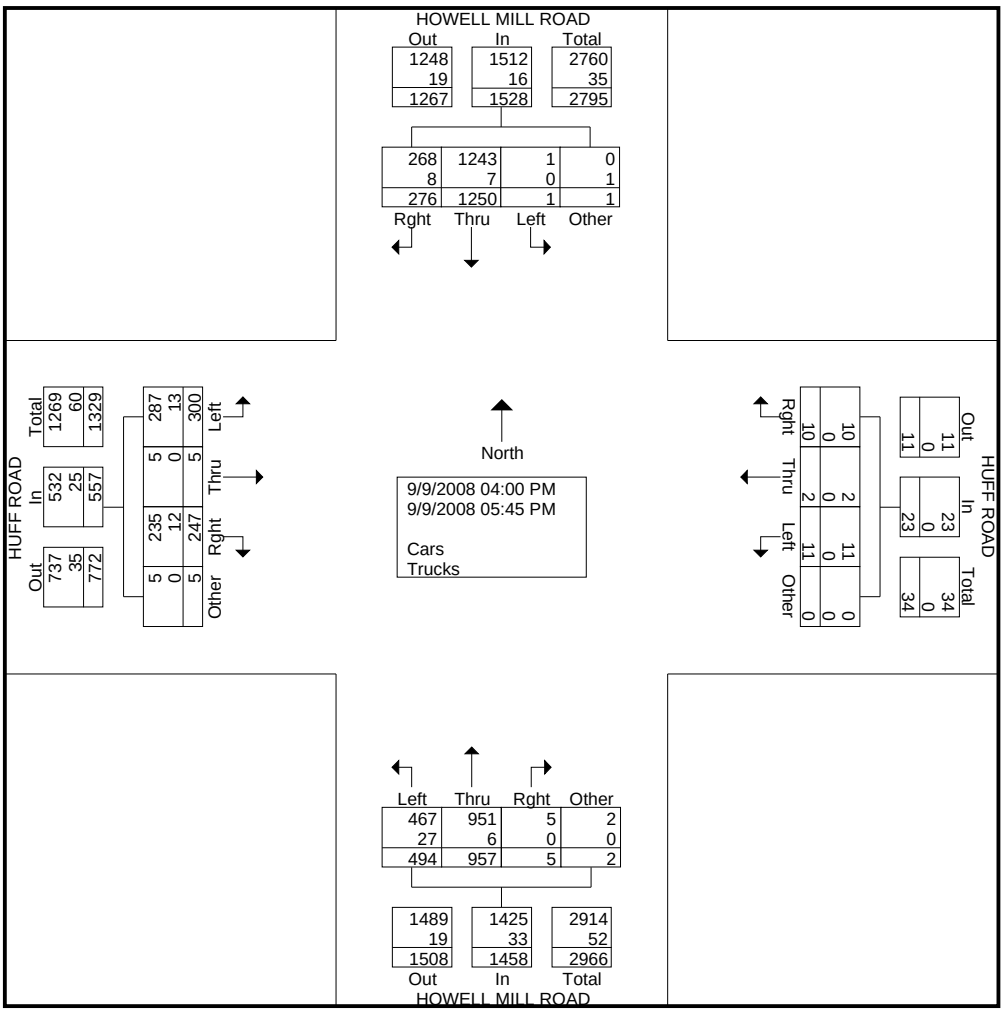
All Traffic Data Services, Inc

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

File Name : HowellMill@HuffRdPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	HOWELL MILL ROAD Southbound					HUFF ROAD Westbound					HOWELL MILL ROAD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	0	116	33	0	149	6	0	2	0	8	55	91	0	0	146	46	1	45	0	92	395
04:15 PM	0	136	35	1	172	2	1	0	0	3	47	100	0	1	148	46	1	33	3	83	406
04:30 PM	0	121	34	0	155	0	0	2	0	2	59	132	0	0	191	37	0	46	0	83	431
04:45 PM	0	135	41	0	176	1	0	2	0	3	65	126	2	1	194	41	2	29	2	74	447
Total	0	508	143	1	652	9	1	6	0	16	226	449	2	2	679	170	4	153	5	332	1679
05:00 PM	0	161	31	0	192	1	1	0	0	2	65	131	0	0	196	47	0	19	0	66	456
05:15 PM	0	201	36	0	237	0	0	3	0	3	66	151	2	0	219	20	1	20	0	41	500
05:30 PM	0	182	32	0	214	1	0	1	0	2	67	114	0	0	181	40	0	30	0	70	467
05:45 PM	1	198	34	0	233	0	0	0	0	0	70	112	1	0	183	23	0	25	0	48	464
Total	1	742	133	0	876	2	1	4	0	7	268	508	3	0	779	130	1	94	0	225	1887
Grand Total	1	1250	276	1	1528	11	2	10	0	23	494	957	5	2	1458	300	5	247	5	557	3566
Apprch %	0.1	81.8	18.1	0.1		47.8	8.7	43.5	0		33.9	65.6	0.3	0.1		53.9	0.9	44.3	0.9		
Total %	0	35.1	7.7	0	42.8	0.3	0.1	0.3	0	0.6	13.9	26.8	0.1	0.1	40.9	8.4	0.1	6.9	0.1	15.6	
Cars	1	1243	268	0	1512	11	2	10	0	23	467	951	5	2	1425	287	5	235	5	532	3492
% Cars	100	99.4	97.1	0	99	100	100	100	0	100	94.5	99.4	100	100	97.7	95.7	100	95.1	100	95.5	97.9
Trucks	0	7	8	1	16	0	0	0	0	0	27	6	0	0	33	13	0	12	0	25	74
% Trucks	0	0.6	2.9	100	1	0	0	0	0	0	5.5	0.6	0	0	2.3	4.3	0	4.9	0	4.5	2.1

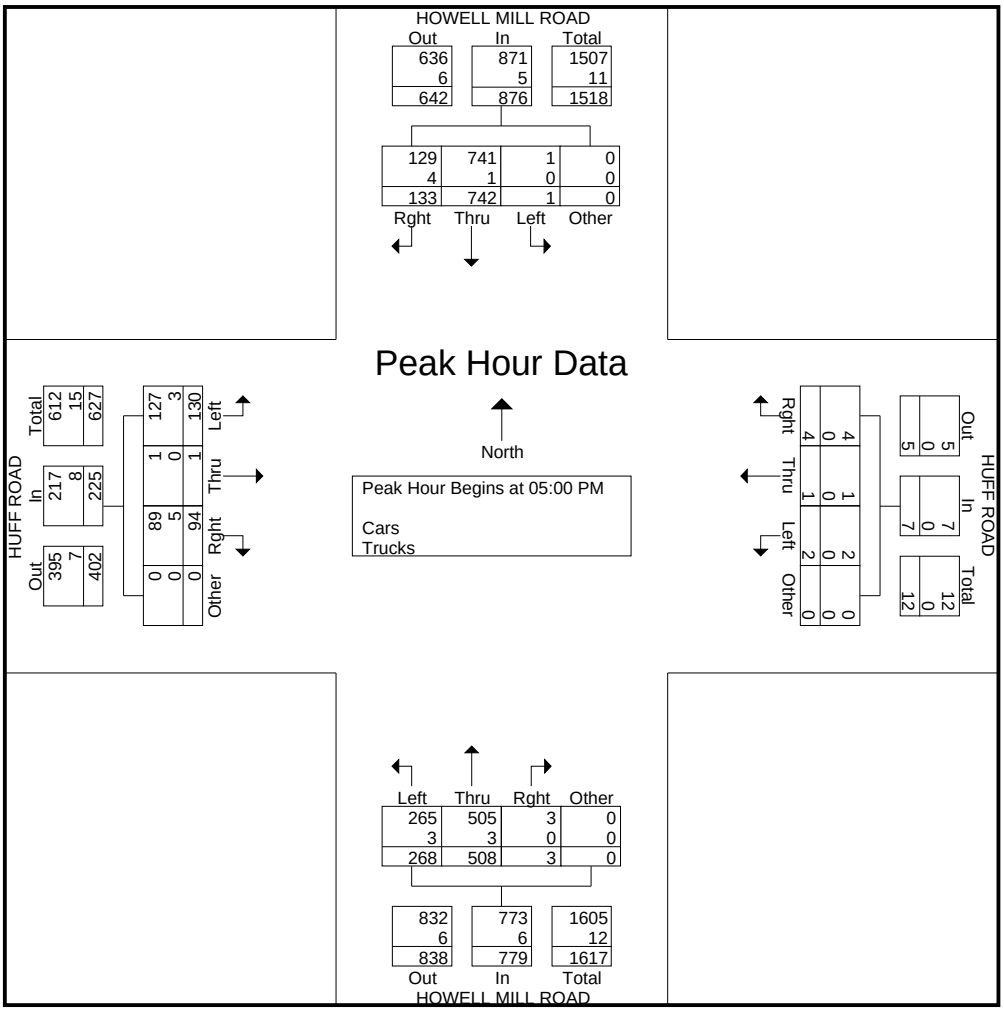


All Traffic Data Services, Inc

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

File Name : HowellMill@HuffRdPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	HOWELL MILL ROAD Southbound					HUFF ROAD Westbound					HOWELL MILL ROAD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	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	161	31	0	192	**1**	**1**	0	0	2	65	131	0	0	196	**47**	0	19	0	66	456
05:15 PM	0	**201**	**36**	0	**237**	0	0	**3**	0	**3**	66	**151**	**2**	0	**219**	20	**1**	20	0	41	**500**
05:30 PM	0	182	32	0	214	1	0	1	0	2	67	114	0	0	181	40	0	**30**	0	**70**	467
05:45 PM	**1**	198	34	0	233	0	0	0	0	0	**70**	112	1	0	183	23	0	25	0	48	464
Total Volume	1	742	133	0	876	2	1	4	0	7	268	508	3	0	779	130	1	94	0	225	1887
% App. Total	0.1	84.7	15.2	0		28.6	14.3	57.1	0		34.4	65.2	0.4	0		57.8	0.4	41.8	0		
PHF	.250	.923	.924	.000	.924	.500	.250	.333	.000	.583	.957	.841	.375	.000	.889	.691	.250	.783	.000	.804	.944
Cars	1	741	129	0	871	2	1	4	0	7	265	505	3	0	773	127	1	89	0	217	1868
% Cars	100	99.9	97.0	0	99.4	100	100	100	0	100	98.9	99.4	100	0	99.2	97.7	100	94.7	0	96.4	99.0
Trucks	0	1	4	0	5	0	0	0	0	0	3	3	0	0	6	3	0	5	0	8	19
% Trucks	0	0.1	3.0	0	0.6	0	0	0	0	0	1.1	0.6	0	0	0.8	2.3	0	5.3	0	3.6	1.0



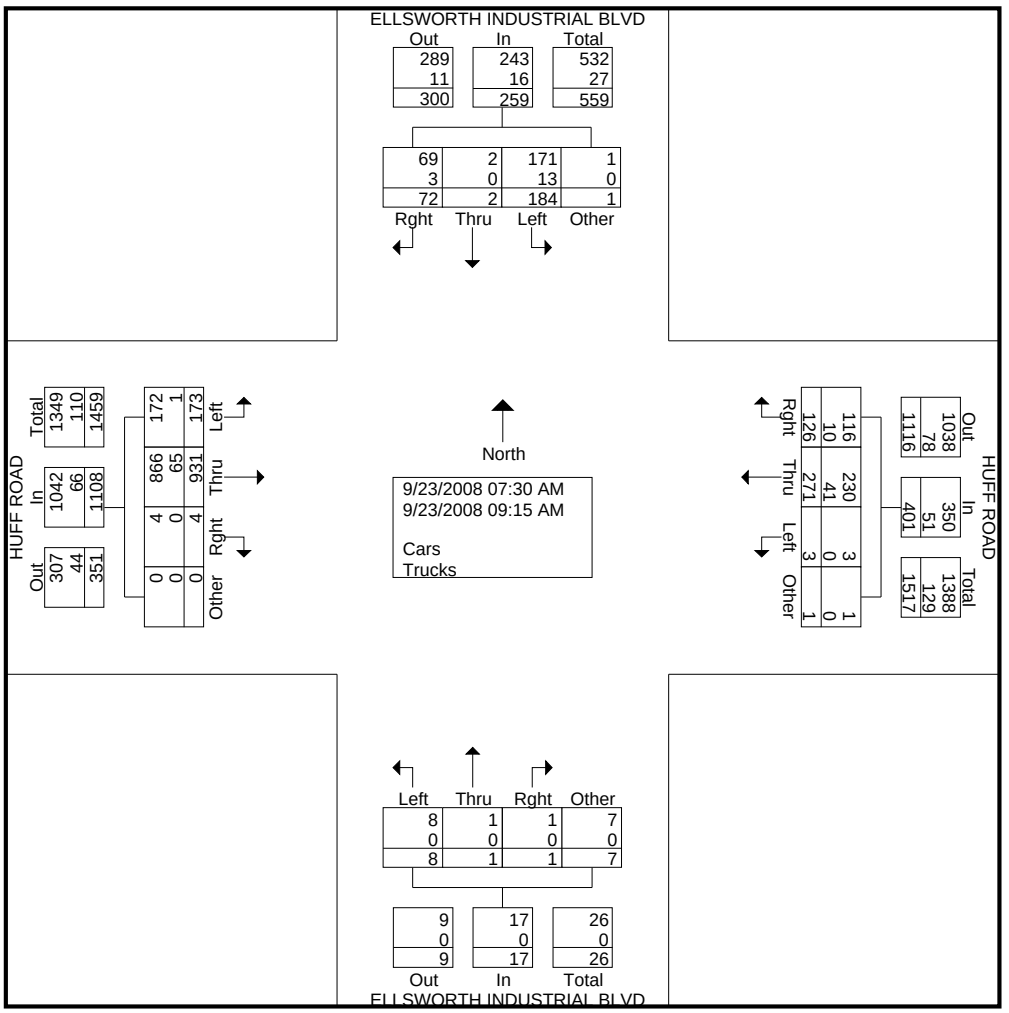
All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : Huff@EllsworthIndAM
Site Code : 00000000
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Trucks

	ELLSWORTH INDUSTRIAL BLVD Southbound					HUFF ROAD Westbound					ELLSWORTH INDUSTRIAL BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:30 AM	22	2	7	0	31	0	30	9	0	39	0	0	0	3	3	23	108	1	0	132	205
07:45 AM	24	0	12	1	37	0	29	15	0	44	0	0	0	2	2	22	110	2	0	134	217
Total	46	2	19	1	68	0	59	24	0	83	0	0	0	5	5	45	218	3	0	266	422
08:00 AM	19	0	8	0	27	0	34	15	0	49	6	1	0	0	7	24	128	1	0	153	236
08:15 AM	18	0	10	0	28	1	37	17	0	55	2	0	1	0	3	25	120	0	0	145	231
08:30 AM	16	0	8	0	24	0	28	18	0	46	0	0	0	0	0	26	107	0	0	133	203
08:45 AM	29	0	8	0	37	0	38	15	0	53	0	0	0	2	2	21	120	0	0	141	233
Total	82	0	34	0	116	1	137	65	0	203	8	1	1	2	12	96	475	1	0	572	903
09:00 AM	30	0	13	0	43	0	39	20	0	59	0	0	0	0	0	23	135	0	0	158	260
09:15 AM	26	0	6	0	32	2	36	17	1	56	0	0	0	0	0	9	103	0	0	112	200
Grand Total	184	2	72	1	259	3	271	126	1	401	8	1	1	7	17	173	931	4	0	1108	1785
Apprch %	71	0.8	27.8	0.4		0.7	67.6	31.4	0.2		47.1	5.9	5.9	41.2		15.6	84	0.4	0		
Total %	10.3	0.1	4	0.1	14.5	0.2	15.2	7.1	0.1	22.5	0.4	0.1	0.1	0.4	1	9.7	52.2	0.2	0	62.1	
Cars	171	2	69	1	243	3	230	116	1	350	8	1	1	7	17	172	866	4	0	1042	1652
% Cars	92.9	100	95.8	100	93.8	100	84.9	92.1	100	87.3	100	100	100	100	100	99.4	93	100	0	94	92.5
Trucks	13	0	3	0	16	0	41	10	0	51	0	0	0	0	0	1	65	0	0	66	133
% Trucks	7.1	0	4.2	0	6.2	0	15.1	7.9	0	12.7	0	0	0	0	0	0.6	7	0	0	6	7.5



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : Huff@EllsworthIndAM
Site Code : 00000000
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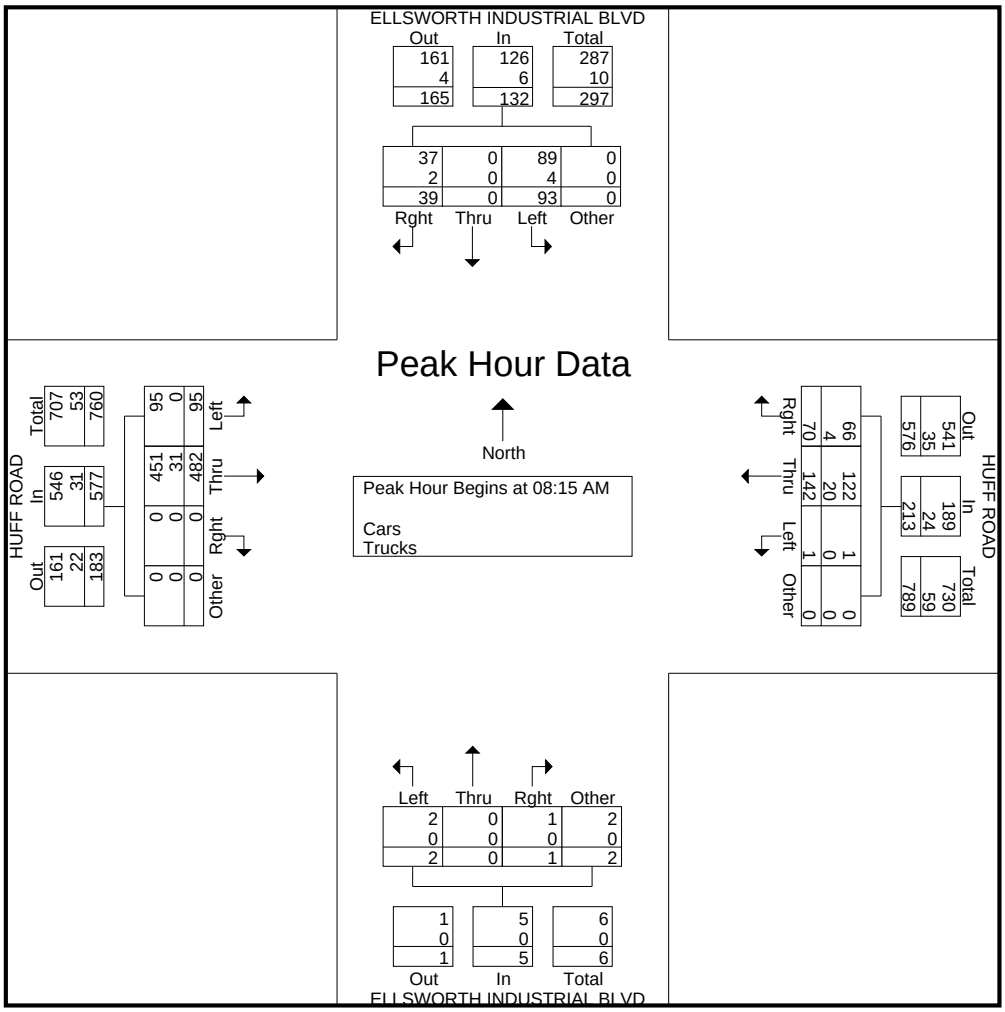
	ELLSWORTH INDUSTRIAL BLVD Southbound					HUFF ROAD Westbound					ELLSWORTH INDUSTRIAL BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	18	0	10	0	28	**1**	37	17	0	55	**2**	0	**1**	0	**3**	25	120	0	0	145	231
08:30 AM	16	0	8	0	24	0	28	18	0	46	0	0	0	0	0	**26**	107	0	0	133	203
08:45 AM	29	0	8	0	37	0	38	15	0	53	0	0	0	**2**	2	21	120	0	0	141	233
09:00 AM	**30**	0	**13**	0	**43**	0	**39**	**20**	0	**59**	0	0	0	0	0	23	**135**	0	0	**158**	**260**
Total Volume	93	0	39	0	132	1	142	70	0	213	2	0	1	2	5	95	482	0	0	577	927
% App. Total	70.5	0	29.5	0		0.5	66.7	32.9	0		40	0	20	40		16.5	83.5	0	0		
PHF	.775	.000	.750	.000	.767	.250	.910	.875	.000	.903	.250	.000	.250	.250	.417	.913	.893	.000	.000	.913	.891
Cars	89	0	37	0	126	1	122	66	0	189	2	0	1	2	5	95	451	0	0	546	866
% Cars	95.7	0	94.9	0	95.5	100	85.9	94.3	0	88.7	100	0	100	100	100	100	93.6	0	0	94.6	93.4
Trucks	4	0	2	0	6	0	20	4	0	24	0	0	0	0	0	0	31	0	0	31	61
% Trucks	4.3	0	5.1	0	4.5	0	14.1	5.7	0	11.3	0	0	0	0	0	0	6.4	0	0	5.4	6.6



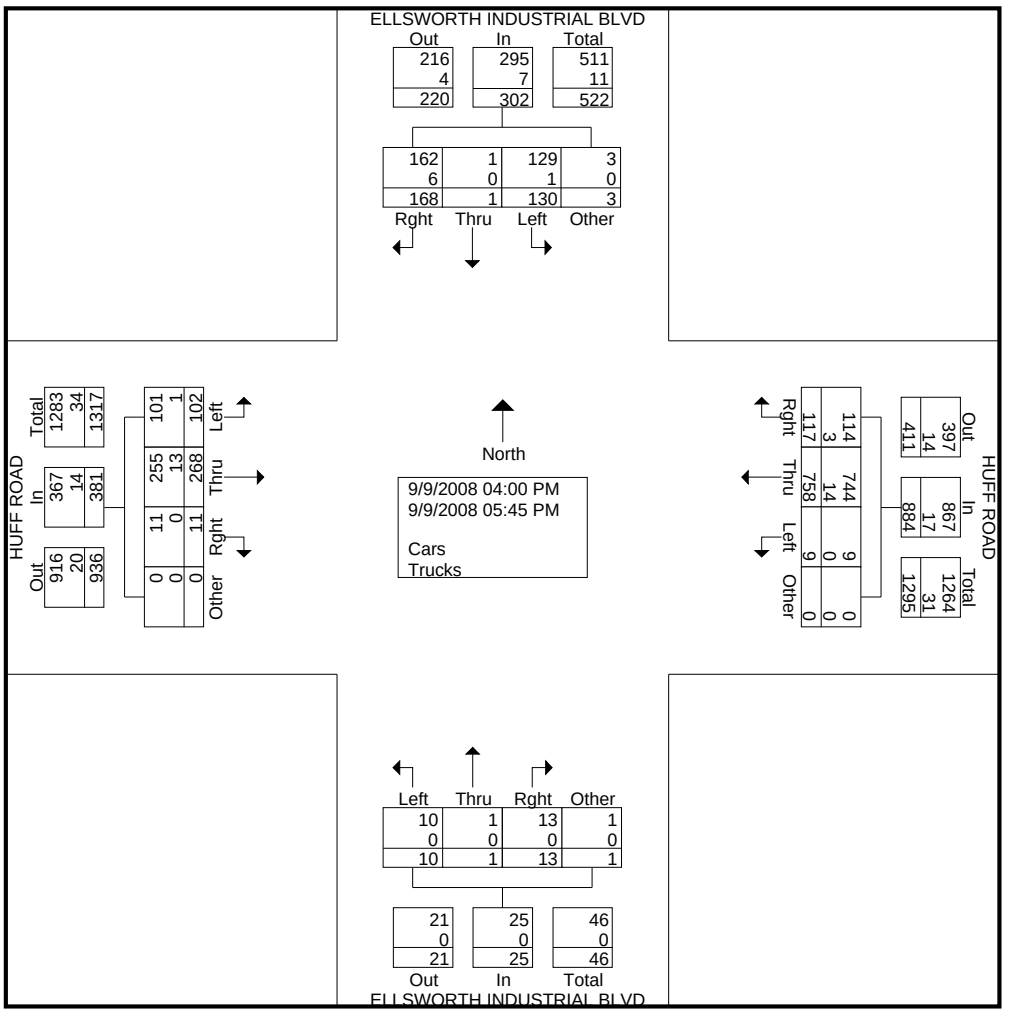
All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : Huff@EllsworthIndPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	ELLSWORTH INDUSTRIAL BLVD Southbound					HUFF ROAD Westbound					ELLSWORTH INDUSTRIAL BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	12	0	20	0	32	3	94	12	0	109	0	0	0	0	0	11	31	1	0	43	184
04:15 PM	11	0	24	1	36	1	69	9	0	79	3	0	3	0	6	8	34	1	0	43	164
04:30 PM	12	1	17	0	30	3	81	15	0	99	1	0	1	0	2	18	42	1	0	61	192
04:45 PM	26	0	20	0	46	1	101	20	0	122	1	1	1	0	3	12	34	1	0	47	218
Total	61	1	81	1	144	8	345	56	0	409	5	1	5	0	11	49	141	4	0	194	758
05:00 PM	15	0	24	0	39	1	100	13	0	114	0	0	2	0	2	18	32	2	0	52	207
05:15 PM	16	0	20	0	36	0	106	16	0	122	1	0	1	0	2	12	25	0	0	37	197
05:30 PM	23	0	19	2	44	0	105	16	0	121	2	0	2	1	5	14	36	5	0	55	225
05:45 PM	15	0	24	0	39	0	102	16	0	118	2	0	3	0	5	9	34	0	0	43	205
Total	69	0	87	2	158	1	413	61	0	475	5	0	8	1	14	53	127	7	0	187	834
Grand Total	130	1	168	3	302	9	758	117	0	884	10	1	13	1	25	102	268	11	0	381	1592
Apprch %	43	0.3	55.6	1		1	85.7	13.2	0		40	4	52	4		26.8	70.3	2.9	0		
Total %	8.2	0.1	10.6	0.2	19	0.6	47.6	7.3	0	55.5	0.6	0.1	0.8	0.1	1.6	6.4	16.8	0.7	0	23.9	
Cars	129	1	162	3	295	9	744	114	0	867	10	1	13	1	25	101	255	11	0	367	1554
% Cars	99.2	100	96.4	100	97.7	100	98.2	97.4	0	98.1	100	100	100	100	100	99	95.1	100	0	96.3	97.6
Trucks	1	0	6	0	7	0	14	3	0	17	0	0	0	0	0	1	13	0	0	14	38
% Trucks	0.8	0	3.6	0	2.3	0	1.8	2.6	0	1.9	0	0	0	0	0	1	4.9	0	0	3.7	2.4

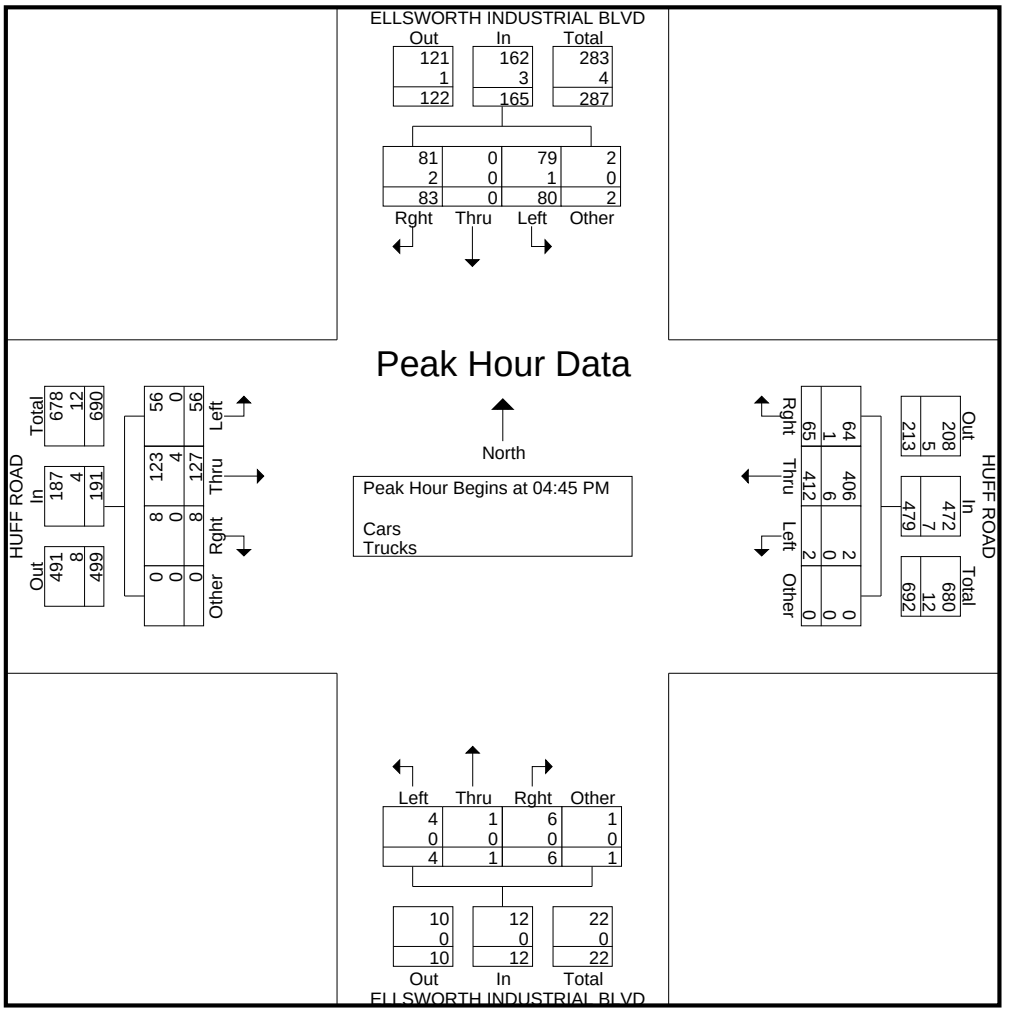


All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : Huff@EllsworthIndPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	ELLSWORTH INDUSTRIAL BLVD Southbound					HUFF ROAD Westbound					ELLSWORTH INDUSTRIAL BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	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	**26**	0	20	0	**46**	**1**	101	**20**	0	**122**	1	**1**	1	0	3	12	34	1	0	47	218
05:00 PM	15	0	**24**	0	39	1	100	13	0	114	0	0	**2**	0	2	**18**	32	2	0	52	207
05:15 PM	16	0	20	0	36	0	**106**	16	0	122	1	0	1	0	2	12	25	0	0	37	197
05:30 PM	23	0	19	**2**	44	0	105	16	0	121	**2**	0	2	**1**	**5**	14	**36**	**5**	0	**55**	**225**
Total Volume	80	0	83	2	165	2	412	65	0	479	4	1	6	1	12	56	127	8	0	191	847
% App. Total	48.5	0	50.3	1.2		0.4	86	13.6	0		33.3	8.3	50	8.3		29.3	66.5	4.2	0		
PHF	.769	.000	.865	.250	.897	.500	.972	.813	.000	.982	.500	.250	.750	.250	.600	.778	.882	.400	.000	.868	.941
Cars	79	0	81	2	162	2	406	64	0	472	4	1	6	1	12	56	123	8	0	187	833
% Cars	98.8	0	97.6	100	98.2	100	98.5	98.5	0	98.5	100	100	100	100	100	100	96.9	100	0	97.9	98.3
Trucks	1	0	2	0	3	0	6	1	0	7	0	0	0	0	0	0	4	0	0	4	14
% Trucks	1.3	0	2.4	0	1.8	0	1.5	1.5	0	1.5	0	0	0	0	0	0	3.1	0	0	2.1	1.7



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : MariettaBlvd@HuffRdAM
Site Code : 00000000
Start Date : 9/9/2008
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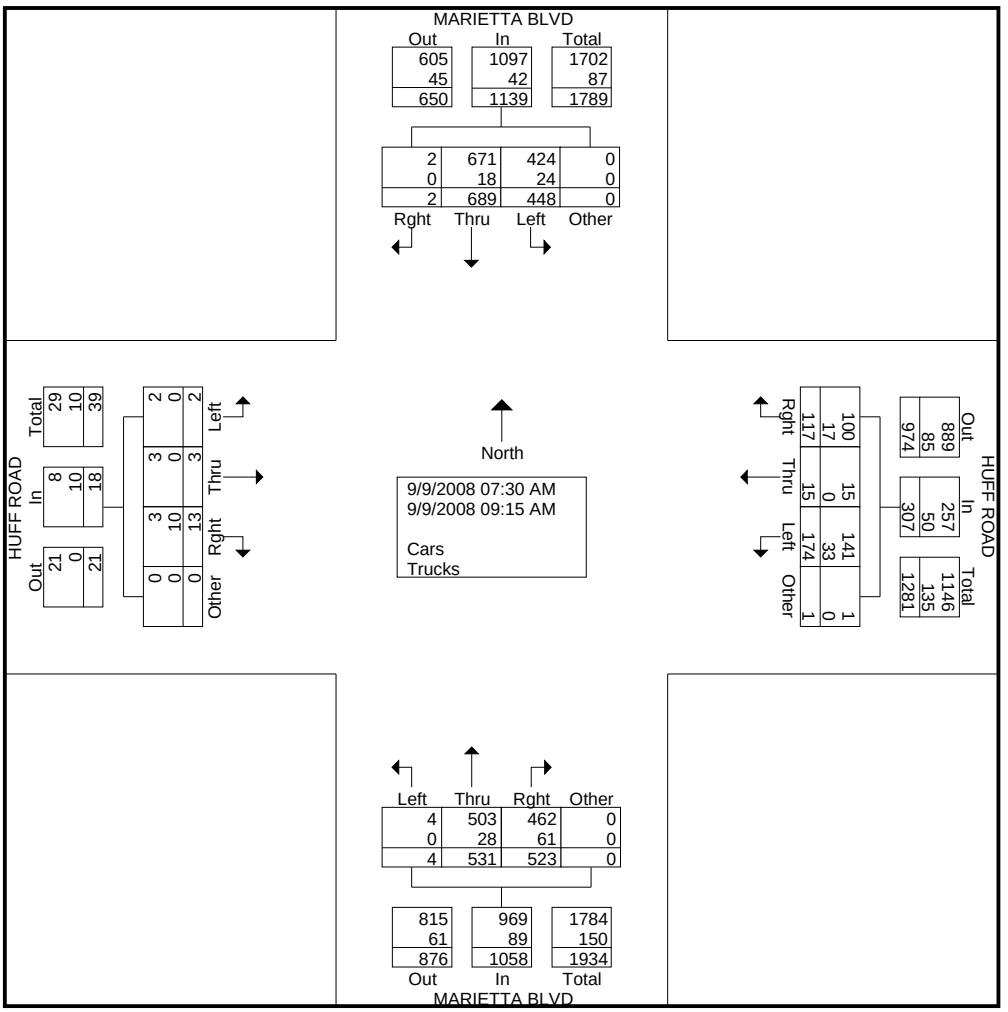
Groups Printed- Cars - Trucks

	MARIETTA BLVD Southbound					HUFF ROAD Westbound					MARIETTA BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:30 AM	56	82	0	0	138	14	2	13	0	29	0	65	62	0	127	0	1	2	0	3	297
07:45 AM	60	72	0	0	132	18	2	13	0	33	1	69	74	0	144	0	0	2	0	2	311
Total	116	154	0	0	270	32	4	26	0	62	1	134	136	0	271	0	1	4	0	5	608
08:00 AM	65	83	2	0	150	18	2	15	1	36	0	71	70	0	141	1	0	1	0	2	329
08:15 AM	61	92	0	0	153	24	0	14	0	38	1	63	61	0	125	0	1	2	0	3	319
08:30 AM	55	99	0	0	154	28	1	13	0	42	0	68	66	0	134	1	0	1	0	2	332
08:45 AM	51	82	0	0	133	27	3	16	0	46	1	67	60	0	128	0	0	3	0	3	310
Total	232	356	2	0	590	97	6	58	1	162	2	269	257	0	528	2	1	7	0	10	1290
09:00 AM	57	91	0	0	148	25	1	14	0	40	0	60	64	0	124	0	1	2	0	3	315
09:15 AM	43	88	0	0	131	20	4	19	0	43	1	68	66	0	135	0	0	0	0	0	309
Grand Total	448	689	2	0	1139	174	15	117	1	307	4	531	523	0	1058	2	3	13	0	18	2522
Apprch %	39.3	60.5	0.2	0		56.7	4.9	38.1	0.3		0.4	50.2	49.4	0		11.1	16.7	72.2	0		
Total %	17.8	27.3	0.1	0	45.2	6.9	0.6	4.6	0	12.2	0.2	21.1	20.7	0	42	0.1	0.1	0.5	0	0.7	
Cars	424	671	2	0	1097	141	15	100	1	257	4	503	462	0	969	2	3	3	0	8	2331
% Cars	94.6	97.4	100	0	96.3	81	100	85.5	100	83.7	100	94.7	88.3	0	91.6	100	100	23.1	0	44.4	92.4
Trucks	24	18	0	0	42	33	0	17	0	50	0	28	61	0	89	0	0	10	0	10	191
% Trucks	5.4	2.6	0	0	3.7	19	0	14.5	0	16.3	0	5.3	11.7	0	8.4	0	0	76.9	0	55.6	7.6



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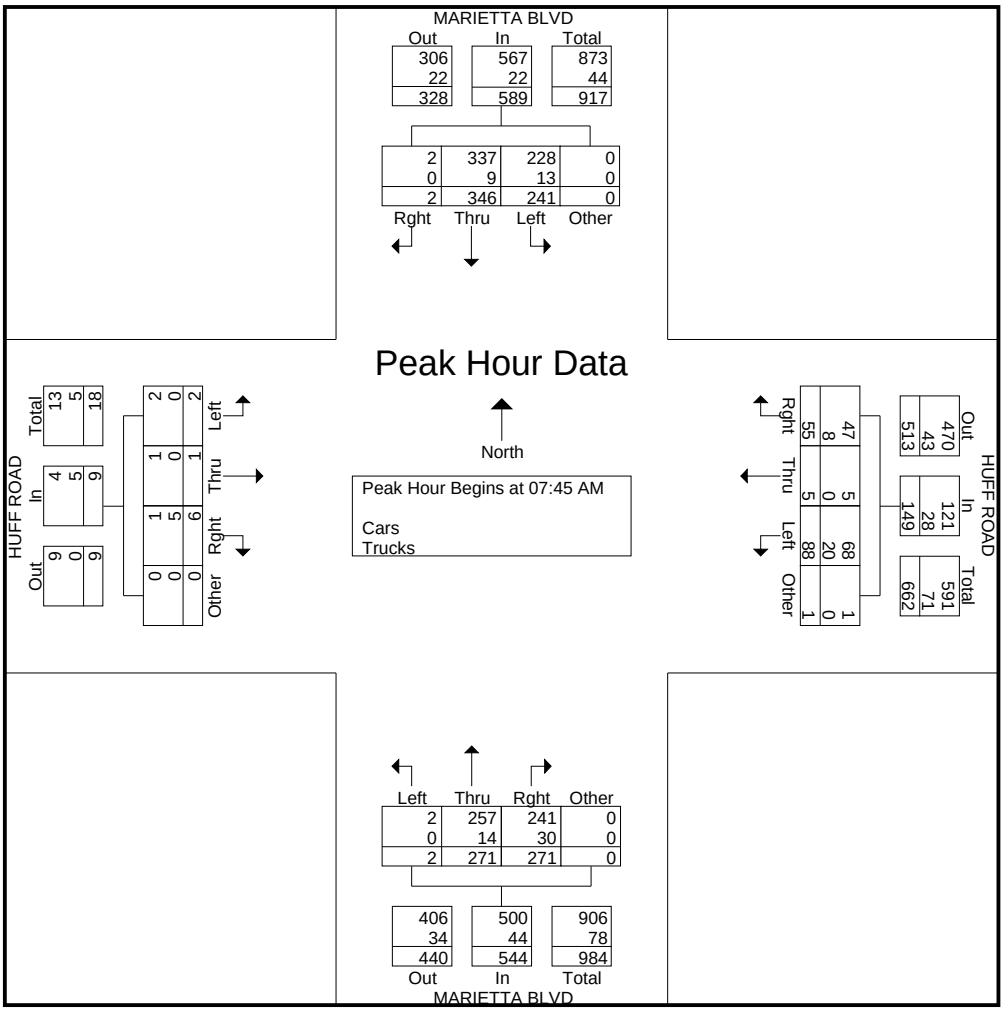
1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : MariettaBlvd@HuffRdAM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 2

	MARIETTA BLVD Southbound					HUFF ROAD Westbound					MARIETTA BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	60	72	0	0	132	18	**2**	13	0	33	**1**	69	**74**	0	**144**	0	0	**2**	0	2	311
08:00 AM	**65**	83	**2**	0	150	18	2	**15**	**1**	36	0	**71**	70	0	141	**1**	0	1	0	2	329
08:15 AM	61	92	0	0	153	24	0	14	0	38	1	63	61	0	125	0	**1**	2	0	**3**	319
08:30 AM	55	**99**	0	0	**154**	**28**	1	13	0	**42**	0	68	66	0	134	1	0	1	0	2	**332**
Total Volume	241	346	2	0	589	88	5	55	1	149	2	271	271	0	544	2	1	6	0	9	1291
% App. Total	40.9	58.7	0.3	0		59.1	3.4	36.9	0.7		0.4	49.8	49.8	0		22.2	11.1	66.7	0		
PHF	.927	.874	.250	.000	.956	.786	.625	.917	.250	.887	.500	.954	.916	.000	.944	.500	.250	.750	.000	.750	.972
Cars	228	337	2	0	567	68	5	47	1	121	2	257	241	0	500	2	1	1	0	4	1192
% Cars	94.6	97.4	100	0	96.3	77.3	100	85.5	100	81.2	100	94.8	88.9	0	91.9	100	100	16.7	0	44.4	92.3
Trucks	13	9	0	0	22	20	0	8	0	28	0	14	30	0	44	0	0	5	0	5	99
% Trucks	5.4	2.6	0	0	3.7	22.7	0	14.5	0	18.8	0	5.2	11.1	0	8.1	0	0	83.3	0	55.6	7.7



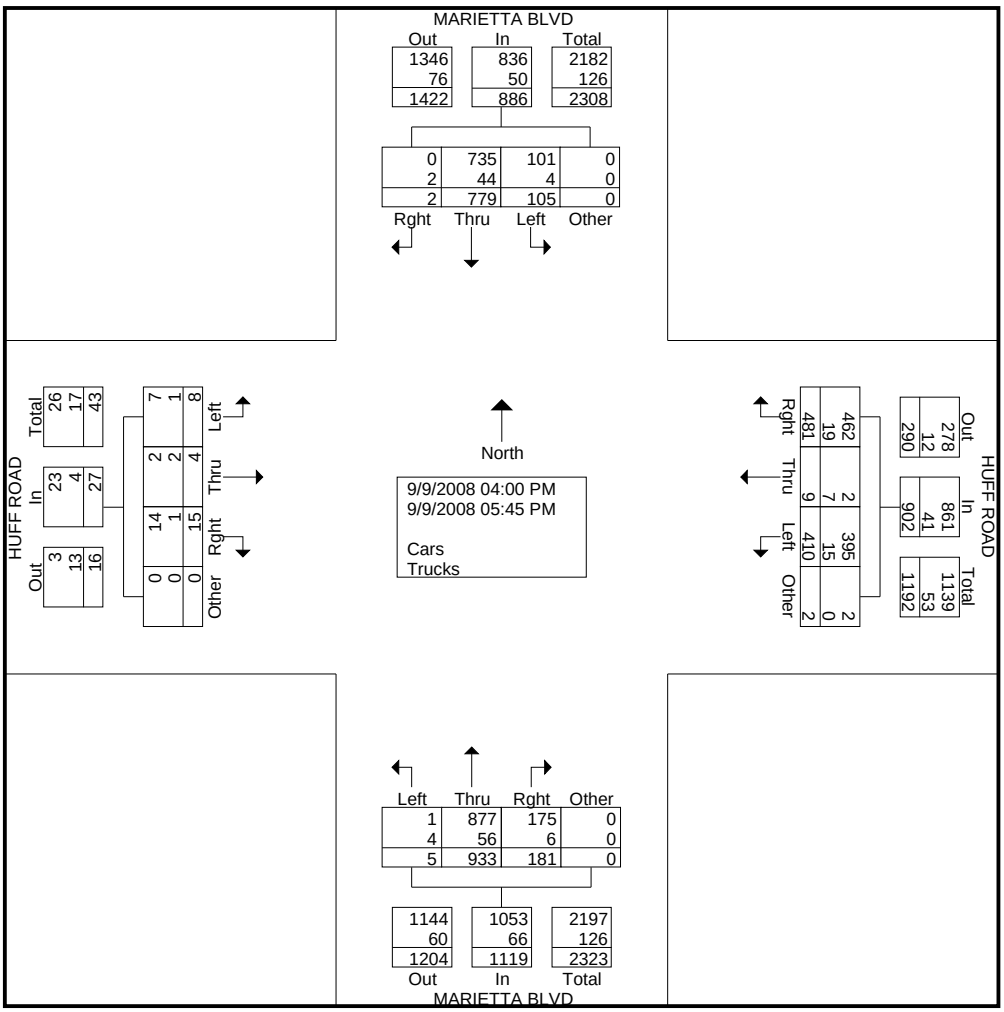
All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283 / www.alltrafficdata.net

File Name : MariettaBlvd@HuffRdPM
Site Code : 00000000
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	MARIETTA BLVD Southbound					HUFF ROAD Westbound					MARIETTA BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	12	90	0	0	102	35	1	38	0	74	1	83	21	0	105	1	0	1	0	2	283
04:15 PM	17	108	0	0	125	42	2	46	0	90	2	99	22	0	123	0	0	1	0	1	339
04:30 PM	24	79	0	0	103	47	1	63	1	112	0	103	28	0	131	1	1	1	0	3	349
04:45 PM	6	89	0	0	95	56	3	67	1	127	0	110	23	0	133	0	1	1	0	2	357
Total	59	366	0	0	425	180	7	214	2	403	3	395	94	0	492	2	2	4	0	8	1328
05:00 PM	19	113	1	0	133	65	1	63	0	129	0	96	21	0	117	4	2	4	0	10	389
05:15 PM	4	107	0	0	111	51	0	57	0	108	0	115	22	0	137	1	0	3	0	4	360
05:30 PM	11	100	1	0	112	56	0	77	0	133	2	168	23	0	193	0	0	3	0	3	441
05:45 PM	12	93	0	0	105	58	1	70	0	129	0	159	21	0	180	1	0	1	0	2	416
Total	46	413	2	0	461	230	2	267	0	499	2	538	87	0	627	6	2	11	0	19	1606
Grand Total	105	779	2	0	886	410	9	481	2	902	5	933	181	0	1119	8	4	15	0	27	2934
Apprch %	11.9	87.9	0.2	0		45.5	1	53.3	0.2		0.4	83.4	16.2	0		29.6	14.8	55.6	0		
Total %	3.6	26.6	0.1	0	30.2	14	0.3	16.4	0.1	30.7	0.2	31.8	6.2	0	38.1	0.3	0.1	0.5	0	0.9	
Cars	101	735	0	0	836	395	2	462	2	861	1	877	175	0	1053	7	2	14	0	23	2773
% Cars	96.2	94.4	0	0	94.4	96.3	22.2	96	100	95.5	20	94	96.7	0	94.1	87.5	50	93.3	0	85.2	94.5
Trucks	4	44	2	0	50	15	7	19	0	41	4	56	6	0	66	1	2	1	0	4	161
% Trucks	3.8	5.6	100	0	5.6	3.7	77.8	4	0	4.5	80	6	3.3	0	5.9	12.5	50	6.7	0	14.8	5.5



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1336 Farmer Road
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File Name : MariettaBlvd@HuffRdPM
Site Code : 00000000
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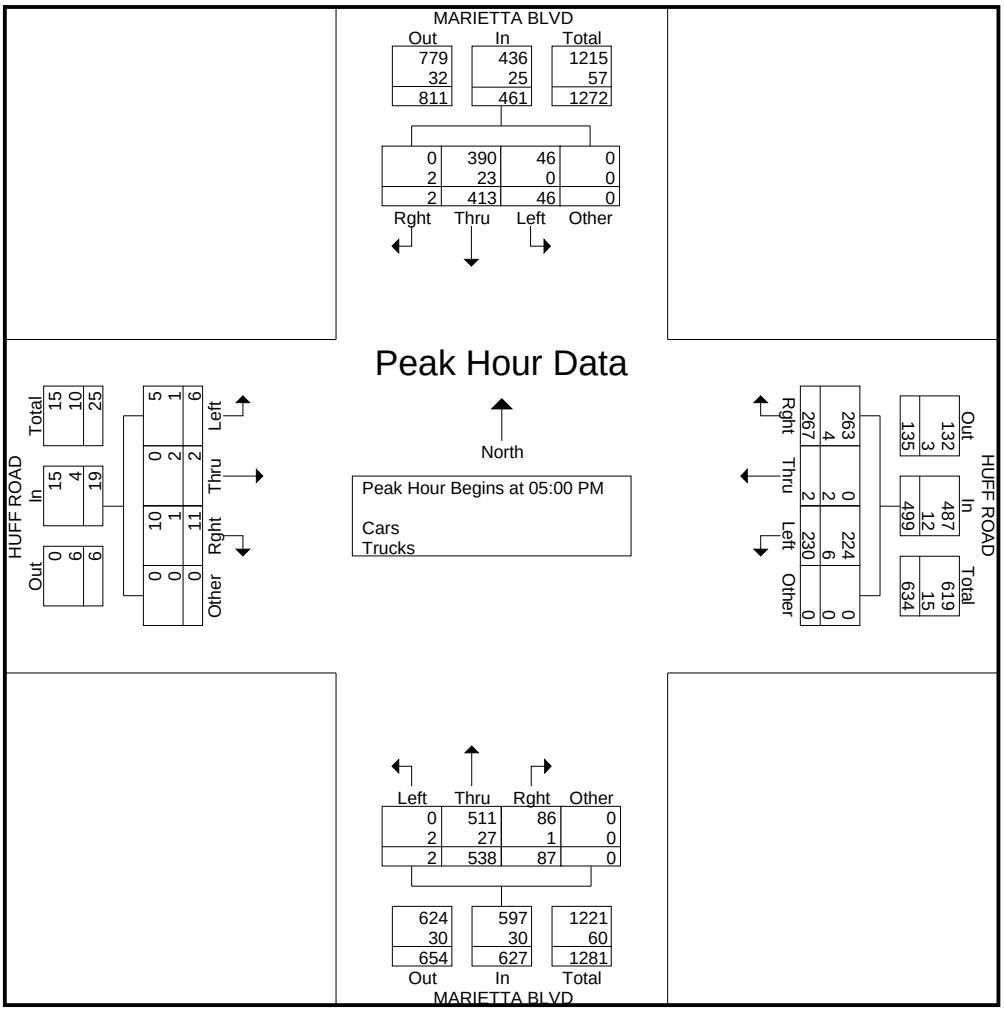
	MARIETTA BLVD Southbound					HUFF ROAD Westbound					MARIETTA BLVD Northbound					HUFF ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**19**	**113**	**1**	0	**133**	**65**	**1**	63	0	129	0	96	21	0	117	**4**	**2**	**4**	0	**10**	389
05:15 PM	4	107	0	0	111	51	0	57	0	108	0	115	22	0	137	1	0	3	0	4	360
05:30 PM	11	100	1	0	112	56	0	**77**	0	**133**	**2**	**168**	**23**	0	**193**	0	0	3	0	3	**441**
05:45 PM	12	93	0	0	105	58	1	70	0	129	0	159	21	0	180	1	0	1	0	2	416
Total Volume	46	413	2	0	461	230	2	267	0	499	2	538	87	0	627	6	2	11	0	19	1606
% App. Total	10	89.6	0.4	0		46.1	0.4	53.5	0		0.3	85.8	13.9	0		31.6	10.5	57.9	0		
PHF	.605	.914	.500	.000	.867	.885	.500	.867	.000	.938	.250	.801	.946	.000	.812	.375	.250	.688	.000	.475	.910
Cars	46	390	0	0	436	224	0	263	0	487	0	511	86	0	597	5	0	10	0	15	1535
% Cars	100	94.4	0	0	94.6	97.4	0	98.5	0	97.6	0	95.0	98.9	0	95.2	83.3	0	90.9	0	78.9	95.6
Trucks	0	23	2	0	25	6	2	4	0	12	2	27	1	0	30	1	2	1	0	4	71
% Trucks	0	5.6	100	0	5.4	2.6	100	1.5	0	2.4	100	5.0	1.1	0	4.8	16.7	100	9.1	0	21.1	4.4



Traffic Data Collection, Inc.

Charlotte - Atlanta - Hilton Head

Ph 404 459-9114 Fax 404 459-9113

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Counter: 2447/2448
Counted By: MAG/OSP
Weather: Mild
Other: URS

File Name : 04706-05
Site Code : 00470605
Start Date : 10/20/2004
Page No : 1

Groups Printed- Cars - Trucks & Buses

	Northside Dr Northbound					Northside Dr Southbound					14th St Eastbound					14th St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	24	89	22	0	135	0	91	6	0	97	2	28	10	0	40	24	35	1	1	61	333
07:15 AM	17	147	17	1	182	0	89	6	0	95	2	34	16	1	53	10	29	2	1	42	372
07:30 AM	23	160	25	1	209	1	122	6	1	130	9	58	18	2	87	30	33	1	0	64	490
07:45 AM	29	180	28	1	238	3	168	10	0	181	4	74	8	1	87	29	40	1	3	73	579
Total	93	576	92	3	764	4	470	28	1	503	17	194	52	4	267	93	137	5	5	240	1774
08:00 AM	30	176	34	0	240	0	169	11	0	180	4	73	19	0	96	26	39	3	1	69	585
08:15 AM	18	202	23	0	243	1	204	12	1	218	5	73	21	0	99	40	43	0	1	84	644
08:30 AM	24	193	30	0	247	0	211	15	0	226	11	68	20	0	99	32	38	0	5	75	647
08:45 AM	10	195	28	0	233	2	242	11	0	255	9	59	23	0	91	30	51	2	0	83	662
Total	82	766	115	0	963	3	826	49	1	879	29	273	83	0	385	128	171	5	7	311	2538
Break																					
04:30 PM	21	188	22	0	231	2	232	14	2	250	2	59	21	1	83	61	77	0	0	138	702
04:45 PM	23	191	22	0	236	3	263	13	0	279	7	41	22	0	70	71	88	1	0	160	745
Total	44	379	44	0	467	5	495	27	2	529	9	100	43	1	153	132	165	1	0	298	1447
05:00 PM	17	251	23	1	292	0	284	9	0	293	8	60	22	1	91	73	72	3	2	150	826
05:15 PM	22	237	18	0	277	3	280	10	0	293	12	66	15	2	95	66	104	0	2	172	837
05:30 PM	20	268	17	0	305	1	313	9	0	323	11	53	17	0	81	102	111	1	0	214	923
05:45 PM	27	281	14	1	323	4	254	16	0	274	6	56	15	1	78	88	93	2	2	185	860
Total	86	1037	72	2	1197	8	1131	44	0	1183	37	235	69	4	345	329	380	6	6	721	3446
06:00 PM	16	224	21	0	261	2	189	7	0	198	3	38	9	0	50	77	65	0	0	142	651
06:15 PM	15	239	22	0	276	3	209	3	0	215	7	41	13	2	63	57	98	1	0	156	710
Grand Total	336	3221	366	5	3928	25	3320	158	4	3507	102	881	269	11	1263	816	1016	18	18	1868	10566
Apprch %	8.6	82.0	9.3	0.1		0.7	94.7	4.5	0.1		8.1	69.8	21.3	0.9		43.7	54.4	1.0	1.0		
Total %	3.2	30.5	3.5	0.0	37.2	0.2	31.4	1.5	0.0	33.2	1.0	8.3	2.5	0.1	12.0	7.7	9.6	0.2	0.2	17.7	

Traffic Data Collection, Inc.
Charlotte - Atlanta - Hilton Head
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File Name : 04706-05
Site Code : 00470605
Start Date : 10/20/2004
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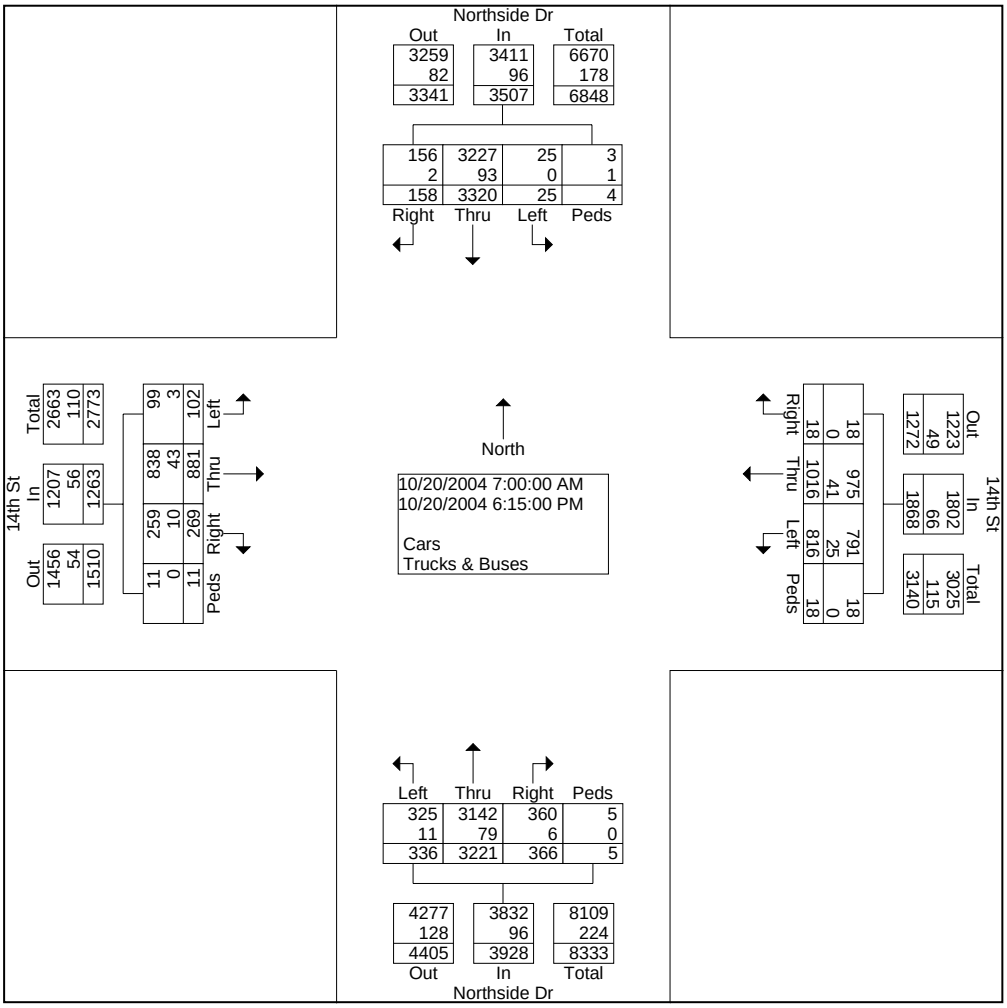

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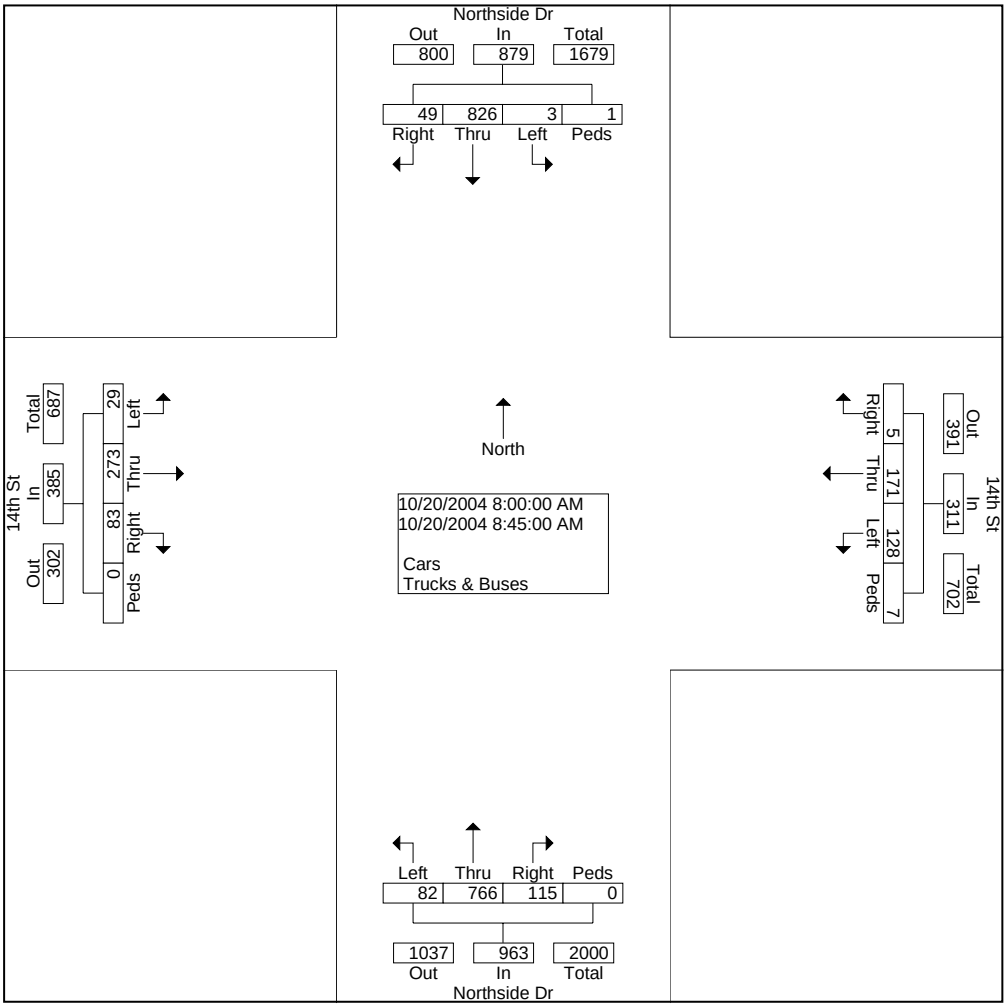
	Northside Dr Northbound					Northside Dr Southbound					14th St Eastbound					14th St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	82	766	115	0	963	3	826	49	1	879	29	273	83	0	385	128	171	5	7	311	2538
Percent	8.5	79.5	11.9	0.0		0.3	94.0	5.6	0.1		7.5	70.9	21.6	0.0		41.2	55.0	1.6	2.3		
08:45 Volume	10	195	28	0	233	2	242	11	0	255	9	59	23	0	91	30	51	2	0	83	662
Peak Factor																					0.958
High Int.	08:30 AM					08:45 AM					08:15 AM					08:15 AM					
Volume	24	193	30	0	247	2	242	11	0	255	5	73	21	0	99	40	43	0	1	84	
Peak Factor					0.975					0.862					0.972					0.926	



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File Name : 04706-05
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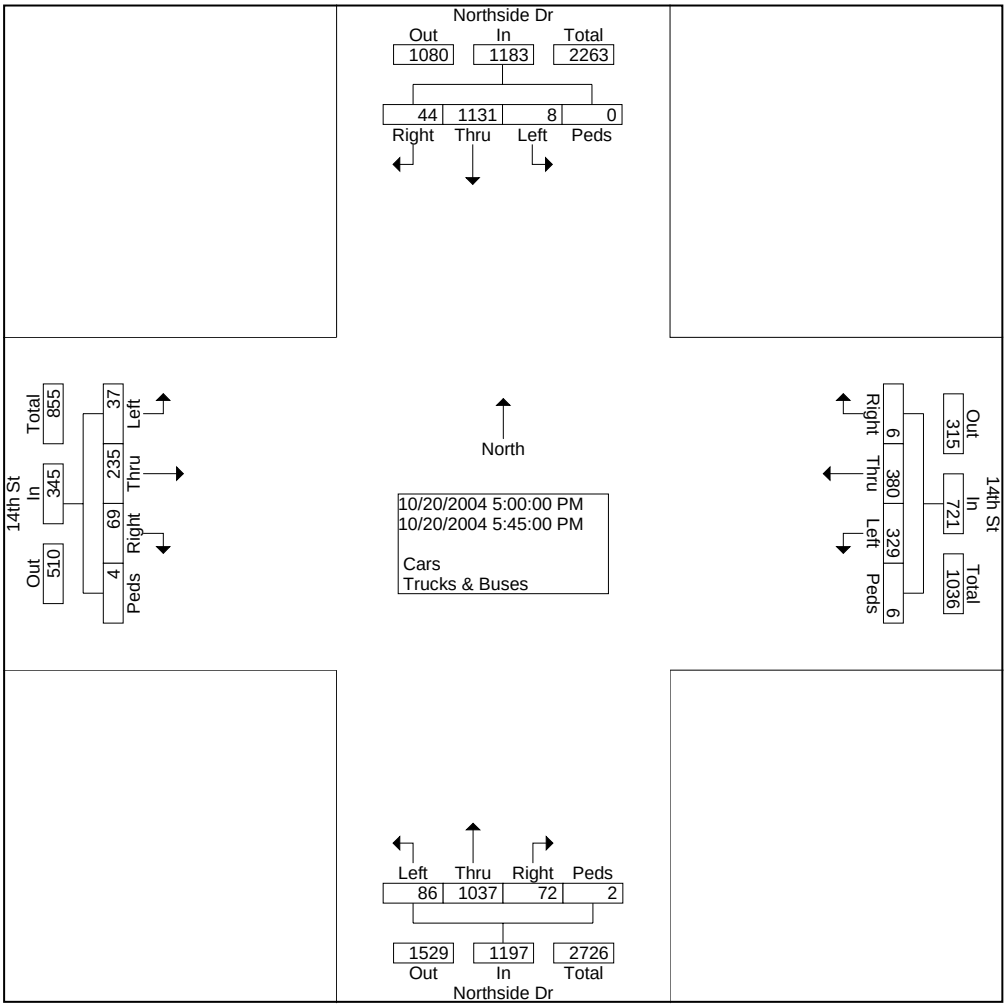
Start Date : 10/20/2004
Page No : 4

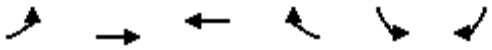
	Northside Dr Northbound					Northside Dr Southbound					14th St Eastbound					14th St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 12:00 PM to 06:15 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	86	1037	72	2	1197	8	1131	44	0	1183	37	235	69	4	345	329	380	6	6	721	3446
Percent	7.2	86.6	6.0	0.2		0.7	95.6	3.7	0.0		10.7	68.1	20.0	1.2		45.6	52.7	0.8	0.8		
05:30 Volume	20	268	17	0	305	1	313	9	0	323	11	53	17	0	81	102	111	1	0	214	923
Peak Factor																					0.933
High Int.	05:45 PM					05:30 PM					05:15 PM					05:30 PM					
Volume	27	281	14	1	323	1	313	9	0	323	12	66	15	2	95	102	111	1	0	214	
Peak Factor					0.926					0.916					0.908					0.842	



Capacity Analyses – Existing 2008 Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			0.95	1.00		0.95	
Frpb, ped/bikes		1.00			1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00		1.00	
Frt		0.91			0.95			1.00	0.85		1.00	
Flt Protected		0.99			0.97			1.00	1.00		0.98	
Satd. Flow (prot)		1099			1470			3438	1423		3404	
Flt Permitted		0.94			0.82			0.95	1.00		0.71	
Satd. Flow (perm)		1044			1235			3276	1423		2470	
Volume (vph)	2	1	6	88	5	55	2	271	271	241	346	2
Peak-hour factor, PHF	0.75	0.75	0.75	0.89	0.89	0.89	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	3	1	8	99	6	62	2	288	288	251	360	2
RTOR Reduction (vph)	0	6	0	0	34	0	0	0	107	0	0	0
Lane Group Flow (vph)	0	6	0	0	133	0	0	290	181	0	613	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	0%	0%	83%	23%	0%	15%	0%	5%	11%	5%	3%	0%
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		16.8			16.8			43.5	43.5		43.5	
Effective Green, g (s)		19.1			19.1			45.6	45.6		45.6	
Actuated g/C Ratio		0.26			0.26			0.63	0.63		0.63	
Clearance Time (s)		6.3			6.3			6.1	6.1		6.1	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		274			324			2055	893		1549	
v/s Ratio Prot												
v/s Ratio Perm		0.01			c0.14			0.09	0.20		c0.25	
v/c Ratio		0.02			0.41			0.14	0.20		0.40	
Uniform Delay, d1		19.9			22.1			5.5	5.8		6.7	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0			0.8			0.1	0.5		0.8	
Delay (s)		19.9			23.0			5.7	6.3		7.5	
Level of Service		B			C			A	A		A	
Approach Delay (s)		19.9			23.0			6.0			7.5	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	72.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	95	482	142	70	93	39
Peak Hour Factor	0.91	0.91	0.90	0.90	0.77	0.77
Hourly flow rate (vph)	104	530	158	78	121	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	236				935	197
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	236				935	197
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				55	94
cM capacity (veh/h)	1344				269	837

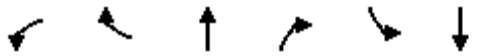
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	634	236	171
Volume Left	104	0	121
Volume Right	0	78	51
cSH	1344	1700	337
Volume to Capacity	0.08	0.14	0.51
Queue Length (ft)	6	0	69
Control Delay (s)	2.0	0.0	26.2
Lane LOS	A		D
Approach Delay (s)	2.0	0.0	26.2
Approach LOS			D

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	453	19	81	217	7	63
Peak Hour Factor	0.79	0.79	0.78	0.78	0.42	0.42
Hourly flow rate (vph)	573	24	104	278	17	150

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	597	382	167
Volume Left (vph)	0	104	17
Volume Right (vph)	24	0	150
Hadj (s)	0.1	0.1	-0.5
Departure Headway (s)	5.1	6.8	5.8
Degree Utilization, x	0.85	0.72	0.27
Capacity (veh/h)	694	480	570
Control Delay (s)	13.4	13.6	9.3
Approach Delay (s)	13.4	13.6	9.3
Approach LOS	B	B	A

Intersection Summary			
Delay	12.9		
HCM Level of Service	B		
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	115	52	461	205	244	698
Peak Hour Factor	0.89	0.89	0.93	0.93	0.87	0.87
Hourly flow rate (vph)	129	58	496	220	280	802
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			971			
pX, platoon unblocked						
vC, conflicting volume	1568	606			716	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1568	606			716	
tC, single (s)	6.9	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	87			68	
cM capacity (veh/h)	67	435			887	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	188	716	548	535
Volume Left	129	0	280	0
Volume Right	58	220	0	0
cSH	91	1700	887	1700
Volume to Capacity	2.07	0.42	0.32	0.31
Queue Length (ft)	410	0	34	0
Control Delay (s)	592.7	0.0	7.6	0.0
Lane LOS	F		A	
Approach Delay (s)	592.7	0.0	3.8	
Approach LOS	F			

Intersection Summary			
Average Delay	58.1		
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			0.95	
Frpb, ped/bikes		0.99			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			1.00		1.00	1.00			0.97	
Flt Protected		0.98			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1606			1801		1687	1854			3412	
Flt Permitted		0.86			0.47		0.15	1.00			0.95	
Satd. Flow (perm)		1411			895		272	1854			3256	
Volume (vph)	185	4	244	1	0	0	166	326	3	2	649	173
Peak-hour factor, PHF	0.97	0.97	0.97	0.38	0.38	0.38	0.79	0.79	0.79	0.96	0.96	0.96
Adj. Flow (vph)	191	4	252	3	0	0	210	413	4	2	676	180
RTOR Reduction (vph)	0	55	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	392	0	0	3	0	210	417	0	0	832	0
Confl. Peds. (#/hr)	3		5	5		3			2	2		
Heavy Vehicles (%)	4%	0%	7%	0%	0%	0%	7%	2%	33%	0%	1%	8%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		26.7			26.7		40.8	40.8			26.2	
Effective Green, g (s)		28.2			28.2		42.4	42.4			27.8	
Actuated g/C Ratio		0.36			0.36		0.54	0.54			0.35	
Clearance Time (s)		5.5			5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		506			321		338	1000			1152	
v/s Ratio Prot							c0.08	0.22				
v/s Ratio Perm		c0.32			0.00		0.25				c0.26	
v/c Ratio		0.78			0.01		0.62	0.42			0.72	
Uniform Delay, d1		22.4			16.2		12.4	10.8			22.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		7.3			0.0		3.5	0.6			2.8	
Delay (s)		29.7			16.2		15.9	11.3			24.8	
Level of Service		C			B		B	B			C	
Approach Delay (s)		29.7			16.2			12.9			24.8	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	78.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00			0.95
Frt	1.00	0.85	0.98			1.00
Flt Protected	0.95	1.00	1.00			0.99
Satd. Flow (prot)	1787	1553	1845			3492
Flt Permitted	0.95	1.00	1.00			0.67
Satd. Flow (perm)	1787	1553	1845			2380
Volume (vph)	101	136	378	58	279	673
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.89	0.89
Adj. Flow (vph)	115	155	430	66	313	756
RTOR Reduction (vph)	0	134	2	0	0	0
Lane Group Flow (vph)	115	21	494	0	0	1069
Heavy Vehicles (%)	1%	4%	1%	2%	4%	1%
Turn Type		Perm			pm+pt	
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	12.0	12.0	76.7			76.7
Effective Green, g (s)	13.4	13.4	78.6			78.6
Actuated g/C Ratio	0.13	0.13	0.79			0.79
Clearance Time (s)	5.4	5.4	5.9			5.9
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	239	208	1450			1871
v/s Ratio Prot	0.06		0.27			
v/s Ratio Perm		0.10				c0.45
v/c Ratio	0.48	0.10	0.34			1.01dl
Uniform Delay, d1	40.1	38.0	3.1			4.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.5	0.2	0.6			0.4
Delay (s)	41.6	38.2	3.8			4.6
Level of Service	D	D	A			A
Approach Delay (s)	39.7		3.8			4.6
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			0.95	
Frpb, ped/bikes		1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.97			1.00	
Flt Protected		1.00			0.99	1.00		1.00			0.98	
Satd. Flow (prot)		1763			1851	1548		1789			3504	
Flt Permitted		0.96			0.93	1.00		0.99			0.72	
Satd. Flow (perm)		1708			1734	1548		1779			2563	
Volume (vph)	10	90	11	24	91	59	4	226	58	276	360	8
Peak-hour factor, PHF	0.73	0.73	0.73	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	123	15	27	103	67	4	246	63	300	391	9
RTOR Reduction (vph)	0	6	0	0	0	54	0	6	0	0	1	0
Lane Group Flow (vph)	0	146	0	0	130	13	0	307	0	0	699	0
Confl. Peds. (#/hr)	1		1	1		1			2	2		
Heavy Vehicles (%)	0%	7%	0%	0%	2%	2%	0%	3%	2%	0%	1%	0%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		11.2			11.2	11.2		41.9			41.9	
Effective Green, g (s)		12.9			12.9	12.9		43.4			43.4	
Actuated g/C Ratio		0.20			0.20	0.20		0.67			0.67	
Clearance Time (s)		5.7			5.7	5.7		5.5			5.5	
Vehicle Extension (s)		3.0			3.0	3.0		5.0			5.0	
Lane Grp Cap (vph)		343			348	311		1201			1730	
v/s Ratio Prot												
v/s Ratio Perm		c0.09			0.07	0.04		0.18			c0.27	
v/c Ratio		0.42			0.37	0.04		0.26			0.40	
Uniform Delay, d1		22.5			22.2	20.7		4.1			4.7	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.8			0.7	0.1		0.5			0.7	
Delay (s)		23.3			22.9	20.8		4.6			5.4	
Level of Service		C			C	C		A			A	
Approach Delay (s)		23.3			22.2			4.6			5.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	64.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1685	1837	1741	1805	1900	2842	1745	3463		3385	3559	
Flt Permitted	0.95	1.00	1.00	0.22	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1685	1837	1741	411	1900	2842	1745	3463		3385	3559	
Volume (vph)	62	293	24	248	103	62	22	774	184	171	1321	33
Peak-hour factor, PHF	0.90	0.90	0.90	0.80	0.80	0.80	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	69	326	27	310	129	78	23	823	196	186	1436	36
RTOR Reduction (vph)	0	0	21	0	0	0	0	18	0	0	2	0
Lane Group Flow (vph)	69	326	6	310	129	78	23	1001	0	186	1470	0
Confl. Peds. (#/hr)	3		4	4		3	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	6.4	24.1	24.1	42.1	31.7	31.7	1.7	39.1		10.8	48.2	
Effective Green, g (s)	6.4	26.1	26.1	44.1	33.7	33.7	3.7	41.1		12.8	50.2	
Actuated g/C Ratio	0.06	0.24	0.24	0.40	0.31	0.31	0.03	0.37		0.12	0.46	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	98	436	413	342	582	871	59	1294		394	1624	
v/s Ratio Prot	0.04	0.18		c0.12	0.07	0.03	0.01	0.29		c0.05	c0.41	
v/s Ratio Perm			0.02	c0.25								
v/c Ratio	0.70	0.75	0.02	0.91	0.22	0.09	0.39	0.77		0.47	0.91	
Uniform Delay, d1	50.9	38.9	32.1	26.0	28.4	27.2	52.0	30.4		45.4	27.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	20.5	6.9	0.0	26.3	0.2	0.0	4.2	4.6		0.9	8.8	
Delay (s)	71.3	45.8	32.1	52.4	28.6	27.3	56.3	34.9		46.3	36.5	
Level of Service	E	D	C	D	C	C	E	C		D	D	
Approach Delay (s)		49.1			42.7			35.4			37.6	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	39.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.98		1.00	0.99	
Flt Protected		1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3024			3171		1711	3334		1745	3363	
Flt Permitted		0.89			0.59		0.18	1.00		0.18	1.00	
Satd. Flow (perm)		2711			1917		322	3334		339	3363	
Volume (vph)	32	301	92	141	189	6	91	846	127	3	912	54
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.98	0.98	0.98	0.86	0.86	0.86
Adj. Flow (vph)	33	310	95	152	203	6	93	863	130	3	1060	63
RTOR Reduction (vph)	0	15	0	0	1	0	0	7	0	0	2	0
Lane Group Flow (vph)	0	423	0	0	360	0	93	986	0	3	1121	0
Heavy Vehicles (%)	2%	9%	4%	1%	6%	0%	2%	3%	0%	0%	3%	1%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		42.4			42.4		85.6	76.9		82.0	82.0	
Effective Green, g (s)		44.2			44.2		88.7	78.8		83.9	83.9	
Actuated g/C Ratio		0.29			0.29		0.59	0.53		0.56	0.56	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		799			565		282	1751		190	1881	
v/s Ratio Prot							c0.02	0.30			c0.33	
v/s Ratio Perm		0.16			c0.19		0.17			0.01		
v/c Ratio		0.53			1.13dl		0.33	0.56		0.02	0.60	
Uniform Delay, d1		44.2			45.9		15.5	24.0		14.7	21.8	
Progression Factor		1.00			0.38		1.00	1.00		0.99	0.99	
Incremental Delay, d2		0.6			2.2		0.7	1.3		0.1	1.4	
Delay (s)		44.8			19.7		16.2	25.3		14.7	23.0	
Level of Service		D			B		B	C		B	C	
Approach Delay (s)		44.8			19.7			24.5			23.0	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.98			0.97			1.00	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3127			3149			3297			3525	
Flt Permitted		0.93			0.89			0.73			0.80	
Satd. Flow (perm)		2901			2802			2458			2869	
Volume (vph)	18	359	55	25	281	36	62	71	36	83	223	1
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	19	382	59	27	305	39	74	85	43	89	240	1
RTOR Reduction (vph)	0	9	0	0	6	0	0	13	0	0	0	0
Lane Group Flow (vph)	0	451	0	0	365	0	0	189	0	0	330	0
Heavy Vehicles (%)	13%	5%	6%	4%	5%	5%	10%	1%	0%	1%	1%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		42.4			42.4			76.9			95.8	
Effective Green, g (s)		44.2			44.2			78.8			97.8	
Actuated g/C Ratio		0.29			0.29			0.53			0.65	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		855			826			1291			1936	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		c0.16			0.13			0.08			c0.09	
v/c Ratio		0.53			0.44			0.15			0.17	
Uniform Delay, d1		44.2			42.9			18.3			10.2	
Progression Factor		0.48			1.00			1.00			2.23	
Incremental Delay, d2		0.5			0.4			0.2			0.0	
Delay (s)		21.8			43.3			18.5			22.8	
Level of Service		C			D			B			C	
Approach Delay (s)		21.8			43.3			18.5			22.8	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

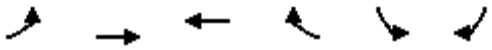
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	0.99
Satd. Flow (prot)		2787	3388		1572	3231
Flt Permitted		1.00	1.00		0.95	0.56
Satd. Flow (perm)		2787	3388		1572	1817
Volume (vph)	0	116	791	0	297	747
Peak-hour factor, PHF	0.80	0.80	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	145	931	0	313	786
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	145	931	0	176	923
Heavy Vehicles (%)	0%	2%	3%	0%	1%	3%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		42.4	76.9		42.4	138.2
Effective Green, g (s)		44.2	78.8		44.2	142.0
Actuated g/C Ratio		0.29	0.53		0.29	0.95
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		821	1780		463	2137
v/s Ratio Prot			c0.27		0.11	c0.13
v/s Ratio Perm		0.05				c0.28
v/c Ratio		0.18	0.52		0.38	0.43
Uniform Delay, d1		39.4	23.3		42.0	0.4
Progression Factor		0.88	0.21		1.00	1.00
Incremental Delay, d2		0.1	0.9		0.5	0.1
Delay (s)		34.6	5.9		42.5	0.5
Level of Service		C	A		D	A
Approach Delay (s)	34.6		5.9			7.2
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			0.95	1.00		0.95	
Frt		0.92			0.93			1.00	0.85		1.00	
Flt Protected		0.98			0.98			1.00	1.00		1.00	
Satd. Flow (prot)		1426			1684			3428	1599		3395	
Flt Permitted		0.85			0.83			0.95	1.00		0.83	
Satd. Flow (perm)		1238			1436			3271	1599		2843	
Volume (vph)	6	2	11	230	2	267	2	538	87	46	413	2
Peak-hour factor, PHF	0.48	0.48	0.48	0.94	0.94	0.94	0.81	0.81	0.81	0.87	0.87	0.87
Adj. Flow (vph)	12	4	23	245	2	284	2	664	107	53	475	2
RTOR Reduction (vph)	0	14	0	0	48	0	0	0	52	0	0	0
Lane Group Flow (vph)	0	25	0	0	483	0	0	666	55	0	530	0
Heavy Vehicles (%)	17%	100%	9%	3%	100%	1%	100%	5%	1%	0%	6%	100%
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		31.6			31.6			42.4	42.4		42.4	
Effective Green, g (s)		33.9			33.9			44.5	44.5		44.5	
Actuated g/C Ratio		0.39			0.39			0.52	0.52		0.52	
Clearance Time (s)		6.3			6.3			6.1	6.1		6.1	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		486			563			1685	824		1464	
v/s Ratio Prot												
v/s Ratio Perm		0.03			c0.37			c0.20	0.07		0.19	
v/c Ratio		0.05			0.86			0.40	0.07		0.36	
Uniform Delay, d1		16.3			24.0			12.8	10.5		12.5	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0			12.3			0.7	0.2		0.7	
Delay (s)		16.3			36.3			13.5	10.7		13.2	
Level of Service		B			D			B	B		B	
Approach Delay (s)		16.3			36.3			13.1			13.2	
Approach LOS		B			D			B			B	

Intersection Summary			
HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	86.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	56	127	412	65	80	83
Peak Hour Factor	0.87	0.87	0.98	0.98	0.90	0.90
Hourly flow rate (vph)	64	146	420	66	89	92
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	489				730	456
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	489				730	456
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				76	85
cM capacity (veh/h)	1083				367	604

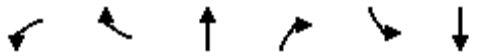
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	210	487	181
Volume Left	64	0	89
Volume Right	0	66	92
cSH	1083	1700	458
Volume to Capacity	0.06	0.29	0.40
Queue Length (ft)	5	0	46
Control Delay (s)	3.0	0.0	17.9
Lane LOS	A		C
Approach Delay (s)	3.0	0.0	17.9
Approach LOS			C

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	263	5	46	299	21	100
Peak Hour Factor	0.92	0.92	0.80	0.80	0.61	0.61
Hourly flow rate (vph)	286	5	58	374	34	164

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	291	431	198
Volume Left (vph)	0	58	34
Volume Right (vph)	5	0	164
Hadj (s)	0.1	0.1	-0.5
Departure Headway (s)	5.2	6.3	5.3
Degree Utilization, x	0.42	0.75	0.29
Capacity (veh/h)	661	532	608
Control Delay (s)	9.1	13.5	8.9
Approach Delay (s)	9.1	13.5	8.9
Approach LOS	A	B	A

Intersection Summary			
Delay	11.1		
HCM Level of Service	B		
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	129	112	678	243	148	732
Peak Hour Factor	0.87	0.87	0.86	0.86	0.93	0.93
Hourly flow rate (vph)	148	129	788	283	159	787
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			971			
pX, platoon unblocked						
vC, conflicting volume	1641	930			1071	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1641	930			1071	
tC, single (s)	6.8	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	52			75	
cM capacity (veh/h)	69	267			647	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	277	1071	422	525
Volume Left	148	0	159	0
Volume Right	129	283	0	0
cSH	106	1700	647	1700
Volume to Capacity	2.63	0.63	0.25	0.31
Queue Length (ft)	638	0	24	0
Control Delay (s)	822.1	0.0	6.9	0.0
Lane LOS	F		A	
Approach Delay (s)	822.1	0.0	3.1	
Approach LOS	F			

Intersection Summary			
Average Delay	100.5		
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			0.95	
Frt		0.94			0.92		1.00	1.00			0.98	
Flt Protected		0.97			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1687			1729		1787	1880			3511	
Flt Permitted		0.82			0.94		0.13	1.00			0.95	
Satd. Flow (perm)		1415			1638		253	1880			3352	
Volume (vph)	130	1	94	2	1	4	268	508	3	1	742	133
Peak-hour factor, PHF	0.80	0.80	0.80	0.58	0.58	0.58	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	162	1	118	3	2	7	301	571	3	1	807	145
RTOR Reduction (vph)	0	33	0	0	5	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	248	0	0	7	0	301	574	0	0	938	0
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	1%	1%	0%	0%	0%	3%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		21.8			21.8		43.5	43.5			27.5	
Effective Green, g (s)		23.3			23.3		45.1	45.1			29.1	
Actuated g/C Ratio		0.30			0.30		0.59	0.59			0.38	
Clearance Time (s)		5.5			5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		432			500		390	1110			1277	
v/s Ratio Prot							c0.12	0.31				
v/s Ratio Perm		c0.20			0.01		c0.33				0.28	
v/c Ratio		0.57			0.01		0.77	0.52			0.73	
Uniform Delay, d1		22.4			18.5		14.8	9.2			20.3	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		1.9			0.0		9.1	0.8			2.7	
Delay (s)		24.2			18.5		24.0	10.0			23.0	
Level of Service		C			B		C	B			C	
Approach Delay (s)		24.2			18.5			14.8			23.0	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00			0.95
Frt	1.00	0.85	0.99			1.00
Flt Protected	0.95	1.00	1.00			0.99
Satd. Flow (prot)	1805	1583	1878			3572
Flt Permitted	0.95	1.00	1.00			0.67
Satd. Flow (perm)	1805	1583	1878			2426
Volume (vph)	150	265	618	50	134	626
Peak-hour factor, PHF	0.86	0.86	0.95	0.95	0.94	0.94
Adj. Flow (vph)	174	308	651	53	143	666
RTOR Reduction (vph)	0	258	1	0	0	0
Lane Group Flow (vph)	174	50	703	0	0	809
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%
Turn Type		Perm			pm+pt	
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	14.9	14.9	73.8			73.8
Effective Green, g (s)	16.3	16.3	75.7			75.7
Actuated g/C Ratio	0.16	0.16	0.76			0.76
Clearance Time (s)	5.4	5.4	5.9			5.9
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	294	258	1422			1836
v/s Ratio Prot	0.10		c0.37			
v/s Ratio Perm		0.19				0.33
v/c Ratio	0.59	0.19	0.49			1.27dl
Uniform Delay, d1	38.8	36.2	4.7			4.4
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	3.2	0.4	1.2			0.2
Delay (s)	41.9	36.5	5.9			4.6
Level of Service	D	D	A			A
Approach Delay (s)	38.5		5.9			4.6
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			0.95	
Frpb, ped/bikes		1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00			1.00	
Frt		1.00			1.00	0.85		0.99			1.00	
Flt Protected		0.99			0.99	1.00		1.00			0.99	
Satd. Flow (prot)		1870			1869	1576		1868			3552	
Flt Permitted		0.90			0.93	1.00		0.99			0.75	
Satd. Flow (perm)		1708			1757	1576		1859			2706	
Volume (vph)	19	69	3	29	150	144	4	328	38	157	411	10
Peak-hour factor, PHF	0.76	0.76	0.76	0.91	0.91	0.91	0.88	0.88	0.88	0.96	0.96	0.96
Adj. Flow (vph)	25	91	4	32	165	158	5	373	43	164	428	10
RTOR Reduction (vph)	0	2	0	0	0	123	0	3	0	0	1	0
Lane Group Flow (vph)	0	118	0	0	197	35	0	418	0	0	601	0
Confl. Peds. (#/hr)	2		1	1		2			1	1		
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		12.3			12.3	12.3		39.8			39.8	
Effective Green, g (s)		14.0			14.0	14.0		41.3			41.3	
Actuated g/C Ratio		0.22			0.22	0.22		0.65			0.65	
Clearance Time (s)		5.7			5.7	5.7		5.5			5.5	
Vehicle Extension (s)		3.0			3.0	3.0		5.0			5.0	
Lane Grp Cap (vph)		378			389	349		1213			1766	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.11	0.10		c0.23			0.22	
v/c Ratio		0.31			0.51	0.10		0.34			0.34	
Uniform Delay, d1		20.6			21.6	19.6		4.9			4.9	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.5			1.0	0.1		0.8			0.5	
Delay (s)		21.1			22.7	19.8		5.7			5.4	
Level of Service		C			C	B		A			A	
Approach Delay (s)		21.1			21.4			5.7			5.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1652	1818	1710	1804	1881	2814	1711	3554		3385	3560	
Flt Permitted	0.95	1.00	1.00	0.29	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1652	1818	1710	548	1881	2814	1711	3554		3385	3560	
Volume (vph)	133	192	59	389	195	236	53	1277	122	223	1407	27
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.97	0.97	0.97	0.90	0.90	0.90
Adj. Flow (vph)	156	226	69	423	212	257	55	1316	126	248	1563	30
RTOR Reduction (vph)	0	0	56	0	0	0	0	6	0	0	1	0
Lane Group Flow (vph)	156	226	13	423	212	257	55	1436	0	248	1592	0
Confl. Peds. (#/hr)	3		3	3		3	5		3	3		5
Heavy Vehicles (%)	2%	1%	2%	0%	1%	1%	2%	0%	1%	0%	1%	4%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	8.0	18.2	18.2	36.2	24.2	24.2	7.1	42.8		13.0	48.7	
Effective Green, g (s)	8.0	20.2	20.2	38.2	26.2	26.2	9.1	44.8		15.0	50.7	
Actuated g/C Ratio	0.07	0.18	0.18	0.35	0.24	0.24	0.08	0.41		0.14	0.46	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	120	334	314	350	448	670	142	1447		462	1641	
v/s Ratio Prot	0.09	0.12		c0.15	0.11	0.09	0.03	0.41		c0.07	c0.45	
v/s Ratio Perm			0.04	c0.27								
v/c Ratio	1.30	0.68	0.04	1.21	0.47	0.38	0.39	0.99		0.54	0.97	
Uniform Delay, d1	51.0	41.9	36.9	32.6	36.0	35.1	47.8	32.4		44.3	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	183.0	5.4	0.1	117.6	0.8	0.4	1.8	21.9		1.2	16.2	
Delay (s)	234.0	47.2	37.0	150.2	36.8	35.5	49.6	54.4		45.5	45.1	
Level of Service	F	D	D	F	D	D	D	D		D	D	
Approach Delay (s)		110.2			90.2			54.2			45.1	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	62.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3205			3240		1694	3419		1745	3433	
Flt Permitted		0.65			0.62		0.07	1.00		0.07	1.00	
Satd. Flow (perm)		2101			2039		130	3419		130	3433	
Volume (vph)	41	259	76	363	419	7	95	1145	79	9	1248	49
Peak-hour factor, PHF	0.91	0.91	0.91	0.84	0.84	0.84	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	45	285	84	432	499	8	102	1231	85	10	1357	53
RTOR Reduction (vph)	0	16	0	0	1	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	398	0	0	938	0	102	1312	0	10	1408	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	3%	1%	2%	0%	1%	3%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		40.2			40.2		61.6	53.1		54.4	54.4	
Effective Green, g (s)		42.0			42.0		64.7	55.0		56.3	56.3	
Actuated g/C Ratio		0.35			0.35		0.54	0.46		0.47	0.47	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		735			714		197	1567		61	1611	
v/s Ratio Prot							c0.04	0.38			c0.41	
v/s Ratio Perm		0.20			c0.46		0.24			0.08		
v/c Ratio		0.54			2.35dl		0.52	0.84		0.16	0.87	
Uniform Delay, d1		31.3			39.0		21.9	28.6		18.3	28.7	
Progression Factor		1.00			0.35		1.00	1.00		0.98	0.98	
Incremental Delay, d2		0.8			147.3		2.3	5.5		5.1	6.2	
Delay (s)		32.1			160.8		24.2	34.1		23.0	34.4	
Level of Service		C			F		C	C		C	C	
Approach Delay (s)		32.1			160.8			33.3			34.4	
Approach LOS		C			F			C			C	

Intersection Summary			
HCM Average Control Delay	62.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.6%	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.98			0.99			1.00	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3212			3265			3522			3560	
Flt Permitted		0.92			0.91			0.76			0.77	
Satd. Flow (perm)		2957			2992			2723			2783	
Volume (vph)	7	278	63	36	677	108	119	309	18	57	189	4
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	8	309	70	41	778	124	125	325	19	67	222	5
RTOR Reduction (vph)	0	16	0	0	8	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	371	0	0	935	0	0	466	0	0	293	0
Heavy Vehicles (%)	0%	2%	2%	3%	1%	0%	2%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		40.2			40.2			53.1			64.2	
Effective Green, g (s)		42.0			42.0			55.0			67.3	
Actuated g/C Ratio		0.35			0.35			0.46			0.56	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		1035			1047			1248			1632	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		0.13			c0.32			c0.17			0.08	
v/c Ratio		0.36			0.89			0.37			0.18	
Uniform Delay, d1		29.0			36.9			21.2			12.9	
Progression Factor		0.36			1.00			1.00			2.27	
Incremental Delay, d2		0.2			9.8			0.9			0.1	
Delay (s)		10.6			46.7			22.1			29.3	
Level of Service		B			D			C			C	
Approach Delay (s)		10.6			46.7			22.1			29.3	
Approach LOS		B			D			C			C	

Intersection Summary			
HCM Average Control Delay	32.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2842	3455		1588	3304
Flt Permitted		1.00	1.00		0.95	0.80
Satd. Flow (perm)		2842	3455		1588	2647
Volume (vph)	0	408	1024	0	240	1112
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.97	0.97
Adj. Flow (vph)	0	453	1078	0	247	1146
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	453	1078	0	200	1193
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		40.2	53.1		40.2	104.4
Effective Green, g (s)		42.0	55.0		42.0	109.3
Actuated g/C Ratio		0.35	0.46		0.35	0.91
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		995	1584		556	2641
v/s Ratio Prot			c0.31		0.13	0.16
v/s Ratio Perm		0.16				c0.25
v/c Ratio		0.46	0.68		0.36	0.45
Uniform Delay, d1		30.2	25.6		29.0	0.8
Progression Factor		1.10	0.22		1.00	1.00
Incremental Delay, d2		0.3	1.3		0.4	0.1
Delay (s)		33.5	6.9		29.4	0.9
Level of Service		C	A		C	A
Approach Delay (s)	33.5		6.9			5.0
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Capacity Analyses – Existing 2008 Conditions
IMPROVED

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		1.00			0.95
Frt	0.96		0.96			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1670		1791			3503
Flt Permitted	0.97		1.00			0.60
Satd. Flow (perm)	1670		1791			2139
Volume (vph)	115	52	461	205	244	698
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.87	0.87
Adj. Flow (vph)	129	58	496	220	280	802
RTOR Reduction (vph)	18	0	13	0	0	0
Lane Group Flow (vph)	169	0	703	0	0	1082
Heavy Vehicles (%)	6%	4%	2%	1%	1%	2%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	11.7		48.2			48.2
Effective Green, g (s)	11.7		48.2			48.2
Actuated g/C Ratio	0.17		0.71			0.71
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	288		1271			1518
v/s Ratio Prot	c0.11		0.40			
v/s Ratio Perm						c0.51
v/c Ratio	0.59		0.55			0.88dl
Uniform Delay, d1	25.9		4.7			5.8
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	3.0		0.5			1.6
Delay (s)	28.9		5.2			7.4
Level of Service	C		A			A
Approach Delay (s)	28.9		5.2			7.4
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.7%	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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		1.00			0.95
Frt	0.94		0.96			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1701		1796			3539
Flt Permitted	0.97		1.00			0.54
Satd. Flow (perm)	1701		1796			1943
Volume (vph)	129	112	678	243	148	732
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.93	0.93
Adj. Flow (vph)	148	129	788	283	159	787
RTOR Reduction (vph)	34	0	12	0	0	0
Lane Group Flow (vph)	243	0	1059	0	0	946
Heavy Vehicles (%)	1%	3%	2%	2%	2%	1%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	13.8		50.7			50.7
Effective Green, g (s)	13.8		50.7			50.7
Actuated g/C Ratio	0.19		0.70			0.70
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	324		1256			1359
v/s Ratio Prot	c0.16		c0.60			
v/s Ratio Perm						0.49
v/c Ratio	0.75		0.84			1.79dl
Uniform Delay, d1	27.7		8.0			6.4
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	9.2		5.3			1.6
Delay (s)	36.9		13.3			8.0
Level of Service	D		B			A
Approach Delay (s)	36.9		13.3			8.0
Approach LOS	D		B			A

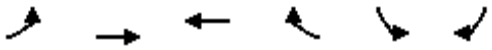
Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	72.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Capacity Analyses – Projected 2011 No-Build Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			0.95	1.00		0.95	
Frpb, ped/bikes		1.00			1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00		1.00	
Frt		0.91			0.94			1.00	0.85		1.00	
Flt Protected		0.99			0.97			1.00	1.00		0.98	
Satd. Flow (prot)		1077			1465			3438	1423		3403	
Flt Permitted		0.95			0.82			0.95	1.00		0.70	
Satd. Flow (perm)		1032			1239			3275	1423		2434	
Volume (vph)	2	1	6	104	5	77	2	292	294	264	373	2
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)	2	1	7	113	5	84	2	317	320	287	405	2
RTOR Reduction (vph)	0	5	0	0	40	0	0	0	126	0	0	0
Lane Group Flow (vph)	0	5	0	0	162	0	0	319	194	0	694	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	0%	0%	83%	23%	0%	15%	0%	5%	11%	5%	3%	0%
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		17.1			17.1			40.2	40.2		40.2	
Effective Green, g (s)		19.4			19.4			42.3	42.3		42.3	
Actuated g/C Ratio		0.28			0.28			0.61	0.61		0.61	
Clearance Time (s)		6.3			6.3			6.1	6.1		6.1	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		287			345			1988	864		1477	
v/s Ratio Prot												
v/s Ratio Perm		0.01			c0.16			0.10	0.22		c0.29	
v/c Ratio		0.02			0.47			0.16	0.22		0.47	
Uniform Delay, d1		18.2			20.9			6.0	6.2		7.5	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0			1.0			0.2	0.6		1.1	
Delay (s)		18.3			21.9			6.1	6.8		8.6	
Level of Service		B			C			A	A		A	
Approach Delay (s)		18.3			21.9			6.5			8.6	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	102	526	180	75	100	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	572	196	82	109	46
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	277				1030	236
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	277				1030	236
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				54	94
cM capacity (veh/h)	1297				235	795

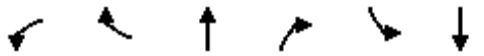
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	683	277	154
Volume Left	111	0	109
Volume Right	0	82	46
cSH	1297	1700	296
Volume to Capacity	0.09	0.16	0.52
Queue Length (ft)	7	0	70
Control Delay (s)	2.2	0.0	29.6
Lane LOS	A		D
Approach Delay (s)	2.2	0.0	29.6
Approach LOS			D

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	488	27	102	234	35	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	530	29	111	254	38	141

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	560	365	179
Volume Left (vph)	0	111	38
Volume Right (vph)	29	0	141
Hadj (s)	0.1	0.1	-0.4
Departure Headway (s)	5.1	6.6	5.8
Degree Utilization, x	0.79	0.67	0.29
Capacity (veh/h)	692	477	559
Control Delay (s)	12.2	12.8	9.4
Approach Delay (s)	12.2	12.8	9.4
Approach LOS	B	B	A

Intersection Summary			
Delay	11.9		
HCM Level of Service	B		
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	127	56	509	234	263	755
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	138	61	553	254	286	821
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			971			
pX, platoon unblocked						
vC, conflicting volume	1662	680			808	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1662	680			808	
tC, single (s)	6.9	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	84			65	
cM capacity (veh/h)	55	389			820	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	199	808	559	547
Volume Left	138	0	286	0
Volume Right	61	254	0	0
cSH	75	1700	820	1700
Volume to Capacity	2.67	0.48	0.35	0.32
Queue Length (ft)	485	0	39	0
Control Delay (s)	875.0	0.0	8.4	0.0
Lane LOS	F		A	
Approach Delay (s)	875.0	0.0	4.2	
Approach LOS	F			

Intersection Summary			
Average Delay	84.6		
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			0.95	
Frpb, ped/bikes		0.99			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			1.00		1.00	1.00			0.97	
Flt Protected		0.98			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1604			1802		1687	1856			3407	
Flt Permitted		0.86			0.44		0.12	1.00			0.95	
Satd. Flow (perm)		1411			833		208	1856			3252	
Volume (vph)	226	4	299	1	0	0	188	351	3	2	699	193
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)	246	4	325	1	0	0	204	382	3	2	760	210
RTOR Reduction (vph)	0	52	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	523	0	0	1	0	204	385	0	0	945	0
Confl. Peds. (#/hr)	3		5	5		3			2	2		
Heavy Vehicles (%)	4%	0%	7%	0%	0%	0%	7%	2%	33%	0%	1%	8%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		32.3			32.3		43.6	43.6			28.5	
Effective Green, g (s)		33.8			33.8		45.2	45.2			30.1	
Actuated g/C Ratio		0.39			0.39		0.52	0.52			0.35	
Clearance Time (s)		5.5			5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		548			324		297	964			1125	
v/s Ratio Prot							c0.09	0.21				
v/s Ratio Perm		c0.41			0.00		0.27				c0.30	
v/c Ratio		0.95			0.00		0.69	0.40			0.84	
Uniform Delay, d1		25.9			16.3		15.8	12.7			26.2	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		27.2			0.0		6.5	0.6			6.3	
Delay (s)		53.1			16.3		22.3	13.2			32.5	
Level of Service		D			B		C	B			C	
Approach Delay (s)		53.1			16.3			16.4			32.5	
Approach LOS		D			B			B			C	

Intersection Summary			
HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	87.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00			0.95
Frt	1.00	0.85	0.98			1.00
Flt Protected	0.95	1.00	1.00			0.99
Satd. Flow (prot)	1787	1553	1846			3490
Flt Permitted	0.95	1.00	1.00			0.66
Satd. Flow (perm)	1787	1553	1846			2346
Volume (vph)	109	150	411	62	318	743
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	163	447	67	346	808
RTOR Reduction (vph)	0	141	2	0	0	0
Lane Group Flow (vph)	118	22	512	0	0	1154
Heavy Vehicles (%)	1%	4%	1%	2%	4%	1%
Turn Type		Perm			pm+pt	
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	12.1	12.1	76.3			76.3
Effective Green, g (s)	13.5	13.5	78.2			78.2
Actuated g/C Ratio	0.14	0.14	0.78			0.78
Clearance Time (s)	5.4	5.4	5.9			5.9
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	242	210	1448			1840
v/s Ratio Prot	0.07		0.28			
v/s Ratio Perm		0.10				c0.49
v/c Ratio	0.49	0.11	0.35			1.22dl
Uniform Delay, d1	39.9	37.8	3.2			4.6
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.5	0.2	0.7			0.7
Delay (s)	41.4	38.0	3.9			5.2
Level of Service	D	D	A			A
Approach Delay (s)	39.5		3.9			5.2
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	99.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			0.95	
Frpb, ped/bikes		1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.97			1.00	
Flt Protected		1.00			0.99	1.00		1.00			0.98	
Satd. Flow (prot)		1763			1851	1548		1790			3504	
Flt Permitted		0.96			0.92	1.00		0.99			0.71	
Satd. Flow (perm)		1704			1724	1548		1779			2534	
Volume (vph)	11	97	12	26	98	66	4	245	62	306	397	9
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)	12	105	13	28	107	72	4	266	67	333	432	10
RTOR Reduction (vph)	0	7	0	0	0	60	0	5	0	0	1	0
Lane Group Flow (vph)	0	123	0	0	135	12	0	332	0	0	774	0
Confl. Peds. (#/hr)	1		1	1		1			2	2		
Heavy Vehicles (%)	0%	7%	0%	0%	2%	2%	0%	3%	2%	0%	1%	0%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		9.7			9.7	9.7		45.5			45.5	
Effective Green, g (s)		11.4			11.4	11.4		47.0			47.0	
Actuated g/C Ratio		0.17			0.17	0.17		0.71			0.71	
Clearance Time (s)		5.7			5.7	5.7		5.5			5.5	
Vehicle Extension (s)		3.0			3.0	3.0		5.0			5.0	
Lane Grp Cap (vph)		293			296	266		1259			1794	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.08	0.05		0.19			c0.31	
v/c Ratio		0.42			0.46	0.05		0.26			0.43	
Uniform Delay, d1		24.5			24.7	23.0		3.5			4.1	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		1.0			1.1	0.1		0.5			0.8	
Delay (s)		25.5			25.8	23.0		4.0			4.8	
Level of Service		C			C	C		A			A	
Approach Delay (s)		25.5			24.9			4.0			4.8	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1685	1837	1741	1805	1900	2842	1745	3463		3385	3558	
Flt Permitted	0.95	1.00	1.00	0.19	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1685	1837	1741	365	1900	2842	1745	3463		3385	3558	
Volume (vph)	71	325	26	267	113	67	24	834	198	184	1423	37
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)	77	353	28	290	123	73	26	907	215	200	1547	40
RTOR Reduction (vph)	0	0	21	0	0	0	0	18	0	0	2	0
Lane Group Flow (vph)	77	353	7	290	123	73	26	1104	0	200	1585	0
Confl. Peds. (#/hr)	3		4	4		3	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	6.4	25.1	25.1	43.0	32.6	32.6	2.9	38.1		10.9	46.1	
Effective Green, g (s)	6.4	27.1	27.1	45.0	34.6	34.6	4.9	40.1		12.9	48.1	
Actuated g/C Ratio	0.06	0.25	0.25	0.41	0.31	0.31	0.04	0.36		0.12	0.44	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	98	453	429	331	598	894	78	1262		397	1556	
v/s Ratio Prot	0.05	0.19		c0.11	0.06	0.03	0.01	0.32		c0.06	c0.45	
v/s Ratio Perm			0.02	c0.25								
v/c Ratio	0.79	0.78	0.02	0.88	0.21	0.08	0.33	0.87		0.50	1.02	
Uniform Delay, d1	51.1	38.7	31.4	25.5	27.6	26.5	51.0	32.6		45.5	31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	32.8	8.3	0.0	21.9	0.2	0.0	2.5	8.7		1.0	27.7	
Delay (s)	83.9	46.9	31.4	47.3	27.8	26.6	53.5	41.3		46.6	58.6	
Level of Service	F	D	C	D	C	C	D	D		D	E	
Approach Delay (s)		52.2			39.3			41.5			57.3	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM Average Control Delay	49.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.98		1.00	0.99	
Flt Protected		1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3024			3172		1711	3334		1745	3363	
Flt Permitted		0.89			0.58		0.14	1.00		0.15	1.00	
Satd. Flow (perm)		2703			1875		252	3334		268	3363	
Volume (vph)	34	337	103	152	207	6	99	911	137	3	982	58
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.98	0.98	0.98	0.86	0.86	0.86
Adj. Flow (vph)	35	347	106	163	223	6	101	930	140	3	1142	67
RTOR Reduction (vph)	0	14	0	0	1	0	0	7	0	0	2	0
Lane Group Flow (vph)	0	474	0	0	391	0	101	1063	0	3	1207	0
Heavy Vehicles (%)	2%	9%	4%	1%	6%	0%	2%	3%	0%	0%	3%	1%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		46.1			46.1		81.7	71.9		77.2	77.2	
Effective Green, g (s)		47.9			47.9		84.8	73.8		79.1	79.1	
Actuated g/C Ratio		0.32			0.32		0.57	0.49		0.53	0.53	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		863			599		249	1640		141	1773	
v/s Ratio Prot							c0.03	0.32			c0.36	
v/s Ratio Perm		0.18			c0.21		0.20			0.01		
v/c Ratio		0.55			1.35dl		0.41	0.65		0.02	0.68	
Uniform Delay, d1		42.1			43.9		18.9	28.4		16.9	26.1	
Progression Factor		1.00			0.40		1.00	1.00		0.99	0.99	
Incremental Delay, d2		0.7			2.4		1.1	2.0		0.3	2.0	
Delay (s)		42.9			19.9		20.0	30.4		17.1	28.0	
Level of Service		D			B		B	C		B	C	
Approach Delay (s)		42.9			19.9			29.5			27.9	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.98			0.97			1.00	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3126			3150			3295			3525	
Flt Permitted		0.92			0.87			0.72			0.79	
Satd. Flow (perm)		2897			2759			2404			2829	
Volume (vph)	19	396	63	27	305	39	68	76	39	89	240	1
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	20	421	67	29	332	42	81	90	46	96	258	1
RTOR Reduction (vph)	0	9	0	0	5	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	499	0	0	398	0	0	203	0	0	355	0
Heavy Vehicles (%)	13%	5%	6%	4%	5%	5%	10%	1%	0%	1%	1%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		46.1			46.1			71.9			92.2	
Effective Green, g (s)		47.9			47.9			73.8			94.1	
Actuated g/C Ratio		0.32			0.32			0.49			0.63	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		925			881			1183			1850	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		c0.18			0.15			0.09			c0.10	
v/c Ratio		0.54			0.45			0.17			0.19	
Uniform Delay, d1		42.0			40.6			21.1			11.8	
Progression Factor		0.47			1.00			1.00			2.11	
Incremental Delay, d2		0.5			0.4			0.3			0.0	
Delay (s)		20.3			41.0			21.5			25.1	
Level of Service		C			D			C			C	
Approach Delay (s)		20.3			41.0			21.5			25.1	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

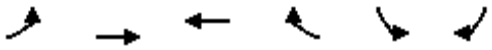
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	0.99
Satd. Flow (prot)		2787	3383		1572	3231
Flt Permitted		1.00	1.00		0.95	0.52
Satd. Flow (perm)		2787	3383		1572	1708
Volume (vph)	0	125	852	10	320	804
Peak-hour factor, PHF	0.80	0.80	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	156	1002	12	337	846
RTOR Reduction (vph)	0	0	1	0	0	0
Lane Group Flow (vph)	0	156	1013	0	189	994
Heavy Vehicles (%)	0%	2%	3%	0%	1%	3%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		46.1	71.9		46.1	138.3
Effective Green, g (s)		47.9	73.8		47.9	142.0
Actuated g/C Ratio		0.32	0.49		0.32	0.95
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		890	1664		502	2103
v/s Ratio Prot			c0.30		0.12	c0.15
v/s Ratio Perm		0.06				c0.30
v/c Ratio		0.18	0.61		0.38	0.47
Uniform Delay, d1		36.8	27.6		39.5	0.4
Progression Factor		0.89	0.20		1.00	1.00
Incremental Delay, d2		0.1	1.3		0.5	0.2
Delay (s)		32.8	6.9		40.0	0.6
Level of Service		C	A		D	A
Approach Delay (s)	32.8		6.9			6.9
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			0.95	1.00		0.95	
Frt		0.92			0.93			1.00	0.85		1.00	
Flt Protected		0.98			0.98			1.00	1.00		0.99	
Satd. Flow (prot)		1436			1685			3428	1599		3396	
Flt Permitted		0.87			0.84			0.95	1.00		0.79	
Satd. Flow (perm)		1267			1452			3270	1599		2706	
Volume (vph)	6	2	12	253	2	298	2	579	103	68	445	2
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)	7	2	13	275	2	324	2	629	112	74	484	2
RTOR Reduction (vph)	0	8	0	0	47	0	0	0	57	0	0	0
Lane Group Flow (vph)	0	14	0	0	554	0	0	631	55	0	560	0
Heavy Vehicles (%)	17%	100%	9%	3%	100%	1%	100%	5%	1%	0%	6%	100%
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		35.6			35.6			42.2	42.2		42.2	
Effective Green, g (s)		37.9			37.9			44.3	44.3		44.3	
Actuated g/C Ratio		0.42			0.42			0.49	0.49		0.49	
Clearance Time (s)		6.3			6.3			6.1	6.1		6.1	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		532			610			1606	785		1329	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.41			0.19	0.07		c0.21	
v/c Ratio		0.03			0.91			0.39	0.07		0.42	
Uniform Delay, d1		15.3			24.5			14.5	12.1		14.7	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0			17.3			0.7	0.2		1.0	
Delay (s)		15.4			41.8			15.2	12.3		15.7	
Level of Service		B			D			B	B		B	
Approach Delay (s)		15.4			41.8			14.8			15.7	
Approach LOS		B			D			B			B	

Intersection Summary			
HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	110.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	60	164	458	70	86	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	178	498	76	93	97
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	576				847	538
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	576				847	538
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				70	82
cM capacity (veh/h)	1006				312	542

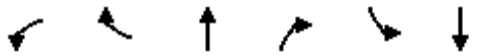
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	243	574	190
Volume Left	65	0	93
Volume Right	0	76	97
cSH	1006	1700	398
Volume to Capacity	0.06	0.34	0.48
Queue Length (ft)	5	0	63
Control Delay (s)	2.8	0.0	22.1
Lane LOS	A		C
Approach Delay (s)	2.8	0.0	22.1
Approach LOS			C

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	283	32	112	322	23	142
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	308	35	122	350	25	154

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	342	472	179
Volume Left (vph)	0	122	25
Volume Right (vph)	35	0	154
Hadj (s)	0.0	0.1	-0.5
Departure Headway (s)	5.2	6.6	5.6
Degree Utilization, x	0.49	0.87	0.28
Capacity (veh/h)	661	472	599
Control Delay (s)	9.4	16.8	9.1
Approach Delay (s)	9.4	16.8	9.1
Approach LOS	A	C	A

Intersection Summary			
Delay	12.9		
HCM Level of Service	B		
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	152	121	737	269	159	801
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	165	132	801	292	173	871
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			971			
pX, platoon unblocked						
vC, conflicting volume	1728	947			1093	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1728	947			1093	
tC, single (s)	6.8	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	49			73	
cM capacity (veh/h)	58	260			634	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	297	1093	463	580
Volume Left	165	0	173	0
Volume Right	132	292	0	0
cSH	89	1700	634	1700
Volume to Capacity	3.33	0.64	0.27	0.34
Queue Length (ft)	Err	0	28	0
Control Delay (s)	Err	0.0	7.4	0.0
Lane LOS	F		A	
Approach Delay (s)	Err	0.0	3.3	
Approach LOS	F			

Intersection Summary			
Average Delay	1220.6		
Intersection Capacity Utilization	107.8%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			0.95	
Frt		0.94			0.92		1.00	1.00			0.97	
Flt Protected		0.97			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1684			1729		1787	1880			3496	
Flt Permitted		0.82			0.93		0.12	1.00			0.95	
Satd. Flow (perm)		1423			1635		219	1880			3338	
Volume (vph)	154	1	120	2	1	4	289	547	3	1	799	170
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)	167	1	130	2	1	4	314	595	3	1	868	185
RTOR Reduction (vph)	0	36	0	0	3	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	262	0	0	4	0	314	598	0	0	1035	0
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	1%	1%	0%	0%	0%	3%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		22.2			22.2		44.8	44.8			28.8	
Effective Green, g (s)		23.7			23.7		46.4	46.4			30.4	
Actuated g/C Ratio		0.30			0.30		0.59	0.59			0.39	
Clearance Time (s)		5.5			5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		432			496		371	1117			1299	
v/s Ratio Prot							c0.13	0.32				
v/s Ratio Perm		c0.21			0.00		c0.37				0.32	
v/c Ratio		0.61			0.01		0.85	0.54			0.80	
Uniform Delay, d1		23.2			19.0		18.7	9.4			21.1	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.4			0.0		16.1	0.9			4.0	
Delay (s)		25.6			19.0		34.8	10.3			25.1	
Level of Service		C			B		C	B			C	
Approach Delay (s)		25.6			19.0			18.8			25.1	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00			0.95
Frt	1.00	0.85	0.99			1.00
Flt Protected	0.95	1.00	1.00			0.99
Satd. Flow (prot)	1805	1583	1878			3571
Flt Permitted	0.95	1.00	1.00			0.62
Satd. Flow (perm)	1805	1583	1878			2230
Volume (vph)	162	303	684	54	154	684
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	176	329	743	59	167	743
RTOR Reduction (vph)	0	275	1	0	0	0
Lane Group Flow (vph)	176	54	801	0	0	910
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%
Turn Type		Perm			pm+pt	
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	15.0	15.0	73.8			73.8
Effective Green, g (s)	16.4	16.4	75.7			75.7
Actuated g/C Ratio	0.16	0.16	0.76			0.76
Clearance Time (s)	5.4	5.4	5.9			5.9
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	296	259	1420			1686
v/s Ratio Prot	0.10		c0.43			
v/s Ratio Perm		0.21				0.41
v/c Ratio	0.59	0.21	0.56			1.48dl
Uniform Delay, d1	38.8	36.2	5.2			5.0
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	3.2	0.4	1.6			0.3
Delay (s)	42.0	36.6	6.8			5.4
Level of Service	D	D	A			A
Approach Delay (s)	38.5		6.8			5.4
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			0.95	
Frpb, ped/bikes		1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00			1.00	
Frt		1.00			1.00	0.85		0.99			1.00	
Flt Protected		0.99			0.99	1.00		1.00			0.99	
Satd. Flow (prot)		1871			1869	1576		1869			3551	
Flt Permitted		0.91			0.94	1.00		1.00			0.73	
Satd. Flow (perm)		1712			1763	1576		1861			2621	
Volume (vph)	20	74	3	31	162	164	4	362	41	174	448	11
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	80	3	34	176	178	4	393	45	189	487	12
RTOR Reduction (vph)	0	2	0	0	0	137	0	3	0	0	1	0
Lane Group Flow (vph)	0	103	0	0	210	41	0	439	0	0	687	0
Confl. Peds. (#/hr)	2		1	1		2			1	1		
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		12.9			12.9	12.9		39.4			39.4	
Effective Green, g (s)		14.6			14.6	14.6		40.9			40.9	
Actuated g/C Ratio		0.23			0.23	0.23		0.64			0.64	
Clearance Time (s)		5.7			5.7	5.7		5.5			5.5	
Vehicle Extension (s)		3.0			3.0	3.0		5.0			5.0	
Lane Grp Cap (vph)		394			405	362		1199			1688	
v/s Ratio Prot												
v/s Ratio Perm		0.06			c0.12	0.11		0.24			c0.26	
v/c Ratio		0.26			0.52	0.11		0.37			0.41	
Uniform Delay, d1		20.0			21.4	19.3		5.3			5.5	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.4			1.1	0.1		0.9			0.7	
Delay (s)		20.4			22.5	19.5		6.1			6.2	
Level of Service		C			C	B		A			A	
Approach Delay (s)		20.4			21.1			6.1			6.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	63.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1652	1818	1710	1804	1881	2814	1711	3554		3385	3558	
Flt Permitted	0.95	1.00	1.00	0.28	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1652	1818	1710	540	1881	2814	1711	3554		3385	3558	
Volume (vph)	145	212	64	419	219	254	57	1375	131	240	1515	33
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)	158	230	70	455	238	276	62	1495	142	261	1647	36
RTOR Reduction (vph)	0	0	57	0	0	0	0	6	0	0	1	0
Lane Group Flow (vph)	158	230	13	455	238	276	62	1631	0	261	1682	0
Confl. Peds. (#/hr)	3		3	3		3	5		3	3		5
Heavy Vehicles (%)	2%	1%	2%	0%	1%	1%	2%	0%	1%	0%	1%	4%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	8.0	18.4	18.4	36.4	24.4	24.4	7.2	42.3		13.3	48.4	
Effective Green, g (s)	8.0	20.4	20.4	38.4	26.4	26.4	9.2	44.3		15.3	50.4	
Actuated g/C Ratio	0.07	0.19	0.19	0.35	0.24	0.24	0.08	0.40		0.14	0.46	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	120	337	317	349	451	675	143	1431		471	1630	
v/s Ratio Prot	0.10	0.13		c0.17	0.13	0.10	0.04	c0.46		c0.08	c0.47	
v/s Ratio Perm			0.04	c0.29								
v/c Ratio	1.32	0.68	0.04	1.30	0.53	0.41	0.43	1.14		0.55	1.03	
Uniform Delay, d1	51.0	41.8	36.8	32.4	36.4	35.2	47.9	32.8		44.2	29.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	189.4	5.6	0.1	156.1	1.1	0.4	2.1	71.9		1.4	30.9	
Delay (s)	240.4	47.4	36.8	188.5	37.5	35.6	50.0	104.7		45.6	60.7	
Level of Service	F	D	D	F	D	D	D	F		D	E	
Approach Delay (s)		112.4			107.9			102.7			58.7	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	87.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3205			3240		1694	3420		1745	3433	
Flt Permitted		0.61			0.60		0.07	1.00		0.07	1.00	
Satd. Flow (perm)		1978			1989		130	3420		131	3433	
Volume (vph)	44	286	84	391	464	8	102	1233	85	10	1344	53
Peak-hour factor, PHF	0.91	0.91	0.91	0.84	0.84	0.84	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	314	92	465	552	10	110	1326	91	11	1461	58
RTOR Reduction (vph)	0	16	0	0	1	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	438	0	0	1026	0	110	1413	0	11	1517	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	3%	1%	2%	0%	1%	3%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		40.2			40.2		61.7	53.1		54.3	54.3	
Effective Green, g (s)		42.0			42.0		64.8	55.0		56.2	56.2	
Actuated g/C Ratio		0.35			0.35		0.54	0.46		0.47	0.47	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		692			696		198	1568		61	1608	
v/s Ratio Prot							c0.05	0.41			c0.44	
v/s Ratio Perm		0.23			c0.52		0.26			0.08		
v/c Ratio		0.63			2.85dl		0.56	0.90		0.18	0.94	
Uniform Delay, d1		32.6			39.0		23.8	30.0		18.5	30.4	
Progression Factor		1.00			0.35		1.00	1.00		1.02	0.99	
Incremental Delay, d2		1.9			217.3		3.4	8.7		5.6	11.2	
Delay (s)		34.5			230.9		27.1	38.7		24.5	41.5	
Level of Service		C			F		C	D		C	D	
Approach Delay (s)		34.5			230.9			37.9			41.3	
Approach LOS		C			F			D			D	

Intersection Summary			
HCM Average Control Delay	82.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.4%	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.98			0.99			1.00	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3210			3265			3523			3561	
Flt Permitted		0.87			0.91			0.75			0.76	
Satd. Flow (perm)		2787			2975			2686			2730	
Volume (vph)	8	304	70	39	738	116	128	333	19	61	204	4
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	9	338	78	45	848	133	135	351	20	72	240	5
RTOR Reduction (vph)	0	16	0	0	8	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	409	0	0	1018	0	0	503	0	0	316	0
Heavy Vehicles (%)	0%	2%	2%	3%	1%	0%	2%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		40.2			40.2			53.1			64.1	
Effective Green, g (s)		42.0			42.0			55.0			67.2	
Actuated g/C Ratio		0.35			0.35			0.46			0.56	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		975			1041			1231			1605	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		0.15			c0.34			c0.19			0.09	
v/c Ratio		0.42			0.98			0.41			0.20	
Uniform Delay, d1		29.7			38.5			21.7			13.1	
Progression Factor		0.34			1.00			1.00			2.27	
Incremental Delay, d2		0.2			22.3			1.0			0.1	
Delay (s)		10.3			60.8			22.7			29.7	
Level of Service		B			E			C			C	
Approach Delay (s)		10.3			60.8			22.7			29.7	
Approach LOS		B			E			C			C	

Intersection Summary			
HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2842	3455		1588	3304
Flt Permitted		1.00	1.00		0.95	0.76
Satd. Flow (perm)		2842	3455		1588	2525
Volume (vph)	0	439	1103	0	258	1198
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.97	0.97
Adj. Flow (vph)	0	488	1161	0	266	1235
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	488	1161	0	216	1285
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		40.2	53.1		40.2	104.3
Effective Green, g (s)		42.0	55.0		42.0	109.2
Actuated g/C Ratio		0.35	0.46		0.35	0.91
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		995	1584		556	2570
v/s Ratio Prot			c0.34		0.14	c0.17
v/s Ratio Perm		0.17				c0.28
v/c Ratio		0.49	0.73		0.39	0.50
Uniform Delay, d1		30.6	26.5		29.3	0.9
Progression Factor		1.11	0.23		1.00	1.00
Incremental Delay, d2		0.3	1.3		0.5	0.2
Delay (s)		34.2	7.3		29.8	1.0
Level of Service		C	A		C	A
Approach Delay (s)	34.2		7.3			5.2
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Capacity Analyses – Projected 2011 No-Build Conditions
IMPROVED

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		1.00			0.95
Frt	0.96		0.96			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1670		1789			3503
Flt Permitted	0.97		1.00			0.57
Satd. Flow (perm)	1670		1789			2034
Volume (vph)	127	56	509	234	263	755
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	61	553	254	286	821
RTOR Reduction (vph)	18	0	14	0	0	0
Lane Group Flow (vph)	181	0	793	0	0	1107
Heavy Vehicles (%)	6%	4%	2%	1%	1%	2%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	12.2		51.4			51.4
Effective Green, g (s)	12.2		51.4			51.4
Actuated g/C Ratio	0.17		0.72			0.72
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	285		1284			1460
v/s Ratio Prot	c0.12		0.45			
v/s Ratio Perm						c0.54
v/c Ratio	0.63		0.62			1.05dl
Uniform Delay, d1	27.6		5.1			6.3
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	4.6		0.9			2.3
Delay (s)	32.2		6.0			8.6
Level of Service	C		A			A
Approach Delay (s)	32.2		6.0			8.6
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	71.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.0%	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1685	1837	1741	1805	1900	2842	1745	3463		3385	3558	
Flt Permitted	0.95	1.00	1.00	0.15	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1685	1837	1741	284	1900	2842	1745	3463		3385	3558	
Volume (vph)	71	325	26	267	113	67	24	834	198	184	1423	37
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)	77	353	28	290	123	73	26	907	215	200	1547	40
RTOR Reduction (vph)	0	0	22	0	0	0	0	19	0	0	2	0
Lane Group Flow (vph)	77	353	6	290	123	73	26	1103	0	200	1585	0
Confl. Peds. (#/hr)	3		4	4		3	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	7.7	20.8	20.8	38.8	27.1	27.1	2.4	44.3		8.9	50.8	
Effective Green, g (s)	7.7	22.8	22.8	40.8	29.1	29.1	4.4	46.3		10.9	52.8	
Actuated g/C Ratio	0.07	0.21	0.21	0.37	0.26	0.26	0.04	0.42		0.10	0.48	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	118	381	361	299	503	752	70	1458		335	1708	
v/s Ratio Prot	0.05	0.19		c0.12	0.06	0.03	0.01	0.32		c0.06	c0.45	
v/s Ratio Perm			0.02	c0.24								
v/c Ratio	0.65	0.93	0.02	0.97	0.24	0.10	0.37	0.76		0.60	0.93	
Uniform Delay, d1	49.8	42.8	34.7	29.0	31.8	30.5	51.5	27.1		47.4	26.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.2	28.1	0.0	43.3	0.3	0.1	3.3	3.7		2.9	10.3	
Delay (s)	62.1	70.9	34.7	72.3	32.1	30.6	54.8	30.8		50.3	37.2	
Level of Service	E	E	C	E	C	C	D	C		D	D	
Approach Delay (s)		67.2			55.8			31.3			38.6	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM Average Control Delay	42.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.98		1.00	0.99	
Flt Protected		1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3024			3172		1711	3334		1745	3363	
Flt Permitted		0.89			0.58		0.14	1.00		0.17	1.00	
Satd. Flow (perm)		2703			1864		254	3334		310	3363	
Volume (vph)	34	337	103	152	207	6	99	911	137	3	982	58
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.98	0.98	0.98	0.86	0.86	0.86
Adj. Flow (vph)	35	347	106	163	223	6	101	930	140	3	1142	67
RTOR Reduction (vph)	0	16	0	0	1	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	472	0	0	391	0	101	1062	0	3	1207	0
Heavy Vehicles (%)	2%	9%	4%	1%	6%	0%	2%	3%	0%	0%	3%	1%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		44.3			44.3		86.8	77.7		79.7	79.7	
Effective Green, g (s)		46.1			46.1		89.9	79.6		81.6	81.6	
Actuated g/C Ratio		0.31			0.31		0.60	0.53		0.54	0.54	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		831			573		252	1769		169	1829	
v/s Ratio Prot							c0.03	0.32			c0.36	
v/s Ratio Perm		0.18			c0.21		0.21			0.01		
v/c Ratio		0.57			1.09dl		0.40	0.60		0.02	0.66	
Uniform Delay, d1		43.6			45.5		17.1	24.2		15.7	24.3	
Progression Factor		1.00			0.40		1.00	1.00		0.98	0.97	
Incremental Delay, d2		0.9			3.1		1.0	1.5		0.2	1.8	
Delay (s)		44.5			21.2		18.2	25.8		15.6	25.5	
Level of Service		D			C		B	C		B	C	
Approach Delay (s)		44.5			21.2			25.1			25.5	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.98			0.97			1.00	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3126			3150			3295			3525	
Flt Permitted		0.92			0.86			0.72			0.79	
Satd. Flow (perm)		2896			2729			2407			2837	
Volume (vph)	19	396	63	27	305	39	68	76	39	89	240	1
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	20	421	67	29	332	42	81	90	46	96	258	1
RTOR Reduction (vph)	0	8	0	0	6	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	500	0	0	397	0	0	202	0	0	355	0
Heavy Vehicles (%)	13%	5%	6%	4%	5%	5%	10%	1%	0%	1%	1%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		44.3			44.3			77.7			90.8	
Effective Green, g (s)		46.1			46.1			79.6			93.9	
Actuated g/C Ratio		0.31			0.31			0.53			0.63	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		890			839			1277			1832	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		c0.18			0.15			0.09			c0.11	
v/c Ratio		0.56			0.47			0.16			0.19	
Uniform Delay, d1		43.5			42.1			18.0			11.9	
Progression Factor		0.48			1.00			1.00			2.22	
Incremental Delay, d2		0.7			0.4			0.3			0.0	
Delay (s)		21.4			42.5			18.3			26.6	
Level of Service		C			D			B			C	
Approach Delay (s)		21.4			42.5			18.3			26.6	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	0.99
Satd. Flow (prot)		2787	3383		1572	3230
Flt Permitted		1.00	1.00		0.95	0.53
Satd. Flow (perm)		2787	3383		1572	1734
Volume (vph)	0	125	852	10	320	804
Peak-hour factor, PHF	0.80	0.80	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	156	1002	12	337	846
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	156	1014	0	185	998
Heavy Vehicles (%)	0%	2%	3%	0%	1%	3%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		44.3	77.7		44.3	135.1
Effective Green, g (s)		46.1	79.6		46.1	140.0
Actuated g/C Ratio		0.31	0.53		0.31	0.93
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		857	1795		483	2078
v/s Ratio Prot			c0.30		0.12	c0.15
v/s Ratio Perm		0.06				c0.30
v/c Ratio		0.18	0.56		0.38	0.48
Uniform Delay, d1		38.1	23.6		40.8	0.6
Progression Factor		0.91	0.22		1.00	1.00
Incremental Delay, d2		0.1	1.1		0.5	0.2
Delay (s)		34.8	6.2		41.3	0.8
Level of Service		C	A		D	A
Approach Delay (s)	34.8		6.2			7.1
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		1.00			0.95
Frt	0.94		0.96			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1706		1796			3539
Flt Permitted	0.97		1.00			0.52
Satd. Flow (perm)	1706		1796			1870
Volume (vph)	152	121	737	269	159	801
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	132	801	292	173	871
RTOR Reduction (vph)	31	0	12	0	0	0
Lane Group Flow (vph)	266	0	1081	0	0	1044
Heavy Vehicles (%)	1%	3%	2%	2%	2%	1%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	14.8		53.4			53.4
Effective Green, g (s)	14.8		53.4			53.4
Actuated g/C Ratio	0.19		0.70			0.70
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	331		1259			1310
v/s Ratio Prot	c0.17		c0.61			
v/s Ratio Perm						0.56
v/c Ratio	0.80		0.86			2.06dl
Uniform Delay, d1	29.3		8.6			7.7
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	13.1		6.0			3.5
Delay (s)	42.4		14.6			11.2
Level of Service	D		B			B
Approach Delay (s)	42.4		14.6			11.2
Approach LOS	D		B			B

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	76.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.8%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1652	1818	1710	1804	1881	2814	1711	3554		3385	3558	
Flt Permitted	0.95	1.00	1.00	0.23	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1652	1818	1710	428	1881	2814	1711	3554		3385	3558	
Volume (vph)	145	212	64	419	219	254	57	1375	131	240	1515	33
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)	158	230	70	455	238	276	62	1495	142	261	1647	36
RTOR Reduction (vph)	0	0	59	0	0	0	0	6	0	0	2	0
Lane Group Flow (vph)	158	230	11	455	238	276	62	1631	0	261	1681	0
Confl. Peds. (#/hr)	3		3	3		3	5		3	3		5
Heavy Vehicles (%)	2%	1%	2%	0%	1%	1%	2%	0%	1%	0%	1%	4%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	13.2	15.4	15.4	39.4	22.2	22.2	3.2	46.0		6.6	49.4	
Effective Green, g (s)	13.2	17.4	17.4	41.4	24.2	24.2	5.2	48.0		8.6	51.4	
Actuated g/C Ratio	0.12	0.16	0.16	0.38	0.22	0.22	0.05	0.44		0.08	0.47	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	198	288	270	411	414	619	81	1551		265	1663	
v/s Ratio Prot	0.10	0.13		c0.20	0.13	0.10	0.04	0.46		c0.08	c0.47	
v/s Ratio Perm			0.04	c0.22								
v/c Ratio	0.80	0.80	0.04	1.11	0.57	0.45	0.77	1.05		0.98	1.01	
Uniform Delay, d1	47.1	44.6	39.2	29.1	38.3	37.1	51.8	31.0		50.6	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.7	14.3	0.1	76.6	1.9	0.5	34.2	37.7		50.7	24.8	
Delay (s)	66.8	58.9	39.3	105.8	40.2	37.6	86.0	68.7		101.3	54.1	
Level of Service	E	E	D	F	D	D	F	E		F	D	
Approach Delay (s)		58.6			70.3			69.3			60.5	
Approach LOS		E			E			E			E	

Intersection Summary			
HCM Average Control Delay	65.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3205			3240		1694	3420		1745	3433	
Flt Permitted		0.69			0.61		0.08	1.00		0.08	1.00	
Satd. Flow (perm)		2208			2036		146	3420		151	3433	
Volume (vph)	44	286	84	391	464	8	102	1233	85	10	1344	53
Peak-hour factor, PHF	0.91	0.91	0.91	0.84	0.84	0.84	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	314	92	465	552	10	110	1326	91	11	1461	58
RTOR Reduction (vph)	0	16	0	0	1	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	438	0	0	1026	0	110	1413	0	11	1517	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	3%	1%	2%	0%	1%	3%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		51.2			51.2		51.9	46.9		46.9	46.9	
Effective Green, g (s)		53.0			53.0		55.0	48.8		48.8	48.8	
Actuated g/C Ratio		0.44			0.44		0.46	0.41		0.41	0.41	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		975			899		147	1391		61	1396	
v/s Ratio Prot							c0.04	0.41			c0.44	
v/s Ratio Perm		0.21			c0.50		0.30			0.07		
v/c Ratio		0.45			1.63dl		0.75	1.02		0.18	1.09	
Uniform Delay, d1		23.3			33.5		57.7	35.6		22.8	35.6	
Progression Factor		1.00			0.42		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3			73.6		18.6	28.1		6.2	50.9	
Delay (s)		23.7			87.5		76.3	63.7		29.0	86.5	
Level of Service		C			F		E	E		C	F	
Approach Delay (s)		23.7			87.5			64.6			86.1	
Approach LOS		C			F			E			F	

Intersection Summary			
HCM Average Control Delay	72.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.4%	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.98			0.99			1.00	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3210			3265			3523			3561	
Flt Permitted		0.93			0.91			0.75			0.74	
Satd. Flow (perm)		2985			2978			2691			2655	
Volume (vph)	8	304	70	39	738	116	128	333	19	61	204	4
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	9	338	78	45	848	133	135	351	20	72	240	5
RTOR Reduction (vph)	0	16	0	0	8	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	409	0	0	1018	0	0	504	0	0	316	0
Heavy Vehicles (%)	0%	2%	2%	3%	1%	0%	2%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		51.2			51.2			46.9			51.9	
Effective Green, g (s)		53.0			53.0			48.8			55.0	
Actuated g/C Ratio		0.44			0.44			0.41			0.46	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		1318			1315			1094			1264	
v/s Ratio Prot											c0.01	
v/s Ratio Perm		0.14			c0.34			c0.19			0.10	
v/c Ratio		0.31			0.77			0.46			0.25	
Uniform Delay, d1		21.7			28.4			26.0			19.9	
Progression Factor		0.41			1.00			1.00			2.18	
Incremental Delay, d2		0.1			2.9			1.4			0.1	
Delay (s)		8.9			31.3			27.4			43.5	
Level of Service		A			C			C			D	
Approach Delay (s)		8.9			31.3			27.4			43.5	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

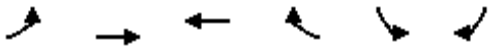
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2842	3455		1588	3310
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2842	3455		1588	3310
Volume (vph)	0	439	1103	0	258	1198
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.97	0.97
Adj. Flow (vph)	0	488	1161	0	266	1235
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	488	1161	0	266	1235
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		51.2	46.9		51.2	120.0
Effective Green, g (s)		53.0	48.8		53.0	120.0
Actuated g/C Ratio		0.44	0.41		0.44	1.00
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		1255	1405		701	3310
v/s Ratio Prot			c0.34		0.17	c0.37
v/s Ratio Perm		0.17				
v/c Ratio		0.39	0.83		0.38	0.37
Uniform Delay, d1		22.6	31.8		22.5	0.0
Progression Factor		1.28	0.27		1.00	1.00
Incremental Delay, d2		0.2	1.4		0.3	0.1
Delay (s)		29.1	10.1		22.8	0.1
Level of Service		C	B		C	A
Approach Delay (s)	29.1		10.1			4.1
Approach LOS	C		B			A

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Capacity Analyses – Projected 2011 Build Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			0.95	1.00		0.95	
Frpb, ped/bikes		1.00			1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00		1.00	
Frt		0.91			0.93			1.00	0.85		1.00	
Flt Protected		0.99			0.98			1.00	1.00		0.98	
Satd. Flow (prot)		1077			1459			3438	1423		3391	
Flt Permitted		0.94			0.84			0.95	1.00		0.69	
Satd. Flow (perm)		1027			1253			3274	1423		2382	
Volume (vph)	2	1	6	129	5	126	2	292	326	328	373	2
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)	2	1	7	140	5	137	2	317	354	357	405	2
RTOR Reduction (vph)	0	5	0	0	51	0	0	0	151	0	0	0
Lane Group Flow (vph)	0	5	0	0	231	0	0	319	203	0	764	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	0%	0%	83%	23%	0%	15%	0%	5%	11%	5%	3%	0%
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		19.0			19.0			37.4	37.4		37.4	
Effective Green, g (s)		21.3			21.3			39.5	39.5		39.5	
Actuated g/C Ratio		0.31			0.31			0.57	0.57		0.57	
Clearance Time (s)		6.3			6.3			6.1	6.1		6.1	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		318			388			1880	817		1368	
v/s Ratio Prot												
v/s Ratio Perm		0.01			c0.23			0.10	0.25		c0.32	
v/c Ratio		0.02			0.60			0.17	0.25		0.56	
Uniform Delay, d1		16.5			20.1			6.9	7.3		9.2	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0			2.4			0.2	0.7		1.7	
Delay (s)		16.5			22.5			7.1	8.0		10.8	
Level of Service		B			C			A	A		B	
Approach Delay (s)		16.5			22.5			7.6			10.8	
Approach LOS		B			C			A			B	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	102	622	255	78	110	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	676	277	85	120	46
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	362				1217	320
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				1217	320
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				33	94
cM capacity (veh/h)	1208				180	714

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	787	362	165
Volume Left	111	0	120
Volume Right	0	85	46
cSH	1208	1700	226
Volume to Capacity	0.09	0.21	0.73
Queue Length (ft)	8	0	123
Control Delay (s)	2.3	0.0	54.5
Lane LOS	A		F
Approach Delay (s)	2.3	0.0	54.5
Approach LOS			F

Intersection Summary			
Average Delay	8.2		
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	488	144	237	234	119	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	530	157	258	254	129	310

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	687	512	439
Volume Left (vph)	0	258	129
Volume Right (vph)	157	0	310
Hadj (s)	0.0	0.2	-0.4
Departure Headway (s)	6.4	8.8	6.5
Degree Utilization, x	1.21	1.25	0.79
Capacity (veh/h)	570	416	548
Control Delay (s)	40.4	48.5	14.5
Approach Delay (s)	40.4	48.5	14.5
Approach LOS	E	E	B

Intersection Summary			
Delay	36.0		
HCM Level of Service	E		
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	155	56	542	267	263	783
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	168	61	589	290	286	851
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			971			
pX, platoon unblocked	0.93	0.93			0.93	
vC, conflicting volume	1732	734			879	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1784	715			871	
tC, single (s)	6.9	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	82			61	
cM capacity (veh/h)	39	344			725	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	229	879	570	567
Volume Left	168	0	286	0
Volume Right	61	290	0	0
cSH	52	1700	725	1700
Volume to Capacity	4.45	0.52	0.39	0.33
Queue Length (ft)	Err	0	47	0
Control Delay (s)	Err	0.0	9.7	0.0
Lane LOS	F		A	
Approach Delay (s)	Err	0.0	4.9	
Approach LOS	F			

Intersection Summary			
Average Delay	1023.7		
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			0.95	
Frpb, ped/bikes		0.99			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			1.00		1.00	1.00			0.96	
Flt Protected		0.98			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1603			1805		1687	1856			3374	
Flt Permitted		0.86			0.41		0.11	1.00			0.95	
Satd. Flow (perm)		1411			782		203	1856			3220	
Volume (vph)	291	4	389	1	0	0	268	351	3	2	699	247
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)	316	4	423	1	0	0	291	382	3	2	760	268
RTOR Reduction (vph)	0	53	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	690	0	0	1	0	291	385	0	0	991	0
Confl. Peds. (#/hr)	3		5	5		3			2	2		
Heavy Vehicles (%)	4%	0%	7%	0%	0%	0%	7%	2%	33%	0%	1%	8%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		33.5			33.5		45.4	45.4			29.4	
Effective Green, g (s)		35.0			35.0		47.0	47.0			31.0	
Actuated g/C Ratio		0.39			0.39		0.52	0.52			0.34	
Clearance Time (s)		5.5			5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		549			304		304	969			1109	
v/s Ratio Prot							c0.13	0.21				
v/s Ratio Perm		c0.53			0.00		c0.37				0.32	
v/c Ratio		1.26			0.00		0.96	0.40			0.89	
Uniform Delay, d1		27.5			16.8		24.2	13.0			27.9	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		129.7			0.0		39.8	0.6			10.0	
Delay (s)		157.2			16.8		63.9	13.5			37.9	
Level of Service		F			B		E	B			D	
Approach Delay (s)		157.2			16.8			35.2			37.9	
Approach LOS		F			B			D			D	

Intersection Summary			
HCM Average Control Delay	73.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00			0.95
Frt	1.00	0.85	0.98			1.00
Flt Protected	0.95	1.00	1.00			0.98
Satd. Flow (prot)	1787	1553	1848			3485
Flt Permitted	0.95	1.00	1.00			0.64
Satd. Flow (perm)	1787	1553	1848			2281
Volume (vph)	109	200	441	62	365	784
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	217	479	67	397	852
RTOR Reduction (vph)	0	187	2	0	0	0
Lane Group Flow (vph)	118	30	544	0	0	1249
Heavy Vehicles (%)	1%	4%	1%	2%	4%	1%
Turn Type		Perm			pm+pt	
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	12.1	12.1	75.1			75.1
Effective Green, g (s)	13.5	13.5	77.0			77.0
Actuated g/C Ratio	0.14	0.14	0.78			0.78
Clearance Time (s)	5.4	5.4	5.9			5.9
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	245	213	1445			1783
v/s Ratio Prot	0.07		0.30			
v/s Ratio Perm		0.14				c0.55
v/c Ratio	0.48	0.14	0.38			1.64dl
Uniform Delay, d1	39.3	37.4	3.3			5.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.5	0.3	0.8			1.3
Delay (s)	40.8	37.7	4.1			6.4
Level of Service	D	D	A			A
Approach Delay (s)	38.8		4.1			6.4
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	98.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			0.95	
Frpb, ped/bikes		1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.97			1.00	
Flt Protected		1.00			0.99	1.00		1.00			0.98	
Satd. Flow (prot)		1763			1851	1548		1792			3504	
Flt Permitted		0.96			0.92	1.00		0.99			0.70	
Satd. Flow (perm)		1703			1723	1548		1781			2513	
Volume (vph)	11	97	12	26	98	80	4	259	62	327	418	9
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)	12	105	13	28	107	87	4	282	67	355	454	10
RTOR Reduction (vph)	0	7	0	0	0	72	0	5	0	0	1	0
Lane Group Flow (vph)	0	123	0	0	135	15	0	348	0	0	818	0
Confl. Peds. (#/hr)	1		1	1		1			2	2		
Heavy Vehicles (%)	0%	7%	0%	0%	2%	2%	0%	3%	2%	0%	1%	0%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		9.3			9.3	9.3		43.7			43.7	
Effective Green, g (s)		11.0			11.0	11.0		45.2			45.2	
Actuated g/C Ratio		0.17			0.17	0.17		0.70			0.70	
Clearance Time (s)		5.7			5.7	5.7		5.5			5.5	
Vehicle Extension (s)		3.0			3.0	3.0		5.0			5.0	
Lane Grp Cap (vph)		292			295	265		1254			1769	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.08	0.06		0.20			c0.33	
v/c Ratio		0.42			0.46	0.06		0.28			0.46	
Uniform Delay, d1		23.8			23.9	22.3		3.5			4.2	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		1.0			1.1	0.1		0.6			0.9	
Delay (s)		24.7			25.0	22.3		4.0			5.0	
Level of Service		C			C	C		A			A	
Approach Delay (s)		24.7			24.0			4.0			5.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	64.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1685	1837	1741	1805	1900	2842	1745	3463		3385	3553	
Flt Permitted	0.95	1.00	1.00	0.16	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1685	1837	1741	309	1900	2842	1745	3463		3385	3553	
Volume (vph)	83	346	26	267	127	67	24	834	198	184	1423	49
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)	90	376	28	290	138	73	26	907	215	200	1547	53
RTOR Reduction (vph)	0	0	21	0	0	0	0	18	0	0	2	0
Lane Group Flow (vph)	90	376	7	290	138	73	26	1104	0	200	1598	0
Confl. Peds. (#/hr)	3		4	4		3	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	7.9	25.3	25.3	43.3	31.4	31.4	2.5	37.8		10.9	46.2	
Effective Green, g (s)	7.9	27.3	27.3	45.3	33.4	33.4	4.5	39.8		12.9	48.2	
Actuated g/C Ratio	0.07	0.25	0.25	0.41	0.30	0.30	0.04	0.36		0.12	0.44	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	121	456	432	318	577	863	71	1253		397	1557	
v/s Ratio Prot	0.05	0.20		c0.12	0.07	0.03	0.01	0.32		c0.06	c0.45	
v/s Ratio Perm			0.02	c0.26								
v/c Ratio	0.74	0.82	0.02	0.91	0.24	0.08	0.37	0.88		0.50	1.03	
Uniform Delay, d1	50.1	39.1	31.2	25.7	28.8	27.4	51.4	32.9		45.5	30.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	21.7	11.5	0.0	29.0	0.2	0.0	3.2	9.1		1.0	29.7	
Delay (s)	71.7	50.6	31.2	54.7	29.0	27.4	54.5	42.0		46.6	60.6	
Level of Service	E	D	C	D	C	C	D	D		D	E	
Approach Delay (s)		53.4			43.6			42.3			59.1	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM Average Control Delay	51.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.98		1.00	0.99	
Flt Protected		1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3025			3172		1711	3334		1745	3363	
Flt Permitted		0.89			0.58		0.13	1.00		0.14	1.00	
Satd. Flow (perm)		2701			1862		229	3334		255	3363	
Volume (vph)	34	376	112	152	255	6	101	911	137	3	982	58
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.98	0.98	0.98	0.86	0.86	0.86
Adj. Flow (vph)	35	388	115	163	274	6	103	930	140	3	1142	67
RTOR Reduction (vph)	0	14	0	0	1	0	0	7	0	0	2	0
Lane Group Flow (vph)	0	524	0	0	442	0	103	1063	0	3	1207	0
Heavy Vehicles (%)	2%	9%	4%	1%	6%	0%	2%	3%	0%	0%	3%	1%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		49.4			49.4		79.3	69.3		73.7	73.7	
Effective Green, g (s)		51.2			51.2		82.4	71.2		75.6	75.6	
Actuated g/C Ratio		0.34			0.34		0.55	0.47		0.50	0.50	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		922			636		236	1583		129	1695	
v/s Ratio Prot							c0.03	0.32			c0.36	
v/s Ratio Perm		0.20			c0.24		0.21			0.01		
v/c Ratio		0.57			1.55dl		0.44	0.67		0.02	0.71	
Uniform Delay, d1		40.4			42.7		20.8	30.4		18.7	28.8	
Progression Factor		1.00			0.40		1.00	1.00		0.99	0.99	
Incremental Delay, d2		0.8			3.1		1.3	2.3		0.3	2.5	
Delay (s)		41.2			20.1		22.1	32.7		18.8	31.0	
Level of Service		D			C		C	C		B	C	
Approach Delay (s)		41.2			20.1			31.7			31.0	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

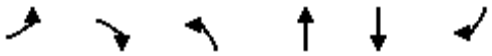
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.99			0.97			1.00	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3123			3156			3293			3525	
Flt Permitted		0.92			0.88			0.71			0.79	
Satd. Flow (perm)		2892			2774			2391			2814	
Volume (vph)	19	426	72	27	350	39	70	76	39	89	240	1
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	20	453	77	29	380	42	83	90	46	96	258	1
RTOR Reduction (vph)	0	9	0	0	5	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	541	0	0	446	0	0	204	0	0	355	0
Heavy Vehicles (%)	13%	5%	6%	4%	5%	5%	10%	1%	0%	1%	1%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		49.4			49.4			69.3			88.1	
Effective Green, g (s)		51.2			51.2			71.2			90.8	
Actuated g/C Ratio		0.34			0.34			0.47			0.61	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		987			947			1135			1777	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		c0.19			0.16			0.09			c0.10	
v/c Ratio		0.55			0.47			0.18			0.20	
Uniform Delay, d1		40.0			38.8			22.6			13.3	
Progression Factor		0.45			1.00			1.00			2.08	
Incremental Delay, d2		0.5			0.4			0.3			0.1	
Delay (s)		18.6			39.1			23.0			27.8	
Level of Service		B			D			C			C	
Approach Delay (s)		18.6			39.1			23.0			27.8	
Approach LOS		B			D			C			C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	0.99
Satd. Flow (prot)		2787	3388		1572	3231
Flt Permitted		1.00	1.00		0.95	0.52
Satd. Flow (perm)		2787	3388		1572	1703
Volume (vph)	0	125	852	0	320	804
Peak-hour factor, PHF	0.80	0.80	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	156	1002	0	337	846
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	156	1002	0	189	994
Heavy Vehicles (%)	0%	2%	3%	0%	1%	3%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		49.4	69.3		49.4	137.5
Effective Green, g (s)		51.2	71.2		51.2	142.0
Actuated g/C Ratio		0.34	0.47		0.34	0.95
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		951	1608		537	2134
v/s Ratio Prot			c0.30		0.12	c0.16
v/s Ratio Perm		0.06				c0.28
v/c Ratio		0.16	0.62		0.35	0.47
Uniform Delay, d1		34.5	29.4		37.0	0.4
Progression Factor		0.92	0.19		1.00	1.00
Incremental Delay, d2		0.1	1.4		0.4	0.2
Delay (s)		31.7	7.0		37.4	0.5
Level of Service		C	A		D	A
Approach Delay (s)	31.7		7.0			6.4
Approach LOS	C		A			A

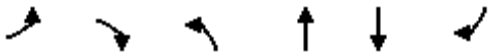
Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	150	0	0	133	171	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	163	0	0	145	186	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	380	236	286			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	380	236	286			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	100	100			
cM capacity (veh/h)	622	803	1276			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	163	145	286
Volume Left	163	0	0
Volume Right	0	0	100
cSH	622	1276	1700
Volume to Capacity	0.26	0.00	0.17
Queue Length (ft)	26	0	0
Control Delay (s)	12.8	0.0	0.0
Lane LOS	B		
Approach Delay (s)	12.8	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	89	0	0	0	0	160
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	97	0	0	0	0	174
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	87	87	174			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	87	87	174			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	100	100			
cM capacity (veh/h)	914	972	1403			

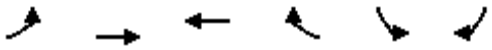
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	97	0	174
Volume Left	97	0	0
Volume Right	0	0	174
cSH	914	1700	1700
Volume to Capacity	0.11	0.00	0.10
Queue Length (ft)	9	0	0
Control Delay (s)	9.4	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.4	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	21.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			0.95	1.00		0.95	
Frt		0.92			0.92			1.00	0.85		1.00	
Flt Protected		0.98			0.98			1.00	1.00		0.99	
Satd. Flow (prot)		1436			1682			3428	1599		3400	
Flt Permitted		0.85			0.85			0.95	1.00		0.65	
Satd. Flow (perm)		1246			1460			3270	1599		2219	
Volume (vph)	6	2	12	292	2	377	2	579	132	126	445	2
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)	7	2	13	317	2	410	2	629	143	137	484	2
RTOR Reduction (vph)	0	7	0	0	49	0	0	0	76	0	0	0
Lane Group Flow (vph)	0	15	0	0	680	0	0	631	67	0	623	0
Heavy Vehicles (%)	17%	100%	9%	3%	100%	1%	100%	5%	1%	0%	6%	100%
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		40.0			40.0			42.0	42.0		42.0	
Effective Green, g (s)		42.3			42.3			44.1	44.1		44.1	
Actuated g/C Ratio		0.45			0.45			0.47	0.47		0.47	
Clearance Time (s)		6.3			6.3			6.1	6.1		6.1	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		558			654			1528	747		1037	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.50			0.19	0.09		c0.28	
v/c Ratio		0.03			1.04			0.41	0.09		0.60	
Uniform Delay, d1		14.6			26.1			16.6	14.0		18.6	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0			45.9			0.8	0.2		2.6	
Delay (s)		14.6			71.9			17.4	14.2		21.2	
Level of Service		B			E			B	B		C	
Approach Delay (s)		14.6			71.9			16.8			21.2	
Approach LOS		B			E			B			C	

Intersection Summary			
HCM Average Control Delay	36.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	94.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	122.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	60	251	576	83	93	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	273	626	90	101	97
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	718				1076	673
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	718				1076	673
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				55	79
cM capacity (veh/h)	891				225	454

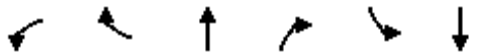
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	338	716	198
Volume Left	65	0	101
Volume Right	0	90	97
cSH	891	1700	299
Volume to Capacity	0.07	0.42	0.66
Queue Length (ft)	6	0	109
Control Delay (s)	2.5	0.0	37.7
Lane LOS	A		E
Approach Delay (s)	2.5	0.0	37.7
Approach LOS			E

Intersection Summary			
Average Delay	6.6		
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	252	174	311	291	181	351
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	274	189	338	316	197	382

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	463	654	578
Volume Left (vph)	0	338	197
Volume Right (vph)	189	0	382
Hadj (s)	-0.1	0.1	-0.3
Departure Headway (s)	6.8	9.0	6.4
Degree Utilization, x	0.87	1.63	1.02
Capacity (veh/h)	527	415	568
Control Delay (s)	17.4	88.4	24.4
Approach Delay (s)	17.4	88.4	24.4
Approach LOS	C	F	C

Intersection Summary			
Delay	47.2		
HCM Level of Service	E		
Intersection Capacity Utilization	98.2%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	187	121	773	305	159	836
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	203	132	840	332	173	909
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			971			
pX, platoon unblocked						
vC, conflicting volume	1806	1006			1172	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1806	1006			1172	
tC, single (s)	6.8	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	45			71	
cM capacity (veh/h)	50	238			592	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	335	1172	476	606
Volume Left	203	0	173	0
Volume Right	132	332	0	0
cSH	73	1700	592	1700
Volume to Capacity	4.58	0.69	0.29	0.36
Queue Length (ft)	Err	0	30	0
Control Delay (s)	Err	0.0	8.0	0.0
Lane LOS	F		A	
Approach Delay (s)	Err	0.0	3.5	
Approach LOS	F			

Intersection Summary			
Average Delay	1294.9		
Intersection Capacity Utilization	114.7%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			0.95	
Frt		0.93			0.92		1.00	1.00			0.97	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1671			1729		1787	1880			3461	
Flt Permitted		0.84			0.92		0.11	1.00			0.95	
Satd. Flow (perm)		1436			1616		214	1880			3305	
Volume (vph)	226	1	226	2	1	4	331	547	3	1	799	239
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)	246	1	246	2	1	4	360	595	3	1	868	260
RTOR Reduction (vph)	0	42	0	0	3	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	451	0	0	4	0	360	598	0	0	1099	0
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	1%	1%	0%	0%	0%	3%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		29.3			29.3		45.6	45.6			29.6	
Effective Green, g (s)		30.8			30.8		47.2	47.2			31.2	
Actuated g/C Ratio		0.36			0.36		0.55	0.55			0.36	
Clearance Time (s)		5.5			5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		514			579		337	1032			1199	
v/s Ratio Prot							c0.15	0.32				
v/s Ratio Perm		c0.34			0.00		c0.44				0.34	
v/c Ratio		0.88			0.01		1.07	0.58			0.92	
Uniform Delay, d1		25.8			17.8		24.3	12.8			26.2	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		15.6			0.0		68.3	1.3			11.5	
Delay (s)		41.4			17.8		92.6	14.1			37.7	
Level of Service		D			B		F	B			D	
Approach Delay (s)		41.4			17.8			43.6			37.7	
Approach LOS		D			B			D			D	

Intersection Summary			
HCM Average Control Delay	40.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00			0.95
Frt	1.00	0.85	0.99			1.00
Flt Protected	0.95	1.00	1.00			0.99
Satd. Flow (prot)	1805	1583	1880			3560
Flt Permitted	0.95	1.00	1.00			0.57
Satd. Flow (perm)	1805	1583	1880			2058
Volume (vph)	162	358	726	54	219	724
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	176	389	789	59	238	787
RTOR Reduction (vph)	0	325	1	0	0	0
Lane Group Flow (vph)	176	64	847	0	0	1025
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%
Turn Type		Perm			pm+pt	
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	15.2	15.2	73.9			73.9
Effective Green, g (s)	16.6	16.6	75.8			75.8
Actuated g/C Ratio	0.17	0.17	0.75			0.75
Clearance Time (s)	5.4	5.4	5.9			5.9
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	298	262	1419			1554
v/s Ratio Prot	0.10		0.45			
v/s Ratio Perm		0.25				c0.50
v/c Ratio	0.59	0.25	0.60			2.11dl
Uniform Delay, d1	38.8	36.5	5.5			6.0
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	3.1	0.5	1.9			1.0
Delay (s)	41.9	36.9	7.3			7.0
Level of Service	D	D	A			A
Approach Delay (s)	38.5		7.3			7.0
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.8%	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			0.95	
Frpb, ped/bikes		1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00			1.00	
Frt		1.00			1.00	0.85		0.99			1.00	
Flt Protected		0.99			0.99	1.00		1.00			0.99	
Satd. Flow (prot)		1871			1869	1576		1870			3549	
Flt Permitted		0.91			0.94	1.00		1.00			0.70	
Satd. Flow (perm)		1713			1763	1576		1862			2529	
Volume (vph)	20	74	3	31	162	185	4	383	41	194	468	11
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	80	3	34	176	201	4	416	45	211	509	12
RTOR Reduction (vph)	0	2	0	0	0	154	0	3	0	0	1	0
Lane Group Flow (vph)	0	103	0	0	210	47	0	462	0	0	731	0
Confl. Peds. (#/hr)	2		1	1		2			1	1		
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		12.9			12.9	12.9		38.9			38.9	
Effective Green, g (s)		14.6			14.6	14.6		40.4			40.4	
Actuated g/C Ratio		0.23			0.23	0.23		0.64			0.64	
Clearance Time (s)		5.7			5.7	5.7		5.5			5.5	
Vehicle Extension (s)		3.0			3.0	3.0		5.0			5.0	
Lane Grp Cap (vph)		397			409	365		1194			1622	
v/s Ratio Prot												
v/s Ratio Perm		0.06			0.12	0.13		0.25			c0.29	
v/c Ratio		0.26			0.51	0.13		0.39			0.45	
Uniform Delay, d1		19.8			21.1	19.2		5.4			5.7	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.4			1.1	0.2		0.9			0.9	
Delay (s)		20.1			22.2	19.3		6.3			6.6	
Level of Service		C			C	B		A			A	
Approach Delay (s)		20.1			20.8			6.3			6.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	63.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1652	1818	1710	1804	1881	2814	1711	3554		3385	3551	
Flt Permitted	0.95	1.00	1.00	0.27	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1652	1818	1710	508	1881	2814	1711	3554		3385	3551	
Volume (vph)	162	232	64	419	240	254	57	1375	131	240	1515	47
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)	176	252	70	455	261	276	62	1495	142	261	1647	51
RTOR Reduction (vph)	0	0	56	0	0	0	0	6	0	0	2	0
Lane Group Flow (vph)	176	252	14	455	261	276	62	1631	0	261	1696	0
Confl. Peds. (#/hr)	3		3	3		3	5		3	3		5
Heavy Vehicles (%)	2%	1%	2%	0%	1%	1%	2%	0%	1%	0%	1%	4%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	8.0	19.8	19.8	37.8	25.8	25.8	6.6	41.3		12.9	47.6	
Effective Green, g (s)	8.0	21.8	21.8	39.8	27.8	27.8	8.6	43.3		14.9	49.6	
Actuated g/C Ratio	0.07	0.20	0.20	0.36	0.25	0.25	0.08	0.39		0.14	0.45	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	120	360	339	349	475	711	134	1399		459	1601	
v/s Ratio Prot	0.11	0.14		c0.17	0.14	0.10	0.04	c0.46		c0.08	c0.48	
v/s Ratio Perm			0.04	c0.31								
v/c Ratio	1.47	0.70	0.04	1.30	0.55	0.39	0.46	1.17		0.57	1.06	
Uniform Delay, d1	51.0	41.1	35.6	31.5	35.7	34.1	48.5	33.4		44.5	30.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	249.7	6.0	0.0	156.1	1.3	0.4	2.5	82.8		1.6	40.2	
Delay (s)	300.7	47.1	35.7	187.5	37.0	34.4	51.0	116.1		46.2	70.4	
Level of Service	F	D	D	F	D	C	D	F		D	E	
Approach Delay (s)		135.1			105.3			113.7			67.1	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	96.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.97			1.00		1.00	0.99		1.00	0.99	
Flt Protected		1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3215			3244		1694	3420		1745	3433	
Flt Permitted		0.60			0.58		0.07	1.00		0.07	1.00	
Satd. Flow (perm)		1937			1914		130	3420		131	3433	
Volume (vph)	44	347	88	391	512	8	102	1233	85	10	1344	53
Peak-hour factor, PHF	0.91	0.91	0.91	0.84	0.84	0.84	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	381	97	465	610	10	110	1326	91	11	1461	58
RTOR Reduction (vph)	0	14	0	0	1	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	512	0	0	1084	0	110	1413	0	11	1517	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	3%	1%	2%	0%	1%	3%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		40.2			40.2		61.7	53.1		54.3	54.3	
Effective Green, g (s)		42.0			42.0		64.8	55.0		56.2	56.2	
Actuated g/C Ratio		0.35			0.35		0.54	0.46		0.47	0.47	
Clearance Time (s)		5.8			5.8		5.2	5.9		5.9	5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		678			670		198	1568		61	1608	
v/s Ratio Prot							c0.05	0.41			c0.44	
v/s Ratio Perm		0.27			c0.57		0.26			0.08		
v/c Ratio		0.76			3.63dl		0.56	0.90		0.18	0.94	
Uniform Delay, d1		34.5			39.0		23.8	30.0		18.5	30.4	
Progression Factor		1.00			0.34		1.00	1.00		1.02	0.99	
Incremental Delay, d2		4.8			281.2		3.4	8.7		5.6	11.2	
Delay (s)		39.3			294.5		27.1	38.7		24.5	41.5	
Level of Service		D			F		C	D		C	D	
Approach Delay (s)		39.3			294.5			37.9			41.3	
Approach LOS		D			F			D			D	

Intersection Summary			
HCM Average Control Delay	98.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		

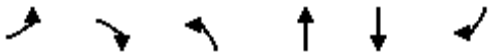
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.98			0.99			1.00	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3219			3268			3523			3561	
Flt Permitted		0.85			0.90			0.75			0.76	
Satd. Flow (perm)		2723			2936			2686			2730	
Volume (vph)	8	361	74	39	779	116	128	333	19	61	204	4
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	9	401	82	45	895	133	135	351	20	72	240	5
RTOR Reduction (vph)	0	14	0	0	8	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	478	0	0	1065	0	0	503	0	0	316	0
Heavy Vehicles (%)	0%	2%	2%	3%	1%	0%	2%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		40.2			40.2			53.1			64.1	
Effective Green, g (s)		42.0			42.0			55.0			67.2	
Actuated g/C Ratio		0.35			0.35			0.46			0.56	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		953			1028			1231			1605	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		0.18			c0.37			c0.19			0.09	
v/c Ratio		0.50			1.04			0.41			0.20	
Uniform Delay, d1		30.8			39.0			21.7			13.1	
Progression Factor		0.31			1.00			1.00			2.27	
Incremental Delay, d2		0.3			37.9			1.0			0.1	
Delay (s)		9.9			76.9			22.7			29.7	
Level of Service		A			E			C			C	
Approach Delay (s)		9.9			76.9			22.7			29.7	
Approach LOS		A			E			C			C	

Intersection Summary			
HCM Average Control Delay	45.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2842	3455		1588	3304
Flt Permitted		1.00	1.00		0.95	0.76
Satd. Flow (perm)		2842	3455		1588	2525
Volume (vph)	0	439	1103	0	258	1198
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.97	0.97
Adj. Flow (vph)	0	488	1161	0	266	1235
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	488	1161	0	216	1285
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		40.2	53.1		40.2	104.3
Effective Green, g (s)		42.0	55.0		42.0	109.2
Actuated g/C Ratio		0.35	0.46		0.35	0.91
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		995	1584		556	2570
v/s Ratio Prot			c0.34		0.14	c0.17
v/s Ratio Perm		0.17				c0.28
v/c Ratio		0.49	0.73		0.39	0.50
Uniform Delay, d1		30.6	26.5		29.3	0.9
Progression Factor		1.11	0.23		1.00	1.00
Incremental Delay, d2		0.3	1.3		0.5	0.2
Delay (s)		34.4	7.2		29.8	1.0
Level of Service		C	A		C	A
Approach Delay (s)	34.4		7.2			5.2
Approach LOS	C		A			A

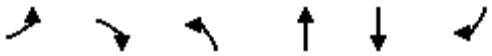
Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	141	0	0	273	228	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	153	0	0	297	248	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	630	333	418			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	630	333	418			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	66	100	100			
cM capacity (veh/h)	446	709	1141			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	153	297	418
Volume Left	153	0	0
Volume Right	0	0	171
cSH	446	1141	1700
Volume to Capacity	0.34	0.00	0.25
Queue Length (ft)	38	0	0
Control Delay (s)	17.3	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.3	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	249	0	0	0	0	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	271	0	0	0	0	200
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	100	100	200			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	100	100	200			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	70	100	100			
cM capacity (veh/h)	899	956	1372			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	271	0	200
Volume Left	271	0	0
Volume Right	0	0	200
cSH	899	1700	1700
Volume to Capacity	0.30	0.00	0.12
Queue Length (ft)	32	0	0
Control Delay (s)	10.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	10.7	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

Capacity Analyses – Projected 2011 Build Conditions
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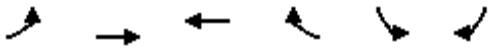


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	102	622	255	78	110	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	676	277	85	120	46
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	362				1217	320
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				1217	320
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				33	94
cM capacity (veh/h)	1208				180	714

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	787	362	120	46
Volume Left	111	0	120	0
Volume Right	0	85	0	46
cSH	1208	1700	180	714
Volume to Capacity	0.09	0.21	0.67	0.06
Queue Length (ft)	8	0	98	5
Control Delay (s)	2.3	0.0	57.8	10.4
Lane LOS	A		F	B
Approach Delay (s)	2.3	0.0	44.7	
Approach LOS			E	

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	1.00
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.97			1.00	1.00	0.85
Flt Protected	1.00			0.98	0.95	1.00
Satd. Flow (prot)	1731			1798	1805	1615
Flt Permitted	1.00			0.47	0.95	1.00
Satd. Flow (perm)	1731			875	1805	1615
Volume (vph)	488	144	237	234	119	285
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	530	157	258	254	129	310
RTOR Reduction (vph)	7	0	0	0	0	270
Lane Group Flow (vph)	680	0	0	512	129	40
Confl. Peds. (#/hr)		2	2			
Heavy Vehicles (%)	6%	5%	0%	6%	0%	0%
Turn Type			pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases			8			2
Actuated Green, G (s)	70.5			70.5	11.5	11.5
Effective Green, g (s)	70.5			70.5	11.5	11.5
Actuated g/C Ratio	0.78			0.78	0.13	0.13
Clearance Time (s)	4.0			4.0	4.0	4.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1356			685	231	206
v/s Ratio Prot	0.40				0.07	
v/s Ratio Perm				c0.58		0.19
v/c Ratio	0.50			0.75	0.56	0.19
Uniform Delay, d1	3.5			5.1	36.9	35.1
Progression Factor	1.00			2.87	1.00	1.00
Incremental Delay, d2	1.3			2.9	2.9	0.5
Delay (s)	4.8			17.5	39.8	35.6
Level of Service	A			B	D	D
Approach Delay (s)	4.8			17.5	36.8	
Approach LOS	A			B	D	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		1.00			0.95
Frt	0.96		0.96			1.00
Flt Protected	0.96		1.00			0.99
Satd. Flow (prot)	1675		1786			3504
Flt Permitted	0.96		1.00			0.55
Satd. Flow (perm)	1675		1786			1955
Volume (vph)	155	56	542	267	263	783
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	61	589	290	286	851
RTOR Reduction (vph)	15	0	15	0	0	0
Lane Group Flow (vph)	214	0	864	0	0	1137
Heavy Vehicles (%)	6%	4%	2%	1%	1%	2%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	13.4		53.8			53.8
Effective Green, g (s)	13.4		53.8			53.8
Actuated g/C Ratio	0.18		0.72			0.72
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	298		1278			1399
v/s Ratio Prot	c0.14		0.49			
v/s Ratio Perm						c0.58
v/c Ratio	0.72		0.68			1.31dl
Uniform Delay, d1	29.1		5.9			7.3
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	8.0		1.4			3.7
Delay (s)	37.2		7.3			11.0
Level of Service	D		A			B
Approach Delay (s)	37.2		7.3			11.0
Approach LOS	D		A			B

Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.1%	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

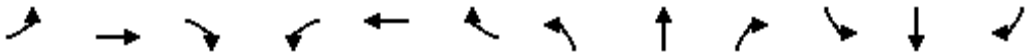
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.98		1.00		1.00	1.00			1.00	
Flpb, ped/bikes		0.99	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		1.00		1.00	1.00			0.96	
Flt Protected		0.95	1.00		0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1730	1481		1799		1687	1856			3374	
Flt Permitted		0.73	1.00		0.35		0.13	1.00			0.95	
Satd. Flow (perm)		1323	1481		667		226	1856			3220	
Volume (vph)	291	4	389	1	0	0	268	351	3	2	699	247
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)	316	4	423	1	0	0	291	382	3	2	760	268
RTOR Reduction (vph)	0	0	282	0	0	0	0	0	0	0	37	0
Lane Group Flow (vph)	0	320	141	0	1	0	291	385	0	0	993	0
Confl. Peds. (#/hr)	3		5	5		3			2	2		
Heavy Vehicles (%)	4%	0%	7%	0%	0%	0%	7%	2%	33%	0%	1%	8%
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			6			2		
Actuated Green, G (s)		24.5	24.5		24.5		54.4	54.4			36.0	
Effective Green, g (s)		26.0	26.0		26.0		56.0	56.0			37.6	
Actuated g/C Ratio		0.29	0.29		0.29		0.62	0.62			0.42	
Clearance Time (s)		5.5	5.5		5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		382	428		193		374	1155			1345	
v/s Ratio Prot							c0.12	0.21				
v/s Ratio Perm		0.24	0.29		0.00		c0.36				0.32	
v/c Ratio		0.84	0.33		0.01		0.78	0.33			0.74	
Uniform Delay, d1		30.0	25.2		22.8		18.3	8.1			22.1	
Progression Factor		0.94	0.89		1.00		1.00	1.00			1.00	
Incremental Delay, d2		12.9	0.4		0.0		9.8	0.8			3.7	
Delay (s)		41.1	22.9		22.8		28.1	8.9			25.7	
Level of Service		D	C		C		C	A			C	
Approach Delay (s)		30.7			22.8			17.2			25.7	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	24.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1685	1837	1741	1805	1900	2842	1745	3463		3385	3553	
Flt Permitted	0.95	1.00	1.00	0.14	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1685	1837	1741	273	1900	2842	1745	3463		3385	3553	
Volume (vph)	83	346	26	267	127	67	24	834	198	184	1423	49
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)	90	376	28	290	138	73	26	907	215	200	1547	53
RTOR Reduction (vph)	0	0	22	0	0	0	0	19	0	0	2	0
Lane Group Flow (vph)	90	376	6	290	138	73	26	1103	0	200	1598	0
Confl. Peds. (#/hr)	3		4	4		3	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	8.9	21.8	21.8	39.8	26.9	26.9	2.4	43.3		8.9	49.8	
Effective Green, g (s)	8.9	23.8	23.8	41.8	28.9	28.9	4.4	45.3		10.9	51.8	
Actuated g/C Ratio	0.08	0.22	0.22	0.38	0.26	0.26	0.04	0.41		0.10	0.47	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	136	397	377	299	499	747	70	1426		335	1673	
v/s Ratio Prot	0.05	0.20		c0.12	0.07	0.03	0.01	0.32		c0.06	c0.45	
v/s Ratio Perm			0.02	c0.25								
v/c Ratio	0.66	0.95	0.02	0.97	0.28	0.10	0.37	0.77		0.60	0.96	
Uniform Delay, d1	49.1	42.5	33.9	29.3	32.2	30.7	51.5	27.9		47.4	28.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.5	31.6	0.0	43.3	0.3	0.1	3.3	4.1		2.9	13.7	
Delay (s)	60.6	74.0	33.9	72.6	32.5	30.7	54.8	32.1		50.3	41.6	
Level of Service	E	E	C	E	C	C	D	C		D	D	
Approach Delay (s)		69.3			55.4			32.6			42.6	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM Average Control Delay	44.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95			0.91	
Frt		0.97			1.00		1.00	0.98			0.99	
Flt Protected		1.00			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		3025			3172		1711	3334			4833	
Flt Permitted		0.89			0.58		0.17	1.00			0.94	
Satd. Flow (perm)		2701			1860		302	3334			4533	
Volume (vph)	34	376	112	152	255	6	101	911	137	3	982	58
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.98	0.98	0.98	0.86	0.86	0.86
Adj. Flow (vph)	35	388	115	163	274	6	103	930	140	3	1142	67
RTOR Reduction (vph)	0	16	0	0	1	0	0	7	0	0	3	0
Lane Group Flow (vph)	0	522	0	0	442	0	103	1063	0	0	1209	0
Heavy Vehicles (%)	2%	9%	4%	1%	6%	0%	2%	3%	0%	0%	3%	1%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		49.2			49.2		81.1	71.6			74.4	
Effective Green, g (s)		51.0			51.0		84.2	73.5			76.3	
Actuated g/C Ratio		0.34			0.34		0.56	0.49			0.51	
Clearance Time (s)		5.8			5.8		5.2	5.9			5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		918			632		270	1634			2306	
v/s Ratio Prot							c0.03	c0.32				
v/s Ratio Perm		0.20			c0.24		0.19				c0.27	
v/c Ratio		0.57			1.00dl		0.38	0.65			0.52	
Uniform Delay, d1		40.5			42.9		16.7	28.6			24.7	
Progression Factor		1.00			0.39		1.00	1.00			0.98	
Incremental Delay, d2		0.8			3.2		0.9	2.0			0.8	
Delay (s)		41.3			20.1		17.6	30.7			25.1	
Level of Service		D			C		B	C			C	
Approach Delay (s)		41.3			20.1			29.5			25.1	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	28.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

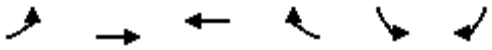
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.99			0.97			1.00	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3123			3156			3293			3525	
Flt Permitted		0.92			0.88			0.71			0.79	
Satd. Flow (perm)		2892			2771			2393			2834	
Volume (vph)	19	426	72	27	350	39	70	76	39	89	240	1
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	20	453	77	29	380	42	83	90	46	96	258	1
RTOR Reduction (vph)	0	10	0	0	5	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	540	0	0	446	0	0	204	0	0	355	0
Heavy Vehicles (%)	13%	5%	6%	4%	5%	5%	10%	1%	0%	1%	1%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		49.2			49.2			71.6			86.7	
Effective Green, g (s)		51.0			51.0			73.5			89.8	
Actuated g/C Ratio		0.34			0.34			0.49			0.60	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		983			942			1173			1759	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		c0.19			0.16			0.09			c0.10	
v/c Ratio		0.55			0.47			0.17			0.20	
Uniform Delay, d1		40.2			38.9			21.3			13.7	
Progression Factor		0.44			1.00			1.00			2.20	
Incremental Delay, d2		0.5			0.4			0.3			0.1	
Delay (s)		18.4			39.3			21.6			30.3	
Level of Service		B			D			C			C	
Approach Delay (s)		18.4			39.3			21.6			30.3	
Approach LOS		B			D			C			C	

Intersection Summary			
HCM Average Control Delay	27.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	0.99
Satd. Flow (prot)		2787	3388		1572	3232
Flt Permitted		1.00	1.00		0.95	0.55
Satd. Flow (perm)		2787	3388		1572	1778
Volume (vph)	0	125	852	0	320	804
Peak-hour factor, PHF	0.80	0.80	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	156	1002	0	337	846
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	156	1002	0	206	977
Heavy Vehicles (%)	0%	2%	3%	0%	1%	3%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		49.2	71.6		49.2	135.9
Effective Green, g (s)		51.0	73.5		51.0	140.8
Actuated g/C Ratio		0.34	0.49		0.34	0.94
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		948	1660		534	2163
v/s Ratio Prot			c0.30		0.13	c0.15
v/s Ratio Perm		0.06				c0.27
v/c Ratio		0.16	0.60		0.39	0.45
Uniform Delay, d1		34.6	27.7		37.6	0.5
Progression Factor		0.94	0.20		1.00	1.00
Incremental Delay, d2		0.1	1.3		0.5	0.2
Delay (s)		32.7	6.7		38.1	0.6
Level of Service		C	A		D	A
Approach Delay (s)	32.7		6.7			7.2
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	60	251	576	83	93	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	273	626	90	101	97
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		577				
pX, platoon unblocked						
vC, conflicting volume	718				1076	673
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	718				1076	673
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				55	79
cM capacity (veh/h)	891				225	454

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	338	716	101	97
Volume Left	65	0	101	0
Volume Right	0	90	0	97
cSH	891	1700	225	454
Volume to Capacity	0.07	0.42	0.45	0.21
Queue Length (ft)	6	0	54	20
Control Delay (s)	2.5	0.0	33.3	15.1
Lane LOS	A		D	C
Approach Delay (s)	2.5	0.0	24.4	
Approach LOS			C	

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	1.00
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.94			1.00	1.00	0.85
Flt Protected	1.00			0.97	0.95	1.00
Satd. Flow (prot)	1605			1805	1805	1615
Flt Permitted	1.00			0.58	0.95	1.00
Satd. Flow (perm)	1605			1077	1805	1615
Volume (vph)	252	174	311	291	181	351
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	189	338	316	197	382
RTOR Reduction (vph)	19	0	0	0	0	323
Lane Group Flow (vph)	444	0	0	654	197	59
Confl. Peds. (#/hr)		3	3			
Heavy Vehicles (%)	4%	20%	0%	5%	0%	0%
Turn Type			pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases			8			2
Actuated Green, G (s)	68.1			68.1	13.9	13.9
Effective Green, g (s)	68.1			68.1	13.9	13.9
Actuated g/C Ratio	0.76			0.76	0.15	0.15
Clearance Time (s)	4.0			4.0	4.0	4.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1214			815	279	249
v/s Ratio Prot	0.29				0.11	
v/s Ratio Perm				c0.61		0.24
v/c Ratio	0.37			0.80	0.71	0.24
Uniform Delay, d1	3.7			6.8	36.1	33.4
Progression Factor	1.00			0.49	1.00	1.00
Incremental Delay, d2	0.9			4.0	7.9	0.5
Delay (s)	4.5			7.3	44.0	33.9
Level of Service	A			A	D	C
Approach Delay (s)	4.5			7.3	37.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	16.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		1.00			0.95
Frt	0.95		0.96			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1715		1792			3540
Flt Permitted	0.97		1.00			0.50
Satd. Flow (perm)	1715		1792			1790
Volume (vph)	187	121	773	305	159	836
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	132	840	332	173	909
RTOR Reduction (vph)	26	0	12	0	0	0
Lane Group Flow (vph)	309	0	1160	0	0	1082
Heavy Vehicles (%)	1%	3%	2%	2%	2%	1%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	16.0		61.3			61.3
Effective Green, g (s)	16.0		61.3			61.3
Actuated g/C Ratio	0.19		0.72			0.72
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	322		1288			1286
v/s Ratio Prot	c0.20		c0.65			
v/s Ratio Perm						0.60
v/c Ratio	0.96		0.90			1.99dl
Uniform Delay, d1	34.3		9.6			8.5
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	38.9		8.9			5.2
Delay (s)	73.2		18.4			13.7
Level of Service	E		B			B
Approach Delay (s)	73.2		18.4			13.7
Approach LOS	E		B			B

Intersection Summary			
HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	85.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	114.7%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			0.95	
Frt		1.00	0.85		0.92		1.00	1.00			0.97	
Flt Protected		0.95	1.00		0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1775	1538		1729		1787	1880			3461	
Flt Permitted		0.72	1.00		0.93		0.10	1.00			0.95	
Satd. Flow (perm)		1346	1538		1636		195	1880			3305	
Volume (vph)	226	1	226	2	1	4	331	547	3	1	799	239
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)	246	1	246	2	1	4	360	595	3	1	868	260
RTOR Reduction (vph)	0	0	186	0	3	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	247	60	0	4	0	360	598	0	0	1099	0
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	1%	1%	0%	0%	0%	3%
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			6			2		
Actuated Green, G (s)		20.3	20.3		20.3		58.6	58.6			37.2	
Effective Green, g (s)		21.8	21.8		21.8		60.2	60.2			38.8	
Actuated g/C Ratio		0.24	0.24		0.24		0.67	0.67			0.43	
Clearance Time (s)		5.5	5.5		5.5		5.0	5.6			5.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		326	373		396		438	1258			1425	
v/s Ratio Prot							c0.16	0.32				
v/s Ratio Perm		c0.18	0.16		0.00		c0.39				0.34	
v/c Ratio		0.76	0.16		0.01		0.82	0.48			0.77	
Uniform Delay, d1		31.6	26.9		25.9		22.8	7.2			21.8	
Progression Factor		1.03	1.64		1.00		1.00	1.00			1.00	
Incremental Delay, d2		8.4	0.2		0.0		11.8	1.3			4.1	
Delay (s)		40.9	44.4		25.9		34.6	8.5			25.9	
Level of Service		D	D		C		C	A			C	
Approach Delay (s)		42.7			25.9			18.3			25.9	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	15	12	12	12	11	12	12	11	12	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1652	1818	1710	1804	1881	2814	1711	3554		3385	3551	
Flt Permitted	0.95	1.00	1.00	0.19	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1652	1818	1710	357	1881	2814	1711	3554		3385	3551	
Volume (vph)	162	232	64	419	240	254	57	1375	131	240	1515	47
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)	176	252	70	455	261	276	62	1495	142	261	1647	51
RTOR Reduction (vph)	0	0	59	0	0	0	0	6	0	0	2	0
Lane Group Flow (vph)	176	252	11	455	261	276	62	1631	0	261	1696	0
Confl. Peds. (#/hr)	3		3	3		3	5		3	3		5
Heavy Vehicles (%)	2%	1%	2%	0%	1%	1%	2%	0%	1%	0%	1%	4%
Turn Type	Prot		Perm	pm+pt		Prot	Prot			Prot		
Protected Phases	7	4		3	8	8	5	2		1	6	
Permitted Phases			4	8								
Actuated Green, G (s)	14.3	15.8	15.8	40.8	22.5	22.5	3.2	45.0		6.2	48.0	
Effective Green, g (s)	14.3	17.8	17.8	42.8	24.5	24.5	5.2	47.0		8.2	50.0	
Actuated g/C Ratio	0.13	0.16	0.16	0.39	0.22	0.22	0.05	0.43		0.07	0.45	
Clearance Time (s)	4.0	6.0	6.0	4.0	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		3.0	3.0	
Lane Grp Cap (vph)	215	294	277	415	419	627	81	1519		252	1614	
v/s Ratio Prot	0.11	0.14		c0.21	0.14	0.10	0.04	0.46		c0.08	c0.48	
v/s Ratio Perm			0.04	c0.22								
v/c Ratio	0.82	0.86	0.04	1.10	0.62	0.44	0.77	1.07		1.04	1.05	
Uniform Delay, d1	46.6	44.9	38.9	30.7	38.6	36.8	51.8	31.5		50.9	30.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	20.9	21.0	0.1	72.8	2.9	0.5	34.2	45.6		66.3	37.0	
Delay (s)	67.5	65.9	39.0	103.5	41.5	37.3	86.0	77.1		117.2	67.0	
Level of Service	E	E	D	F	D	D	F	E		F	E	
Approach Delay (s)		62.7			68.7			77.5			73.7	
Approach LOS		E			E			E			E	

Intersection Summary			
HCM Average Control Delay	72.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95			0.91	
Frt		0.97			1.00		1.00	0.99			0.99	
Flt Protected		1.00			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		3215			3244		1694	3420			4931	
Flt Permitted		0.69			0.60		0.10	1.00			0.85	
Satd. Flow (perm)		2240			1981		180	3420			4195	
Volume (vph)	44	347	88	391	512	8	102	1233	85	10	1344	53
Peak-hour factor, PHF	0.91	0.91	0.91	0.84	0.84	0.84	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	381	97	465	610	10	110	1326	91	11	1461	58
RTOR Reduction (vph)	0	14	0	0	1	0	0	4	0	0	4	0
Lane Group Flow (vph)	0	512	0	0	1084	0	110	1413	0	0	1526	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	3%	1%	2%	0%	1%	3%
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		54.2			54.2		43.9	43.9			43.9	
Effective Green, g (s)		56.0			56.0		45.8	45.8			45.8	
Actuated g/C Ratio		0.47			0.47		0.38	0.38			0.38	
Clearance Time (s)		5.8			5.8		5.2	5.9			5.9	
Vehicle Extension (s)		3.0			3.0		3.0	5.0			5.0	
Lane Grp Cap (vph)		1045			924		147	1305			1601	
v/s Ratio Prot							0.04	c0.41				
v/s Ratio Perm		0.23			c0.55		0.25				c0.36	
v/c Ratio		0.49			1.70dl		0.75	1.08			0.95	
Uniform Delay, d1		22.1			32.0		29.7	37.1			36.1	
Progression Factor		1.00			0.47		1.00	1.00			0.97	
Incremental Delay, d2		0.4			86.4		18.6	50.4			13.4	
Delay (s)		22.5			101.3		48.3	87.5			48.4	
Level of Service		C			F		D	F			D	
Approach Delay (s)		22.5			101.3			84.7			48.4	
Approach LOS		C			F			F			D	

Intersection Summary			
HCM Average Control Delay	69.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.98			0.99			1.00	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3219			3268			3523			3561	
Flt Permitted		0.93			0.91			0.65			0.75	
Satd. Flow (perm)		2999			2967			2313			2713	
Volume (vph)	8	361	74	39	779	116	128	333	19	61	204	4
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	9	401	82	45	895	133	135	351	20	72	240	5
RTOR Reduction (vph)	0	14	0	0	8	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	478	0	0	1065	0	0	504	0	0	316	0
Heavy Vehicles (%)	0%	2%	2%	3%	1%	0%	2%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		54.2			54.2			43.9			44.6	
Effective Green, g (s)		56.0			56.0			45.8			45.8	
Actuated g/C Ratio		0.47			0.47			0.38			0.38	
Clearance Time (s)		5.8			5.8			5.9			5.9	
Vehicle Extension (s)		3.0			3.0			5.0			5.0	
Lane Grp Cap (vph)		1400			1385			883			1079	
v/s Ratio Prot											c0.02	
v/s Ratio Perm		0.16			c0.36			c0.22			0.10	
v/c Ratio		0.34			0.77			0.57			0.29	
Uniform Delay, d1		20.3			26.6			29.3			25.8	
Progression Factor		0.45			1.00			1.00			1.89	
Incremental Delay, d2		0.1			2.6			2.7			0.1	
Delay (s)		9.3			29.3			32.0			48.9	
Level of Service		A			C			C			D	
Approach Delay (s)		9.3			29.3			32.0			48.9	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.88	0.95		0.91	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2842	3455		1588	3310
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2842	3455		1588	3310
Volume (vph)	0	439	1103	0	258	1198
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.97	0.97
Adj. Flow (vph)	0	488	1161	0	266	1235
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	488	1161	0	266	1235
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Turn Type		custom			Prot	
Protected Phases			2		4	6 4 1
Permitted Phases		4				
Actuated Green, G (s)		54.2	43.9		54.2	104.0
Effective Green, g (s)		56.0	45.8		56.0	105.8
Actuated g/C Ratio		0.47	0.38		0.47	0.88
Clearance Time (s)		5.8	5.9		5.8	
Vehicle Extension (s)		3.0	5.0		3.0	
Lane Grp Cap (vph)		1326	1319		741	2918
v/s Ratio Prot			c0.34		0.17	c0.37
v/s Ratio Perm		0.17				
v/c Ratio		0.37	0.88		0.36	0.42
Uniform Delay, d1		20.6	34.5		20.5	1.3
Progression Factor		1.62	0.29		1.00	1.00
Incremental Delay, d2		0.1	0.9		0.3	0.1
Delay (s)		33.6	11.0		20.8	1.4
Level of Service		C	B		C	A
Approach Delay (s)	33.6		11.0			4.9
Approach LOS	C		B			A

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			