The Forest Apartments

787 S. State Road 7
Margate, Florida

TRAFFIC IMPACT STUDY

prepared for:
REZ SE Land, LLC

KBP CONSULTING, INC.

July 2023
Updated January 2024

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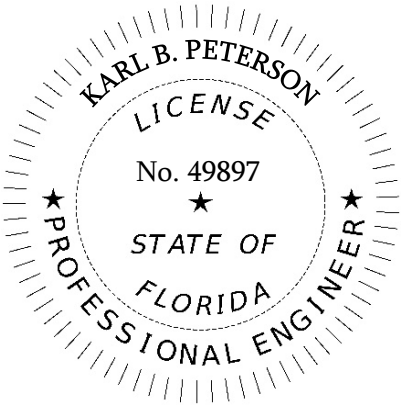
APPROVED BY:



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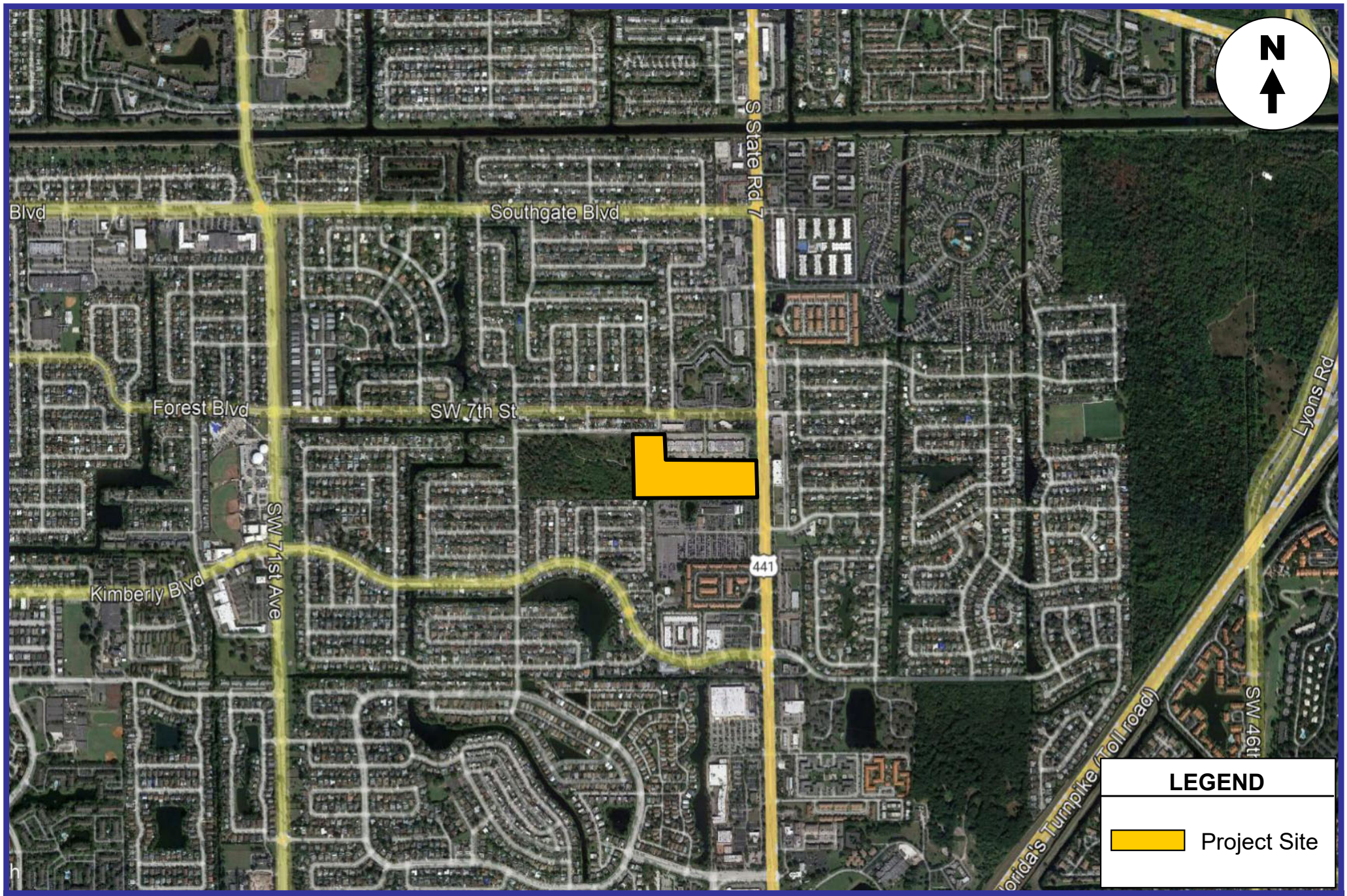
INTRODUCTION

There are two (2) vacant parcels of land located on the west side of S. State Road 7 (US 441) approximately one-half mile to the south of Southgate Boulevard in Margate, Broward County, Florida. More specifically, the site is located at 787 S. State Road 7 and the Broward County Property ID Numbers for the site are 4941 01 31 0020 and 4941 01 33 0010. This site is proposed to be developed with a multifamily residential community to be known as The Forest Apartments. The location of this project site is illustrated in Figure 1 on the following page.

KBP Consulting, Inc. has been retained by REZ SE Land, LLC to prepare a traffic impact study in connection with the proposed development of this property. This study addresses trip generation characteristics and the traffic impacts created by the proposed project on the nearby transportation network.

This study is divided into seven (7) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Assignment
6. Traffic Analyses
7. Summary & Conclusions



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Project Location Map

FIGURE 1
The Forest Apartments
Margate, Florida

INVENTORY

Existing Land Use and Access

The subject site has a total land area of approximately 7.14 acres (+/- 310,988 square feet) and as mentioned previously, is currently vacant / undeveloped. Vehicular access to the site is provided by a right-turn in / right-turn out only driveway with an exclusive southbound right-turn lane on S. State Road 7. This driveway also provides access to an existing office development on the adjacent parcel to the north.

Proposed Land Use and Access

The subject site will be developed with a multifamily residential community consisting of 300 dwelling units within multiple five-story (mid-rise) buildings. Vehicular access to the site will be provided via the existing right-turn in / right-turn out only driveway on S. State Road 7 and via a cross-access connection with the existing office development on the north side of the site. This driveway connects to SW 7th Street. Appendix A contains the preliminary site plan and data table for the proposed residential community and the buildout year for the project is anticipated to be 2026. A gated vehicular entry point is proposed approximately 450 feet to the west of State Road 7.

EXISTING CONDITIONS

This section of the report addresses the transportation system located in the immediate vicinity of The Forest Apartments site.

Roadway System

S. State Road 7 (US 441) is located along the eastern boundary of the site. In this area, S. State Road 7 is a six-lane divided state-maintained principal arterial roadway with three (3) through lanes in the northbound direction and three (3) through lanes in the southbound direction. The posted speed limit along this section of S. State Road 7 is 45 miles per hour (mph) and the Florida Department of Transportation (FDOT) access classification is "5 – Restrictive". SW 7th Street to the north is a locally maintained two-lane roadway.

Study Intersections

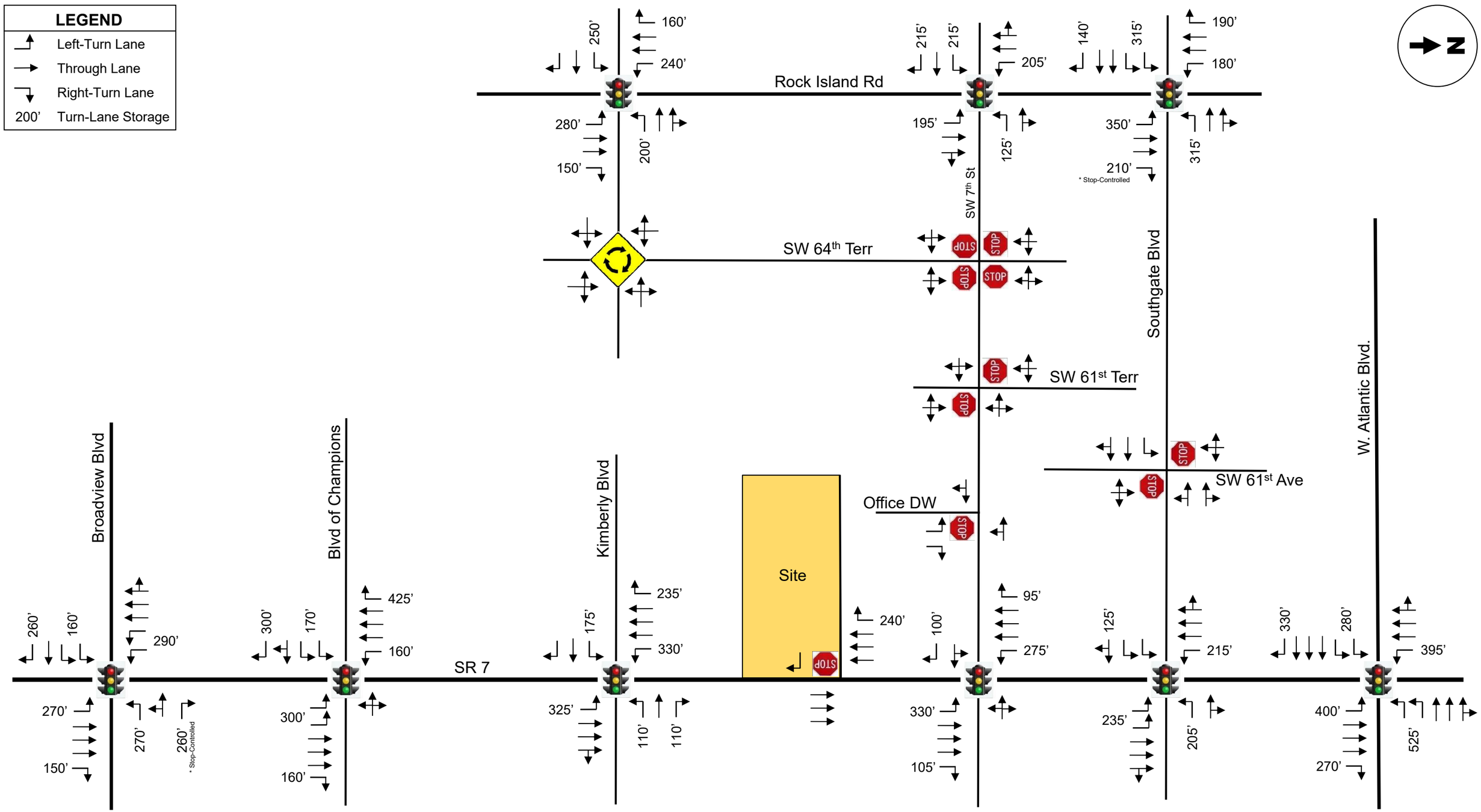
Fifteen (15) nearby intersections were identified as the locations to be evaluated as part of this analysis. These intersections are:

- S. State Road 7 and Broadview Boulevard / SW 17th Street (signalized)
- S. State Road 7 and Boulevard of Champions (signalized)
- S. State Road 7 and Kimberly Boulevard / SW 11th Street (signalized)
- S. State Road 7 and Project Driveway (unsignalized)
- S. State Road 7 and SW 7th Street (signalized)
- S. State Road 7 and Southgate Boulevard / SW 2nd Court (signalized)
- S. State Road 7 and W. Atlantic Boulevard (signalized)
- Rock Island Road and Southgate Boulevard (signalized)
- Rock Island Road and SW 7th Street (signalized)
- Rock Island Road and Kimberly Boulevard (signalized)
- SW 7th Street and Existing Driveway (unsignalized – 500 feet west of SR 7)
- SW 7th Street and SW 61st Terrace (unsignalized)
- SW 7th Street and SW 64th Terrace (all-way stop)
- Kimberly Boulevard and SW 64th Terrace (roundabout)
- Southgate Boulevard and SW 61st Avenue (unsignalized)

Figure 2 on the following page depicts the existing lane geometry of the fifteen (15) intersections identified for analysis purposes.

Transit Service

Broward County Transit (BCT) provides bus service in the State Road 7 corridor. In this area, Route 19 and the 441 Breeze (Route 441) provide transit service with bus stops immediately to the north at SW 7th Street and immediately to the south at SW 8th Court.



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Existing Lane Geometry

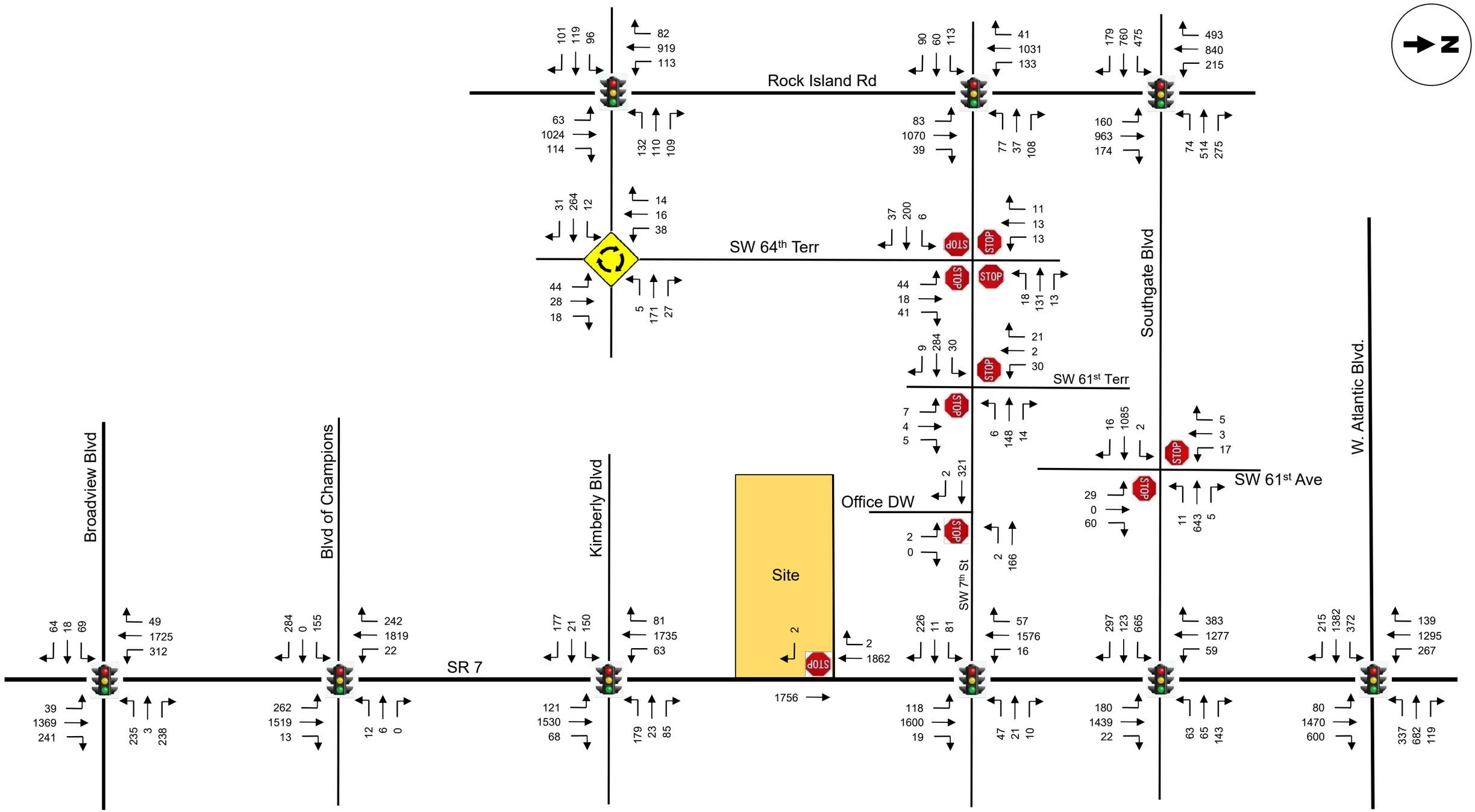
FIGURE 2
The Forest Apartments
Margate, Florida

TRAFFIC COUNTS

KBP Consulting, Inc., in association with Traffic Survey Specialists, Inc., collected traffic data at the following locations:

- **Intersections**
  - S. State Road 7 and Broadview Boulevard / SW 17th Street
  - S. State Road 7 and Boulevard of Champions
  - S. State Road 7 and Kimberly Boulevard / SW 11th Street
  - S. State Road 7 and Project Driveway
  - S. State Road 7 and SW 7th Street
  - S. State Road 7 and Southgate Boulevard / SW 2nd Court
  - S. State Road 7 and W. Atlantic Boulevard
  - Rock Island Road and Southgate Boulevard
  - Rock Island Road and SW 7th Street
  - Rock Island Road and Kimberly Boulevard
  - SW 7th Street and Existing Driveway (500 feet west of SR 7)
  - SW 7th Street and SW 61st Terrace
  - SW 7th Street and SW 64th Terrace
  - Kimberly Boulevard and SW 64th Terrace
  - Southgate Boulevard and SW 61st Avenue

The intersection turning movement counts were collected on Tuesday, May 9, 2023, during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM). Figures 3 and 4 summarize the results of this traffic data collection effort. Appendix B contains the traffic data as collected in the field. Given that these counts were collected during early-May, a peak season conversion factor of 1.02 has been applied. (Please see Appendix C for the 2022 peak season factor category report published by the Florida Department of Transportation (FDOT) for this area of Broward County.)



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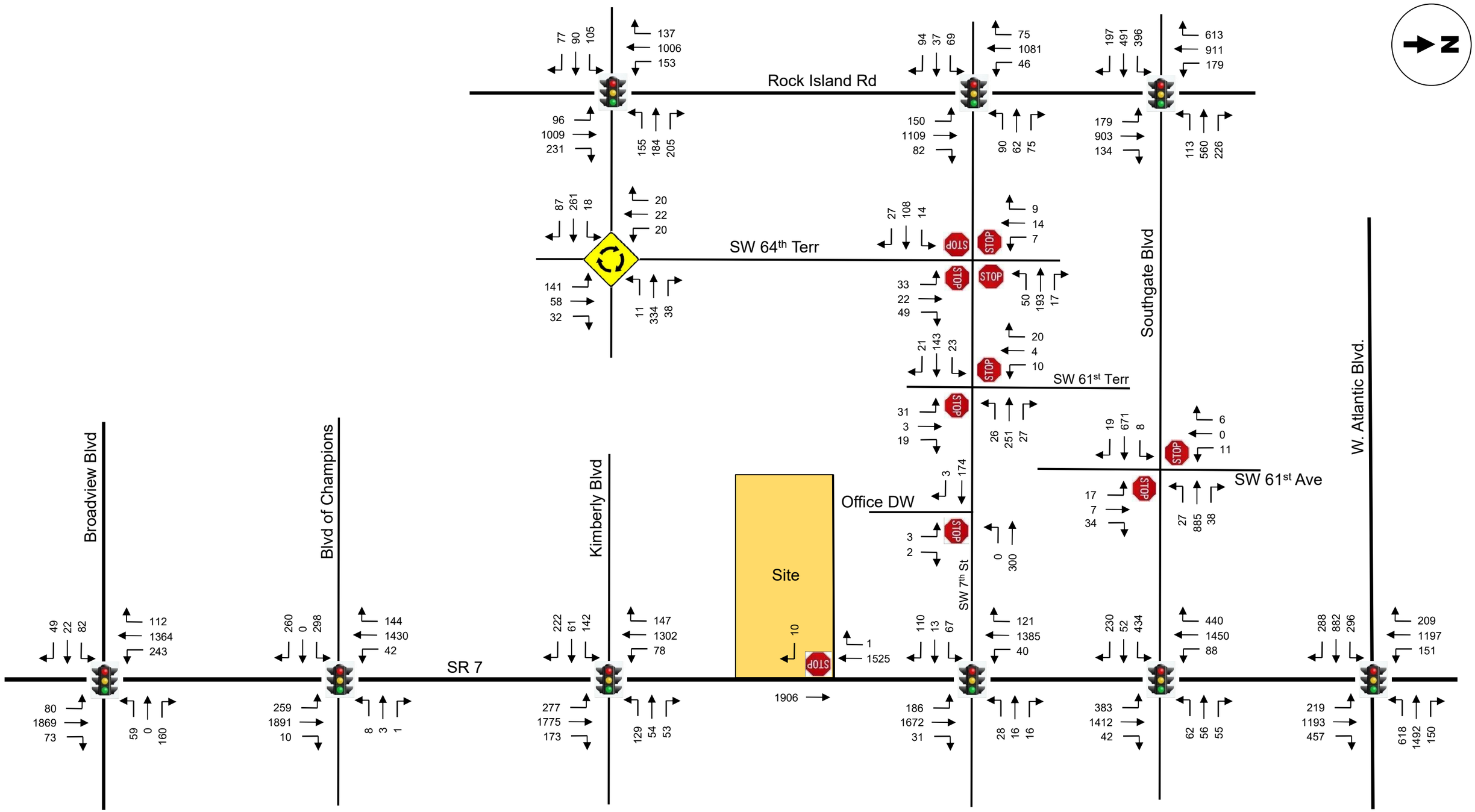
Existing (2023) AM Peak Hour Traffic Counts

Source: Traffic Survey Specialists, Inc.
Adjusted for Average Peak Season Conditions

FIGURE 3
The Forest Apartments
Margate, Florida



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Existing (2023) PM Peak Hour Traffic Counts

Source: Traffic Survey Specialists, Inc.
Adjusted for Average Peak Season Conditions

FIGURE 4
The Forest Apartments
Margate, Florida

TRIP GENERATION

A trip generation analysis has been conducted for the proposed development. The analysis was performed utilizing the trip generation rates and equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (11th Edition)*. The trip generation analysis was undertaken for daily, AM, and PM peak hour conditions. According to the referenced ITE manual, the most appropriate land use category and corresponding trip generation equations for the proposed development are presented below. Relevant excerpts from the ITE manual are presented in Appendix D.

ITE Land Use #221 – Multifamily Housing (Mid-Rise)

- Weekday: T = 4.77 (X) – 46.46
  where T = number of trips and X = number of dwelling units
- AM Peak Hour: T = 0.44 (X) – 11.61 (23% in / 77% out)
- PM Peak Hour: T = 0.39 (X) + 0.34 (61% in / 39% out)

Utilizing the above-listed trip generation equations from the referenced ITE manual, a trip generation analysis was undertaken for the proposed residential development on the subject site. The results of this effort are documented in Table 1 below.

Table 1
The Forest Apartments
Trip Generation Summary
Margate, Florida

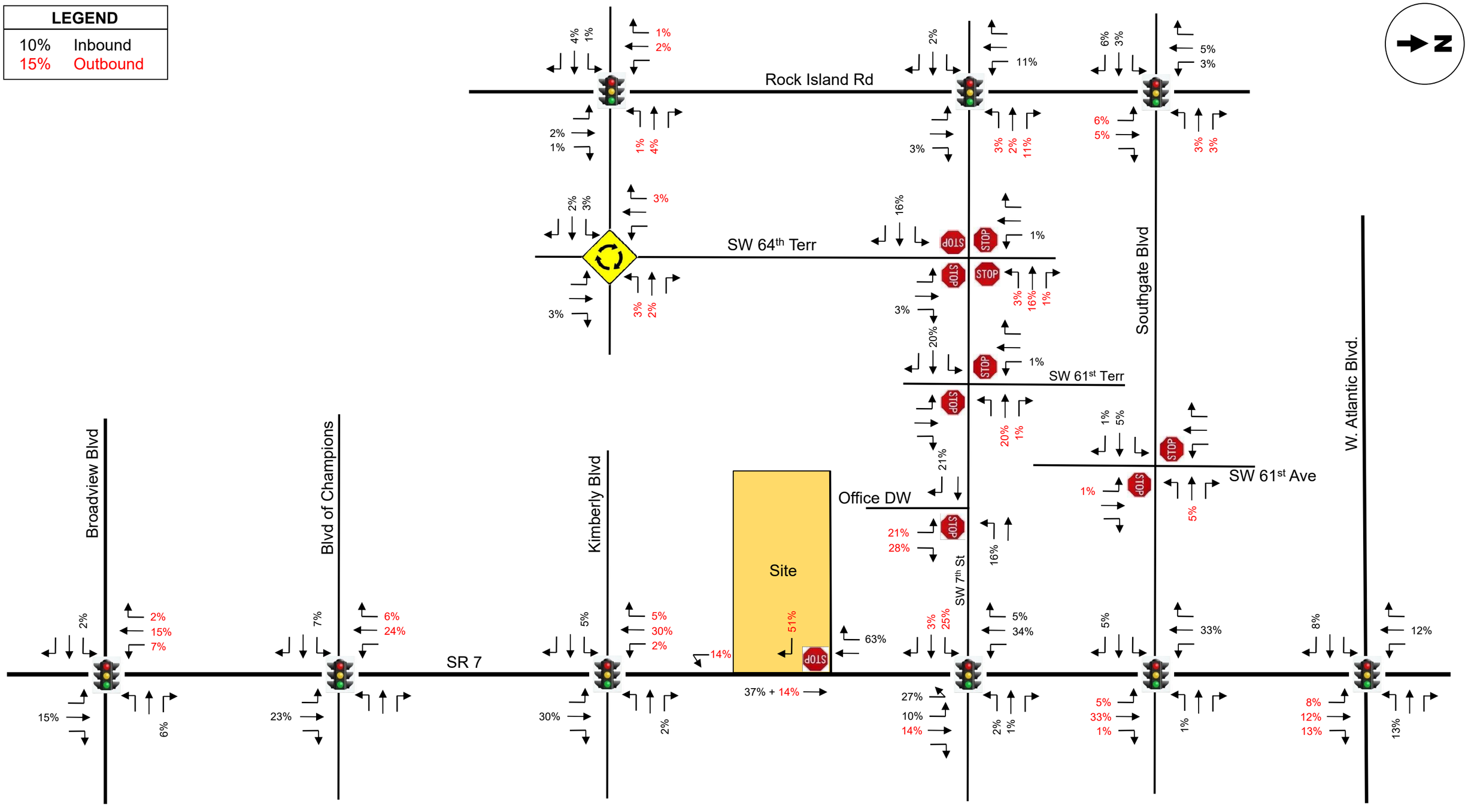
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Proposed								
Multifamily Housing (Mid-Rise)	300 DU	1,385	28	92	120	71	46	117

Source: KBP Consulting, Inc., January 2024.
Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition).

As indicated in Table 1, the proposed project is anticipated to generate 1,385 daily vehicle trips, 120 AM peak hour vehicle trips (28 inbound and 92 outbound), and 117 vehicle trips (71 inbound and 46 outbound) during the typical afternoon peak hour.

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The trip distribution and traffic assignment for The Forest Apartments project was developed based upon knowledge of the study area, examination of the surrounding roadway network characteristics, review of current traffic volumes / patterns, and existing land use patterns. The resulting trip distribution for the project trips is presented in Figure 5. The anticipated AM and PM peak hour trip assignment for the project is based upon the estimated trip distribution patterns and presented in Figures 6 and 7.



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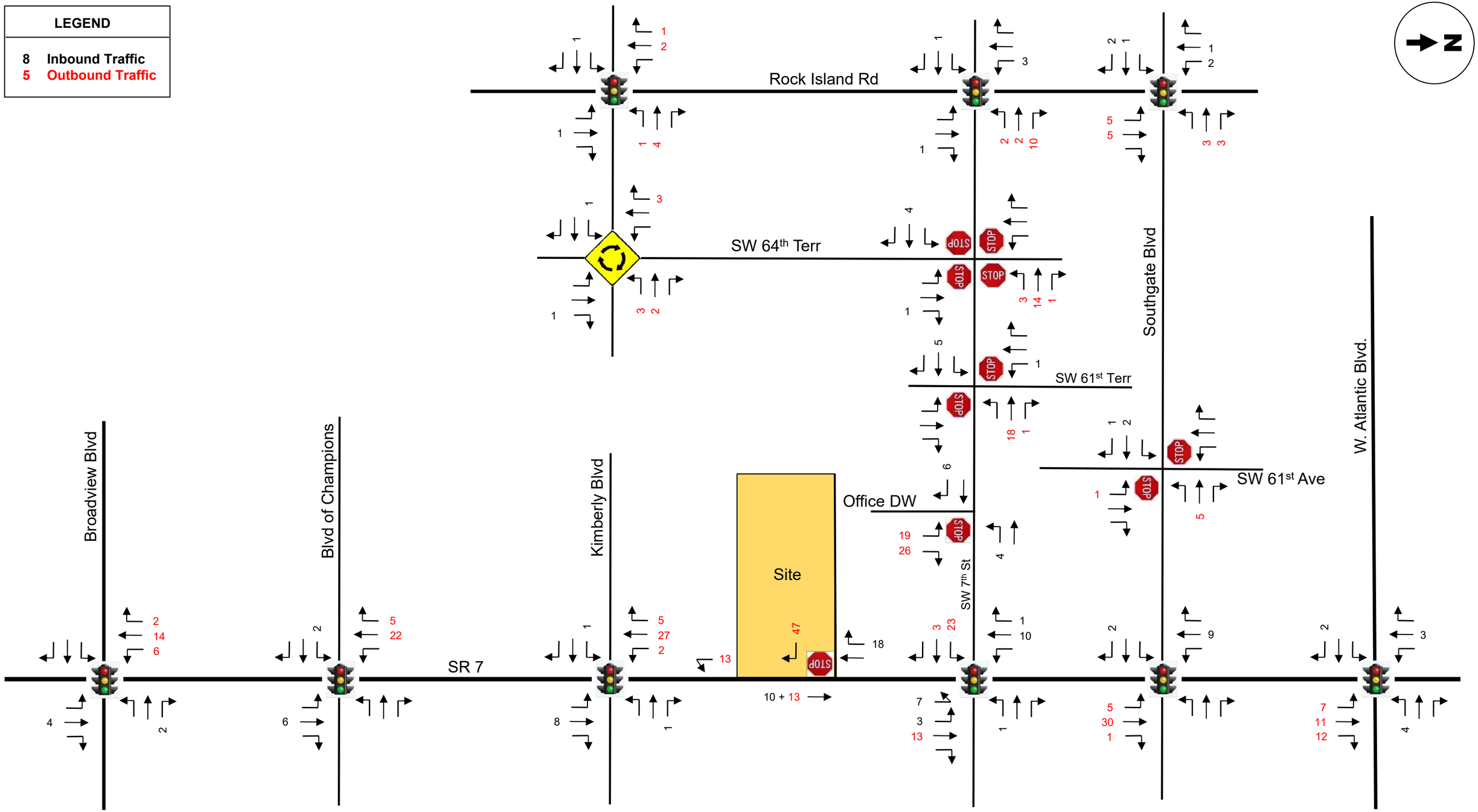
Trip Distribution

FIGURE 5
The Forest Apartments
Margate, Florida



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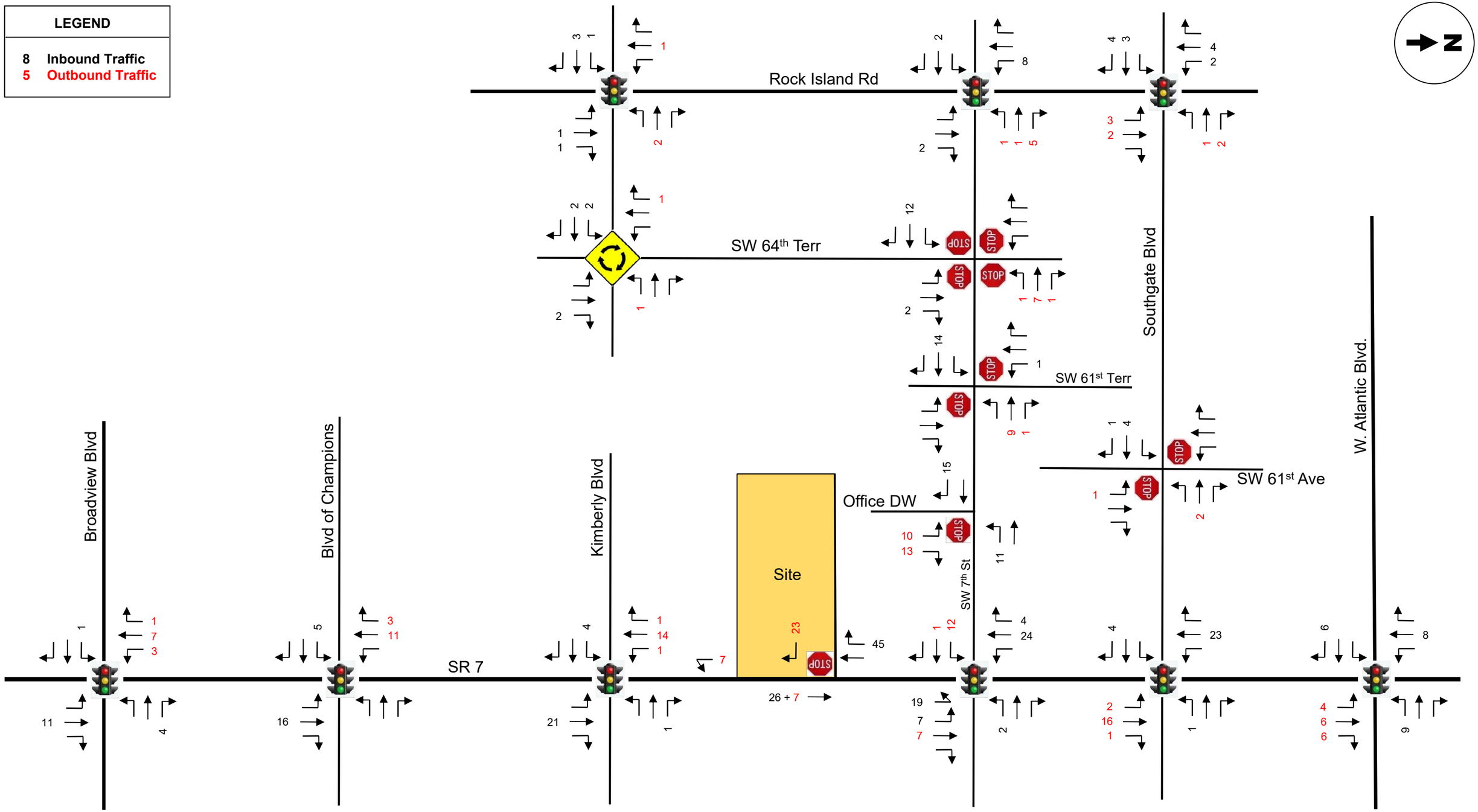
Project Traffic Assignment
AM Peak Hour

FIGURE 6
The Forest Apartments
Margate, Florida



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Project Traffic Assignment
PM Peak Hour

FIGURE 7
The Forest Apartments
Margate, Florida

TRAFFIC IMPACT ANALYSES

This section of the study is divided into two (2) primary parts. The first part of this section involves the development of the future build-out year (2026) traffic volumes for the study area. The second part of this section includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Future, build-out year (2026) traffic volumes were developed for the project study area in the following manner:

- **Average Peak Season Conversion Factor:** Traffic data collected on Tuesday, May 9, 2023, was reviewed with respect to average peak season conditions. Based on FDOT's Peak Season Factor Category report (see Appendix C), the adjustment factor for data collected during this time period is 1.02.

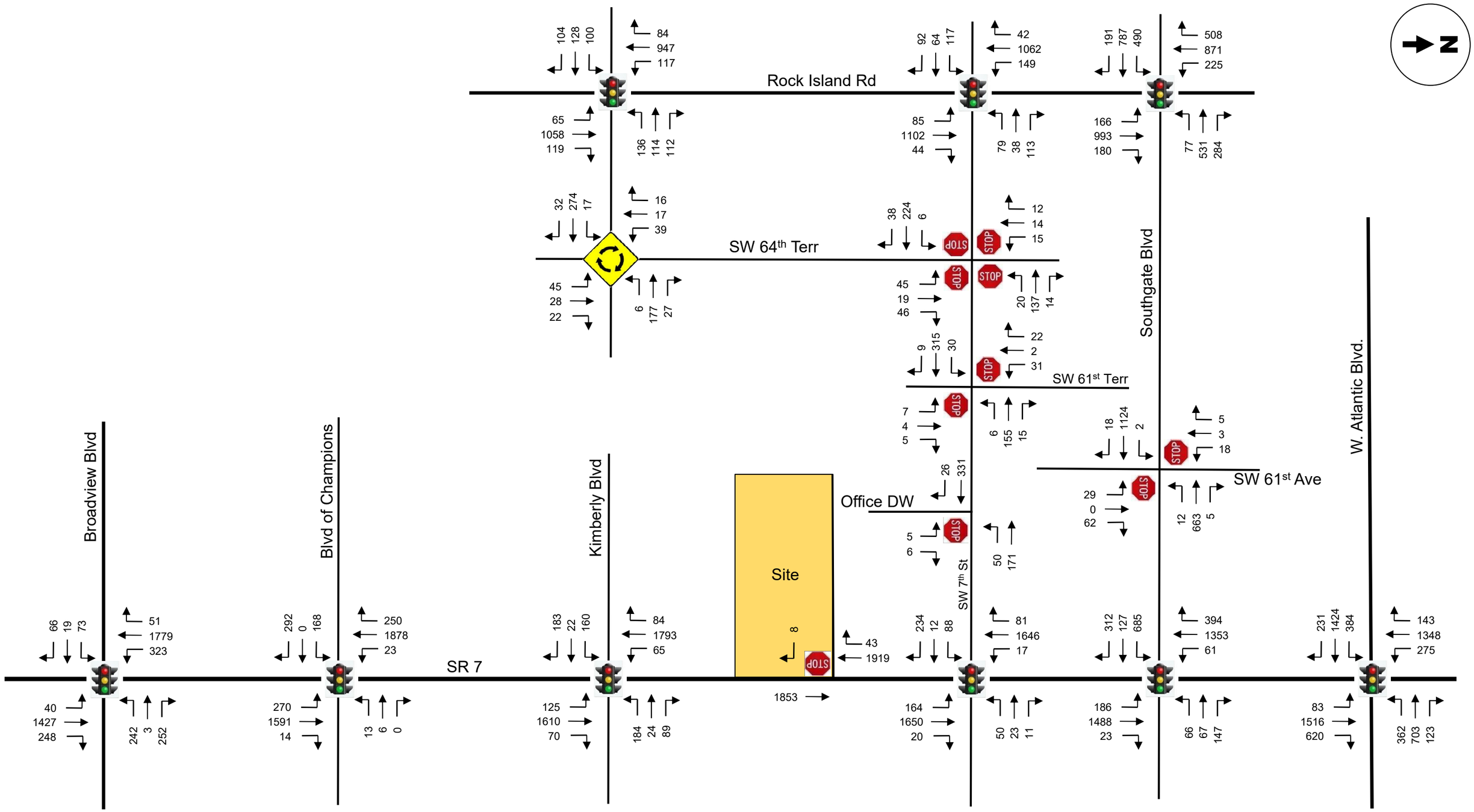
- **Historic Traffic Growth:** Research relative to the background traffic growth in the area was conducted. Historic traffic count data (i.e. the past 5 years) was obtained from the FDOT and is presented in Appendix E of this report. Traffic growth on the following roadway segments was considered for this analysis:

  - State Road 814 / Atlantic Boulevard east of SR 7 / US 441
  - State Road 7 south of Southgate Boulevard
  - County Road 814 / Atlantic Boulevard west of SR 7 / US 441
  - State Road 7 north of Bailey Road
  - State Road 7 south of Atlantic Boulevard
  - Southgate Boulevard west of State Road 7
  - Kimberly Boulevard west of State Road 7

  The referenced data indicates that the study area has exhibited a moderate decrease (-1.31%) in traffic volumes for the five-year period between 2018 and 2022. For the purposes of this analysis, a +1.0% annual growth rate has been applied.

- **Existing Office Development:** As referenced previously, the subject site shares access with and is adjacent to an existing office development. Since the pandemic, employees within this office complex have generally been working remotely which has impacted the site's existing trip generation characteristics. In order to account for the potential return of these employees in the future and their associated vehicle trips, this development has been treated as a "committed development" for the purposes of this analysis. Appendix F contains documentation concerning the development intensity of this site, the trip generation data and analysis, trip distribution and traffic assignment for the AM and PM peak hour trips.

The future traffic calculations (peak season adjustments, background traffic growth, committed office development and the traffic associated with The Forest Apartments residential development) for the study intersections and project driveways are contained in Appendix G in tabular format. Figures 8 through 11 present the future traffic volumes for the study area. Figures 8 and 9 include future background traffic only (without the proposed residential development) and Figures 10 and 11 include the additional traffic anticipated to be generated by The Forest Apartments development.



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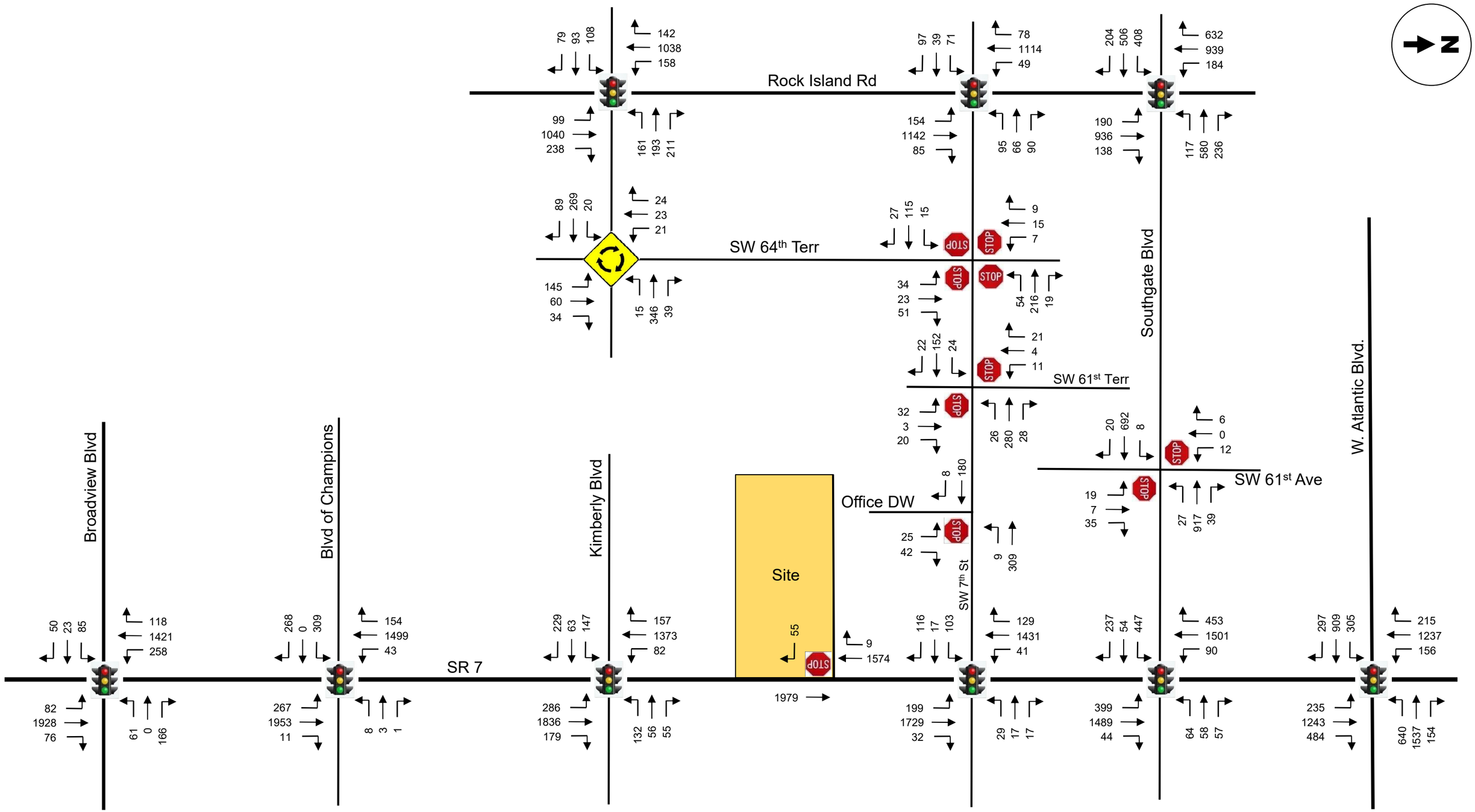
Future (2026) Background (w/out Project) Traffic Volumes
AM Peak Hour

FIGURE 8
The Forest Apartments
Margate, Florida



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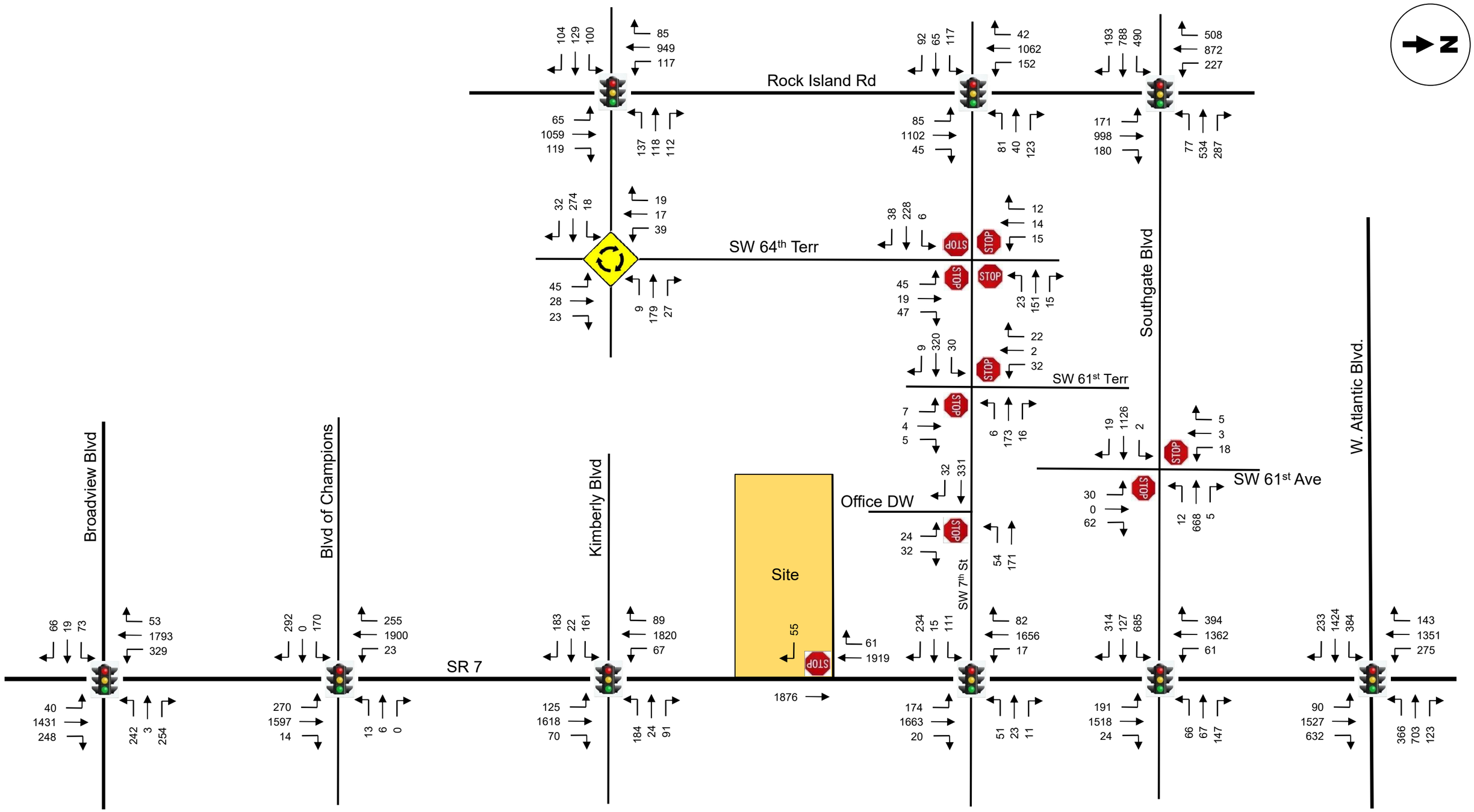
Future (2026) Background (w/out Project) Traffic Volumes
PM Peak Hour

FIGURE 9
The Forest Apartments
Margate, Florida



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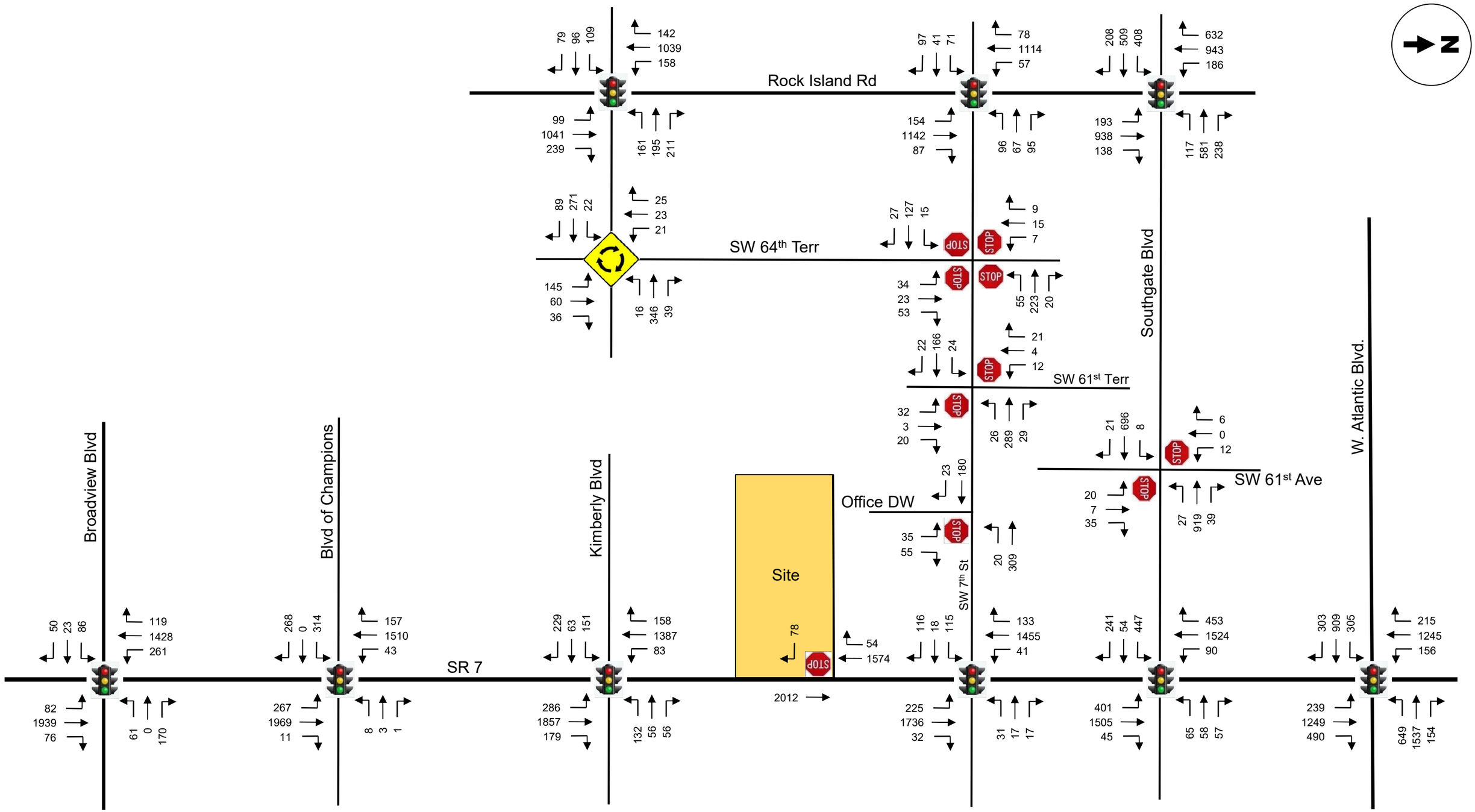
Future (2026) Total (w/ Project) Traffic Volumes
AM Peak Hour

FIGURE 10
The Forest Apartments
Margate, Florida



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Future (2026) Total (w/ Project) Traffic Volumes
PM Peak Hour

FIGURE 11
The Forest Apartments
Margate, Florida

Level of Service (LOS) Analyses – Intersections

Intersection capacity / level of service (LOS) analyses were conducted for the study intersections and the project driveways. These analyses were undertaken following the capacity / level of service procedures outlined in the 6th Edition of the Highway Capacity Manual (HCM) using the Synchro software. The results of the ***signalized*** intersection capacity analyses are summarized in Table 2 on the following page.

As indicated in Table 2, with the exception of the intersection at S. State Road 7 and W. Atlantic Boulevard and the intersection at Rock Island Road and Southgate Boulevard, each of the signalized study intersections is currently operating at an acceptable Level of Service (LOS) and will continue to do so in the buildout year of 2026 both with and without the project traffic associated with The Forest Apartments development.

SR 7 and W. Atlantic Boulevard. Concerning the intersection at State Road 7 and W. Atlantic Boulevard, this intersection is currently operating at LOS "E" in the AM and PM peak hours. In the buildout year of 2026, this intersection is projected to operate at LOS "F" with the project traffic. A minimal increase in vehicle delay (+1.8 seconds / vehicle in the AM peak hour and +1.2 seconds / vehicle in the PM peak hour) is attributed to The Forest Apartments project traffic. The signal timings for this intersection were optimized by holding the cycle length constant and adjusting the signal timing splits. The purpose of this effort is to determine if the future signal timings can be adjusted in order to improve the overall intersection operations.

In the AM peak hour, the overall intersection delay for the future buildout conditions can be improved to LOS "E" with an intersection delay of 70.9 seconds / vehicle. This represents a reduction of 12.1 seconds / vehicle which more than offsets the additional intersection delay attributed to The Forest Apartments project. In the PM peak hour, the overall intersection delay for the future buildout conditions can be improved to LOS "E" with an intersection delay of 75.7 seconds / vehicle. This represents a reduction of 7.3 seconds / vehicle which also more than offsets the additional intersection delay attributed to the subject project.

Table 2
The Forest Apartments
Signalized Intersection Levels of Service
Margate, Florida

Intersection / Movement	Existing (2023) Conditions		Future (2026) Conditions Without Project Traffic		Future (2026) Conditions With Project Traffic	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Signalized Intersections						
State Road 7 / Broadview Blvd	**C (28.6)**	**C (30.2)**	**C (29.3)**	**C (31.1)**	**C (29.4)**	**C (31.4)**
- Northbound Approach	C (23.1)	C (21.2)	C (24.4)	C (22.1)	C (24.6)	C (22.4)
- Southbound Approach	B (19.6)	C (31.6)	C (20.0)	C (32.4)	C (20.2)	C (32.9)
- Eastbound Approach	E (73.5)	E (73.4)	E (73.3)	E (73.3)	E (73.3)	E (73.3)
- Westbound Approach	E (72.5)	E (72.9)	E (72.2)	E (72.8)	E (72.2)	E (72.8)
State Road 7 / Blvd of Champions	**C (20.9)**	**C (26.2)**	**C (21.6)**	**C (26.6)**	**C (21.6)**	**C (26.8)**
- Northbound Approach	B (17.4)	C (25.2)	B (18.3)	C (26.2)	B (18.3)	C (26.7)
- Southbound Approach	B (12.9)	B (15.2)	B (13.6)	B (15.7)	B (13.6)	B (15.8)
- Eastbound Approach	E (71.1)	E (60.3)	E (70.4)	E (59.3)	E (70.4)	E (58.6)
- Westbound Approach	E (79.6)	E (79.2)	F (80.8)	E (79.2)	F (80.8)	E (79.2)
State Road 7 / Kimberly Blvd	**C (28.4)**	**D (35.1)**	**C (29.3)**	**D (36.8)**	**C (29.5)**	**D (37.0)**
- Northbound Approach	C (23.1)	C (30.3)	C (24.0)	C (32.7)	C (24.2)	C (32.9)
- Southbound Approach	C (24.8)	C (32.2)	C (25.9)	C (33.5)	C (26.3)	C (33.6)
- Eastbound Approach	E (55.8)	E (62.2)	E (55.8)	E (63.3)	E (55.8)	E (63.2)
- Westbound Approach	D (50.2)	D (51.0)	D (50.5)	D (50.6)	D (50.5)	D (50.6)
State Road 7 / SW 7th Street	**A (10.0)**	**A (6.3)**	**B (10.9)**	**A (8.9)**	**B (12.1)**	**A (9.9)**
- Northbound Approach	A (3.1)	A (1.9)	A (4.1)	A (4.3)	A (5.5)	A (5.7)
- Southbound Approach	A (3.4)	A (1.8)	A (4.5)	A (4.4)	A (5.9)	A (5.0)
- Eastbound Approach	E (67.8)	E (66.6)	E (67.0)	E (61.9)	E (62.8)	E (60.8)
- Westbound Approach	E (67.3)	E (69.2)	E (67.6)	E (67.3)	E (68.0)	E (67.4)
State Road 7 / Southgate Blvd	**D (46.3)**	**D (43.6)**	**D (48.6)**	**D (46.0)**	**D (48.8)**	**D (46.5)**
- Northbound Approach	C (33.6)	D (40.6)	C (35.4)	D (44.2)	C (35.8)	D (44.5)
- Southbound Approach	D (37.0)	C (34.6)	D (40.7)	D (37.0)	D (41.3)	D (37.6)
- Eastbound Approach	E (73.5)	E (71.7)	E (74.6)	E (72.2)	E (74.7)	E (72.7)
- Westbound Approach	E (73.6)	E (61.7)	E (74.6)	E (61.7)	E (74.7)	E (61.7)
State Road 7 / W. Atlantic Blvd	**E (75.0)**	**E (75.1)**	**E (81.2)**	**F (81.8)**	**F (83.0)**	**F (83.0)**
- Northbound Approach	F (87.6)	E (69.7)	F (95.2)	F (80.1)	F (99.1)	F (82.4)
- Southbound Approach	D (54.4)	E (70.0)	E (57.7)	E (75.4)	E (58.5)	E (76.3)
- Eastbound Approach	E (71.3)	E (73.6)	E (75.7)	E (78.6)	E (75.7)	E (79.7)
- Westbound Approach	F (88.4)	F (83.9)	F (99.6)	F (89.9)	F (101.5)	F (90.4)
Rock Island Rd / Southgate Blvd	**E (61.6)**	**E (59.8)**	**E (65.8)**	**E (65.6)**	**E (66.4)**	**E (66.1)**
- Northbound Approach	D (35.9)	D (35.3)	D (37.9)	D (38.5)	D (38.4)	D (39.1)
- Southbound Approach	D (40.4)	E (55.9)	D (46.5)	E (66.7)	D (48.0)	E (67.8)
- Eastbound Approach	F (90.6)	E (68.6)	F (95.4)	E (71.6)	F (95.2)	E (71.4)
- Westbound Approach	F (85.4)	F (86.1)	F (87.8)	F (89.1)	F (88.4)	F (89.3)
Rock Island Rd / SW 7th Street	**C (20.9)**	**B (16.3)**	**C (22.1)**	**B (17.8)**	**C (23.3)**	**B (18.2)**
- Northbound Approach	B (12.7)	A (7.4)	B (14.3)	A (8.7)	B (15.5)	A (9.1)
- Southbound Approach	B (10.9)	A (8.3)	A (11.9)	A (9.7)	B (12.8)	A (10.0)
- Eastbound Approach	E (61.8)	E (66.7)	E (61.6)	E (65.3)	E (60.8)	E (64.9)
- Westbound Approach	E (71.2)	E (66.9)	E (72.0)	E (68.9)	E (74.3)	E (69.7)
Rock Island Rd / Kimberly Blvd	**C (24.5)**	**C (24.9)**	**C (25.0)**	**C (25.5)**	**C (25.1)**	**C (25.6)**
- Northbound Approach	B (18.6)	B (14.9)	B (19.3)	B (15.8)	B (19.4)	B (15.9)
- Southbound Approach	B (16.4)	B (13.6)	B (16.8)	B (14.4)	B (16.9)	B (14.5)
- Eastbound Approach	D (50.0)	E (56.9)	D (50.1)	E (56.5)	D (50.2)	E (56.5)
- Westbound Approach	D (47.8)	E (60.0)	D (47.8)	E (60.2)	D (47.9)	E (60.2)

Source: Highway Capacity Manual and SYNCHRO.
Legend: D (37.7) = LOS (Average Delay - Seconds / Vehicle)

Rock Island Road and Southgate Boulevard. Concerning the intersection at Rock Island Road and Southgate Boulevard, this intersection is currently operating at LOS "E" in the AM and PM peak hours and will continue to do so in the 2026 buildout year both with and without the project traffic. A minimal increase in vehicle delay (+0.6 seconds / vehicle in the AM peak hour and +0.5 seconds / vehicle in the PM peak hour) is attributed to The Forest Apartments project traffic. The signal timings for this intersection were optimized for the purpose of determining if the future signal timings can be adjusted in order to improve the overall intersection operations.

In the AM peak hour, the overall intersection delay for the future buildout conditions can be improved with an intersection delay of 65.3 seconds / vehicle. This represents a reduction of 1.1 seconds / vehicle which more than offsets the additional intersection delay attributed to The Forest Apartments project. In the PM peak hour, the overall intersection delay for the future buildout conditions can be improved with an intersection delay of 65.7 seconds / vehicle. This represents a reduction of 0.4 seconds / vehicle which is nearly equivalent to the additional delay (+0.5 seconds / vehicle) attributed to the subject project.

SR 7 and SW 7th Street. Given the proximity of the site to the intersection at S. State Road 7 and SW 7th Street, the operational details by movement are presented in Table 3 below.

Table 3
The Forest Apartments
Signalized Intersection Levels of Service Detail - SR 7 & SW 7th Street
Margate, Florida

	Existing (2023) Conditions		Future (2026) Conditions Without Project Traffic		Future (2026) Conditions With Project Traffic	
Intersection / Movement	**AM Peak Hour**	**PM Peak Hour**	**AM Peak Hour**	**PM Peak Hour**	**AM Peak Hour**	**PM Peak Hour**
State Road 7 / SW 7th Street	**A (10.0)**	**A (6.3)**	**B (10.9)**	**A (8.9)**	**B (12.1)**	**A (9.9)**
- Northbound Approach	A (3.1)	A (1.9)	A (4.1)	A (4.3)	A (5.5)	A (5.7)
- Northbound Left-Turn	*A (8.1)*	*A (6.5)*	*B (12.6)*	*B (11.4)*	*B (17.0)*	*B (17.5)*
- Northbound Through	*A (2.7)*	*A (1.4)*	*A (3.3)*	*A (3.6)*	*A (4.3)*	*A (4.2)*
- Northbound Right-Turn	*A (2.0)*	*A (0.9)*	*A (2.4)*	*A (2.6)*	*A (3.1)*	*A (3.1)*
- Southbound Approach	A (3.4)	A (1.8)	A (4.5)	A (4.4)	A (5.9)	A (5.0)
- Southbound Left-Turn	*A (7.8)*	*A (5.9)*	*A (8.7)*	*A (8.4)*	*A (9.9)*	*A (9.1)*
- Southbound Through	*A (3.4)*	*A (1.7)*	*A (4.5)*	*A (4.3)*	*A (6.0)*	*A (5.0)*
- Southbound Right-Turn	*A (2.8)*	*A (1.6)*	*A (3.7)*	*A (3.8)*	*A (4.8)*	*A (4.3)*
- Eastbound Approach	E (67.8)	E (66.6)	E (67.0)	E (61.9)	E (62.8)	E (60.8)
- Eastbound Through / Left-Turn	*E (60.8)*	*E (66.5)*	*E (60.1)*	*E (63.9)*	*E (59.4)*	*E (63.0)*
- Eastbound Right-Turn	*E (70.6)*	*E (66.6)*	*E (70.0)*	*E (59.9)*	*E (64.6)*	*E (58.3)*
- Westbound Approach	E (67.3)	E (69.2)	E (67.6)	E (67.3)	E (68.0)	E (67.4)
- Westbound Left / Through / Right	*E (67.3)*	*E (69.2)*	*E (67.6)*	*E (67.3)*	*E (68.0)*	*E (67.4)*

Source: Highway Capacity Manual and SYNCHRO.
Legend: D (37.7) = LOS (Average Delay - Seconds / Vehicle)

SR 7 and Southgate Boulevard. Given the proximity of the site to the intersection at S. State Road 7 and Southgate Boulevard, the operational details by movement are presented in Table 4 below.

Table 4
The Forest Apartments
Signalized Intersection Levels of Service Detail - SR 7 & Southgate Boulevard
Margate, Florida

Intersection / Movement	Existing (2023) Conditions		Future (2026) Conditions Without Project Traffic		Future (2026) Conditions With Project Traffic	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
State Road 7 / Southgate Blvd	**D (46.3)**	**D (43.6)**	**D (48.6)**	**D (46.0)**	**D (48.8)**	**D (46.5)**
- Northbound Approach	C (33.6)	D (40.6)	C (35.4)	D (44.2)	C (35.8)	D (44.5)
- Northbound Left-Turn	*E (74.4)*	*F (118.2)*	*E (74.2)*	*F (130.8)*	*E (74.2)*	*F (132.2)*
- Northbound Through	*C (28.0)*	*B (19.8)*	*C (29.9)*	*C (21.2)*	*C (30.3)*	*C (21.3)*
- Northbound Right-Turn	*C (29.7)*	*C (20.9)*	*C (31.9)*	*C (22.5)*	*C (32.4)*	*C (22.6)*
- Southbound Approach	D (37.0)	C (34.6)	D (40.7)	D (37.0)	D (41.3)	D (37.6)
- Southbound Left-Turn	*E (78.3)*	*E (74.3)*	*E (77.7)*	*E (73.8)*	*E (77.6)*	*E (73.8)*
- Southbound Through	*C (34.5)*	*C (31.6)*	*C (38.1)*	*C (33.8)*	*C (38.6)*	*C (34.3)*
- Southbound Right-Turn	*D (37.6)*	*D (35.1)*	*D (42.2)*	*D (38.4)*	*D (42.9)*	*D (39.5)*
- Eastbound Approach	E (73.5)	E (71.7)	E (74.6)	E (72.2)	E (74.7)	E (72.7)
- Eastbound Left-Turn	*F (83.3)*	*E (75.9)*	*F (84.3)*	*E (76.4)*	*F (84.3)*	*E (76.4)*
- Eastbound Through / Right-Turn	*E (58.0)*	*E (65.4)*	*E (59.4)*	*E (65.8)*	*E (59.8)*	*E (67.0)*
- Westbound Approach	E (73.6)	E (61.7)	E (74.6)	E (61.7)	E (74.7)	E (61.7)
- Westbound Left-Turn	*D (54.5)*	*E (56.8)*	*D (54.2)*	*E (56.6)*	*D (54.3)*	*E (56.6)*
- Westbound Through / Right-Turn	*E (79.4)*	*E (64.5)*	*F (80.9)*	*E (64.5)*	*F (80.9)*	*E (64.5)*

Source: Highway Capacity Manual and SYNCHRO.
Legend: D (37.7) = LOS (Average Delay - Seconds / Vehicle)

The results of the unsignalized intersection capacity analyses are summarized in Table 5 below.

Table 5
The Forest Apartments
Unsignalized Intersection Levels of Service
Margate, Florida

Intersection / Movement	Existing (2023) Conditions		Future (2026) Conditions Without Project Traffic		Future (2026) Conditions With Project Traffic	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Unsignalized Intersections						
SW 7th Street / SW 61st Terrace						
- Northbound Approach	B (10.1)	B (10.5)	B (10.3)	B (10.7)	B (10.4)	B (10.9)
- Southbound Approach	A (9.9)	A (9.9)	B (10.1)	B (10.1)	B (10.2)	B (10.3)
- Eastbound Left-Turn	A (7.6)	A (7.9)	A (7.6)	A (8.0)	A (7.7)	A (8.1)
- Westbound Left-Turn	A (7.9)	A (7.7)	A (8.0)	A (7.7)	A (8.0)	A (7.7)
SW 7th Street / SW 64th Terrace						
- Northbound Approach	A (8.9)	A (8.8)	A (9.2)	A (9.0)	A (9.3)	A (9.1)
- Southbound Approach	A (8.5)	A (8.4)	A (8.7)	A (8.5)	A (8.8)	A (8.6)
- Eastbound Approach	A (10.0)	A (8.9)	B (10.6)	A (9.1)	B (10.7)	A (9.3)
- Westbound Approach	A (9.2)	B (10.3)	A (9.5)	B (10.9)	A (9.8)	B (11.2)
Southgate Blvd / SW 61st Ave						
- Northbound Approach	C (16.0)	B (14.4)	C (16.7)	C (15.0)	C (16.9)	C (15.2)
- Southbound Approach	C (18.7)	C (16.3)	C (19.7)	C (17.2)	C (19.8)	C (17.2)
- Eastbound Left-Turn	A (9.1)	B (10.2)	A (9.2)	B (10.4)	A (9.2)	B (10.4)
- Westbound Left-Turn	B (11.4)	A (9.3)	B (11.7)	A (9.3)	B (11.7)	A (9.4)
Roundabout Intersection						
Kimberly Blvd / SW 64th Terrace	A (5.1)	A (7.2)	A (5.2)	A (7.5)	A (5.3)	A (7.6)
Project Driveways						
State Road 7 / Project Driveway						
- Eastbound Approach	B (11.9)	B (10.9)	B (12.2)	B (11.5)	B (12.9)	B (11.8)
SW 7th Street / Project Driveway						
- Northbound Approach	B (10.2)	A (9.6)	B (10.2)	A (9.4)	B (10.3)	A (9.7)
- Westbound Left-Turn	A (8.1)	A (0.0)	A (8.3)	A (7.7)	A (8.3)	A (7.7)

Source: Highway Capacity Manual and SYNCHRO.
Legend: D (37.7) = LOS (Average Delay - Seconds / Vehicle)

As indicated in Table 5 above, each of the unsignalized study intersections (i.e. individual approaches) is currently operating at an acceptable LOS and will continue to do so in the buildout year of 2026 both with and without the project traffic associated with The Forest Apartments project.

The signal timing data obtained from Broward County Traffic Engineering is presented in Appendix H and the Synchro intersection analysis printouts of the intersection capacity analyses are contained in Appendix I.

SUMMARY & CONCLUSIONS

There are two (2) vacant parcels of land located on the west side of S. State Road 7 (US 441) approximately one-half mile to the south of Southgate Boulevard in Margate, Broward County, Florida. The subject site has a total land area of approximately 7.14 acres (+/- 310,988 square feet). Vehicular access to the site is provided by a right-turn in / right-turn out only driveway with an exclusive southbound right-turn lane on S. State Road 7. This driveway also provides access to an existing office development on the adjacent parcel to the north.

The subject site will be developed with a multifamily residential community (to be known as The Forest Apartments) consisting of 300 dwelling units within multiple five-story (mid-rise) buildings. Vehicular access to the site will be provided via the existing right-turn in / right-turn out only driveway on S. State Road 7 and via a cross-access connection with the existing office development on the north side of the site. This driveway connects to SW 7th Street. The buildout year for the project is anticipated to be 2026.

The Forest Apartments development is anticipated to generate 1,385 daily vehicle trips, 120 AM peak hour vehicle trips (28 inbound and 92 outbound), and 117 vehicle trips (71 inbound and 46 outbound) during the typical afternoon peak hour.

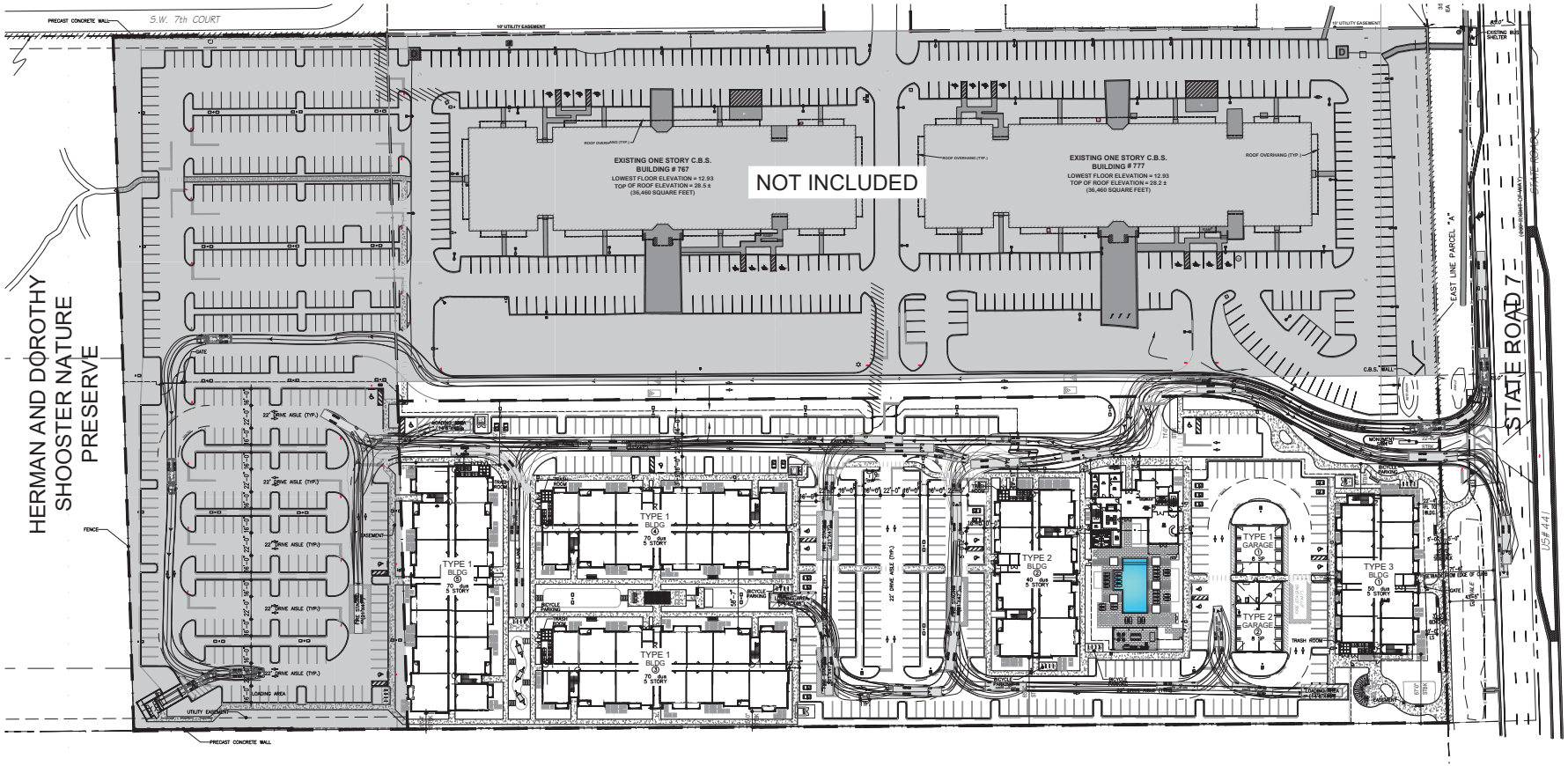
With the exception of the intersection at State Road 7 and W. Atlantic Boulevard and the intersection at Rock Island Road and Southgate Boulevard, each of the signalized study intersections is currently operating at an acceptable Level of Service (LOS) and will continue to do so in the buildout year of 2026 both with and without the project traffic associated with The Forest Apartments development. By optimizing the signal timing plans for these two (2) intersections, the LOS can be improved, and the intersection delay can be reduced to offset the additional vehicle delay attributed to the subject project.

Each of the unsignalized study intersections (i.e. individual approaches) within the project study area is currently operating at an acceptable LOS and will continue to do so in the buildout year of 2026 both with and without the project traffic associated with The Forest Apartments development.

APPENDIX A

The Forest Apartments – Margate, FL

Site Plan



SITE INFORMATION		
Site Area:	310,988 SF	7.14 ac.
	Proposed	
Density:	300 Units (42 dus/ac)	
Building Setbacks		
A. Front	Required (Residential Structures)	Provided (Residential Structures)
East (SR 7)	18'-0"	22'-4"
B. Side		
North	16'-0"	30'-4"
West NW 95th st	0'-0"	0'-0"
South	0'-0"	15'-0"
	Required	Provided
Building Height	9' (6 Stories) Max	58' (5 stories)
SITE CALCULATIONS		
Open Space	Required	Proposed
	3% of Acreage	0.2136 ac (9,304 SF) 319,092 sf
PROJECT CODE/ CONSTRUCTION REQUIREMENTS		
Occupancy Classifications	Group R, Residential R-2	
Construction Type	FBC-B 8TH ED. (2023) III-3RESIDENTIAL GROUP R-2	TYPE
Codes Used	FBC-B 8TH ED. (2023)	
	FAR HOUSING ACT DESIGN MANUAL	
	FIRE PROTECTION 8TH ED (2023)	

SR 7 MARGATE - DEVELOPMENT SUMMARY							
Residential:							
Unit Types	NRSF/Unit	Building Types			Total Units	Leasable (NRSF)	% of Totals
		Type I	Type II	Type III			
1BD							
A1	800 sf	32	2	37	135 units	108,000 sf	47%
A1-MOD	751 sf	0	0	5	5 units	3,755 sf	
Sub-total	800 sf	32	2	42	140 units	111,755 sf	
2BD							
B1	1,107 sf	20	20	0	80 units	88,560 sf	47%
B2	1,103 sf	9	9	8	44 units	48,532 sf	
B2-MOD	1,103 sf	4	4	0	16 units	17,648 sf	
Sub-total	2,213 sf	33	33	8	140 units	154,740 sf	
3BD							
C1	1,364 sf	5	5	0	20 units	27,280 sf	7%
Sub-total	1,364 sf	5	5	0	20 units	27,280 sf	
# of Units/Bldg		70 units	40 units	50 units		293,775 sf	100.0%
# of Bldgs		3bldgs	1 bldgs	1 bldgs	5 bldgs		
Total Units		210 units	40 units	50 units	300 units		
						979 avg sf/unit	

PARKING		
Required		
	# of units or SF	# Spaces
1 BD @ 2 sp/du	140 units	280 sp
2 BD @ 2 sp/du	140 units	280 sp
3BD @ 3 sp/du	20 units	60 sp
Guest @ 15%		93 sp
Sub-Total	300 units	713 sp
Total Required	713 sp	
Reduction #1	10%	71 sp
Total Required	642 sp	
Provided		
	Standard	HC
Surface Parking	274 sp	11 sp
Garage Parking	15 sp	1 sp
Residential Total	289 sp	12 sp
Shared off-site Parking	230 sp	sp
Dedicated off-site Parking	177 sp	3 sp
Sub-Total	696 sp	15 sp
Grand Total	711 sp	
EV Spaces: 15 sp (2%)		
Bicycle Parking: 15 sp		

NORTH

SITE PLAN

SCALE: 1"=50'

BY

SR-7 MARGATE
FOR:
REZ SE LAND
LOCATED AT:
787 S. STATE ROAD 7, MARGATE, FLORIDA

JOSE I. SAUMELL
AR0013085

MSA ARCHITECTS, INC.
AAC000895
8950 SW 74th COURT
SUITE 1513
MIAMI, FLORIDA 33156
(305) 273-9911

MSA ARCHITECTS
ARCHITECTURE & PLANNING

ARCHITECT'S BUILDING CODE STATEMENT/ TO THE BEST OF THE ARCHITECT'S KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) AND THE APPLICABLE FIRE SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY AND CHAPTER 633 FLORIDA STATUTES.

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DRAWN	
CONTRACT DATE	**/**/**
SCALE	AS SHOWN
JOB NO.	2168.PRJ
SHEET TITLE:	SITE PLAN
SHEET NUMBER:	SP-1

APPENDIX B

Traffic Counts

Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

WEST ATLANTIC BOULEVARD & SR 7
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : atlantic blvd & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				WEST ATLANTIC BOULEVARD From East				SOUTH STATE ROAD 7 From South				WEST ATLANTIC BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	2	63	246	28	0	70	130	39	0	26	346	159	1	65	329	46	1550
07:15 AM	2	55	247	30	0	82	171	35	0	22	338	166	0	81	393	40	1662
07:30 AM	0	77	325	33	0	84	150	31	2	21	376	146	0	88	331	47	1711
07:45 AM	0	63	301	38	0	84	187	26	1	15	322	152	0	95	396	58	1738
Total	4	258	1119	129	0	320	638	131	3	84	1382	623	1	329	1449	191	6661
08:00 AM	3	58	297	30	0	89	168	30	2	13	351	156	2	90	314	44	1647
08:15 AM	1	60	347	35	1	72	164	30	1	23	392	134	0	90	314	62	1726
08:30 AM	4	63	263	43	1	91	183	31	3	29	301	115	1	105	311	65	1609
08:45 AM	2	44	326	47	2	86	149	24	2	28	376	146	2	114	249	57	1654
Total	10	225	1233	155	4	338	664	115	8	93	1420	551	5	399	1188	228	6636
04:00 PM	5	34	263	23	1	175	328	37	6	40	286	83	0	88	246	73	1688
04:15 PM	2	36	320	40	2	143	327	35	4	50	322	109	0	62	197	96	1745
04:30 PM	4	41	305	48	2	162	335	43	4	40	262	114	5	73	210	58	1706
04:45 PM	4	32	279	61	2	172	309	38	7	39	335	122	2	80	151	52	1685
Total	15	143	1167	172	7	652	1299	153	21	169	1205	428	7	303	804	279	6824
05:00 PM	3	44	292	57	1	141	369	40	9	52	277	109	2	59	250	87	1792
05:15 PM	2	30	302	40	2	166	376	36	2	41	288	137	4	78	217	71	1792
05:30 PM	2	27	299	62	2	156	318	38	2	53	321	107	4	78	189	63	1721
05:45 PM	2	38	281	46	0	138	400	33	3	53	284	95	1	64	209	61	1708
Total	9	139	1174	205	5	601	1463	147	16	199	1170	448	11	279	865	282	7013
Grand Total	38	765	4693	661	16	1911	4064	546	48	545	5177	2050	24	1310	4306	980	27134
Apprch %	0.6	12.4	76.2	10.7	0.2	29.2	62.2	8.4	0.6	7	66.2	26.2	0.4	19.8	65	14.8	
Total %	0.1	2.8	17.3	2.4	0.1	7	15	2	0.2	2	19.1	7.6	0.1	4.8	15.9	3.6	
LIGHT VEHICLES	38	755	4595	648	16	1876	4008	535	48	539	5071	2003	24	1294	4230	963	26643
% LIGHT VEHICLES	100	98.7	97.9	98	100	98.2	98.6	98	100	98.9	98	97.7	100	98.8	98.2	98.3	98.2
HEAVY VEHICLES	0	10	98	13	0	35	56	11	0	6	106	47	0	16	76	17	491
% HEAVY VEHICLES	0	1.3	2.1	2	0	1.8	1.4	2	0	1.1	2	2.3	0	1.2	1.8	1.7	1.8

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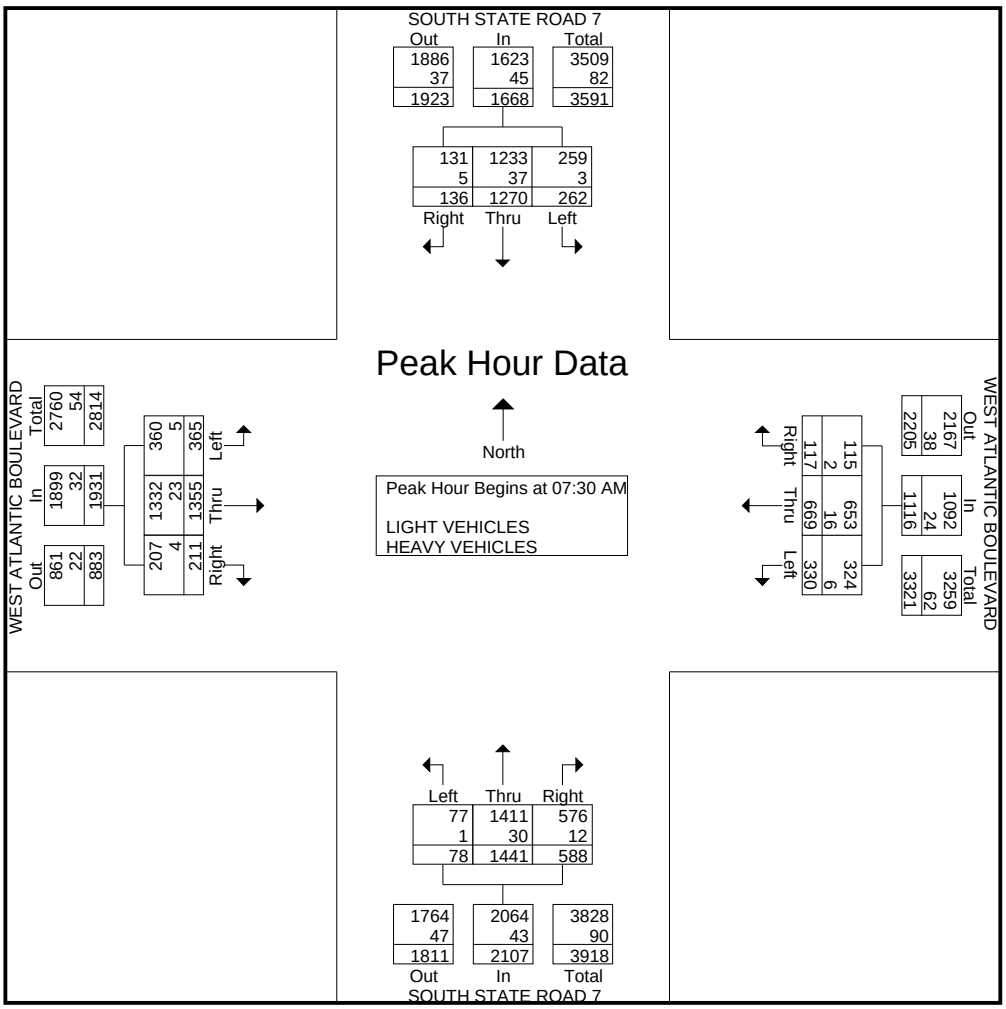
WEST ATLANTIC BOULEVARD & SR 7
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : atlantic blvd & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SOUTH STATE ROAD 7 From North					WEST ATLANTIC BOULEVARD From East					SOUTH STATE ROAD 7 From South					WEST ATLANTIC BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	**77**	325	33	435	0	84	150	**31**	265	**2**	21	376	146	545	0	88	331	47	466	1711
07:45 AM	0	63	301	**38**	402	0	84	**187**	26	**297**	1	15	322	152	490	0	**95**	**396**	58	**549**	**1738**
08:00 AM	**3**	58	297	30	388	0	**89**	168	30	287	2	13	351	**156**	522	**2**	90	314	44	450	1647
08:15 AM	1	60	**347**	35	**443**	**1**	72	164	30	267	1	**23**	**392**	134	**550**	0	90	314	**62**	466	1726
Total Volume	4	258	1270	136	1668	1	329	669	117	1116	6	72	1441	588	2107	2	363	1355	211	1931	6822
% App. Total	0.2	15.5	76.1	8.2		0.1	29.5	59.9	10.5		0.3	3.4	68.4	27.9		0.1	18.8	70.2	10.9		
PHF	.333	.838	.915	.895	.941	.250	.924	.894	.944	.939	.750	.783	.919	.942	.958	.250	.955	.855	.851	.879	.981
LIGHT VEHICLES			1233										1411					1332			
% LIGHT VEHICLES	100	98.8	97.1	96.3	97.3	100	98.2	97.6	98.3	97.8	100	98.6	97.9	98.0	98.0	100	98.6	98.3	98.1	98.3	97.9
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	1.2	2.9	3.7	2.7	0	1.8	2.4	1.7	2.2	0	1.4	2.1	2.0	2.0	0	1.4	1.7	1.9	1.7	2.1



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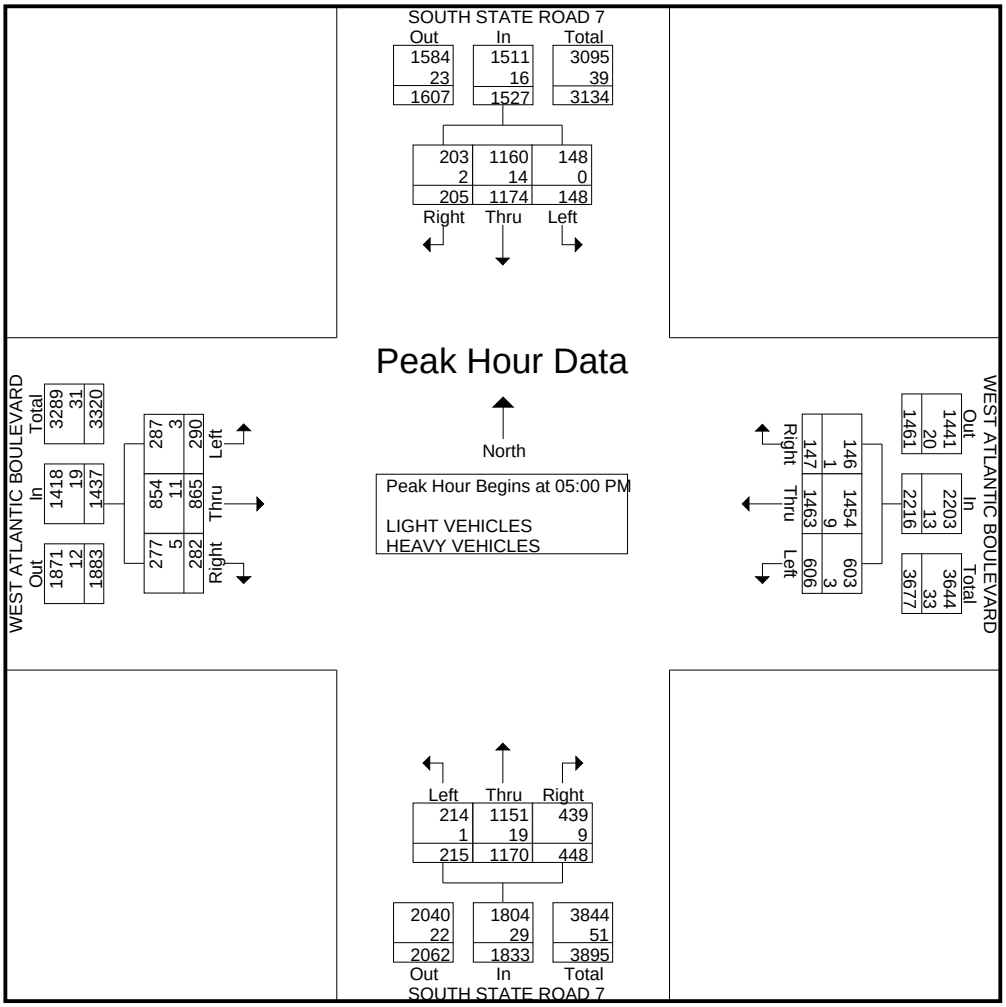
Phone (561) 272-3255

WEST ATLANTIC BOULEVARD & SR 7
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : atlantic blvd & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SOUTH STATE ROAD 7 From North					WEST ATLANTIC BOULEVARD From East					SOUTH STATE ROAD 7 From South					WEST ATLANTIC BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**3**	**44**	292	57	**396**	1	141	369	**40**	551	**9**	52	277	109	447	2	59	**250**	**87**	**398**	**1792**
05:15 PM	2	30	**302**	40	374	**2**	**166**	376	36	**580**	2	41	288	**137**	468	**4**	**78**	217	71	370	1792
05:30 PM	2	27	299	**62**	390	2	156	318	38	514	2	**53**	**321**	107	**483**	4	78	189	63	334	1721
05:45 PM	2	38	281	46	367	0	138	**400**	33	571	3	53	284	95	435	1	64	209	61	335	1708
Total Volume	9	139	1174	205	1527	5	601	1463	147	2216	16	199	1170	448	1833	11	279	865	282	1437	7013
% App. Total	0.6	9.1	76.9	13.4		0.2	27.1	66	6.6		0.9	10.9	63.8	24.4		0.8	19.4	60.2	19.6		
PHF	.750	.790	.972	.827	.964	.625	.905	.914	.919	.955	.444	.939	.911	.818	.949	.688	.894	.865	.810	.903	.978
LIGHT VEHICLES			1160					1454					1151								
% LIGHT VEHICLES	100	100	98.8	99.0	99.0	100	99.5	99.4	99.3	99.4	100	99.5	98.4	98.0	98.4	100	98.9	98.7	98.2	98.7	98.9
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	1.2	1.0	1.0	0	0.5	0.6	0.7	0.6	0	0.5	1.6	2.0	1.6	0	1.1	1.3	1.8	1.3	1.1



Traffic Survey Specialists, Inc.
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WEST ATLANTIC BOULEVARD & SR 7
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : atlantic blvd & sr 7
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				WEST ATLANTIC BOULEVARD From East				SOUTH STATE ROAD 7 From South				WEST ATLANTIC BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	4
04:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	1	0	0	1	3	0	1	2	0	0	0	0	1	0	9
Apprch %	0	0	100	0	0	25	75	0	33.3	66.7	0	0	0	0	100	0	
Total %	0	0	11.1	0	0	11.1	33.3	0	11.1	22.2	0	0	0	0	11.1	0	

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WEST ATLANTIC BOULEVARD & SR 7
MARGATE, FLORIDA
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SIGNALIZED

File Name : atlantic blvd & sr 7
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				WEST ATLANTIC BOULEVARD From East				SOUTH STATE ROAD 7 From South				WEST ATLANTIC BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	0	0	0	0	1	0	2	0	0	0	0	0	0	0	3	0	6
07:15 AM	0	0	3	0	0	0	1	0	1	0	1	0	2	0	0	0	8
07:30 AM	0	0	1	0	3	0	2	0	1	0	0	0	0	0	2	0	9
07:45 AM	2	0	0	0	1	0	1	0	5	0	0	0	3	0	1	0	13
Total	2	0	4	0	5	0	6	0	7	0	1	0	5	0	6	0	36
08:00 AM	5	0	0	0	2	0	2	0	7	0	0	0	2	0	0	0	18
08:15 AM	1	0	1	0	4	0	0	0	5	0	0	0	1	0	2	0	14
08:30 AM	9	0	0	0	2	0	3	0	6	0	1	0	7	0	2	0	30
08:45 AM	12	0	1	0	8	0	1	0	0	0	3	0	3	0	3	0	31
Total	27	0	2	0	16	0	6	0	18	0	4	0	13	0	7	0	93
04:00 PM	19	0	0	0	9	0	4	0	10	0	7	0	27	0	4	0	80
04:15 PM	2	0	1	0	3	0	1	0	4	0	0	0	3	0	3	0	17
04:30 PM	9	0	1	0	5	0	2	0	6	0	0	0	4	0	1	0	28
04:45 PM	5	0	0	0	6	0	2	0	4	0	1	0	8	0	0	0	26
Total	35	0	2	0	23	0	9	0	24	0	8	0	42	0	8	0	151
05:00 PM	7	0	1	0	3	0	6	0	2	0	0	0	4	0	2	0	25
05:15 PM	4	0	2	0	3	0	1	0	6	0	0	0	3	0	2	0	21
05:30 PM	2	0	0	0	5	0	2	0	5	0	2	0	2	0	3	0	21
05:45 PM	6	0	2	0	12	0	1	0	3	0	0	0	0	0	1	0	25
Total	19	0	5	0	23	0	10	0	16	0	2	0	9	0	8	0	92
Grand Total	83	0	13	0	67	0	31	0	65	0	15	0	69	0	29	0	372
Apprch %	86.5	0	13.5	0	68.4	0	31.6	0	81.2	0	18.8	0	70.4	0	29.6	0	
Total %	22.3	0	3.5	0	18	0	8.3	0	17.5	0	4	0	18.5	0	7.8	0	

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SOUTHGATE BOULEVARD & SR 7
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : southgate & SR 7
Site Code : 230081
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Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				SW 2ND COURT From East				SOUTH STATE ROAD 7 From South				SOUTHGATE BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	3	11	253	80	0	14	9	30	0	49	310	0	0	178	27	59	1023
07:15 AM	2	5	294	106	0	14	14	42	0	52	375	5	0	157	31	57	1154
07:30 AM	6	9	297	94	0	15	23	30	1	50	346	4	0	176	30	86	1167
07:45 AM	6	15	342	96	0	13	12	42	1	39	328	5	1	173	38	73	1184
Total	17	40	1186	376	0	56	58	144	2	190	1359	14	1	684	126	275	4528
08:00 AM	5	10	319	79	0	20	15	26	0	33	362	8	0	145	22	75	1119
08:15 AM	6	10	320	92	0	17	13	31	2	33	385	3	0	131	25	82	1150
08:30 AM	4	18	380	96	0	16	10	30	0	45	347	1	0	124	26	56	1153
08:45 AM	7	13	341	68	0	9	10	30	0	44	374	6	1	159	19	67	1148
Total	22	51	1360	335	0	62	48	117	2	155	1468	18	1	559	92	280	4570
04:00 PM	3	13	353	97	0	12	17	17	3	67	325	6	0	86	16	49	1064
04:15 PM	4	22	372	116	0	12	7	9	2	54	295	9	0	133	8	57	1100
04:30 PM	8	10	389	130	0	9	11	15	2	86	367	10	0	110	16	37	1200
04:45 PM	8	16	310	102	0	12	11	9	5	74	284	10	0	97	14	50	1002
Total	23	61	1424	445	0	45	46	50	12	281	1271	35	0	426	54	193	4366
05:00 PM	5	19	371	114	0	17	9	11	5	60	329	6	0	99	13	52	1110
05:15 PM	4	19	360	110	0	13	16	14	7	97	374	12	0	105	17	52	1200
05:30 PM	2	16	326	95	0	14	15	17	5	108	314	10	0	123	14	60	1119
05:45 PM	6	15	365	112	0	17	15	12	6	87	367	13	0	98	7	61	1181
Total	17	69	1422	431	0	61	55	54	23	352	1384	41	0	425	51	225	4610
Grand Total	79	221	5392	1587	0	224	207	365	39	978	5482	108	2	2094	323	973	18074
Apprch %	1.1	3	74.1	21.8	0	28.1	26	45.9	0.6	14.8	83	1.6	0.1	61.7	9.5	28.7	
Total %	0.4	1.2	29.8	8.8	0	1.2	1.1	2	0.2	5.4	30.3	0.6	0	11.6	1.8	5.4	
LIGHT VEHICLES	78	218	5286	1549	0	221	206	364	39	967	5365	107	1	2053	322	968	17744
% LIGHT VEHICLES	98.7	98.6	98	97.6	0	98.7	99.5	99.7	100	98.9	97.9	99.1	50	98	99.7	99.5	98.2
HEAVY VEHICLES	1	3	106	38	0	3	1	1	0	11	117	1	1	41	1	5	330
% HEAVY VEHICLES	1.3	1.4	2	2.4	0	1.3	0.5	0.3	0	1.1	2.1	0.9	50	2	0.3	0.5	1.8

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File Name : southgate & SR 7
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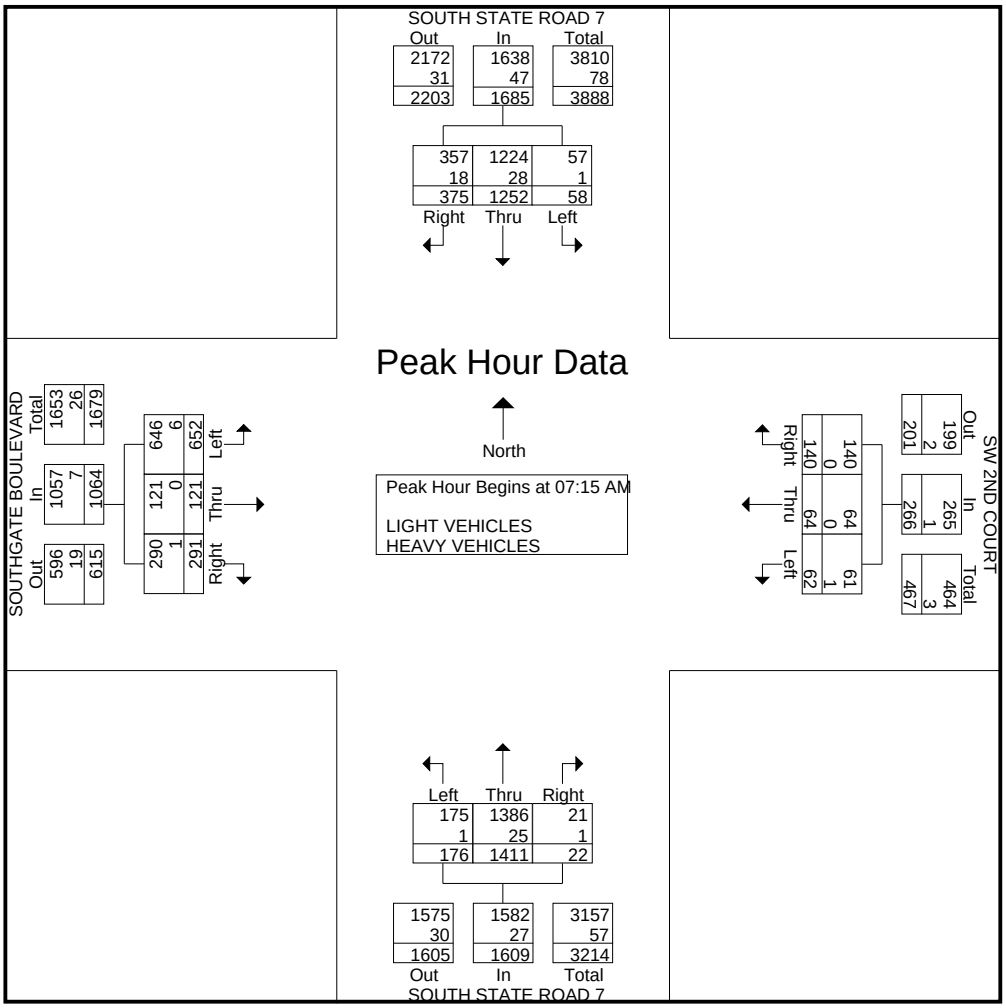
	SOUTH STATE ROAD 7 From North					SW 2ND COURT From East					SOUTH STATE ROAD 7 From South					SOUTHGATE BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	2	5	294	**106**	407	0	14	14	**42**	**70**	0	**52**	**375**	5	**432**	0	157	31	57	245	1154
07:30 AM	**6**	9	297	94	406	0	15	**23**	30	68	**1**	50	346	4	401	0	**176**	30	**86**	**292**	1167
07:45 AM	6	**15**	**342**	96	**459**	0	13	12	42	67	1	39	328	5	373	**1**	173	**38**	73	285	**1184**
08:00 AM	5	10	319	79	413	0	**20**	15	26	61	0	33	362	**8**	403	0	145	22	75	242	1119
Total Volume	19	39	1252	375	1685	0	62	64	140	266	2	174	1411	22	1609	1	651	121	291	1064	4624
% App. Total	1.1	2.3	74.3	22.3		0	23.3	24.1	52.6		0.1	10.8	87.7	1.4		0.1	61.2	11.4	27.3		
PHF	.792	.650	.915	.884	.918	.000	.775	.696	.833	.950	.500	.837	.941	.688	.931	.250	.925	.796	.846	.911	.976
LIGHT VEHICLES			1224										1386								
% LIGHT VEHICLES	100	97.4	97.8	95.2	97.2	0	98.4	100	100	99.6	100	99.4	98.2	95.5	98.3	100	99.1	100	99.7	99.3	98.2
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	2.6	2.2	4.8	2.8	0	1.6	0	0	0.4	0	0.6	1.8	4.5	1.7	0	0.9	0	0.3	0.7	1.8



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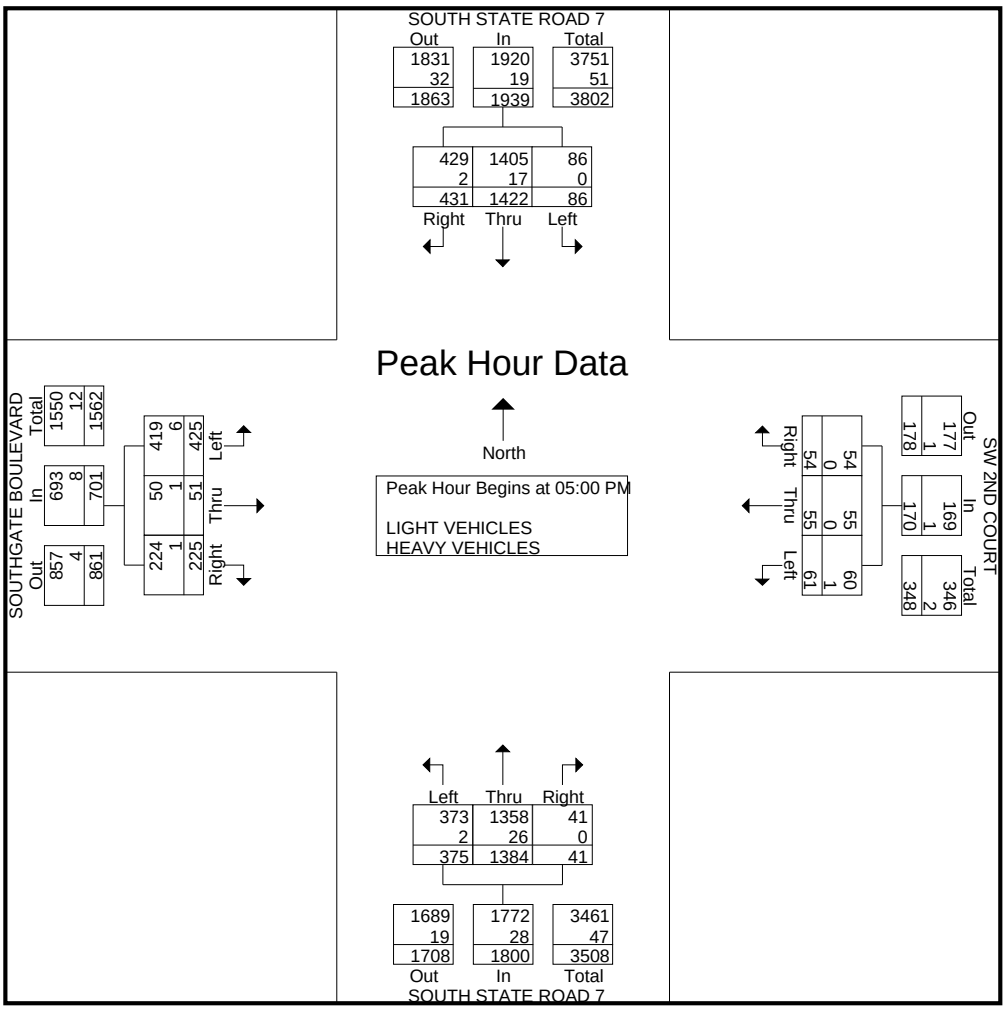
	SOUTH STATE ROAD 7 From North					SW 2ND COURT From East					SOUTH STATE ROAD 7 From South					SOUTHGATE BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	5	**19**	**371**	**114**	**509**	0	**17**	9	11	37	5	60	329	6	400	0	99	13	52	164	1110
05:15 PM	4	19	360	110	493	0	13	**16**	14	43	**7**	97	**374**	12	**490**	0	105	**17**	52	174	**1200**
05:30 PM	2	16	326	95	439	0	14	15	**17**	**46**	5	**108**	314	10	437	0	**123**	14	60	**197**	1119
05:45 PM	**6**	15	365	112	498	0	17	15	12	44	6	87	367	**13**	473	0	98	7	**61**	166	1181
Total Volume	17	69	1422	431	1939	0	61	55	54	170	23	352	1384	41	1800	0	425	51	225	701	4610
% App. Total	0.9	3.6	73.3	22.2		0	35.9	32.4	31.8		1.3	19.6	76.9	2.3		0	60.6	7.3	32.1		
PHF	.708	.908	.958	.945	.952	.000	.897	.859	.794	.924	.821	.815	.925	.788	.918	.000	.864	.750	.922	.890	.960
LIGHT VEHICLES			1405										1358								
% LIGHT VEHICLES	100	100	98.8	99.5	99.0	0	98.4	100	100	99.4	100	99.4	98.1	100	98.4	0	98.6	98.0	99.6	98.9	98.8
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	1.2	0.5	1.0	0	1.6	0	0	0.6	0	0.6	1.9	0	1.6	0	1.4	2.0	0.4	1.1	1.2



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Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				SW 2ND COURT From East				SOUTH STATE ROAD 7 From South				SOUTHGATE BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Grand Total	0	0	2	0	0	0	0	0	0	0	2	0	0	0	1	1	6
Apprch %	0	0	100	0	0	0	0	0	0	0	100	0	0	0	50	50	
Total %	0	0	33.3	0	0	0	0	0	0	0	33.3	0	0	0	16.7	16.7	

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Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				SW 2ND COURT From East				SOUTH STATE ROAD 7 From South				SOUTHGATE BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	1	0	0	0	1	0	0	0	1	0	0	0	1	0	3	0	7
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	4
07:30 AM	1	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	8
07:45 AM	2	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	7
Total	4	0	0	0	4	0	1	0	8	0	0	0	2	0	7	0	26
08:00 AM	0	0	1	0	0	0	0	0	3	0	0	0	1	0	0	0	5
08:15 AM	0	0	0	0	0	0	1	0	4	0	1	0	0	0	0	0	6
08:30 AM	1	0	0	0	0	0	0	0	3	0	0	0	1	0	1	0	6
08:45 AM	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	4
Total	2	0	1	0	1	0	2	0	10	0	1	0	2	0	2	0	21
04:00 PM	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	6
04:15 PM	1	0	1	0	1	0	0	0	4	0	0	0	3	0	3	0	13
04:30 PM	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4
04:45 PM	2	0	0	0	0	0	0	0	5	0	0	0	3	0	0	0	10
Total	6	0	2	0	1	0	1	0	12	0	0	0	7	0	4	0	33
05:00 PM	3	0	0	0	0	0	3	0	0	0	1	0	1	0	2	0	10
05:15 PM	6	0	0	0	0	0	1	0	2	0	0	0	2	0	3	0	14
05:30 PM	1	0	0	0	2	0	1	0	1	0	0	0	3	0	0	0	8
05:45 PM	9	0	0	0	0	0	2	0	4	0	1	0	4	0	2	0	22
Total	19	0	0	0	2	0	7	0	7	0	2	0	10	0	7	0	54
Grand Total	31	0	3	0	8	0	11	0	37	0	3	0	21	0	20	0	134
Apprch %	91.2	0	8.8	0	42.1	0	57.9	0	92.5	0	7.5	0	51.2	0	48.8	0	
Total %	23.1	0	2.2	0	6	0	8.2	0	27.6	0	2.2	0	15.7	0	14.9	0	

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SW 7TH STREET & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : 7th & sr7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				SW 7TH STREET From East				SOUTH STATE ROAD 7 From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	2	319	11	0	7	2	4	0	13	281	4	0	28	1	35	707
07:15 AM	0	2	343	12	0	3	5	3	2	20	313	3	0	23	1	47	777
07:30 AM	0	1	373	11	0	12	4	2	2	23	372	4	0	27	2	67	900
07:45 AM	0	2	409	12	0	11	6	2	1	17	418	8	1	25	2	58	972
Total	0	7	1444	46	0	33	17	11	5	73	1384	19	1	103	6	207	3356
08:00 AM	1	6	361	18	0	14	5	4	1	32	371	4	0	12	5	51	885
08:15 AM	1	5	402	15	0	9	6	2	8	32	408	3	1	13	2	46	953
08:30 AM	1	5	418	16	0	10	6	2	1	37	357	3	0	11	5	28	900
08:45 AM	2	7	345	20	0	9	13	3	2	32	384	7	0	20	3	42	889
Total	5	23	1526	69	0	42	30	11	12	133	1520	17	1	56	15	167	3627
04:00 PM	1	9	307	33	0	10	3	5	1	36	390	8	0	11	1	25	840
04:15 PM	2	8	374	35	0	9	3	3	3	21	328	6	0	10	3	21	826
04:30 PM	0	4	363	22	0	6	2	2	1	46	372	8	0	17	1	26	870
04:45 PM	1	2	324	19	0	12	0	2	1	35	335	7	0	17	0	8	763
Total	4	23	1368	109	0	37	8	12	6	138	1425	29	0	55	5	80	3299
05:00 PM	1	4	364	25	0	9	2	5	5	32	377	7	0	17	4	22	874
05:15 PM	1	8	333	29	0	5	5	5	0	38	442	8	0	13	3	31	921
05:30 PM	2	14	334	32	0	6	4	2	3	56	392	3	0	18	4	25	895
05:45 PM	2	7	327	33	0	7	5	4	0	48	428	12	0	18	2	30	923
Total	6	33	1358	119	0	27	16	16	8	174	1639	30	0	66	13	108	3613
Grand Total	15	86	5696	343	0	139	71	50	31	518	5968	95	2	280	39	562	13895
Apprch %	0.2	1.4	92.8	5.6	0	53.5	27.3	19.2	0.5	7.8	90.3	1.4	0.2	31.7	4.4	63.6	
Total %	0.1	0.6	41	2.5	0	1	0.5	0.4	0.2	3.7	43	0.7	0	2	0.3	4	
LIGHT VEHICLES	15	83	5598	333	0	138	69	49	30	509	5859	92	2	272	36	549	13634
% LIGHT VEHICLES	100	96.5	98.3	97.1	0	99.3	97.2	98	96.8	98.3	98.2	96.8	100	97.1	92.3	97.7	98.1
HEAVY VEHICLES	0	3	98	10	0	1	2	1	1	9	109	3	0	8	3	13	261
% HEAVY VEHICLES	0	3.5	1.7	2.9	0	0.7	2.8	2	3.2	1.7	1.8	3.2	0	2.9	7.7	2.3	1.9

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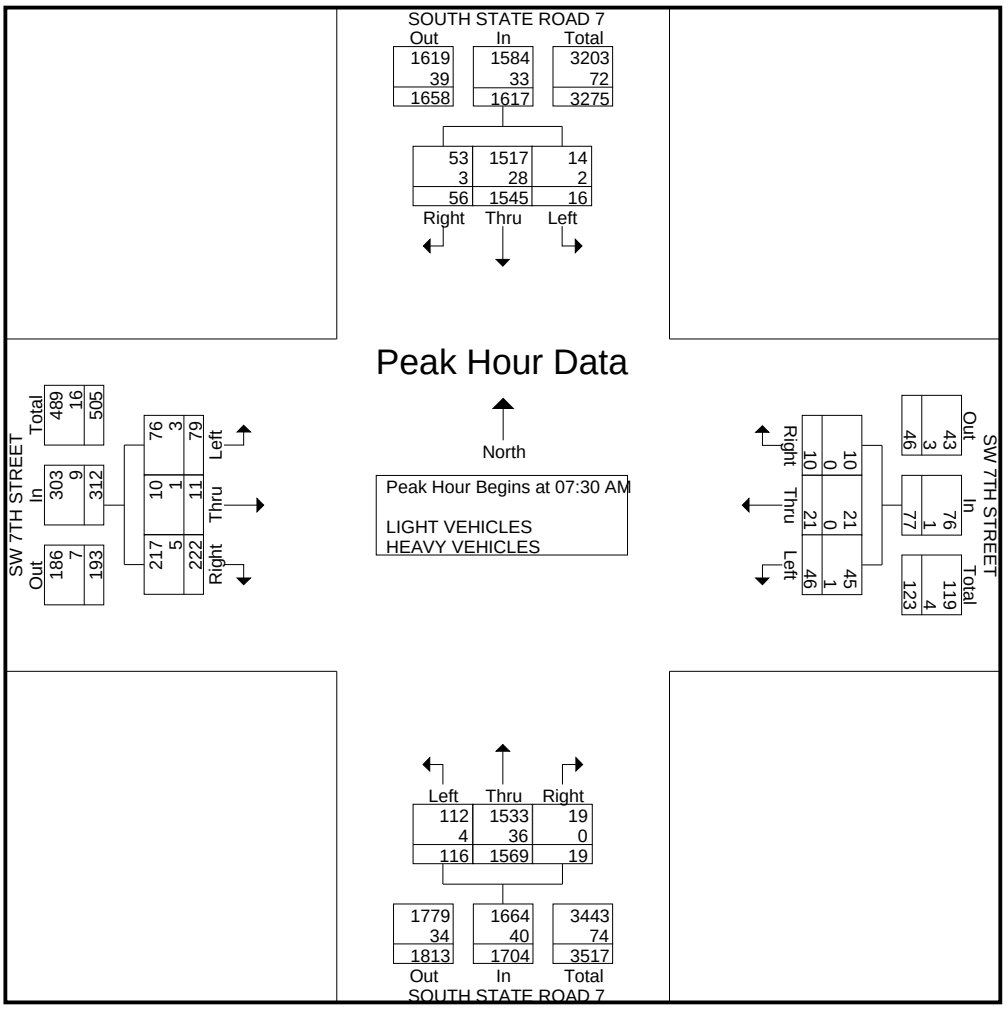
SW 7TH STREET & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : 7th & sr7
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SOUTH STATE ROAD 7 From North					SW 7TH STREET From East					SOUTH STATE ROAD 7 From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	373	11	385	0	12	4	2	18	2	23	372	4	401	0	**27**	2	**67**	**96**	900
07:45 AM	0	2	**409**	12	**423**	0	11	**6**	2	19	1	17	**418**	**8**	444	**1**	25	2	58	86	**972**
08:00 AM	**1**	**6**	361	**18**	386	0	**14**	5	**4**	**23**	1	**32**	371	4	408	0	12	**5**	51	68	885
08:15 AM	1	5	402	15	423	0	9	6	2	17	**8**	32	408	3	**451**	1	13	2	46	62	953
Total Volume	2	14	1545	56	1617	0	46	21	10	77	12	104	1569	19	1704	2	77	11	222	312	3710
% App. Total	0.1	0.9	95.5	3.5		0	59.7	27.3	13		0.7	6.1	92.1	1.1		0.6	24.7	3.5	71.2		
PHF	.500	.583	.944	.778	.956	.000	.821	.875	.625	.837	.375	.813	.938	.594	.945	.500	.713	.550	.828	.813	.954
LIGHT VEHICLES			1517										1533								
% LIGHT VEHICLES	100	85.7	98.2	94.6	98.0	0	97.8	100	100	98.7	91.7	97.1	97.7	100	97.7	100	96.1	90.9	97.7	97.1	97.8
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	14.3	1.8	5.4	2.0	0	2.2	0	0	1.3	8.3	2.9	2.3	0	2.3	0	3.9	9.1	2.3	2.9	2.2



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SW 7TH STREET & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : 7th & sr7
Site Code : 230081
Start Date : 5/9/2023
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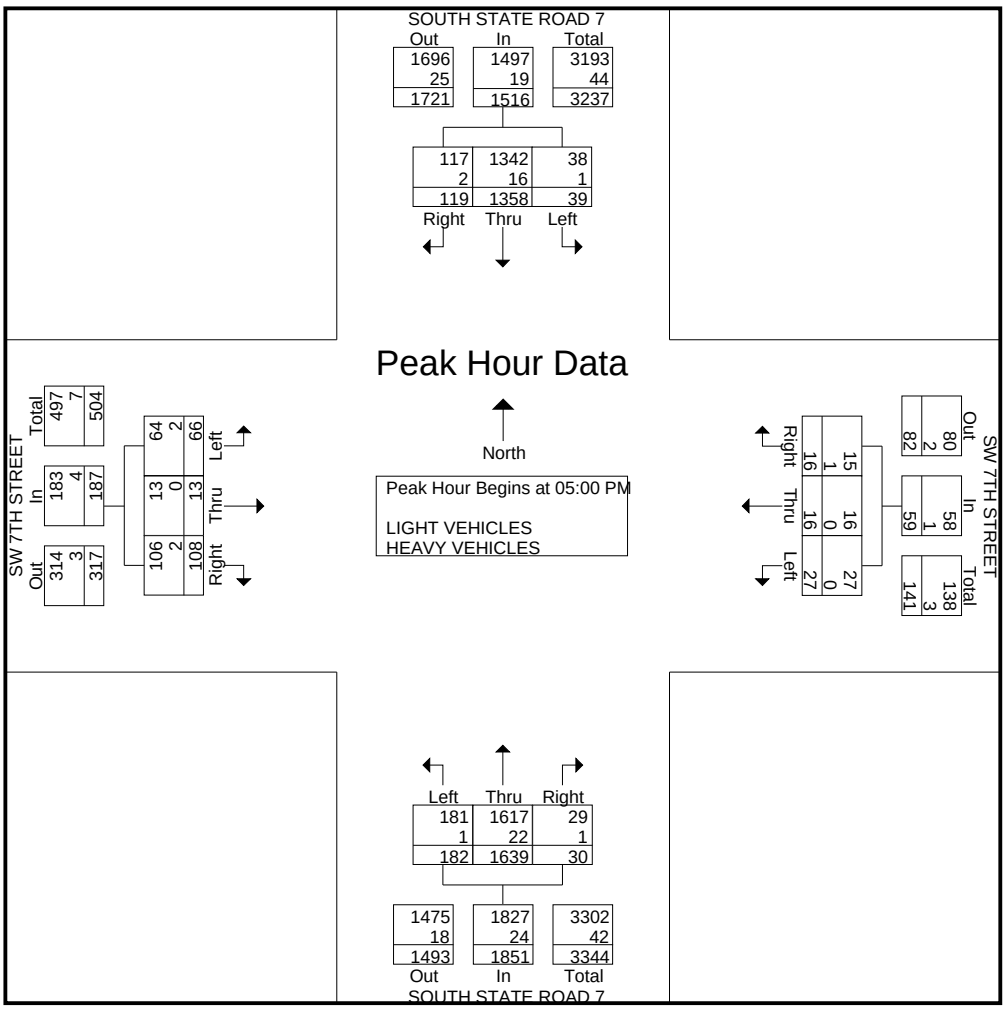
	SOUTH STATE ROAD 7 From North					SW 7TH STREET From East					SOUTH STATE ROAD 7 From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	4	**364**	25	**394**	0	**9**	2	**5**	**16**	**5**	32	377	7	421	0	17	**4**	22	43	874
05:15 PM	1	8	333	29	371	0	5	**5**	5	15	0	38	**442**	8	**488**	0	13	3	**31**	47	921
05:30 PM	**2**	**14**	334	32	382	0	6	4	2	12	3	**56**	392	3	454	0	**18**	4	25	47	895
05:45 PM	2	7	327	**33**	369	0	7	5	4	16	0	48	428	**12**	488	0	18	2	30	**50**	**923**
Total Volume	6	33	1358	119	1516	0	27	16	16	59	8	174	1639	30	1851	0	66	13	108	187	3613
% App. Total	0.4	2.2	89.6	7.8		0	45.8	27.1	27.1		0.4	9.4	88.5	1.6		0	35.3	7	57.8		
PHF	.750	.589	.933	.902	.962	.000	.750	.800	.800	.922	.400	.777	.927	.625	.948	.000	.917	.813	.871	.935	.979
LIGHT VEHICLES			1342										1617								
% LIGHT VEHICLES	100	97.0	98.8	98.3	98.7	0	100	100	93.8	98.3	100	99.4	98.7	96.7	98.7	0	97.0	100	98.1	97.9	98.7
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	3.0	1.2	1.7	1.3	0	0	0	6.3	1.7	0	0.6	1.3	3.3	1.3	0	3.0	0	1.9	2.1	1.3



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SW 7TH STREET & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : 7th & sr7
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				SW 7TH STREET From East				SOUTH STATE ROAD 7 From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
08:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	0	0	0	0	0	0	2	1	0	0	0	0	4
Grand Total	0	0	3	0	0	0	0	0	0	0	3	1	0	0	0	0	7
Apprch %	0	0	100	0	0	0	0	0	0	0	75	25	0	0	0	0	
Total %	0	0	42.9	0	0	0	0	0	0	0	42.9	14.3	0	0	0	0	

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SW 7TH STREET & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : 7th & sr7
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				SW 7TH STREET From East				SOUTH STATE ROAD 7 From South				SW 7TH STREET From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
07:15 AM	1	0	0	0	0	0	1	0	3	0	0	0	5	0	1	0	11
07:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	13
07:45 AM	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3
Total	3	0	0	0	1	0	1	0	4	0	0	0	18	0	1	0	28
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	5	0	1	0	0	0	1	0	0	0	0	0	3	0	0	0	10
08:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	4
08:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
Total	6	0	1	0	2	0	2	0	0	0	0	0	7	0	0	0	18
04:15 PM	2	0	0	0	3	0	1	0	2	0	2	0	1	0	0	0	11
04:30 PM	3	0	0	0	0	0	1	0	2	0	1	0	1	0	0	0	8
04:45 PM	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	4
Total	6	0	1	0	4	0	2	0	4	0	3	0	2	0	1	0	23
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	5
05:45 PM	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	4
Total	1	0	1	0	1	0	1	0	3	0	0	0	5	0	0	0	12
Grand Total	16	0	3	0	8	0	6	0	11	0	3	0	32	0	2	0	81
Apprch %	84.2	0	15.8	0	57.1	0	42.9	0	78.6	0	21.4	0	94.1	0	5.9	0	
Total %	19.8	0	3.7	0	9.9	0	7.4	0	13.6	0	3.7	0	39.5	0	2.5	0	

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PROJECT DRIVEWAY & SOUTH STATE ROAD 7
MARGATE, FLORIDA
VIDEO COUNT (south of SW 7th Street)
NOT SIGNALIZED

File Name : project driveway & SR 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				N/A From East				SOUTH STATE ROAD 7 From South				PROJECT DRIVEWAY From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	0	369	1	0	0	0	0	0	0	309	0	0	0	0	1	680
07:15 AM	0	0	397	0	0	0	0	0	0	0	319	0	0	0	0	0	716
07:30 AM	0	0	464	0	0	0	0	0	0	0	417	0	0	0	0	1	882
07:45 AM	0	0	479	0	0	0	0	0	0	0	436	0	0	0	0	0	915
Total	0	0	1709	1	0	0	0	0	0	0	1481	0	0	0	0	2	3193
08:00 AM	0	0	422	1	0	0	0	0	0	0	427	0	0	0	0	1	851
08:15 AM	0	0	460	1	0	0	0	0	0	0	442	0	0	0	0	0	903
08:30 AM	0	0	461	1	0	0	0	0	0	0	396	0	0	0	0	0	858
08:45 AM	0	0	418	0	0	0	0	0	0	0	411	0	0	0	0	0	829
Total	0	0	1761	3	0	0	0	0	0	0	1676	0	0	0	0	1	3441
04:00 PM	0	0	337	0	0	0	0	0	0	0	434	0	0	0	0	1	772
04:15 PM	0	0	405	0	0	0	0	0	0	0	352	0	0	0	0	0	757
04:30 PM	0	0	393	0	0	0	0	0	0	0	421	0	0	0	0	3	817
04:45 PM	0	0	351	2	0	0	0	0	0	0	375	0	0	0	0	2	730
Total	0	0	1486	2	0	0	0	0	0	0	1582	0	0	0	0	6	3076
05:00 PM	0	0	400	0	0	0	0	0	0	0	430	0	0	0	0	4	834
05:15 PM	0	0	366	0	0	0	0	0	0	0	486	0	0	0	0	4	856
05:30 PM	0	0	369	1	0	0	0	0	0	0	483	0	0	0	0	2	855
05:45 PM	0	0	360	0	0	0	0	0	0	0	470	0	0	0	0	0	830
Total	0	0	1495	1	0	0	0	0	0	0	1869	0	0	0	0	10	3375
Grand Total	0	0	6451	7	0	0	0	0	0	0	6608	0	0	0	0	19	13085
Apprch %	0	0	99.9	0.1	0	0	0	0	0	0	100	0	0	0	0	100	
Total %	0	0	49.3	0.1	0	0	0	0	0	0	50.5	0	0	0	0	0.1	
LIGHT VEHICLES	0	0	6338	7	0	0	0	0	0	0	6484	0	0	0	0	19	12848
% LIGHT VEHICLES	0	0	98.2	100	0	0	0	0	0	0	98.1	0	0	0	0	100	98.2
HEAVY VEHICLES	0	0	113	0	0	0	0	0	0	0	124	0	0	0	0	0	237
% HEAVY VEHICLES	0	0	1.8	0	0	0	0	0	0	0	1.9	0	0	0	0	0	1.8

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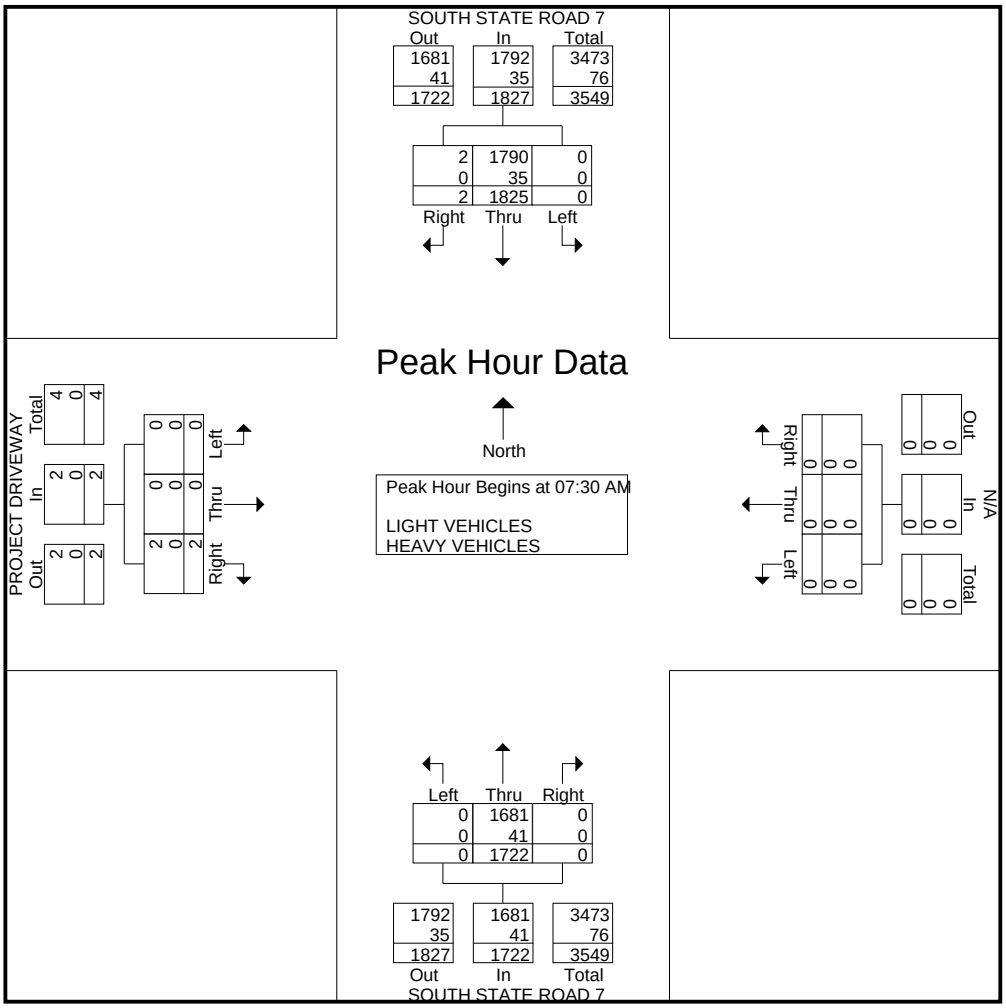
PROJECT DRIVEWAY & SOUTH STATE ROAD 7
MARGATE, FLORIDA
VIDEO COUNT (south of SW 7th Street)
NOT SIGNALIZED

File Name : project driveway & SR 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SOUTH STATE ROAD 7 From North					N/A From East					SOUTH STATE ROAD 7 From South					PROJECT DRIVEWAY From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	464	0	464	0	0	0	0	0	0	0	417	0	417	0	0	0	**1**	**1**	882
07:45 AM	0	0	**479**	0	**479**	0	0	0	0	0	0	0	436	0	436	0	0	0	0	0	**915**
08:00 AM	0	0	422	**1**	423	0	0	0	0	0	0	0	427	0	427	0	0	0	1	1	851
08:15 AM	0	0	460	1	461	0	0	0	0	0	0	0	**442**	0	**442**	0	0	0	0	0	903
Total Volume	0	0	1825	2	1827	0	0	0	0	0	0	0	1722	0	1722	0	0	0	2	2	3551
% App. Total	0	0	99.9	0.1		0	0	0	0		0	0	100	0		0	0	0	100		
PHF	.000	.000	.953	.500	.954	.000	.000	.000	.000	.000	.000	.000	.974	.000	.974	.000	.000	.000	.500	.500	.970
LIGHT VEHICLES			1790										1681								
% LIGHT VEHICLES	0	0	98.1	100	98.1	0	0	0	0	0	0	0	97.6	0	97.6	0	0	0	100	100	97.9
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	1.9	0	1.9	0	0	0	0	0	0	0	2.4	0	2.4	0	0	0	0	0	2.1



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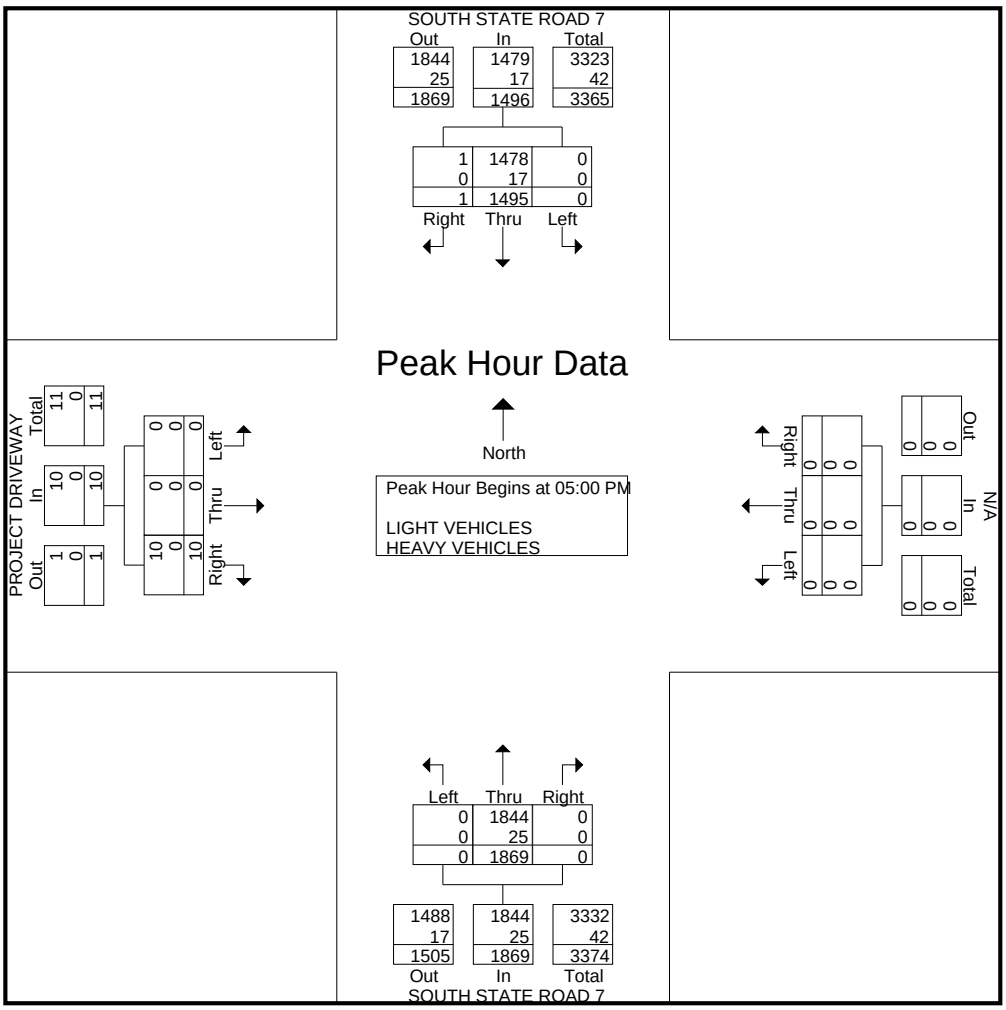
PROJECT DRIVEWAY & SOUTH STATE ROAD 7
MARGATE, FLORIDA
VIDEO COUNT (south of SW 7th Street)
NOT SIGNALIZED

File Name : project driveway & SR 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SOUTH STATE ROAD 7 From North					N/A From East					SOUTH STATE ROAD 7 From South					PROJECT DRIVEWAY From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	**400**	0	**400**	0	0	0	0	0	0	0	430	0	430	0	0	0	**4**	**4**	834
05:15 PM	0	0	366	0	366	0	0	0	0	0	0	0	**486**	0	**486**	0	0	0	4	4	**856**
05:30 PM	0	0	369	**1**	370	0	0	0	0	0	0	0	483	0	483	0	0	0	2	2	855
05:45 PM	0	0	360	0	360	0	0	0	0	0	0	0	470	0	470	0	0	0	0	0	830
Total Volume	0	0	1495	1	1496	0	0	0	0	0	0	0	1869	0	1869	0	0	0	10	10	3375
% App. Total	0	0	99.9	0.1		0	0	0	0		0	0	100	0		0	0	0	100		
PHF	.000	.000	.934	.250	.935	.000	.000	.000	.000	.000	.000	.000	.961	.000	.961	.000	.000	.000	.625	.625	.986
LIGHT VEHICLES			1478										1844								
% LIGHT VEHICLES	0	0	98.9	100	98.9	0	0	0	0	0	0	0	98.7	0	98.7	0	0	0	100	100	98.8
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	1.1	0	1.1	0	0	0	0	0	0	0	1.3	0	1.3	0	0	0	0	0	1.2



Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

PROJECT DRIVEWAY & SOUTH STATE ROAD 7
MARGATE, FLORIDA
VIDEO COUNT (south of SW 7th Street)
NOT SIGNALIZED

File Name : project driveway & SR 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				N/A From East				SOUTH STATE ROAD 7 From South				PROJECT DRIVEWAY From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	3
Grand Total	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	5
Apprch %	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	
Total %	0	0	40	0	0	0	0	0	0	0	60	0	0	0	0	0	

Traffic Survey Specialists, Inc.
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PROJECT DRIVEWAY & SOUTH STATE ROAD 7
MARGATE, FLORIDA
VIDEO COUNT (south of SW 7th Street)
NOT SIGNALIZED

File Name : project driveway & SR 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				N/A From East				SOUTH STATE ROAD 7 From South				PROJECT DRIVEWAY From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
07:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	7
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
04:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4
Total	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	1	0	0	0	2	0	0	0	0	0	0	0	5	0	5	0	13
Apprch %	100	0	0	0	100	0	0	0	0	0	0	0	50	0	50	0	
Total %	7.7	0	0	0	15.4	0	0	0	0	0	0	0	38.5	0	38.5	0	

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SW 7TH STREET & SW 61ST TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 61 terr
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SW 61ST TERRACE From North				SW 7TH STREET From East				DRIVEWAY From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	4	0	2	0	0	21	5	0	1	0	2	0	2	47	2	86
07:15 AM	0	11	1	7	0	0	36	3	0	2	0	3	0	5	62	3	133
07:30 AM	0	4	0	4	0	3	35	1	0	2	1	0	0	5	85	1	141
07:45 AM	0	9	1	5	0	3	31	2	0	3	2	0	0	10	70	3	139
Total	0	28	2	18	0	6	123	11	0	8	3	5	0	22	264	9	499
08:00 AM	0	5	0	5	0	0	43	8	0	0	1	2	0	9	61	2	136
08:15 AM	0	8	0	7	0	3	34	9	0	0	1	2	0	9	43	3	119
08:30 AM	0	4	1	8	0	4	55	5	0	3	2	4	0	7	37	4	134
08:45 AM	0	9	0	6	0	4	54	4	0	1	2	3	0	8	50	5	146
Total	0	26	1	26	0	11	186	26	0	4	6	11	0	33	191	14	535
04:00 PM	0	4	0	8	0	3	54	8	0	3	1	6	0	7	24	4	122
04:15 PM	0	4	0	4	0	4	44	10	0	5	0	1	0	5	25	6	108
04:30 PM	0	4	4	9	0	2	59	5	0	8	0	4	0	8	35	0	138
04:45 PM	0	5	1	7	0	5	41	4	0	5	3	1	0	4	40	5	121
Total	0	17	5	28	0	14	198	27	0	21	4	12	0	24	124	15	489
05:00 PM	0	2	1	4	0	6	49	4	0	5	0	9	0	6	29	5	120
05:15 PM	0	4	3	8	0	5	54	5	0	4	2	2	0	5	37	1	130
05:30 PM	0	1	0	6	0	10	72	7	0	10	0	4	0	4	36	8	158
05:45 PM	0	3	0	2	0	4	71	10	0	11	1	4	0	8	38	7	159
Total	0	10	4	20	0	25	246	26	0	30	3	19	0	23	140	21	567
Grand Total	0	81	12	92	0	56	753	90	0	63	16	47	0	102	719	59	2090
Apprch %	0	43.8	6.5	49.7	0	6.2	83.8	10	0	50	12.7	37.3	0	11.6	81.7	6.7	
Total %	0	3.9	0.6	4.4	0	2.7	36	4.3	0	3	0.8	2.2	0	4.9	34.4	2.8	
LIGHT VEHICLES	0	78	12	88	0	56	737	86	0	63	16	47	0	102	699	59	2043
% LIGHT VEHICLES	0	96.3	100	95.7	0	100	97.9	95.6	0	100	100	100	0	100	97.2	100	97.8
HEAVY VEHICLES	0	3	0	4	0	0	16	4	0	0	0	0	0	0	20	0	47
% HEAVY VEHICLES	0	3.7	0	4.3	0	0	2.1	4.4	0	0	0	0	0	0	2.8	0	2.2

Traffic Survey Specialists, Inc.

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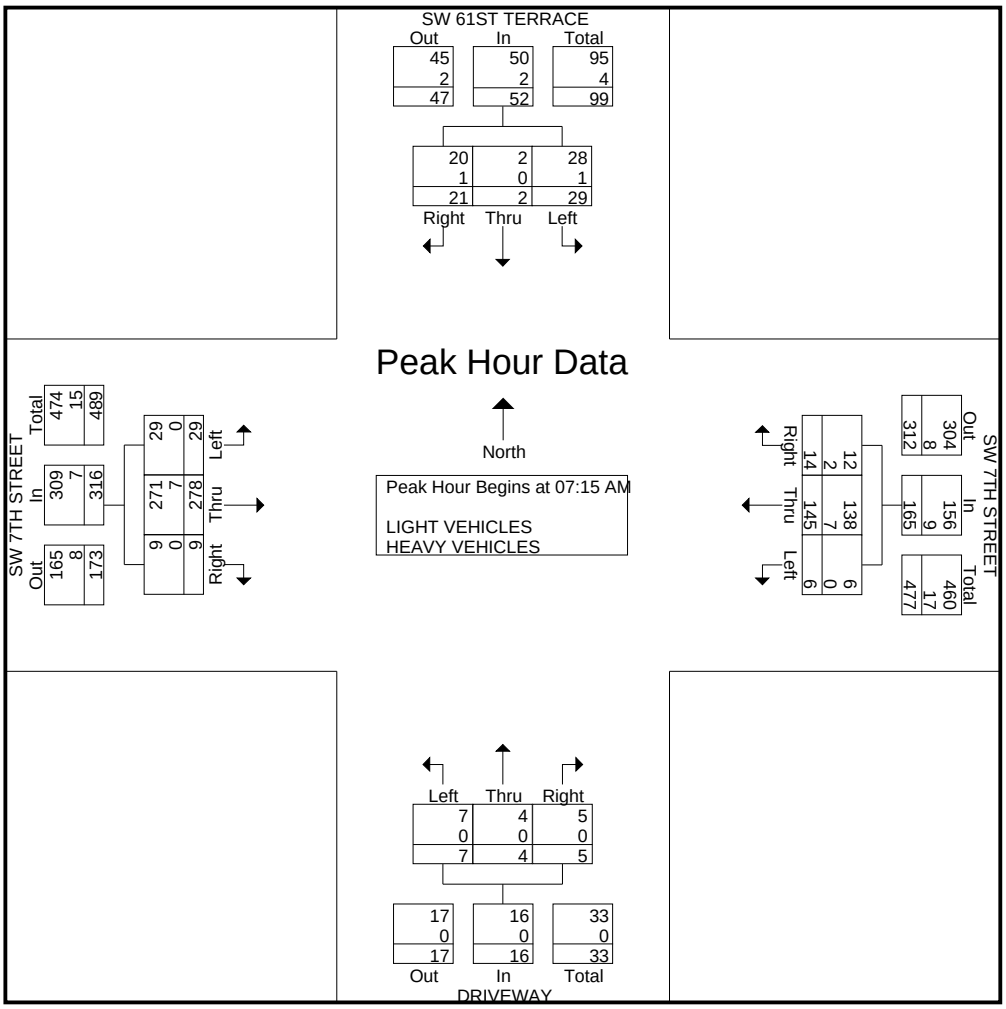
Phone (561) 272-3255

SW 7TH STREET & SW 61ST TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 61 terr
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SW 61ST TERRACE From North					SW 7TH STREET From East					DRIVEWAY From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	**11**	**1**	**7**	**19**	0	0	36	3	39	0	2	0	**3**	**5**	0	5	62	**3**	70	133
07:30 AM	0	4	0	4	8	0	**3**	35	1	39	0	2	1	0	3	0	5	**85**	1	**91**	**141**
07:45 AM	0	9	1	5	15	0	3	31	2	36	0	**3**	**2**	0	5	0	**10**	70	3	83	139
08:00 AM	0	5	0	5	10	0	0	**43**	**8**	**51**	0	0	1	2	3	0	9	61	2	72	136
Total Volume	0	29	2	21	52	0	6	145	14	165	0	7	4	5	16	0	29	278	9	316	549
% App. Total	0	55.8	3.8	40.4		0	3.6	87.9	8.5		0	43.8	25	31.2		0	9.2	88	2.8		
PHF	.000	.659	.500	.750	.684	.000	.500	.843	.438	.809	.000	.583	.500	.417	.800	.000	.725	.818	.750	.868	.973
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	96.6	100	95.2	96.2	0	100	95.2	85.7	94.5	0	100	100	100	100	0	100	97.5	100	97.8	96.7
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	3.4	0	4.8	3.8	0	0	4.8	14.3	5.5	0	0	0	0	0	0	0	2.5	0	2.2	3.3



Traffic Survey Specialists, Inc.
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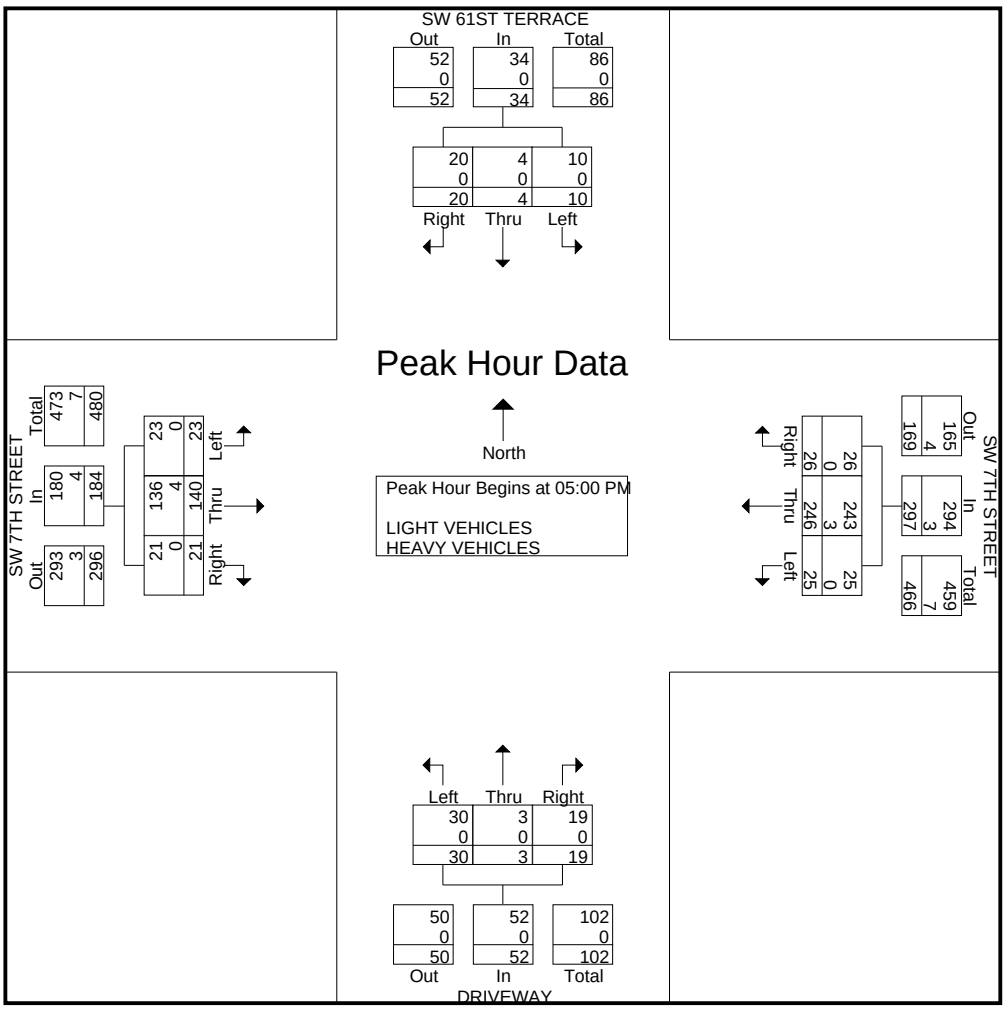
SW 7TH STREET & SW 61ST TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 61 terr
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SW 61ST TERRACE From North					SW 7TH STREET From East					DRIVEWAY From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	2	1	4	7	0	6	49	4	59	0	5	0	**9**	14	0	6	29	5	40	120
05:15 PM	0	**4**	**3**	**8**	**15**	0	5	54	5	64	0	4	**2**	2	8	0	5	37	1	43	130
05:30 PM	0	1	0	6	7	0	**10**	**72**	7	**89**	0	10	0	4	14	0	4	36	**8**	48	158
05:45 PM	0	3	0	2	5	0	4	71	**10**	85	0	**11**	1	4	**16**	0	**8**	**38**	7	**53**	**159**
Total Volume	0	10	4	20	34	0	25	246	26	297	0	30	3	19	52	0	23	140	21	184	567
% App. Total	0	29.4	11.8	58.8		0	8.4	82.8	8.8		0	57.7	5.8	36.5		0	12.5	76.1	11.4		
PHF	.000	.625	.333	.625	.567	.000	.625	.854	.650	.834	.000	.682	.375	.528	.813	.000	.719	.921	.656	.868	.892
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	100	100	100	100	0	100	98.8	100	99.0	0	100	100	100	100	0	100	97.1	100	97.8	98.8
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	1.2	0	1.0	0	0	0	0	0	0	0	2.9	0	2.2	1.2



Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

SW 7TH STREET & SW 61ST TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 61 terr
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	SW 61ST TERRACE From North				SW 7TH STREET From East				DRIVEWAY From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Total	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	3
Grand Total	0	0	1	1	0	0	0	0	0	0	1	0	0	1	0	0	4
Apprch %	0	0	50	50	0	0	0	0	0	0	100	0	0	100	0	0	
Total %	0	0	25	25	0	0	0	0	0	0	25	0	0	25	0	0	

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SW 7TH STREET & SW 61ST TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 61 terr
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SW 61ST TERRACE From North				SW 7TH STREET From East				DRIVEWAY From South				SW 7TH STREET From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
07:30 AM	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	1	0	0	0	0	0	1	0	6	0	1	0	1	0	0	0	10
08:00 AM	0	0	0	0	0	0	0	0	3	0	2	0	1	0	0	0	6
08:15 AM	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	4
08:30 AM	2	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	6
08:45 AM	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4
Total	5	0	0	0	7	0	0	0	5	0	2	0	1	0	0	0	20
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	1	0	1	0	0	0	1	0	3	0	1	0	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	5
04:45 PM	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
Total	4	0	1	0	0	0	1	0	6	0	4	0	0	0	0	0	16
05:00 PM	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3
05:15 PM	0	0	2	0	2	0	0	0	3	0	0	0	1	0	1	0	9
05:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
Total	0	0	2	0	4	0	0	0	7	0	0	0	2	0	1	0	16
Grand Total	10	0	3	0	11	0	2	0	24	0	7	0	4	0	1	0	62
Apprch %	76.9	0	23.1	0	84.6	0	15.4	0	77.4	0	22.6	0	80	0	20	0	
Total %	16.1	0	4.8	0	17.7	0	3.2	0	38.7	0	11.3	0	6.5	0	1.6	0	

Traffic Survey Specialists, Inc.
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SW 7TH STREET & PROJECT DRIVEWAY
NORTH LAUDERDALE
VIDEO COUNT (550' west of SR7)
NOT SIGNALIZED

File Name : sw 7th street & project driveway
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	N/A From North				SW 7TH STREET From East				PROJECT DRIVEWAY From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	26	0	0	0	0	0	0	0	56	0	82
07:15 AM	0	0	0	0	0	0	39	0	0	0	0	0	0	0	76	0	115
07:30 AM	0	0	0	0	0	0	39	0	0	0	0	0	0	0	94	1	134
07:45 AM	0	0	0	0	0	0	36	0	0	0	0	0	0	0	80	0	116
Total	0	0	0	0	0	0	140	0	0	0	0	0	0	0	306	1	447
08:00 AM	0	0	0	0	0	2	49	0	0	2	0	0	0	0	65	1	119
08:15 AM	0	0	0	0	0	0	47	0	0	0	0	0	0	0	54	1	102
08:30 AM	0	0	0	0	0	0	64	0	0	0	0	0	0	0	42	3	109
08:45 AM	0	0	0	0	0	4	61	0	0	2	0	0	0	0	57	6	130
Total	0	0	0	0	0	6	221	0	0	4	0	0	0	0	218	11	460
04:00 PM	0	0	0	0	0	0	65	0	0	0	0	0	0	0	35	0	100
04:15 PM	0	0	0	0	0	1	58	0	0	0	0	0	0	0	28	1	88
04:30 PM	0	0	0	0	0	2	60	0	0	5	0	2	1	0	43	0	113
04:45 PM	0	0	0	0	0	0	51	0	0	1	0	4	0	0	46	0	102
Total	0	0	0	0	0	3	234	0	0	6	0	6	1	0	152	1	403
05:00 PM	0	0	0	0	0	0	57	0	0	1	0	0	0	0	39	1	98
05:15 PM	0	0	0	0	0	0	64	0	0	1	0	1	0	0	44	1	111
05:30 PM	0	0	0	0	0	0	89	0	0	1	0	1	0	0	42	0	133
05:45 PM	0	0	0	0	0	0	84	0	0	0	0	0	0	0	46	1	131
Total	0	0	0	0	0	0	294	0	0	3	0	2	0	0	171	3	473
Grand Total	0	0	0	0	0	9	889	0	0	13	0	8	1	0	847	16	1783
Apprch %	0	0	0	0	0	1	99	0	0	61.9	0	38.1	0.1	0	98	1.9	
Total %	0	0	0	0	0	0.5	49.9	0	0	0.7	0	0.4	0.1	0	47.5	0.9	
LIGHT VEHICLES	0	0	0	0	0	9	869	0	0	13	0	8	1	0	823	16	1739
% LIGHT VEHICLES	0	0	0	0	0	100	97.8	0	0	100	0	100	100	0	97.2	100	97.5
HEAVY VEHICLES	0	0	0	0	0	0	20	0	0	0	0	0	0	0	24	0	44
% HEAVY VEHICLES	0	0	0	0	0	0	2.2	0	0	0	0	0	0	0	2.8	0	2.5

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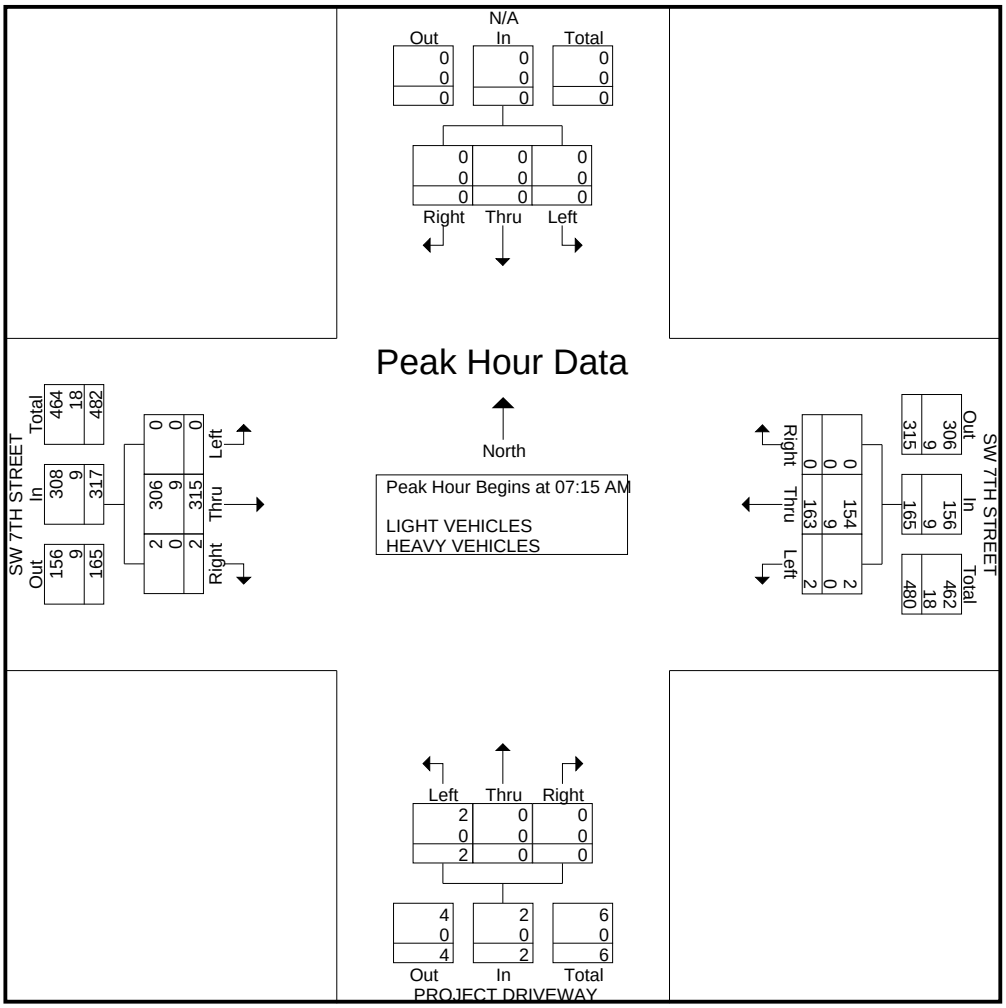
SW 7TH STREET & PROJECT DRIVEWAY
NORTH LAUDERDALE
VIDEO COUNT (550' west of SR7)
NOT SIGNALIZED

File Name : sw 7th street & project driveway
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	N/A From North					SW 7TH STREET From East					PROJECT DRIVEWAY From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	39	0	39	0	0	0	0	0	0	0	76	0	76	115
07:30 AM	0	0	0	0	0	0	0	39	0	39	0	0	0	0	0	0	0	**94**	**1**	**95**	**134**
07:45 AM	0	0	0	0	0	0	0	36	0	36	0	0	0	0	0	0	0	80	0	80	116
08:00 AM	0	0	0	0	0	0	**2**	**49**	0	**51**	0	**2**	0	0	**2**	0	0	65	1	66	119
Total Volume	0	0	0	0	0	0	2	163	0	165	0	2	0	0	2	0	0	315	2	317	484
% App. Total	0	0	0	0		0	1.2	98.8	0		0	100	0	0		0	0	99.4	0.6		
PHF	.000	.000	.000	.000	.000	.000	.250	.832	.000	.809	.000	.250	.000	.000	.250	.000	.000	.838	.500	.834	.903
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	0	0	0	0	0	100	94.5	0	94.5	0	100	0	0	100	0	0	97.1	100	97.2	96.3
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	5.5	0	5.5	0	0	0	0	0	0	0	2.9	0	2.8	3.7

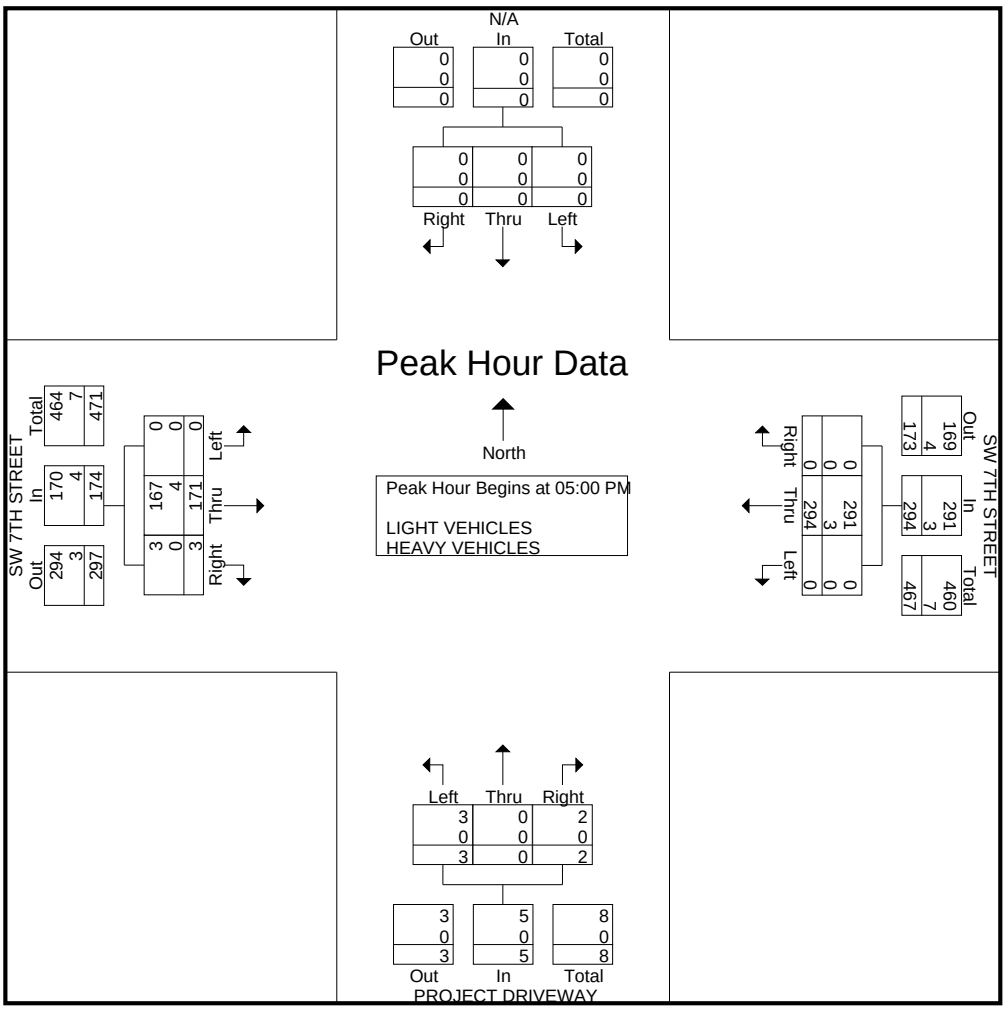


Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

SW 7TH STREET & PROJECT DRIVEWAY
NORTH LAUDERDALE
VIDEO COUNT (550' west of SR7)
NOT SIGNALIZED

File Name : sw 7th street & project driveway
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	N/A From North					SW 7TH STREET From East					PROJECT DRIVEWAY From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	57	0	57	0	**1**	0	0	1	0	0	39	**1**	40	98
05:15 PM	0	0	0	0	0	0	0	64	0	64	0	1	0	**1**	**2**	0	0	44	1	45	111
05:30 PM	0	0	0	0	0	0	0	**89**	0	**89**	0	1	0	1	2	0	0	42	0	42	**133**
05:45 PM	0	0	0	0	0	0	0	84	0	84	0	0	0	0	0	0	0	**46**	1	**47**	131
Total Volume	0	0	0	0	0	0	0	294	0	294	0	3	0	2	5	0	0	171	3	174	473
% App. Total	0	0	0	0		0	0	100	0		0	60	0	40		0	0	98.3	1.7		
PHF	.000	.000	.000	.000	.000	.000	.000	.826	.000	.826	.000	.750	.000	.500	.625	.000	.000	.929	.750	.926	.889
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	0	0	0	0	0	0	99.0	0	99.0	0	100	0	100	100	0	0	97.7	100	97.7	98.5
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	1.0	0	1.0	0	0	0	0	0	0	0	2.3	0	2.3	1.5



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SW 7TH STREET & PROJECT DRIVEWAY
NORTH LAUDERDALE
VIDEO COUNT (550' west of SR7)
NOT SIGNALIZED

File Name : sw 7th street & project driveway
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	N/A From North				SW 7TH STREET From East				PROJECT DRIVEWAY From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	5
Apprch %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	0	0	80	0	0	0	0	20	0	

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SW 7TH STREET & PROJECT DRIVEWAY
NORTH LAUDERDALE
VIDEO COUNT (550' west of SR7)
NOT SIGNALIZED

File Name : sw 7th street & project driveway
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	N/A From North				SW 7TH STREET From East				PROJECT DRIVEWAY From South				SW 7TH STREET From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:15 AM	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	4
07:30 AM	1	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	6
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	2	0	0	0	1	0	0	0	8	0	0	0	0	0	0	0	11
08:00 AM	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
08:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Total	5	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	10
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	1	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	6
04:30 PM	2	0	0	0	0	0	0	0	3	0	3	0	1	0	0	0	9
04:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	6	0	0	0	0	0	0	0	6	0	5	0	1	0	0	0	18
05:15 PM	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	3
05:30 PM	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	7
Total	6	0	3	0	0	0	0	0	4	0	0	0	0	0	0	0	13
Grand Total	19	0	3	0	1	0	0	0	23	0	5	0	1	0	0	0	52
Apprch %	86.4	0	13.6	0	100	0	0	0	82.1	0	17.9	0	100	0	0	0	
Total %	36.5	0	5.8	0	1.9	0	0	0	44.2	0	9.6	0	1.9	0	0	0	

Traffic Survey Specialists, Inc.
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KIMBERLY BOULEVARD & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly boulevard & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				SW 11TH STREET From East				SOUTH STATE ROAD 7 From South				KIMBERLY BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	5	2	348	21	0	36	3	21	1	18	265	11	1	21	2	38	793
07:15 AM	4	6	319	21	0	56	7	30	1	32	238	15	0	38	3	46	816
07:30 AM	6	9	463	28	0	41	5	29	1	25	335	14	0	42	5	60	1063
07:45 AM	5	7	442	16	0	41	7	15	0	32	403	15	1	22	3	39	1048
Total	20	24	1572	86	0	174	22	95	3	107	1241	55	2	123	13	183	3720
08:00 AM	4	15	372	19	0	56	8	22	0	32	349	19	1	56	11	39	1003
08:15 AM	4	12	424	16	0	37	3	17	2	27	413	19	1	24	2	36	1037
08:30 AM	6	13	390	19	0	45	9	13	0	33	340	14	1	24	4	42	953
08:45 AM	2	8	384	25	0	49	1	16	1	25	366	13	0	29	8	37	964
Total	16	48	1570	79	0	187	21	68	3	117	1468	65	3	133	25	154	3957
04:00 PM	2	13	309	29	0	31	7	10	5	37	383	53	0	44	5	35	963
04:15 PM	4	13	329	34	0	67	10	10	2	49	336	45	1	32	19	38	989
04:30 PM	3	5	338	40	0	36	12	17	3	59	362	38	1	27	15	41	997
04:45 PM	6	12	310	36	0	23	12	15	5	44	350	37	1	22	4	37	914
Total	15	43	1286	139	0	157	41	52	15	189	1431	173	3	125	43	151	3863
05:00 PM	5	18	298	32	0	30	13	14	4	65	397	42	1	38	13	48	1018
05:15 PM	11	9	341	32	0	35	12	16	3	53	420	41	0	33	13	53	1072
05:30 PM	9	7	336	34	0	23	10	11	3	57	497	40	1	31	16	54	1129
05:45 PM	5	12	301	46	0	38	18	11	5	82	426	47	4	31	18	63	1107
Total	30	46	1276	144	0	126	53	52	15	257	1740	170	6	133	60	218	4326
Grand Total	81	161	5704	448	0	644	137	267	36	670	5880	463	14	514	141	706	15866
Apprch %	1.3	2.5	89.2	7	0	61.5	13.1	25.5	0.5	9.5	83.4	6.6	1	37.4	10.3	51.3	
Total %	0.5	1	36	2.8	0	4.1	0.9	1.7	0.2	4.2	37.1	2.9	0.1	3.2	0.9	4.4	
LIGHT VEHICLES	79	150	5594	444	0	637	135	262	35	656	5758	452	13	509	140	684	15548
% LIGHT VEHICLES	97.5	93.2	98.1	99.1	0	98.9	98.5	98.1	97.2	97.9	97.9	97.6	92.9	99	99.3	96.9	98
HEAVY VEHICLES	2	11	110	4	0	7	2	5	1	14	122	11	1	5	1	22	318
% HEAVY VEHICLES	2.5	6.8	1.9	0.9	0	1.1	1.5	1.9	2.8	2.1	2.1	2.4	7.1	1	0.7	3.1	2

Traffic Survey Specialists, Inc.

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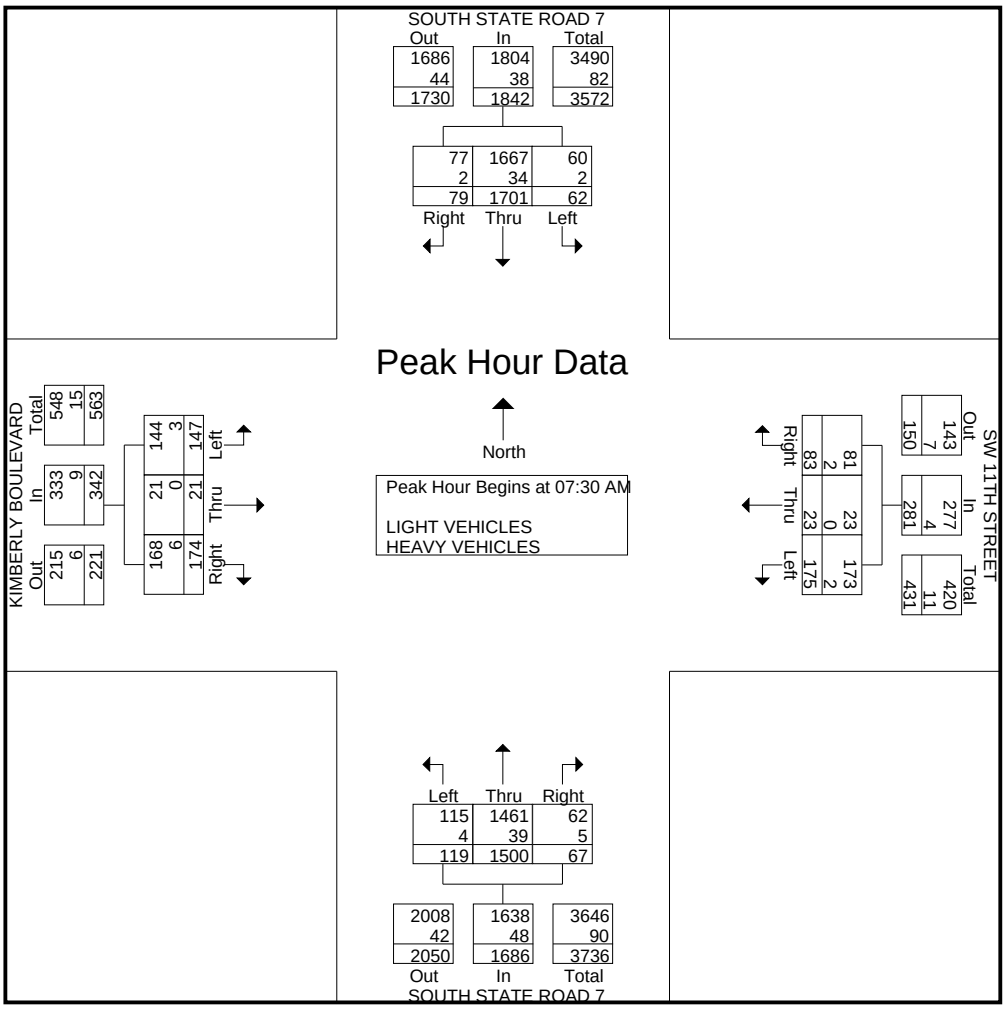
KIMBERLY BOULEVARD & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly boulevard & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SOUTH STATE ROAD 7 From North					SW 11TH STREET From East					SOUTH STATE ROAD 7 From South					KIMBERLY BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**6**	9	**463**	**28**	**506**	0	41	5	**29**	75	1	25	335	14	375	0	42	5	**60**	**107**	**1063**
07:45 AM	5	7	442	16	470	0	41	7	15	63	0	**32**	403	15	450	**1**	22	3	39	65	1048
08:00 AM	4	**15**	372	19	410	0	**56**	**8**	22	**86**	0	32	349	**19**	400	1	**56**	**11**	39	107	1003
08:15 AM	4	12	424	16	456	0	37	3	17	57	**2**	27	**413**	19	**461**	1	24	2	36	63	1037
Total Volume	19	43	1701	79	1842	0	175	23	83	281	3	116	1500	67	1686	3	144	21	174	342	4151
% App. Total	1	2.3	92.3	4.3		0	62.3	8.2	29.5		0.2	6.9	89	4		0.9	42.1	6.1	50.9		
PHF	.792	.717	.918	.705	.910	.000	.781	.719	.716	.817	.375	.906	.908	.882	.914	.750	.643	.477	.725	.799	.976
LIGHT VEHICLES			1667										1461								
% LIGHT VEHICLES	100	95.3	98.0	97.5	97.9	0	98.9	100	97.6	98.6	66.7	97.4	97.4	92.5	97.2	66.7	98.6	100	96.6	97.4	97.6
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	4.7	2.0	2.5	2.1	0	1.1	0	2.4	1.4	33.3	2.6	2.6	7.5	2.8	33.3	1.4	0	3.4	2.6	2.4



Traffic Survey Specialists, Inc.

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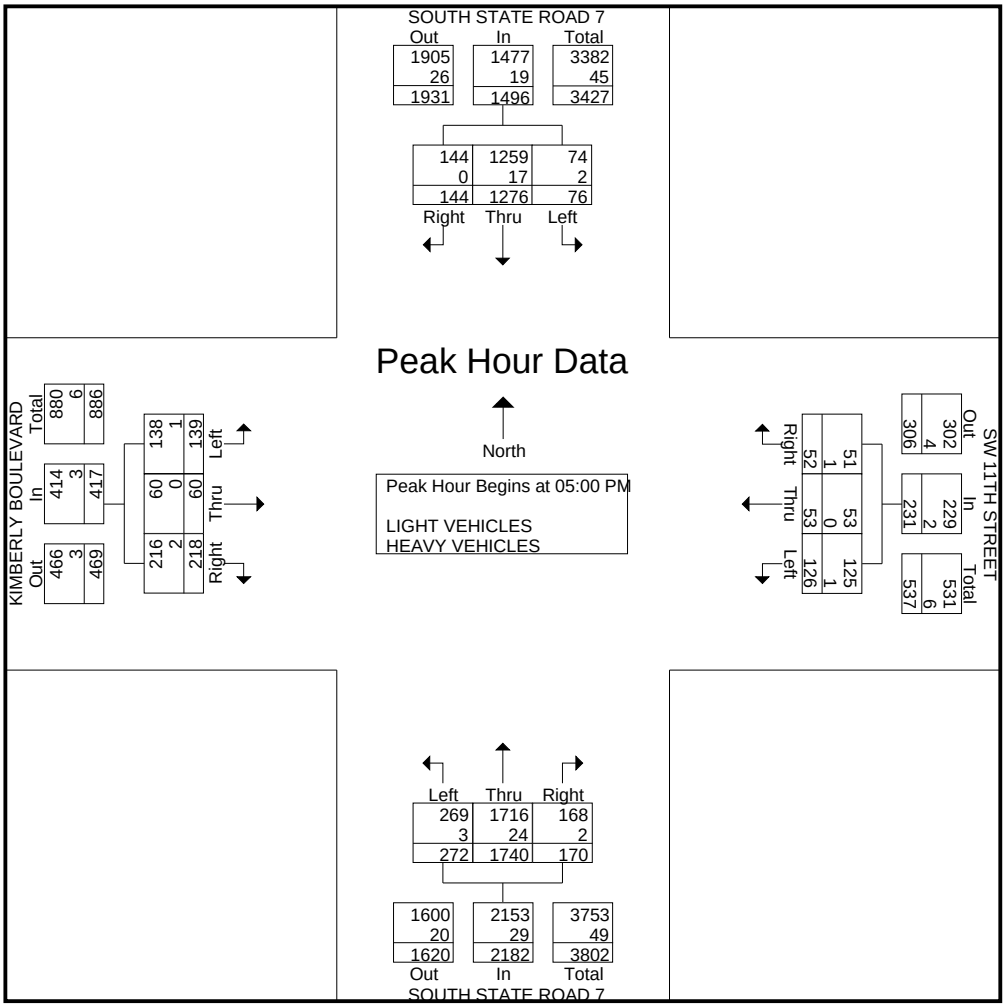
KIMBERLY BOULEVARD & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly boulevard & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SOUTH STATE ROAD 7 From North					SW 11TH STREET From East					SOUTH STATE ROAD 7 From South					KIMBERLY BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	5	**18**	298	32	353	0	30	13	14	57	4	65	397	42	508	1	**38**	13	48	100	1018
05:15 PM	**11**	9	**341**	32	**393**	0	35	12	**16**	63	3	53	420	41	517	0	33	13	53	99	1072
05:30 PM	9	7	336	34	386	0	23	10	11	44	3	57	**497**	40	**597**	1	31	16	54	102	**1129**
05:45 PM	5	12	301	**46**	364	0	**38**	**18**	11	**67**	**5**	**82**	426	**47**	560	**4**	31	**18**	**63**	**116**	1107
Total Volume	30	46	1276	144	1496	0	126	53	52	231	15	257	1740	170	2182	6	133	60	218	417	4326
% App. Total	2	3.1	85.3	9.6		0	54.5	22.9	22.5		0.7	11.8	79.7	7.8		1.4	31.9	14.4	52.3		
PHF	.682	.639	.935	.783	.952	.000	.829	.736	.813	.862	.750	.784	.875	.904	.914	.375	.875	.833	.865	.899	.958
LIGHT VEHICLES			1259										1716								
% LIGHT VEHICLES	100	95.7	98.7	100	98.7	0	99.2	100	98.1	99.1	100	98.8	98.6	98.8	98.7	100	99.2	100	99.1	99.3	98.8
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	4.3	1.3	0	1.3	0	0.8	0	1.9	0.9	0	1.2	1.4	1.2	1.3	0	0.8	0	0.9	0.7	1.2



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KIMBERLY BOULEVARD & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly boulevard & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				SW 11TH STREET From East				SOUTH STATE ROAD 7 From South				KIMBERLY BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	3
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	3
Grand Total	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	4
Apprch %	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0	
Total %	0	0	25	0	0	0	0	0	0	0	25	0	0	0	50	0	

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VIDEO COUNT
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File Name : kimberly boulevard & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				SW 11TH STREET From East				SOUTH STATE ROAD 7 From South				KIMBERLY BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	2	0	2	0	8
07:15 AM	2	0	0	0	1	0	1	0	2	0	0	0	4	0	1	0	11
07:30 AM	13	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	19
07:45 AM	7	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	10
Total	24	0	0	0	5	0	1	0	3	0	0	0	11	0	4	0	48
08:00 AM	5	0	1	0	5	0	0	0	1	0	0	0	5	0	1	0	18
08:15 AM	4	0	0	0	3	0	1	0	2	0	0	0	1	0	1	0	12
08:30 AM	8	0	0	0	4	0	0	0	2	0	0	0	6	0	4	0	24
08:45 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4
Total	20	0	1	0	12	0	1	0	5	0	0	0	12	0	7	0	58
04:00 PM	1	0	0	0	1	0	0	0	2	0	2	0	5	0	1	0	12
04:15 PM	2	0	0	0	0	0	1	0	4	0	0	0	2	0	0	0	9
04:30 PM	9	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	13
04:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	7
Total	14	0	0	0	3	0	1	0	7	0	2	0	12	0	2	0	41
05:00 PM	8	0	0	0	0	0	1	0	3	0	0	0	3	0	0	0	15
05:15 PM	6	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	10
05:30 PM	4	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	9
05:45 PM	9	0	0	0	3	0	0	0	1	0	1	0	10	0	1	0	25
Total	27	0	0	0	4	0	2	0	4	0	1	0	19	0	2	0	59
Grand Total	85	0	1	0	24	0	5	0	19	0	3	0	54	0	15	0	206
Apprch %	98.8	0	1.2	0	82.8	0	17.2	0	86.4	0	13.6	0	78.3	0	21.7	0	
Total %	41.3	0	0.5	0	11.7	0	2.4	0	9.2	0	1.5	0	26.2	0	7.3	0	

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Phone (561) 272-3255

BOULEVARD OF CHAMPIONS & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : boulevard of champions & sr 7
Site Code : 230081
Start Date : 5/9/2023

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				CHURCH DRIVEWAY From East				SOUTH STATE ROAD 7 From South				BOULEVARD OF CHAMPIONS From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	1	1	361	29	0	1	0	0	11	35	249	2	1	32	0	59	782
07:15 AM	0	1	401	45	0	4	0	0	5	33	241	2	1	43	0	76	852
07:30 AM	2	2	462	53	0	9	2	0	5	66	354	3	1	30	0	74	1063
07:45 AM	3	1	444	70	0	1	1	0	2	83	374	5	2	47	0	70	1103
Total	6	5	1668	197	0	15	3	0	23	217	1218	12	5	152	0	279	3800
08:00 AM	8	1	421	60	0	1	3	0	10	45	339	5	2	43	0	70	1008
08:15 AM	4	1	456	54	0	1	0	0	4	42	422	0	2	25	0	64	1075
08:30 AM	6	0	426	52	0	2	1	1	4	49	342	1	2	47	1	58	992
08:45 AM	3	1	417	55	0	4	0	0	3	40	392	2	2	40	0	38	997
Total	21	3	1720	221	0	8	4	1	21	176	1495	8	8	155	1	230	4072
04:00 PM	10	0	301	47	0	3	1	0	3	62	370	1	2	61	0	56	917
04:15 PM	15	1	356	38	0	4	0	0	7	38	391	1	4	52	0	54	961
04:30 PM	14	1	379	58	0	0	1	0	10	64	376	1	3	54	1	66	1028
04:45 PM	11	0	298	45	0	2	0	0	2	65	398	0	1	64	2	65	953
Total	50	2	1334	188	0	9	2	0	22	229	1535	3	10	231	3	241	3859
05:00 PM	7	1	345	33	0	1	1	0	7	41	448	2	8	62	0	54	1010
05:15 PM	6	0	344	35	0	1	0	0	6	65	454	1	3	57	0	69	1041
05:30 PM	12	2	396	39	0	3	2	1	2	59	509	4	4	78	0	69	1180
05:45 PM	12	1	317	34	0	3	0	0	3	71	443	3	4	76	0	63	1030
Total	37	4	1402	141	0	8	3	1	18	236	1854	10	19	273	0	255	4261
Grand Total	114	14	6124	747	0	40	12	2	84	858	6102	33	42	811	4	1005	15992
Apprch %	1.6	0.2	87.5	10.7	0	74.1	22.2	3.7	1.2	12.1	86.2	0.5	2.3	43.6	0.2	54	
Total %	0.7	0.1	38.3	4.7	0	0.3	0.1	0	0.5	5.4	38.2	0.2	0.3	5.1	0	6.3	
LIGHT VEHICLES	114	12	6007	725	0	38	12	2	83	837	5977	33	42	787	4	974	15647
% LIGHT VEHICLES	100	85.7	98.1	97.1	0	95	100	100	98.8	97.6	98	100	100	97	100	96.9	97.8
HEAVY VEHICLES	0	2	117	22	0	2	0	0	1	21	125	0	0	24	0	31	345
% HEAVY VEHICLES	0	14.3	1.9	2.9	0	5	0	0	1.2	2.4	2	0	0	3	0	3.1	2.2

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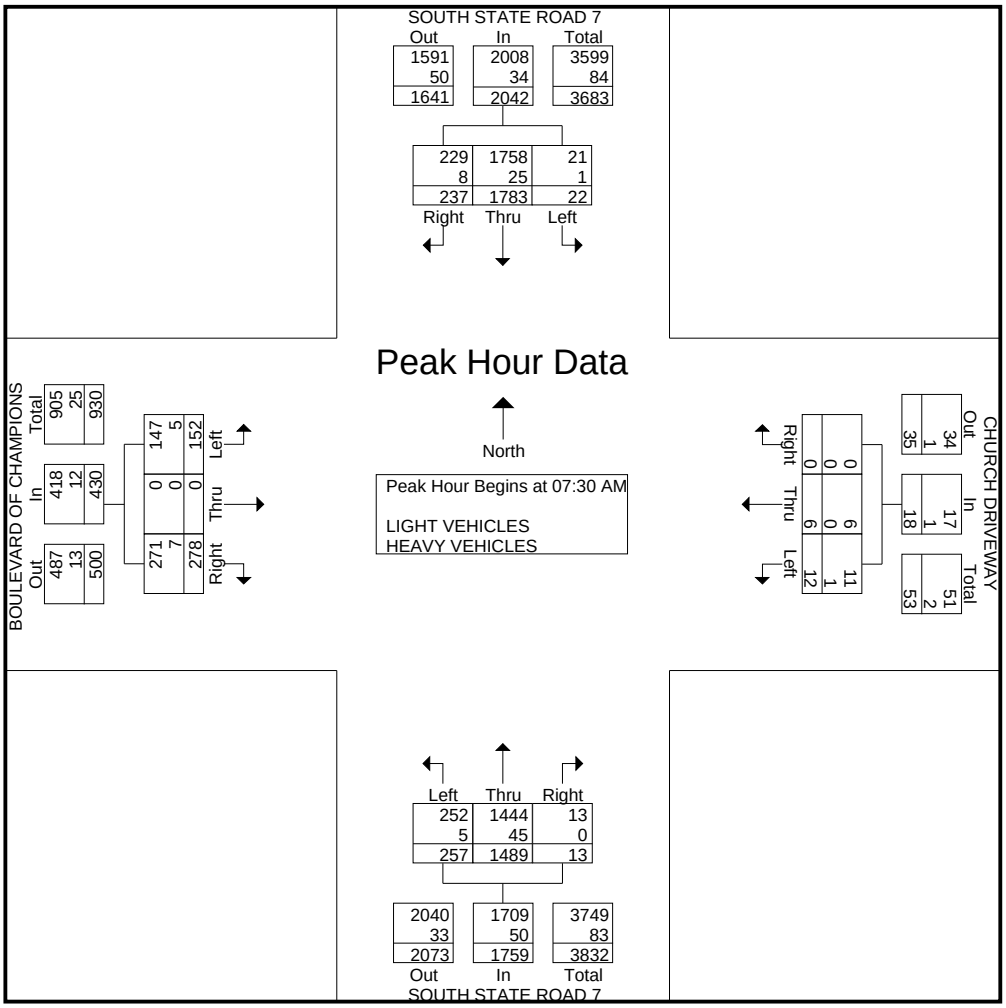
BOULEVARD OF CHAMPIONS & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : boulevard of champions & sr 7
Site Code : 230081
Start Date : 5/9/2023

	SOUTH STATE ROAD 7 From North					CHURCH DRIVEWAY From East					SOUTH STATE ROAD 7 From South					BOULEVARD OF CHAMPIONS From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	2	**2**	**462**	53	**519**	0	**9**	2	0	**11**	5	66	354	3	428	1	30	0	**74**	105	1063
07:45 AM	3	1	444	**70**	518	0	1	1	0	2	2	**83**	374	**5**	464	**2**	**47**	0	70	**119**	**1103**
08:00 AM	**8**	1	421	60	490	0	1	**3**	0	4	**10**	45	339	5	399	2	43	0	70	115	1008
08:15 AM	4	1	456	54	515	0	1	0	0	1	4	42	**422**	0	**468**	2	25	0	64	91	1075
Total Volume	17	5	1783	237	2042	0	12	6	0	18	21	236	1489	13	1759	7	145	0	278	430	4249
% App. Total	0.8	0.2	87.3	11.6		0	66.7	33.3	0		1.2	13.4	84.7	0.7		1.6	33.7	0	64.7		
PHF	.531	.625	.965	.846	.984	.000	.333	.500	.000	.409	.525	.711	.882	.650	.940	.875	.771	.000	.939	.903	.963
LIGHT VEHICLES			1758										1444								
% LIGHT VEHICLES	100	80.0	98.6	96.6	98.3	0	91.7	100	0	94.4	100	97.9	97.0	100	97.2	100	96.6	0	97.5	97.2	97.7
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	20.0	1.4	3.4	1.7	0	8.3	0	0	5.6	0	2.1	3.0	0	2.8	0	3.4	0	2.5	2.8	2.3



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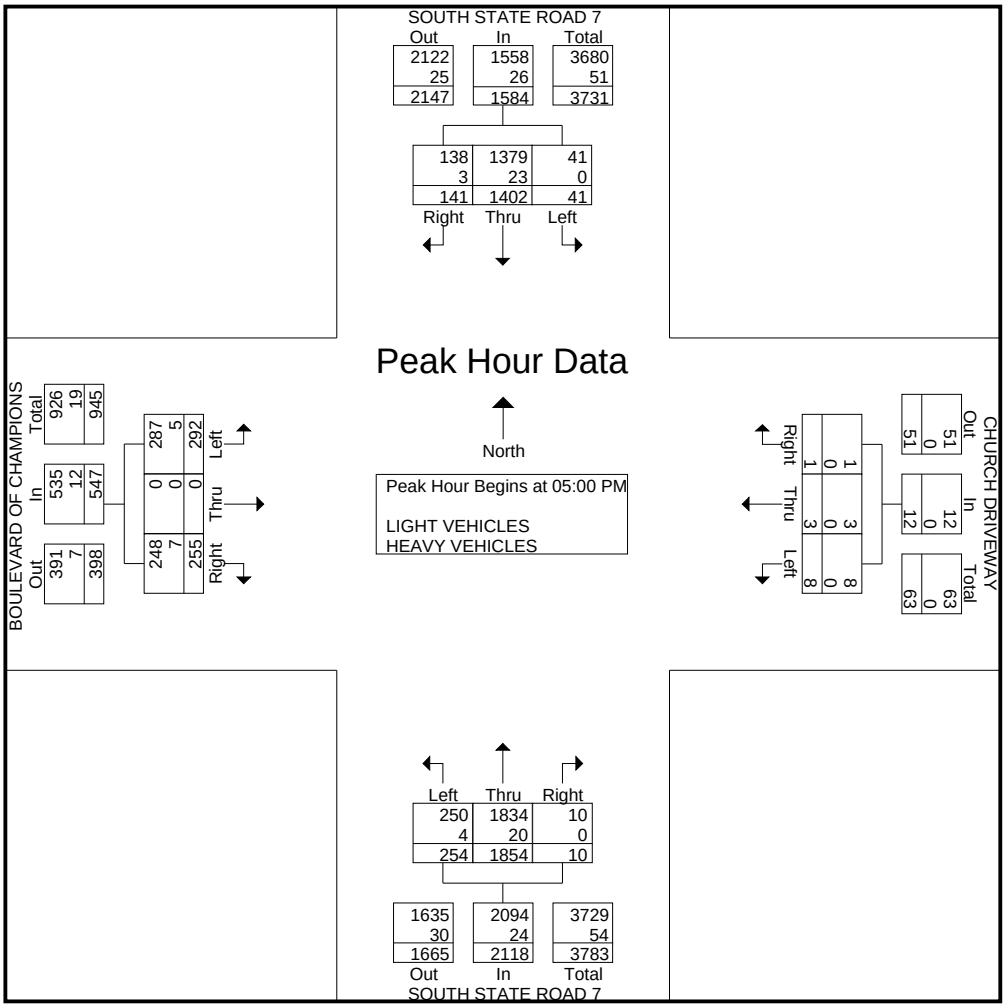
BOULEVARD OF CHAMPIONS & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : boulevard of champions & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SOUTH STATE ROAD 7 From North					CHURCH DRIVEWAY From East					SOUTH STATE ROAD 7 From South					BOULEVARD OF CHAMPIONS From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	7	1	345	33	386	0	1	1	0	2	**7**	41	448	2	498	**8**	62	0	54	124	1010
05:15 PM	6	0	344	35	385	0	1	0	0	1	6	65	454	1	526	3	57	0	**69**	129	1041
05:30 PM	**12**	**2**	**396**	**39**	**449**	0	**3**	**2**	**1**	**6**	2	59	**509**	**4**	**574**	4	**78**	0	69	**151**	**1180**
05:45 PM	12	1	317	34	364	0	3	0	0	3	3	**71**	443	3	520	4	76	0	63	143	1030
Total Volume	37	4	1402	141	1584	0	8	3	1	12	18	236	1854	10	2118	19	273	0	255	547	4261
% App. Total	2.3	0.3	88.5	8.9		0	66.7	25	8.3		0.8	11.1	87.5	0.5		3.5	49.9	0	46.6		
PHF	.771	.500	.885	.904	.882	.000	.667	.375	.250	.500	.643	.831	.911	.625	.922	.594	.875	.000	.924	.906	.903
LIGHT VEHICLES			1379										1834								
% LIGHT VEHICLES	100	100	98.4	97.9	98.4	0	100	100	100	100	100	98.3	98.9	100	98.9	100	98.2	0	97.3	97.8	98.5
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	1.6	2.1	1.6	0	0	0	0	0	0	1.7	1.1	0	1.1	0	1.8	0	2.7	2.2	1.5



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BOULEVARD OF CHAMPIONS & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : boulevard of champions & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				CHURCH DRIVEWAY From East				SOUTH STATE ROAD 7 From South				BOULEVARD OF CHAMPIONS From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	6
Apprch %	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	
Total %	0	0	50	0	0	0	0	0	0	0	50	0	0	0	0	0	

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BOULEVARD OF CHAMPIONS & SR 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : boulevard of champions & sr 7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				CHURCH DRIVEWAY From East				SOUTH STATE ROAD 7 From South				BOULEVARD OF CHAMPIONS From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	4	0	0	0	3	0	0	0	0	0	0	0	5	0	1	0	13
07:15 AM	4	0	0	0	2	0	1	0	0	0	0	0	2	0	2	0	11
07:30 AM	3	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	7
07:45 AM	2	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	7
Total	13	0	0	0	6	0	1	0	0	0	0	0	12	0	6	0	38
08:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:15 AM	3	0	0	0	4	0	0	0	0	0	0	0	4	0	1	0	12
08:30 AM	1	0	0	0	2	0	1	0	0	0	0	0	2	0	2	0	8
08:45 AM	2	0	1	0	2	0	0	0	0	0	0	0	1	0	3	0	9
Total	9	0	1	0	8	0	1	0	0	0	0	0	7	0	6	0	32
04:00 PM	2	0	0	0	1	0	1	0	0	0	0	0	1	0	4	0	9
04:15 PM	0	0	0	0	6	0	0	0	2	0	0	0	4	0	0	0	12
04:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	4	0	1	0	7
04:45 PM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	6
Total	4	0	0	0	11	0	1	0	2	0	0	0	10	0	6	0	34
05:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	3
05:15 PM	1	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	4
05:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	3	0	2	0	7
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3	0	6
Total	2	0	0	0	5	0	1	0	0	0	0	0	6	0	6	0	20
Grand Total	28	0	1	0	30	0	4	0	2	0	0	0	35	0	24	0	124
Apprch %	96.6	0	3.4	0	88.2	0	11.8	0	100	0	0	0	59.3	0	40.7	0	
Total %	22.6	0	0.8	0	24.2	0	3.2	0	1.6	0	0	0	28.2	0	19.4	0	

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SW 17TH STREET & SOUTH STATE ROAD 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : sw 17 street & sr7
Site Code : 230081
Start Date : 5/9/2023

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SOUTH STATE ROAD 7 From North				W MCNAB ROAD ON/OFF RAMP From East				SOUTH STATE ROAD 7 From South				SW 17TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	3	87	331	14	0	5	1	37	1	12	224	47	0	12	11	13	798
07:15 AM	2	93	352	14	0	8	2	31	8	5	217	47	0	25	13	16	833
07:30 AM	4	108	357	22	0	23	0	66	2	11	314	34	0	32	11	24	1008
07:45 AM	5	71	350	8	0	60	0	75	5	5	278	40	0	32	10	28	967
Total	14	359	1390	58	0	96	3	209	16	33	1033	168	0	101	45	81	3606
08:00 AM	4	71	490	22	1	48	1	58	3	5	340	48	0	19	7	21	1138
08:15 AM	2	80	434	7	0	46	1	65	2	6	361	57	0	15	2	16	1094
08:30 AM	5	72	361	13	0	77	0	54	1	8	275	48	0	16	3	12	945
08:45 AM	5	67	406	6	1	57	1	56	7	6	366	83	0	18	6	14	1099
Total	16	290	1691	48	2	228	3	233	13	25	1342	236	0	68	18	63	4276
04:00 PM	13	41	288	25	0	9	0	31	2	10	352	23	0	18	2	10	824
04:15 PM	6	38	326	28	0	14	0	35	3	14	366	15	0	15	7	14	881
04:30 PM	13	62	345	32	0	14	0	41	1	11	373	14	0	26	4	12	948
04:45 PM	6	46	318	22	0	8	2	33	1	9	364	19	0	25	3	24	880
Total	38	187	1277	107	0	45	2	140	7	44	1455	71	0	84	16	60	3533
05:00 PM	6	42	328	37	0	13	0	33	3	12	469	15	0	16	4	12	990
05:15 PM	10	65	328	21	0	12	0	37	2	12	422	22	0	15	8	14	968
05:30 PM	16	42	386	31	0	15	0	35	1	22	488	12	0	16	2	10	1076
05:45 PM	9	48	295	21	0	18	0	52	7	19	453	23	1	32	8	12	998
Total	41	197	1337	110	0	58	0	157	13	65	1832	72	1	79	22	48	4032
Grand Total	109	1033	5695	323	2	427	8	739	49	167	5662	547	1	332	101	252	15447
Apprch %	1.5	14.4	79.5	4.5	0.2	36.3	0.7	62.8	0.8	2.6	88.1	8.5	0.1	48.4	14.7	36.7	
Total %	0.7	6.7	36.9	2.1	0	2.8	0.1	4.8	0.3	1.1	36.7	3.5	0	2.1	0.7	1.6	
LIGHT VEHICLES	109	1016	5574	312	2	423	8	723	49	162	5551	536	1	323	99	245	15133
% LIGHT VEHICLES	100	98.4	97.9	96.6	100	99.1	100	97.8	100	97	98	98	100	97.3	98	97.2	98
HEAVY VEHICLES	0	17	121	11	0	4	0	16	0	5	111	11	0	9	2	7	314
% HEAVY VEHICLES	0	1.6	2.1	3.4	0	0.9	0	2.2	0	3	2	2	0	2.7	2	2.8	2

Traffic Survey Specialists, Inc.

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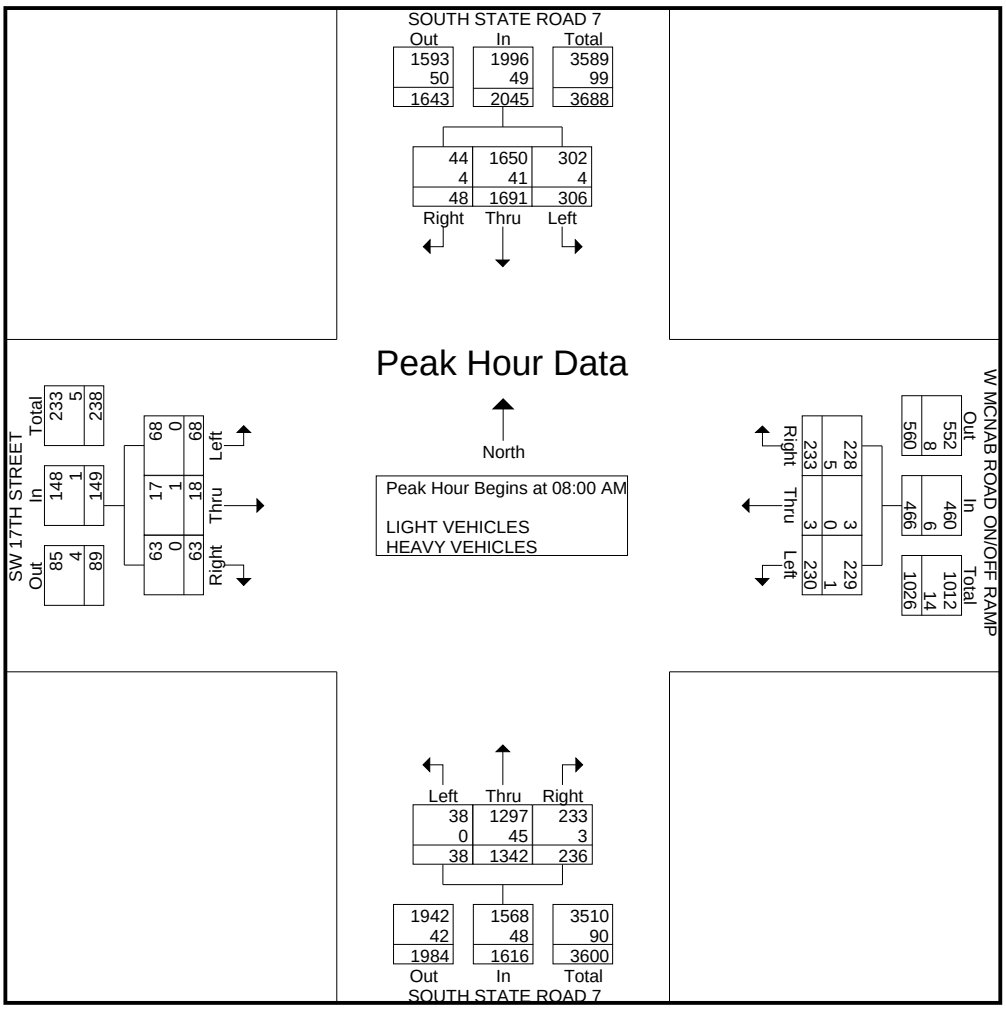
SW 17TH STREET & SOUTH STATE ROAD 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : sw 17 street & sr7
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SOUTH STATE ROAD 7 From North					W MCNAB ROAD ON/OFF RAMP From East					SOUTH STATE ROAD 7 From South					SW 17TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	4	71	**490**	**22**	**587**	**1**	48	**1**	58	108	3	5	340	48	396	0	**19**	**7**	**21**	**47**	**1138**
08:15 AM	2	**80**	434	7	523	0	46	1	**65**	112	2	6	361	57	426	0	15	2	16	33	1094
08:30 AM	**5**	72	361	13	451	0	**77**	0	54	**131**	1	**8**	275	48	332	0	16	3	12	31	945
08:45 AM	5	67	406	6	484	1	57	1	56	115	**7**	6	**366**	**83**	**462**	0	18	6	14	38	1099
Total Volume	16	290	1691	48	2045	2	228	3	233	466	13	25	1342	236	1616	0	68	18	63	149	4276
% App. Total	0.8	14.2	82.7	2.3		0.4	48.9	0.6	50		0.8	1.5	83	14.6		0	45.6	12.1	42.3		
PHF	.800	.906	.863	.545	.871	.500	.740	.750	.896	.889	.464	.781	.917	.711	.874	.000	.895	.643	.750	.793	.939
LIGHT VEHICLES			1650										1297								
% LIGHT VEHICLES	100	98.6	97.6	91.7	97.6	100	99.6	100	97.9	98.7	100	100	96.6	98.7	97.0	0	100	94.4	100	99.3	97.6
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	1.4	2.4	8.3	2.4	0	0.4	0	2.1	1.3	0	0	3.4	1.3	3.0	0	0	5.6	0	0.7	2.4



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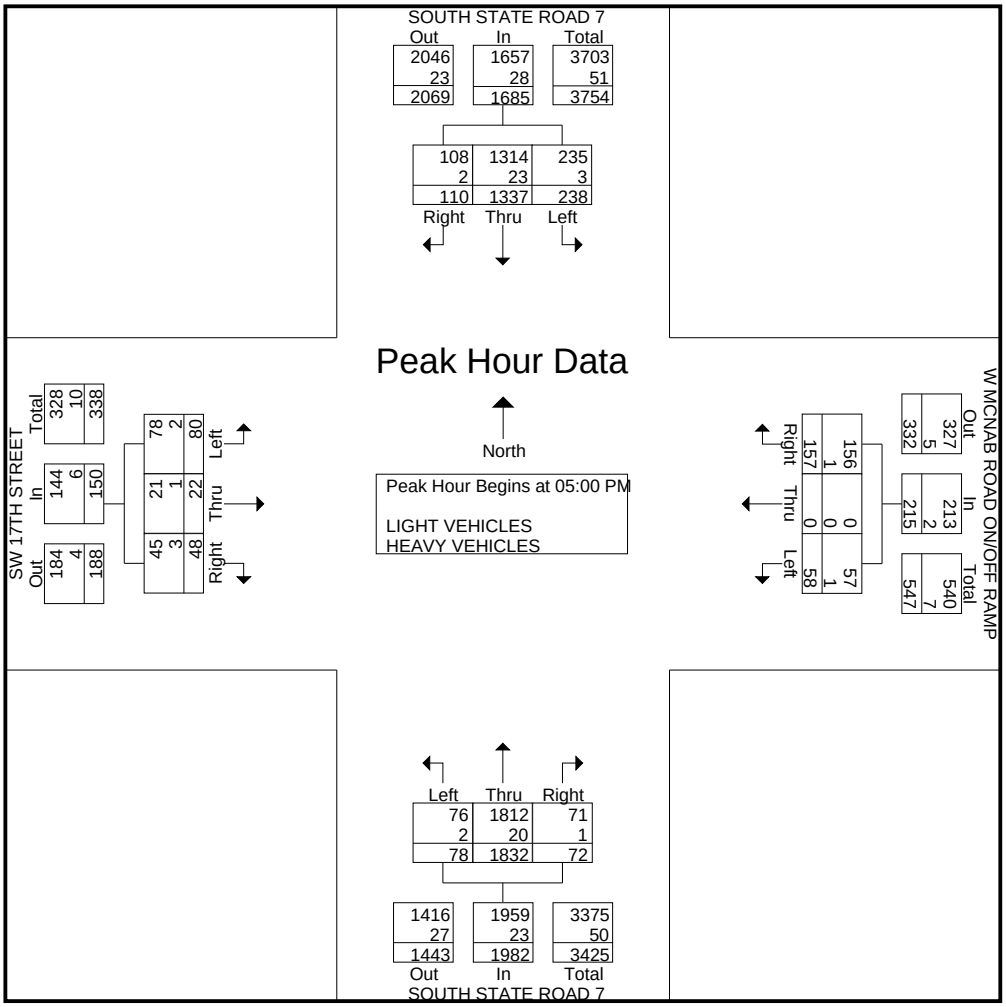
SW 17TH STREET & SOUTH STATE ROAD 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : sw 17 street & sr7
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SOUTH STATE ROAD 7 From North					W MCNAB ROAD ON/OFF RAMP From East					SOUTH STATE ROAD 7 From South					SW 17TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	42	328	**37**	413	0	13	0	33	46	3	12	469	15	499	0	16	4	12	32	990
05:15 PM	10	**65**	328	21	424	0	12	0	37	49	2	12	422	22	458	0	15	**8**	**14**	37	968
05:30 PM	**16**	42	**386**	31	**475**	0	15	0	35	50	1	**22**	**488**	12	**523**	0	16	2	10	28	**1076**
05:45 PM	9	48	295	21	373	0	**18**	0	**52**	**70**	**7**	19	453	**23**	502	**1**	**32**	8	12	**53**	998
Total Volume	41	197	1337	110	1685	0	58	0	157	215	13	65	1832	72	1982	1	79	22	48	150	4032
% App. Total	2.4	11.7	79.3	6.5		0	27	0	73		0.7	3.3	92.4	3.6		0.7	52.7	14.7	32		
PHF	.641	.758	.866	.743	.887	.000	.806	.000	.755	.768	.464	.739	.939	.783	.947	.250	.617	.688	.857	.708	.937
LIGHT VEHICLES			1314										1812								
% LIGHT VEHICLES	100	98.5	98.3	98.2	98.3	0	98.3	0	99.4	99.1	100	96.9	98.9	98.6	98.8	100	97.5	95.5	93.8	96.0	98.5
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	1.5	1.7	1.8	1.7	0	1.7	0	0.6	0.9	0	3.1	1.1	1.4	1.2	0	2.5	4.5	6.3	4.0	1.5



Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

SW 17TH STREET & SOUTH STATE ROAD 7
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : sw 17 street & sr7
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- BICYCLES ON THE ROAD

	SOUTH STATE ROAD 7 From North				W MCNAB ROAD ON/OFF RAMP From East				SOUTH STATE ROAD 7 From South				SW 17TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	5
Apprch %	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	100	
Total %	0	0	60	0	0	0	0	0	0	0	20	0	0	0	0	20	

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NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : sw 17 street & sr7
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SOUTH STATE ROAD 7 From North				W MCNAB ROAD ON/OFF RAMP From East				SOUTH STATE ROAD 7 From South				SW 17TH STREET From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0	6
07:15 AM	4	0	0	0	1	0	1	0	0	0	0	0	2	0	1	0	9
07:30 AM	3	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	7
07:45 AM	4	0	1	0	2	0	0	0	0	0	0	0	4	0	1	0	12
Total	12	0	1	0	3	0	2	0	0	0	0	0	11	0	5	0	34
08:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3
08:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	1	0	2	0	5
08:45 AM	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	4
Total	1	0	1	0	2	0	4	0	0	0	0	0	3	0	3	0	14
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
04:15 PM	3	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4
Total	3	0	0	0	1	0	1	0	0	0	0	0	6	0	2	0	13
05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	4
05:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Total	0	0	0	0	1	0	3	0	0	0	0	0	3	0	3	0	10
Grand Total	16	0	2	0	7	0	10	0	0	0	0	0	23	0	13	0	71
Apprch %	88.9	0	11.1	0	41.2	0	58.8	0	0	0	0	0	63.9	0	36.1	0	
Total %	22.5	0	2.8	0	9.9	0	14.1	0	0	0	0	0	32.4	0	18.3	0	

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SOUTHGATE BOULEVARD & ROCK ISLAND ROAD
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : southgate & rock island
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	ROCK ISLAND ROAD From North				SOUTHGATE BOULEVARD From East				ROCK ISLAND ROAD From South				SOUTHGATE BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	39	156	77	0	14	102	66	0	34	186	38	0	120	152	34	1018
07:15 AM	0	49	185	99	0	15	137	92	0	30	217	35	0	104	180	44	1187
07:30 AM	0	63	195	122	0	23	153	90	0	41	195	46	0	132	222	36	1318
07:45 AM	0	59	226	145	0	19	131	60	0	45	267	39	0	119	146	45	1301
Total	0	210	762	443	0	71	523	308	0	150	865	158	0	475	700	159	4824
08:00 AM	0	49	199	96	0	5	93	58	0	43	232	28	0	92	182	56	1133
08:15 AM	0	40	204	120	0	26	127	62	1	27	250	58	0	123	195	38	1271
08:30 AM	0	38	177	107	0	15	119	63	0	38	256	43	0	100	143	35	1134
08:45 AM	0	48	166	117	0	13	101	82	1	26	243	36	0	134	180	40	1187
Total	0	175	746	440	0	59	440	265	2	134	981	165	0	449	700	169	4725
04:00 PM	2	48	189	127	0	13	113	46	2	24	148	35	0	95	111	46	999
04:15 PM	0	49	239	145	0	28	104	39	1	34	209	39	0	110	123	41	1161
04:30 PM	0	41	220	152	0	30	158	43	0	36	207	36	1	89	130	53	1196
04:45 PM	0	36	187	122	0	24	138	56	0	33	197	19	0	108	128	50	1098
Total	2	174	835	546	0	95	513	184	3	127	761	129	1	402	492	190	4454
05:00 PM	0	52	220	157	0	26	103	46	1	40	198	38	2	87	90	45	1105
05:15 PM	1	40	200	157	0	29	165	64	3	43	212	32	1	93	144	53	1237
05:30 PM	0	31	242	158	0	31	147	54	0	41	214	35	0	103	137	60	1253
05:45 PM	1	50	231	129	0	25	134	58	0	47	261	26	3	99	110	35	1209
Total	2	173	893	601	0	111	549	222	4	171	885	131	6	382	481	193	4804
Grand Total	4	732	3236	2030	0	336	2025	979	9	582	3492	583	7	1708	2373	711	18807
Apprch %	0.1	12.2	53.9	33.8	0	10.1	60.6	29.3	0.2	12.5	74.8	12.5	0.1	35.6	49.4	14.8	
Total %	0	3.9	17.2	10.8	0	1.8	10.8	5.2	0	3.1	18.6	3.1	0	9.1	12.6	3.8	
LIGHT VEHICLES	4	722	3199	2004	0	331	1996	968	9	576	3415	571	7	1674	2340	696	18512
% LIGHT VEHICLES	100	98.6	98.9	98.7	0	98.5	98.6	98.9	100	99	97.8	97.9	100	98	98.6	97.9	98.4
HEAVY VEHICLES	0	10	37	26	0	5	29	11	0	6	77	12	0	34	33	15	295
% HEAVY VEHICLES	0	1.4	1.1	1.3	0	1.5	1.4	1.1	0	1	2.2	2.1	0	2	1.4	2.1	1.6

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SOUTHGATE BOULEVARD & ROCK ISLAND ROAD
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : southgate & rock island
Site Code : 230081
Start Date : 5/9/2023
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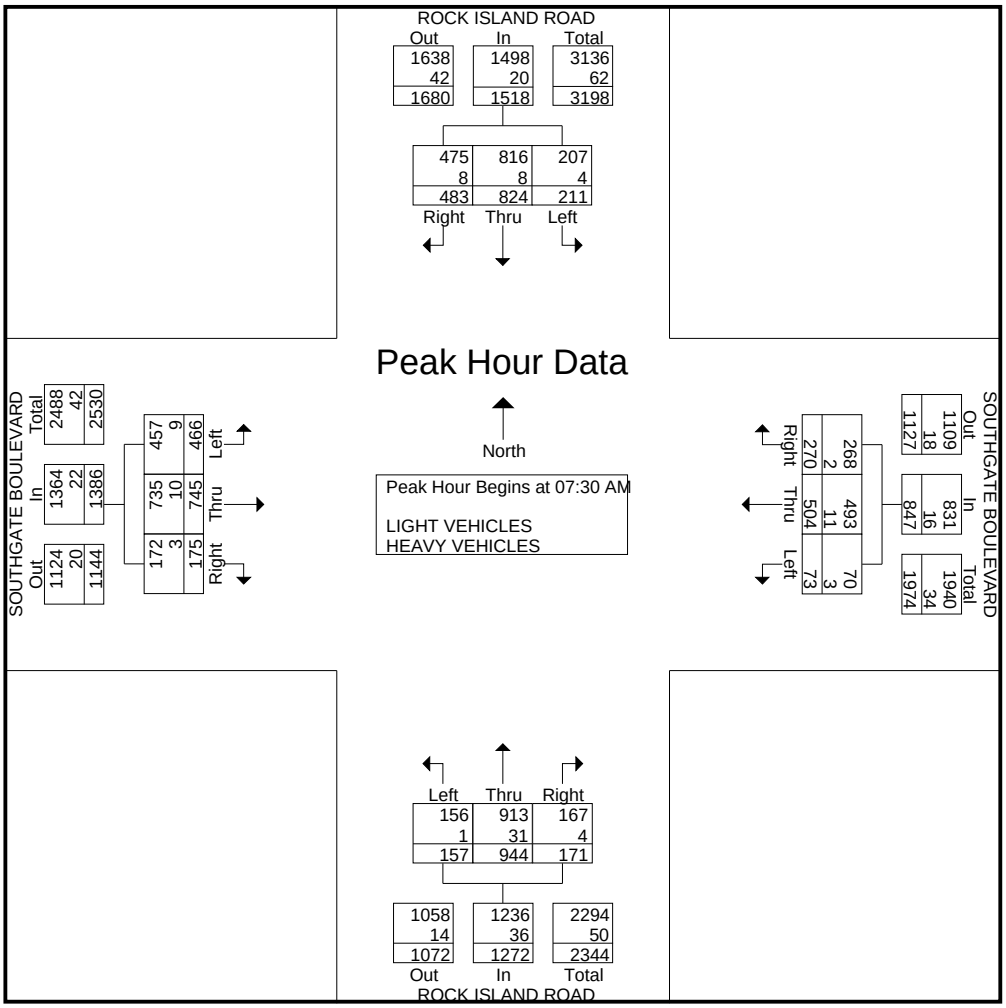
	ROCK ISLAND ROAD From North					SOUTHGATE BOULEVARD From East					ROCK ISLAND ROAD From South					SOUTHGATE BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	**63**	195	122	380	0	23	**153**	**90**	**266**	0	41	195	46	282	0	**132**	**222**	36	**390**	**1318**
07:45 AM	0	59	**226**	**145**	**430**	0	19	131	60	210	0	**45**	**267**	39	**351**	0	119	146	45	310	1301
08:00 AM	0	49	199	96	344	0	5	93	58	156	0	43	232	28	303	0	92	182	**56**	330	1133
08:15 AM	0	40	204	120	364	0	**26**	127	62	215	**1**	27	250	**58**	336	0	123	195	38	356	1271
Total Volume	0	211	824	483	1518	0	73	504	270	847	1	156	944	171	1272	0	466	745	175	1386	5023
% App. Total	0	13.9	54.3	31.8		0	8.6	59.5	31.9		0.1	12.3	74.2	13.4		0	33.6	53.8	12.6		
PHF	.000	.837	.912	.833	.883	.000	.702	.824	.750	.796	.250	.867	.884	.737	.906	.000	.883	.839	.781	.888	.953
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	98.1	99.0	98.3	98.7	0	95.9	97.8	99.3	98.1	100	99.4	96.7	97.7	97.2	0	98.1	98.7	98.3	98.4	98.1
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	1.9	1.0	1.7	1.3	0	4.1	2.2	0.7	1.9	0	0.6	3.3	2.3	2.8	0	1.9	1.3	1.7	1.6	1.9



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SOUTHGATE BOULEVARD & ROCK ISLAND ROAD
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : southgate & rock island
Site Code : 230081
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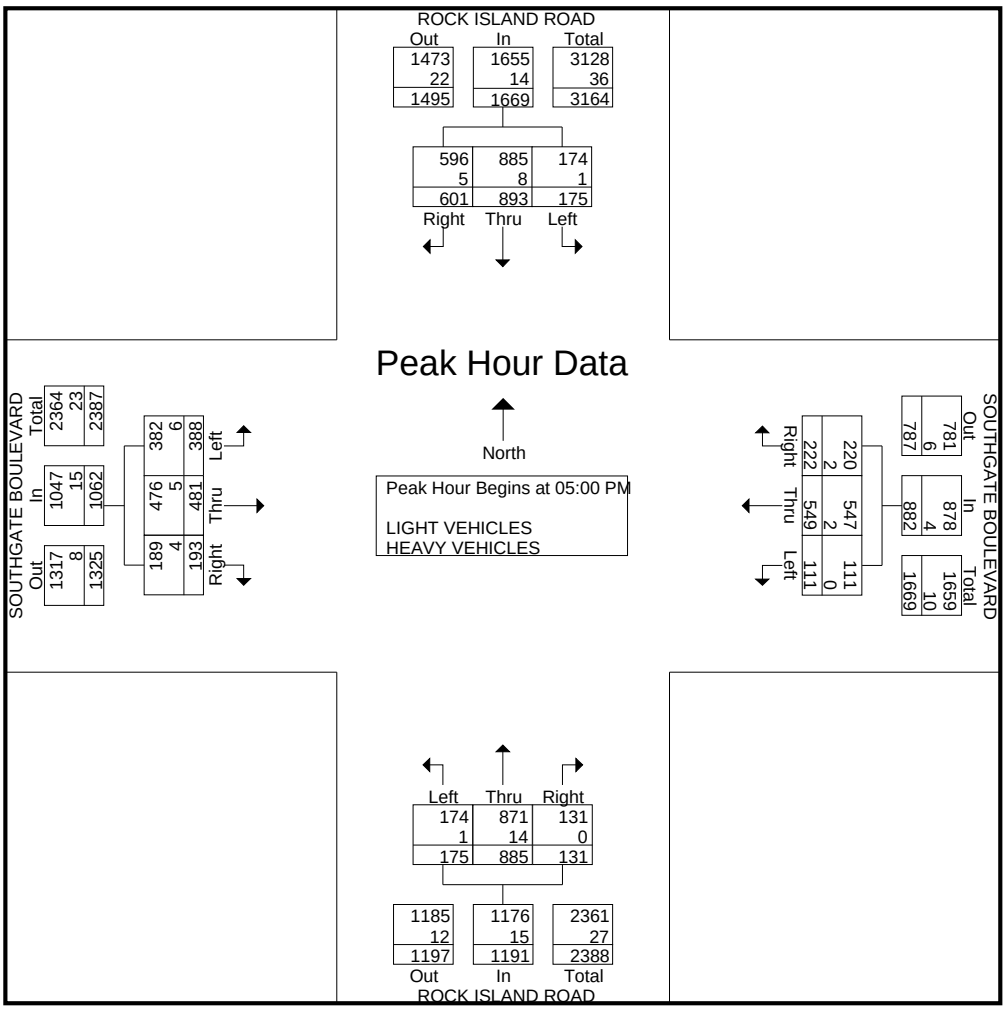
	ROCK ISLAND ROAD From North					SOUTHGATE BOULEVARD From East					ROCK ISLAND ROAD From South					SOUTHGATE BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	**52**	220	157	429	0	26	103	46	175	1	40	198	**38**	277	2	87	90	45	224	1105
05:15 PM	**1**	40	200	157	398	0	29	**165**	**64**	**258**	**3**	43	212	32	290	1	93	**144**	53	291	1237
05:30 PM	0	31	**242**	**158**	**431**	0	**31**	147	54	232	0	41	214	35	290	0	**103**	137	**60**	**300**	**1253**
05:45 PM	1	50	231	129	411	0	25	134	58	217	0	**47**	**261**	26	**334**	**3**	99	110	35	247	1209
Total Volume	2	173	893	601	1669	0	111	549	222	882	4	171	885	131	1191	6	382	481	193	1062	4804
% App. Total	0.1	10.4	53.5	36		0	12.6	62.2	25.2		0.3	14.4	74.3	11		0.6	36	45.3	18.2		
PHF	.500	.832	.923	.951	.968	.000	.895	.832	.867	.855	.333	.910	.848	.862	.891	.500	.927	.835	.804	.885	.958
LIGHT VEHICLES																					
% LIGHT VEHICLES	100	99.4	99.1	99.2	99.2	0	100	99.6	99.1	99.5	100	99.4	98.4	100	98.7	100	98.4	99.0	97.9	98.6	99.0
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0.6	0.9	0.8	0.8	0	0	0.4	0.9	0.5	0	0.6	1.6	0	1.3	0	1.6	1.0	2.1	1.4	1.0



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SOUTHGATE BOULEVARD & ROCK ISLAND ROAD
MARGATE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : southgate & rock island
Site Code : 230081
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Groups Printed- BICYCLES ON THE ROAD

	ROCK ISLAND ROAD From North				SOUTHGATE BOULEVARD From East				ROCK ISLAND ROAD From South				SOUTHGATE BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

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Groups Printed- PEDESTRIANS & BIKES

	ROCK ISLAND ROAD From North				SOUTHGATE BOULEVARD From East				ROCK ISLAND ROAD From South				SOUTHGATE BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	1	0	0	0	0	0	0	0	0	0	2	0	1	0	2	0	6
07:15 AM	0	0	0	0	0	0	0	0	2	0	1	0	1	0	2	0	6
07:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3
07:45 AM	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	4
Total	1	0	0	0	1	0	0	0	3	0	5	0	5	0	4	0	19
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3
Total	0	0	0	0	0	0	0	0	1	0	6	0	5	0	3	0	15
04:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	4
04:15 PM	4	0	1	0	2	0	1	0	1	0	1	0	2	0	1	0	13
04:30 PM	0	0	2	0	3	0	1	0	0	0	0	0	1	0	1	0	8
04:45 PM	0	0	0	0	0	0	0	0	7	0	1	0	1	0	1	0	10
Total	4	0	3	0	5	0	2	0	10	0	2	0	4	0	5	0	35
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	3	0	2	0	2	0	1	0	8
05:30 PM	0	0	1	0	0	0	0	0	2	0	2	0	1	0	1	0	7
05:45 PM	0	0	2	0	0	0	1	0	0	0	1	0	1	0	4	0	9
Total	0	0	3	0	0	0	1	0	6	0	5	0	4	0	6	0	25
Grand Total	5	0	6	0	6	0	3	0	20	0	18	0	18	0	18	0	94
Apprch %	45.5	0	54.5	0	66.7	0	33.3	0	52.6	0	47.4	0	50	0	50	0	
Total %	5.3	0	6.4	0	6.4	0	3.2	0	21.3	0	19.1	0	19.1	0	19.1	0	

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SW 7TH STREET & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : SW 7th St & Rock Island
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	ROCK ISLAND ROAD From North				SW 7TH STREET From East				ROCK ISLAND ROAD From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	9	187	17	0	17	9	17	5	15	180	3	0	32	8	21	520
07:15 AM	0	15	188	16	0	24	28	22	17	16	222	10	0	35	20	29	642
07:30 AM	1	32	331	13	0	26	13	32	18	15	238	8	0	36	23	30	816
07:45 AM	2	41	216	6	0	18	11	26	10	11	250	8	0	42	22	31	694
Total	3	97	922	52	0	85	61	97	50	57	890	29	0	145	73	111	2672
08:00 AM	0	30	199	8	0	14	4	21	4	12	248	9	0	22	7	17	595
08:15 AM	2	22	265	13	0	17	8	27	3	8	313	13	0	11	7	10	719
08:30 AM	0	13	202	7	0	18	13	28	0	11	274	8	0	19	5	14	612
08:45 AM	0	18	219	7	0	10	7	36	1	7	289	9	0	17	8	14	642
Total	2	83	885	35	0	59	32	112	8	38	1124	39	0	69	27	55	2568
04:00 PM	0	12	243	12	0	14	10	12	2	28	201	15	0	18	8	18	593
04:15 PM	1	10	259	15	0	11	11	19	2	21	232	25	0	15	8	14	643
04:30 PM	1	10	258	18	0	19	16	23	5	21	270	19	0	9	7	16	692
04:45 PM	0	12	234	22	0	16	12	19	5	30	223	25	0	18	7	22	645
Total	2	44	994	67	0	60	49	73	14	100	926	84	0	60	30	70	2573
05:00 PM	2	8	263	19	0	16	14	15	7	19	265	16	0	9	6	16	675
05:15 PM	1	15	238	17	0	23	13	17	6	28	268	12	0	23	13	27	701
05:30 PM	1	5	301	18	0	19	21	18	5	25	301	26	0	15	11	28	794
05:45 PM	2	11	258	20	0	30	13	24	15	42	253	26	0	21	6	21	742
Total	6	39	1060	74	0	88	61	74	33	114	1087	80	0	68	36	92	2912
Grand Total	13	263	3861	228	0	292	203	356	105	309	4027	232	0	342	166	328	10725
Apprch %	0.3	6	88.5	5.2	0	34.3	23.9	41.8	2.2	6.6	86.2	5	0	40.9	19.9	39.2	
Total %	0.1	2.5	36	2.1	0	2.7	1.9	3.3	1	2.9	37.5	2.2	0	3.2	1.5	3.1	
LIGHT VEHICLES	12	259	3812	223	0	287	196	349	101	300	3941	230	0	336	156	324	10526
% LIGHT VEHICLES	92.3	98.5	98.7	97.8	0	98.3	96.6	98	96.2	97.1	97.9	99.1	0	98.2	94	98.8	98.1
HEAVY VEHICLES	1	4	49	5	0	5	7	7	4	9	86	2	0	6	10	4	199
% HEAVY VEHICLES	7.7	1.5	1.3	2.2	0	1.7	3.4	2	3.8	2.9	2.1	0.9	0	1.8	6	1.2	1.9

Traffic Survey Specialists, Inc.

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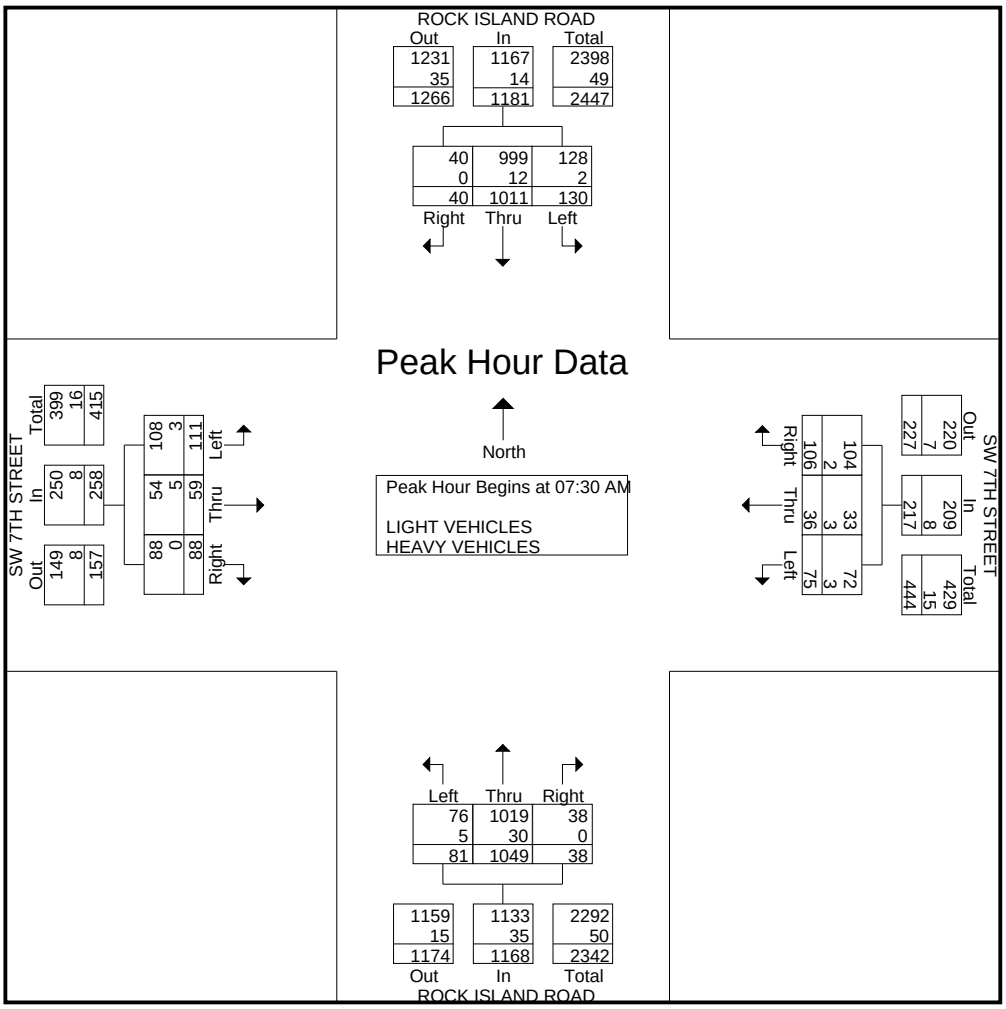
SW 7TH STREET & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : SW 7th St & Rock Island
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	ROCK ISLAND ROAD From North					SW 7TH STREET From East					ROCK ISLAND ROAD From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	32	**331**	**13**	**377**	0	**26**	**13**	**32**	**71**	**18**	**15**	238	8	279	0	36	**23**	30	89	**816**
07:45 AM	**2**	**41**	216	6	265	0	18	11	26	55	10	11	250	8	279	0	**42**	22	**31**	**95**	694
08:00 AM	0	30	199	8	237	0	14	4	21	39	4	12	248	9	273	0	22	7	17	46	595
08:15 AM	2	22	265	13	302	0	17	8	27	52	3	8	**313**	**13**	**337**	0	11	7	10	28	719
Total Volume	5	125	1011	40	1181	0	75	36	106	217	35	46	1049	38	1168	0	111	59	88	258	2824
% App. Total	0.4	10.6	85.6	3.4		0	34.6	16.6	48.8		3	3.9	89.8	3.3		0	43	22.9	34.1		
PHF	.625	.762	.764	.769	.783	.000	.721	.692	.828	.764	.486	.767	.838	.731	.866	.000	.661	.641	.710	.679	.865
LIGHT VEHICLES													1019								
% LIGHT VEHICLES	100	98.4	98.8	100	98.8	0	96.0	91.7	98.1	96.3	100	89.1	97.1	100	97.0	0	97.3	91.5	100	96.9	97.7
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	1.6	1.2	0	1.2	0	4.0	8.3	1.9	3.7	0	10.9	2.9	0	3.0	0	2.7	8.5	0	3.1	2.3



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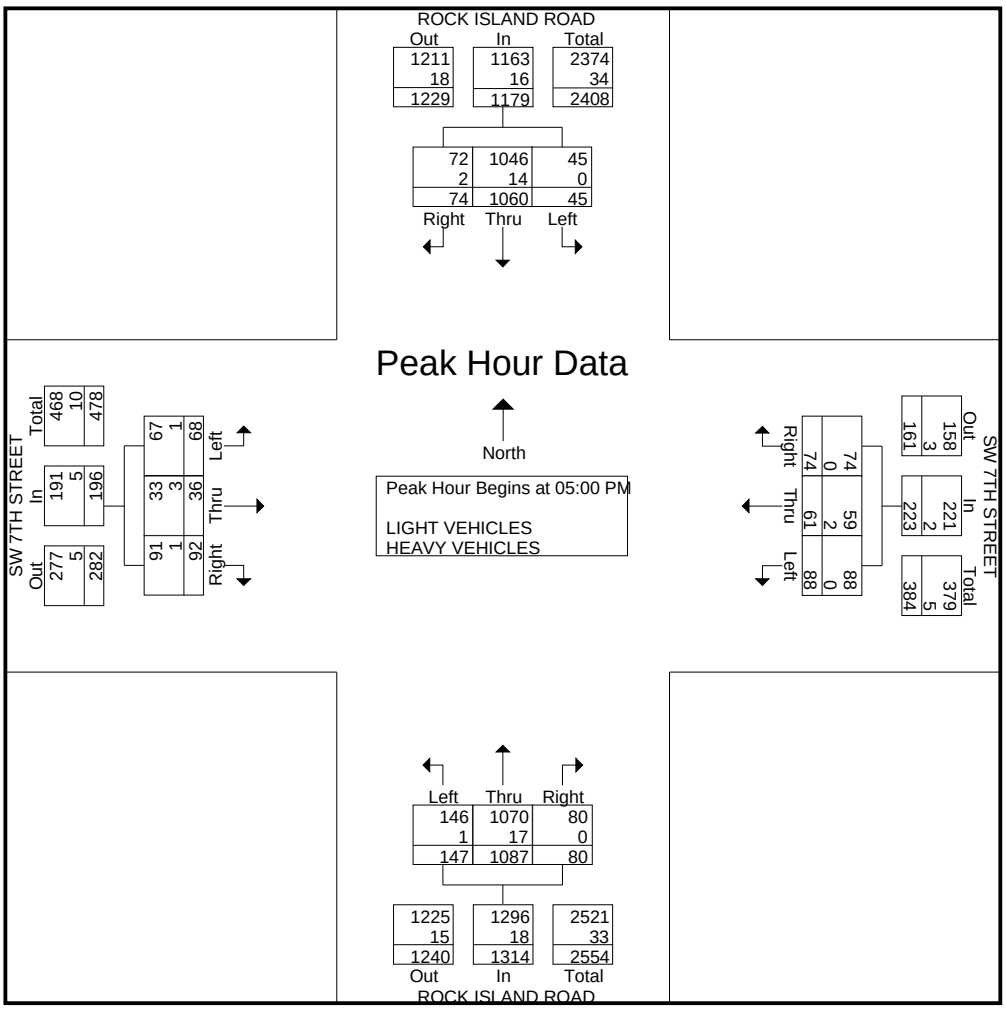
SW 7TH STREET & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : SW 7th St & Rock Island
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	ROCK ISLAND ROAD From North					SW 7TH STREET From East					ROCK ISLAND ROAD From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**2**	8	263	19	292	0	16	14	15	45	7	19	265	16	307	0	9	6	16	31	675
05:15 PM	1	**15**	238	17	271	0	23	13	17	53	6	28	268	12	314	0	**23**	**13**	27	**63**	701
05:30 PM	1	5	**301**	18	**325**	0	19	**21**	18	58	5	25	**301**	**26**	**357**	0	15	11	**28**	54	**794**
05:45 PM	2	11	258	**20**	291	0	**30**	13	**24**	**67**	**15**	**42**	253	26	336	0	21	6	21	48	742
Total Volume	6	39	1060	74	1179	0	88	61	74	223	33	114	1087	80	1314	0	68	36	92	196	2912
% App. Total	0.5	3.3	89.9	6.3		0	39.5	27.4	33.2		2.5	8.7	82.7	6.1		0	34.7	18.4	46.9		
PHF	.750	.650	.880	.925	.907	.000	.733	.726	.771	.832	.550	.679	.903	.769	.920	.000	.739	.692	.821	.778	.917
LIGHT VEHICLES			1046										1070								
% LIGHT VEHICLES	100	100	98.7	97.3	98.6	0	100	96.7	100	99.1	97.0	100	98.4	100	98.6	0	98.5	91.7	98.9	97.4	98.6
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	1.3	2.7	1.4	0	0	3.3	0	0.9	3.0	0	1.6	0	1.4	0	1.5	8.3	1.1	2.6	1.4



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SW 7TH STREET & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : SW 7th St & Rock Island
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	ROCK ISLAND ROAD From North				SW 7TH STREET From East				ROCK ISLAND ROAD From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	

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SW 7TH STREET & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : SW 7th St & Rock Island
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	ROCK ISLAND ROAD From North				SW 7TH STREET From East				ROCK ISLAND ROAD From South				SW 7TH STREET From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	1	0	2	0	0	0	0	0	2	0	0	0	0	0	1	0	6
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3
07:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3
07:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Total	4	0	3	0	0	0	0	0	2	0	0	0	1	0	4	0	14
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0	5
08:30 AM	1	0	0	0	1	0	0	0	1	0	0	0	1	0	2	0	6
08:45 AM	1	0	0	0	1	0	0	0	1	0	1	0	2	0	0	0	6
Total	2	0	0	0	2	0	0	0	2	0	1	0	8	0	4	0	19
04:00 PM	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
04:45 PM	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	4
Total	3	0	1	0	0	0	1	0	2	0	0	0	6	0	1	0	14
05:00 PM	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
05:30 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2
05:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	7
Total	4	0	3	0	0	0	0	0	2	0	0	0	5	0	1	0	15
Grand Total	13	0	7	0	2	0	1	0	8	0	1	0	20	0	10	0	62
Apprch %	65	0	35	0	66.7	0	33.3	0	88.9	0	11.1	0	66.7	0	33.3	0	
Total %	21	0	11.3	0	3.2	0	1.6	0	12.9	0	1.6	0	32.3	0	16.1	0	

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KIMBERLY BOULEVARD & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly & rock island
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	ROCK ISLAND ROAD From North				KIMBERLY BOULEVARD From East				ROCK ISLAND ROAD From South				KIMBERLY BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	2	5	175	18	0	29	9	28	2	12	164	21	0	23	19	13	520
07:15 AM	6	12	198	18	0	36	28	32	1	21	222	22	0	18	26	31	671
07:30 AM	10	16	239	23	0	40	41	25	7	16	251	25	1	21	34	24	773
07:45 AM	6	23	202	26	0	38	34	36	4	16	226	22	0	24	38	32	727
Total	24	56	814	85	0	143	112	121	14	65	863	90	1	86	117	100	2691
08:00 AM	2	24	228	12	0	28	23	20	0	9	241	28	0	24	25	30	694
08:15 AM	0	30	232	19	0	23	10	26	0	10	286	37	1	23	20	13	730
08:30 AM	2	20	200	22	1	44	16	36	0	12	231	18	0	25	24	20	671
08:45 AM	1	24	203	18	0	26	12	28	0	4	260	26	0	18	20	18	658
Total	5	98	863	71	1	121	61	110	0	35	1018	109	1	90	89	81	2753
04:00 PM	3	32	221	29	0	34	33	28	0	12	204	46	0	17	22	11	692
04:15 PM	2	33	218	31	1	34	28	35	1	20	212	53	0	23	24	18	733
04:30 PM	1	21	272	24	0	29	30	42	0	21	254	40	0	17	21	16	788
04:45 PM	1	26	217	37	0	36	32	34	0	17	219	51	0	22	19	15	726
Total	7	112	928	121	1	133	123	139	1	70	889	190	0	79	86	60	2939
05:00 PM	3	21	231	26	0	38	47	49	2	18	239	56	0	22	29	20	801
05:15 PM	2	37	236	35	0	38	33	42	0	16	261	43	0	22	16	19	800
05:30 PM	3	51	255	33	0	40	56	66	0	30	252	74	0	29	21	12	922
05:45 PM	9	24	264	40	0	36	44	44	0	28	237	53	0	30	22	24	855
Total	17	133	986	134	0	152	180	201	2	92	989	226	0	103	88	75	3378
Grand Total	53	399	3591	411	2	549	476	571	17	262	3759	615	2	358	380	316	11761
Apprch %	1.2	9	80.6	9.2	0.1	34.4	29.8	35.7	0.4	5.6	80.8	13.2	0.2	33.9	36	29.9	
Total %	0.5	3.4	30.5	3.5	0	4.7	4	4.9	0.1	2.2	32	5.2	0	3	3.2	2.7	
LIGHT VEHICLES	53	395	3535	404	2	545	467	564	16	256	3671	611	2	351	363	306	11541
% LIGHT VEHICLES	100	99	98.4	98.3	100	99.3	98.1	98.8	94.1	97.7	97.7	99.3	100	98	95.5	96.8	98.1
HEAVY VEHICLES	0	4	56	7	0	4	9	7	1	6	88	4	0	7	17	10	220
% HEAVY VEHICLES	0	1	1.6	1.7	0	0.7	1.9	1.2	5.9	2.3	2.3	0.7	0	2	4.5	3.2	1.9

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KIMBERLY BOULEVARD & ROCK ISLAND ROAD
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VIDEO COUNT
SIGNALIZED

File Name : kimberly & rock island
Site Code : 230081
Start Date : 5/9/2023
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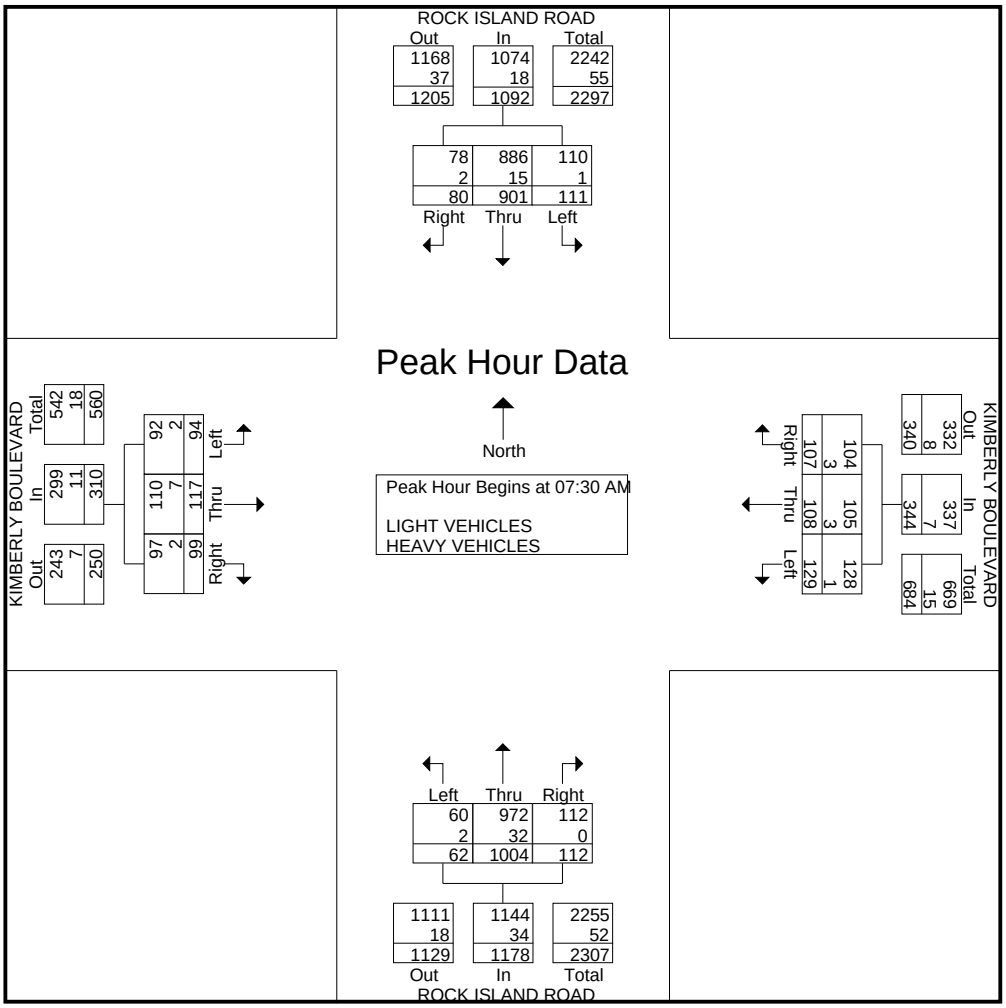
	ROCK ISLAND ROAD From North					KIMBERLY BOULEVARD From East					ROCK ISLAND ROAD From South					KIMBERLY BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**10**	16	**239**	23	**288**	0	**40**	**41**	25	106	**7**	**16**	251	25	299	**1**	21	34	24	80	**773**
07:45 AM	6	23	202	**26**	257	0	38	34	**36**	**108**	4	16	226	22	268	0	**24**	**38**	**32**	**94**	727
08:00 AM	2	24	228	12	266	0	28	23	20	71	0	9	241	28	278	0	24	25	30	79	694
08:15 AM	0	**30**	232	19	281	0	23	10	26	59	0	10	**286**	**37**	**333**	1	23	20	13	57	730
Total Volume	18	93	901	80	1092	0	129	108	107	344	11	51	1004	112	1178	2	92	117	99	310	2924
% App. Total	1.6	8.5	82.5	7.3		0	37.5	31.4	31.1		0.9	4.3	85.2	9.5		0.6	29.7	37.7	31.9		
PHF	.450	.775	.942	.769	.948	.000	.806	.659	.743	.796	.393	.797	.878	.757	.884	.500	.958	.770	.773	.824	.946
LIGHT VEHICLES																					
% LIGHT VEHICLES	100	98.9	98.3	97.5	98.4	0	99.2	97.2	97.2	98.0	100	96.1	96.8	100	97.1	100	97.8	94.0	98.0	96.5	97.6
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	1.1	1.7	2.5	1.6	0	0.8	2.8	2.8	2.0	0	3.9	3.2	0	2.9	0	2.2	6.0	2.0	3.5	2.4



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File Name : kimberly & rock island
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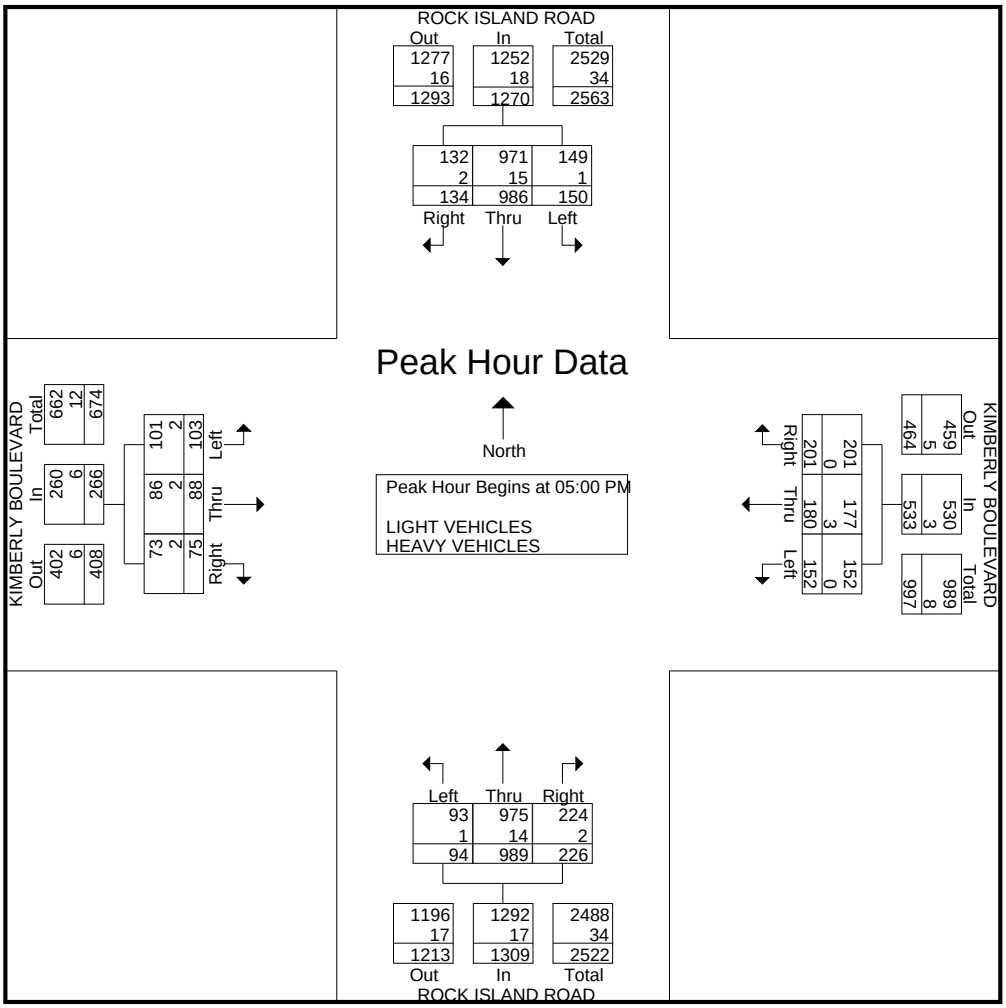
	ROCK ISLAND ROAD From North					KIMBERLY BOULEVARD From East					ROCK ISLAND ROAD From South					KIMBERLY BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	3	21	231	26	281	0	38	47	49	134	**2**	18	239	56	315	0	22	**29**	20	71	801
05:15 PM	2	37	236	35	310	0	38	33	42	113	0	16	**261**	43	320	0	22	16	19	57	800
05:30 PM	3	**51**	255	33	**342**	0	**40**	**56**	**66**	**162**	0	**30**	252	**74**	**356**	0	29	21	12	62	**922**
05:45 PM	**9**	24	**264**	**40**	337	0	36	44	44	124	0	28	237	53	318	0	**30**	22	**24**	**76**	855
Total Volume	17	133	986	134	1270	0	152	180	201	533	2	92	989	226	1309	0	103	88	75	266	3378
% App. Total	1.3	10.5	77.6	10.6		0	28.5	33.8	37.7		0.2	7	75.6	17.3		0	38.7	33.1	28.2		
PHF	.472	.652	.934	.838	.928	.000	.950	.804	.761	.823	.250	.767	.947	.764	.919	.000	.858	.759	.781	.875	.916
LIGHT VEHICLES																					
% LIGHT VEHICLES	100	99.2	98.5	98.5	98.6	0	100	98.3	100	99.4	50.0	100	98.6	99.1	98.7	0	98.1	97.7	97.3	97.7	98.7
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0.8	1.5	1.5	1.4	0	0	1.7	0	0.6	50.0	0	1.4	0.9	1.3	0	1.9	2.3	2.7	2.3	1.3



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NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly & rock island
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- BICYCLES ON THE ROAD

	ROCK ISLAND ROAD From North				KIMBERLY BOULEVARD From East				ROCK ISLAND ROAD From South				KIMBERLY BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	4
Apprch %	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	
Total %	0	0	25	0	0	0	0	0	0	0	0	0	0	0	75	0	

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Phone (561) 272-3255

KIMBERLY BOULEVARD & ROCK ISLAND ROAD
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
SIGNALIZED

File Name : kimberly & rock island
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- PEDESTRIANS & BIKES

	ROCK ISLAND ROAD From North				KIMBERLY BOULEVARD From East				ROCK ISLAND ROAD From South				KIMBERLY BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	7	0	1	0	0	0	1	0	3	0	0	0	18	0	1	0	31
07:15 AM	12	0	2	0	0	0	0	0	17	0	3	0	26	0	1	0	61
07:30 AM	39	0	0	0	0	0	0	0	6	0	0	0	58	0	0	0	103
07:45 AM	35	0	0	0	0	0	0	0	7	0	3	0	44	0	1	0	90
Total	93	0	3	0	0	0	1	0	33	0	6	0	146	0	3	0	285
08:00 AM	9	0	0	0	0	0	0	0	2	0	0	0	12	0	2	0	25
08:15 AM	4	0	1	0	0	0	2	0	2	0	0	0	1	0	0	0	10
08:30 AM	6	0	0	0	0	0	0	0	7	0	0	0	8	0	2	0	23
08:45 AM	2	0	0	0	2	0	0	0	4	0	1	0	0	0	0	0	9
Total	21	0	1	0	2	0	2	0	15	0	1	0	21	0	4	0	67
04:00 PM	7	0	1	0	3	0	0	0	11	0	0	0	9	0	0	0	31
04:15 PM	0	0	0	0	0	0	0	0	8	0	0	0	2	0	0	0	10
04:30 PM	7	0	0	0	0	0	0	0	6	0	1	0	0	0	0	0	14
04:45 PM	6	0	0	0	0	0	0	0	2	0	1	0	1	0	0	0	10
Total	20	0	1	0	3	0	0	0	27	0	2	0	12	0	0	0	65
05:00 PM	2	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	7
05:15 PM	5	0	1	0	1	0	0	0	2	0	0	0	1	0	2	0	12
05:30 PM	0	0	0	0	0	0	0	0	2	0	3	0	3	0	0	0	8
05:45 PM	2	0	1	0	0	0	0	0	3	0	1	0	6	0	0	0	13
Total	9	0	3	0	1	0	0	0	11	0	4	0	10	0	2	0	40
Grand Total	143	0	8	0	6	0	3	0	86	0	13	0	189	0	9	0	457
Apprch %	94.7	0	5.3	0	66.7	0	33.3	0	86.9	0	13.1	0	95.5	0	4.5	0	
Total %	31.3	0	1.8	0	1.3	0	0.7	0	18.8	0	2.8	0	41.4	0	2	0	

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SW 7TH STREET & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 64 terr
Site Code : 230081
Start Date : 5/9/2023
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Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SW 64TH TERRACE From North				SW 7TH STREET From East				SW 64TH TERRACE From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	6	2	1	0	6	16	2	0	13	7	10	0	2	27	2	94
07:15 AM	0	1	3	1	0	5	34	4	0	14	5	8	0	0	39	3	117
07:30 AM	0	3	3	3	0	6	32	4	0	17	6	11	0	2	56	14	157
07:45 AM	0	5	2	2	0	4	35	1	0	4	3	11	0	1	56	7	131
Total	0	15	10	7	0	21	117	11	0	48	21	40	0	5	178	26	499
08:00 AM	0	4	5	5	0	3	27	4	0	8	4	10	0	3	45	12	130
08:15 AM	0	6	2	5	0	2	34	3	0	6	3	7	0	2	31	6	107
08:30 AM	0	1	4	3	0	7	49	6	0	4	1	11	0	1	27	5	119
08:45 AM	0	3	4	2	1	2	48	2	0	7	6	15	0	1	37	3	131
Total	0	14	15	15	1	14	158	15	0	25	14	43	0	7	140	26	487
04:00 PM	0	4	4	2	0	13	29	1	0	7	1	5	0	1	20	8	95
04:15 PM	0	2	3	3	0	12	26	1	0	8	6	8	0	5	23	7	104
04:30 PM	0	2	1	0	0	14	49	1	0	8	5	8	0	1	28	3	120
04:45 PM	0	1	5	1	0	8	41	2	0	4	9	5	0	2	32	5	115
Total	0	9	13	6	0	47	145	5	0	27	21	26	0	9	103	23	434
05:00 PM	0	2	3	1	0	10	40	2	0	8	8	12	0	3	22	7	118
05:15 PM	0	2	6	3	0	7	41	3	0	5	4	11	0	3	25	9	119
05:30 PM	0	2	2	3	0	18	53	5	0	9	4	10	0	6	25	5	142
05:45 PM	0	1	3	2	0	14	55	7	0	10	6	15	0	2	34	5	154
Total	0	7	14	9	0	49	189	17	0	32	22	48	0	14	106	26	533
Grand Total	0	45	52	37	1	131	609	48	0	132	78	157	0	35	527	101	1953
Apprch %	0	33.6	38.8	27.6	0.1	16.6	77.2	6.1	0	36	21.3	42.8	0	5.3	79.5	15.2	
Total %	0	2.3	2.7	1.9	0.1	6.7	31.2	2.5	0	6.8	4	8	0	1.8	27	5.2	
LIGHT VEHICLES	0	44	52	35	1	127	595	48	0	130	75	155	0	35	515	100	1912
% LIGHT VEHICLES	0	97.8	100	94.6	100	96.9	97.7	100	0	98.5	96.2	98.7	0	100	97.7	99	97.9
HEAVY VEHICLES	0	1	0	2	0	4	14	0	0	2	3	2	0	0	12	1	41
% HEAVY VEHICLES	0	2.2	0	5.4	0	3.1	2.3	0	0	1.5	3.8	1.3	0	0	2.3	1	2.1

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SW 7TH STREET & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 64 terr
Site Code : 230081
Start Date : 5/9/2023
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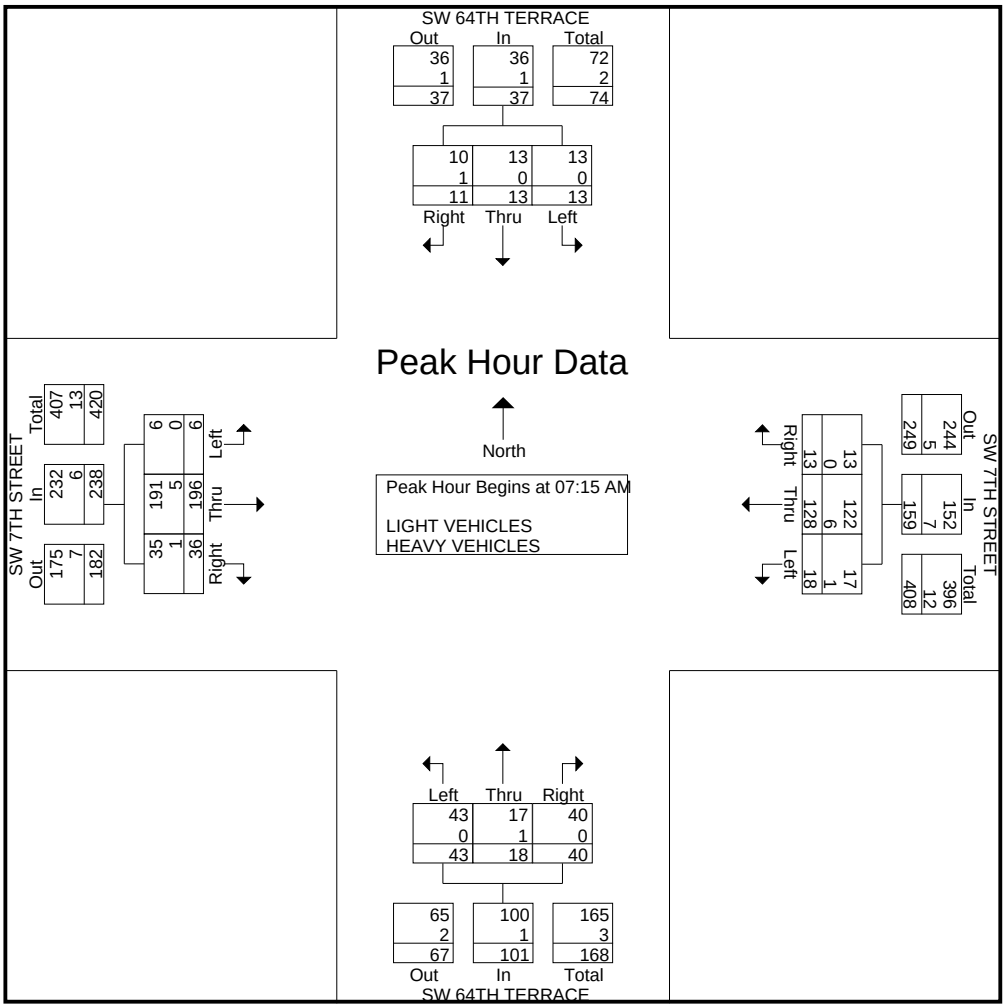
	SW 64TH TERRACE From North					SW 7TH STREET From East					SW 64TH TERRACE From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	1	3	1	5	0	5	34	**4**	**43**	0	14	5	8	27	0	0	39	3	42	117
07:30 AM	0	3	3	3	9	0	**6**	32	4	42	0	**17**	**6**	**11**	**34**	0	2	**56**	**14**	**72**	**157**
07:45 AM	0	**5**	2	2	9	0	4	**35**	1	40	0	4	3	11	18	0	1	56	7	64	131
08:00 AM	0	4	**5**	**5**	**14**	0	3	27	4	34	0	8	4	10	22	0	**3**	45	12	60	130
Total Volume	0	13	13	11	37	0	18	128	13	159	0	43	18	40	101	0	6	196	36	238	535
% App. Total	0	35.1	35.1	29.7		0	11.3	80.5	8.2		0	42.6	17.8	39.6		0	2.5	82.4	15.1		
PHF	.000	.650	.650	.550	.661	.000	.750	.914	.813	.924	.000	.632	.750	.909	.743	.000	.500	.875	.643	.826	.852
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	100	100	90.9	97.3	0	94.4	95.3	100	95.6	0	100	94.4	100	99.0	0	100	97.4	97.2	97.5	97.2
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	9.1	2.7	0	5.6	4.7	0	4.4	0	0	5.6	0	1.0	0	0	2.6	2.8	2.5	2.8



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SW 7TH STREET & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

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Site Code : 230081
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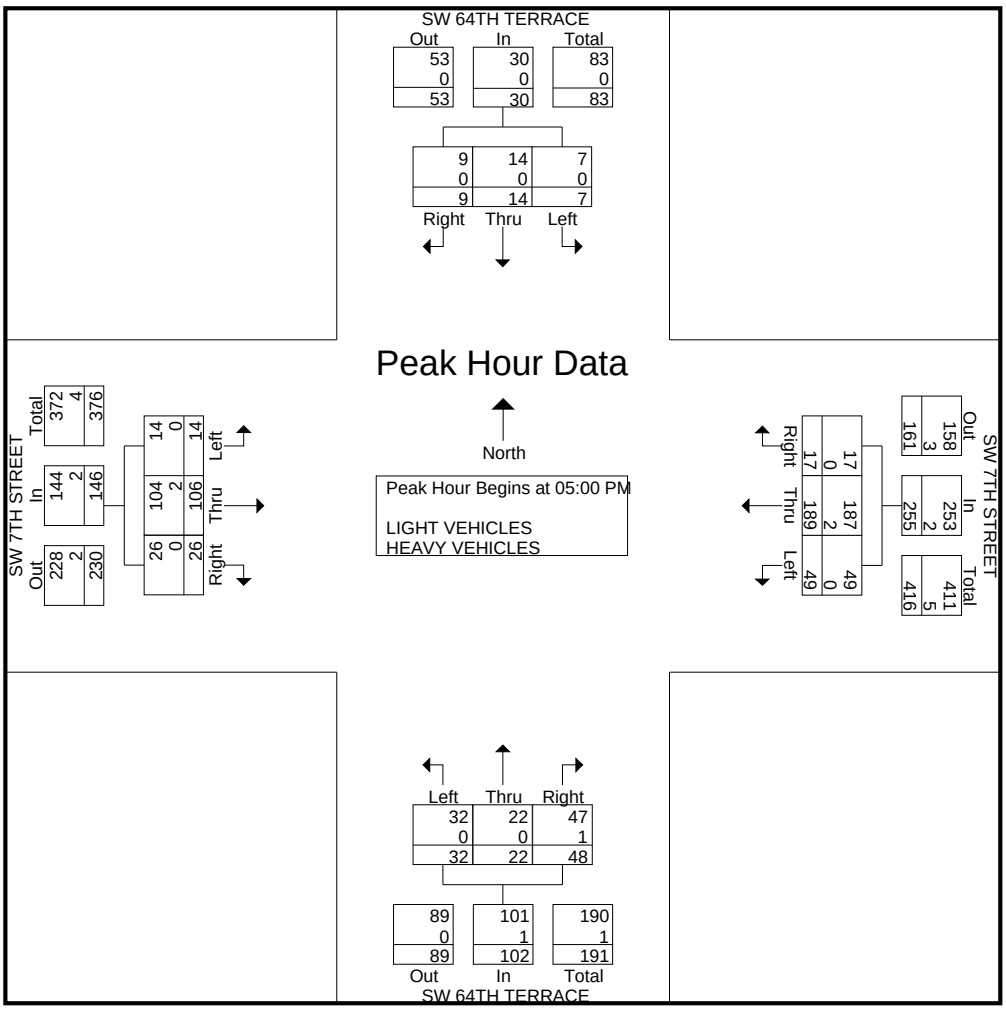
	SW 64TH TERRACE From North					SW 7TH STREET From East					SW 64TH TERRACE From South					SW 7TH STREET From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	**2**	3	1	6	0	10	40	2	52	0	8	**8**	12	28	0	3	22	7	32	118
05:15 PM	0	2	**6**	**3**	**11**	0	7	41	3	51	0	5	4	11	20	0	3	25	**9**	37	119
05:30 PM	0	2	2	3	7	0	**18**	53	5	**76**	0	9	4	10	23	0	**6**	25	5	36	142
05:45 PM	0	1	3	2	6	0	14	**55**	**7**	76	0	**10**	6	**15**	**31**	0	2	**34**	5	**41**	**154**
Total Volume	0	7	14	9	30	0	49	189	17	255	0	32	22	48	102	0	14	106	26	146	533
% App. Total	0	23.3	46.7	30		0	19.2	74.1	6.7		0	31.4	21.6	47.1		0	9.6	72.6	17.8		
PHF	.000	.875	.583	.750	.682	.000	.681	.859	.607	.839	.000	.800	.688	.800	.823	.000	.583	.779	.722	.890	.865
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	100	100	100	100	0	100	98.9	100	99.2	0	100	100	97.9	99.0	0	100	98.1	100	98.6	99.1
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	1.1	0	0.8	0	0	0	2.1	1.0	0	0	1.9	0	1.4	0.9



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SW 7TH STREET & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : sw 7 street & sw 64 terr
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Groups Printed- BICYCLES ON THE ROAD

	SW 64TH TERRACE From North				SW 7TH STREET From East				SW 64TH TERRACE From South				SW 7TH STREET From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Apprch %	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	
Total %	0	0	50	0	0	0	0	0	0	0	0	0	0	0	50	0	

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Groups Printed- PEDESTRIANS & BIKES

	SW 64TH TERRACE From North				SW 7TH STREET From East				SW 64TH TERRACE From South				SW 7TH STREET From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
07:15 AM	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
07:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	3	0	0	0	0	0	0	0	6	0	0	0	1	0	0	0	10
08:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
08:15 AM	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
08:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Total	3	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	7
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	1	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	6
04:45 PM	3	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	6
Total	4	0	0	0	1	0	0	0	4	0	1	0	3	0	0	0	13
05:00 PM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	4
05:45 PM	0	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	5
Total	4	0	3	0	0	0	0	0	6	0	0	0	1	0	0	0	14
Grand Total	14	0	3	0	4	0	0	0	17	0	1	0	5	0	0	0	44
Apprch %	82.4	0	17.6	0	100	0	0	0	94.4	0	5.6	0	100	0	0	0	
Total %	31.8	0	6.8	0	9.1	0	0	0	38.6	0	2.3	0	11.4	0	0	0	

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KIMBERLY BOULEVARD & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : kimberly & sw 64 terrace
Site Code : 230081
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Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SW 64TH TERRACE From North				KIMBERLY BOULEVARD From East				SW 64TH TERRACE From South				KIMBERLY BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	6	2	2	0	1	22	2	0	6	9	3	2	0	39	3	97
07:15 AM	0	8	2	6	0	0	48	6	0	14	12	4	2	0	50	6	158
07:30 AM	0	9	5	6	0	0	47	11	0	14	12	6	0	3	77	8	198
07:45 AM	0	6	4	5	0	2	46	5	0	14	2	5	0	3	45	9	146
Total	0	29	13	19	0	3	163	24	0	48	35	18	4	6	211	26	599
08:00 AM	0	12	5	3	0	0	30	5	0	9	11	3	0	2	67	5	152
08:15 AM	0	10	2	0	1	2	45	5	0	6	2	4	1	3	70	8	159
08:30 AM	0	4	2	5	0	3	49	7	0	10	4	4	1	3	48	6	146
08:45 AM	0	9	2	2	0	1	45	2	0	3	9	3	2	4	52	5	139
Total	0	35	11	10	1	6	169	19	0	28	26	14	4	12	237	24	596
04:00 PM	0	6	4	2	1	1	70	6	0	14	19	6	1	5	63	8	206
04:15 PM	1	3	3	2	0	1	57	8	0	22	11	5	0	0	57	22	192
04:30 PM	0	6	9	6	2	2	69	9	0	19	10	6	2	2	57	21	220
04:45 PM	0	5	3	3	1	0	69	7	0	14	10	5	0	5	45	18	185
Total	1	20	19	13	4	4	265	30	0	69	50	22	3	12	222	69	803
05:00 PM	0	5	4	6	0	2	92	8	0	24	17	9	1	0	50	21	239
05:15 PM	0	6	7	6	0	2	58	9	1	34	12	9	1	5	52	12	214
05:30 PM	0	2	7	7	0	4	93	10	0	45	7	5	3	4	90	31	308
05:45 PM	0	7	4	1	0	3	84	10	1	33	21	8	1	3	64	21	261
Total	0	20	22	20	0	11	327	37	2	136	57	31	6	12	256	85	1022
Grand Total	1	104	65	62	5	24	924	110	2	281	168	85	17	42	926	204	3020
Apprch %	0.4	44.8	28	26.7	0.5	2.3	86.9	10.3	0.4	52.4	31.3	15.9	1.4	3.5	77.9	17.2	
Total %	0	3.4	2.2	2.1	0.2	0.8	30.6	3.6	0.1	9.3	5.6	2.8	0.6	1.4	30.7	6.8	
LIGHT VEHICLES	1	104	63	61	5	22	910	110	2	281	164	83	17	36	907	201	2967
% LIGHT VEHICLES	100	100	96.9	98.4	100	91.7	98.5	100	100	100	97.6	97.6	100	85.7	97.9	98.5	98.2
HEAVY VEHICLES	0	0	2	1	0	2	14	0	0	0	4	2	0	6	19	3	53
% HEAVY VEHICLES	0	0	3.1	1.6	0	8.3	1.5	0	0	0	2.4	2.4	0	14.3	2.1	1.5	1.8

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KIMBERLY BOULEVARD & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : kimberly & sw 64 terrace
Site Code : 230081
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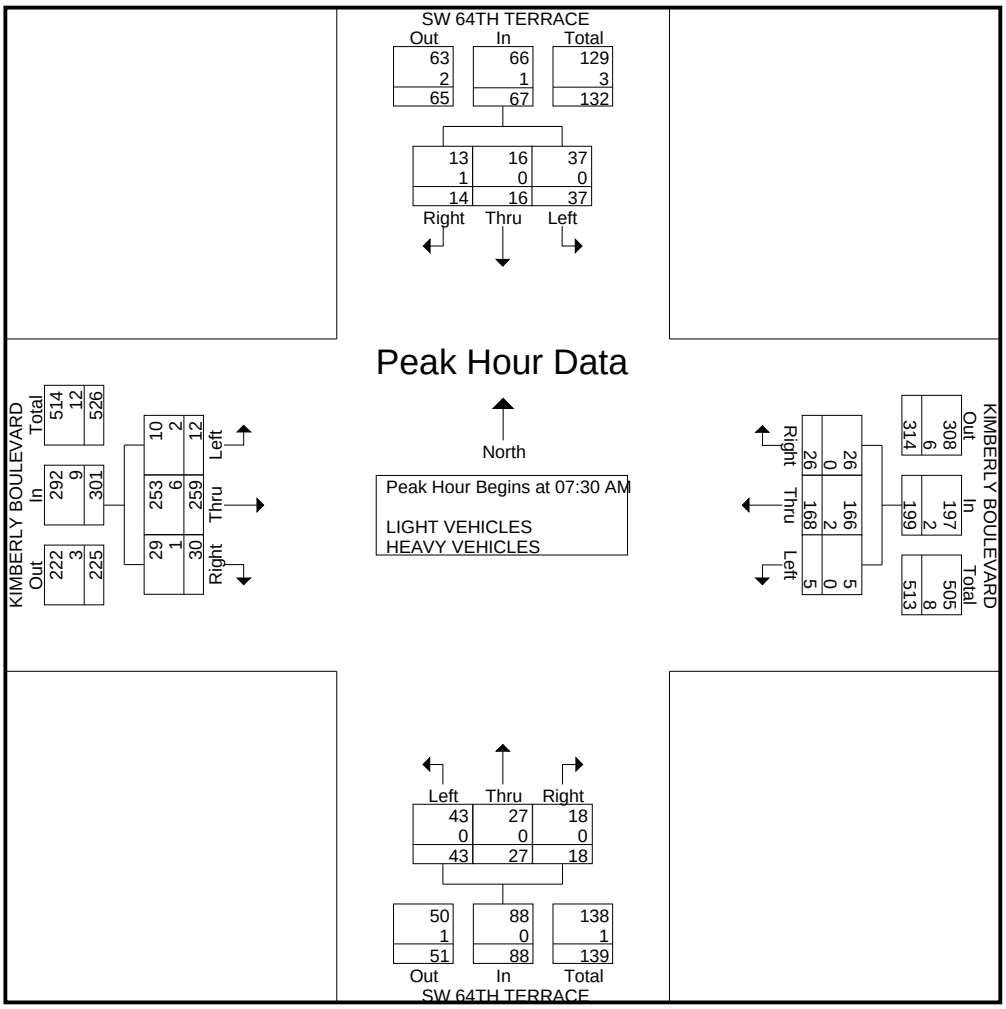
Page No : 2

	SW 64TH TERRACE From North					KIMBERLY BOULEVARD From East					SW 64TH TERRACE From South					KIMBERLY BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	9	**5**	**6**	**20**	0	0	**47**	**11**	**58**	0	**14**	**12**	**6**	**32**	0	**3**	**77**	8	**88**	**198**
07:45 AM	0	6	4	5	15	0	**2**	46	5	53	0	14	2	5	21	0	3	45	**9**	57	146
08:00 AM	0	**12**	5	3	20	0	0	30	5	35	0	9	11	3	23	0	2	67	5	74	152
08:15 AM	0	10	2	0	12	**1**	2	45	5	53	0	6	2	4	12	**1**	3	70	8	82	159
Total Volume	0	37	16	14	67	1	4	168	26	199	0	43	27	18	88	1	11	259	30	301	655
% App. Total	0	55.2	23.9	20.9		0.5	2	84.4	13.1		0	48.9	30.7	20.5		0.3	3.7	86	10		
PHF	.000	.771	.800	.583	.838	.250	.500	.894	.591	.858	.000	.768	.563	.750	.688	.250	.917	.841	.833	.855	.827
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	100	100	92.9	98.5	100	100	98.8	100	99.0	0	100	100	100	100	100	81.8	97.7	96.7	97.0	98.2
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	7.1	1.5	0	0	1.2	0	1.0	0	0	0	0	0	0	18.2	2.3	3.3	3.0	1.8

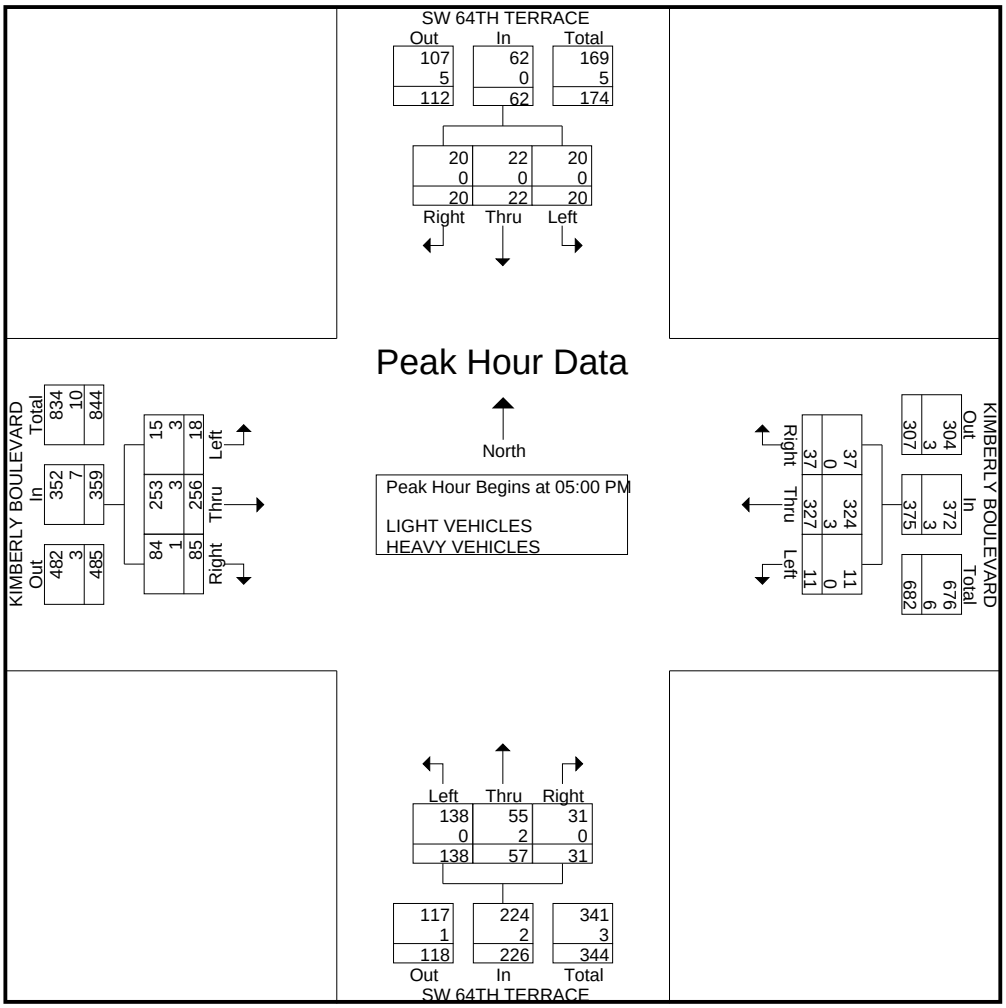


Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

KIMBERLY BOULEVARD & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : kimberly & sw 64 terrace
Site Code : 230081
Start Date : 5/9/2023

	SW 64TH TERRACE From North					KIMBERLY BOULEVARD From East					SW 64TH TERRACE From South					KIMBERLY BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	5	4	6	15	0	2	92	8	102	0	24	17	**9**	50	1	0	50	21	72	239
05:15 PM	0	6	**7**	6	**19**	0	2	58	9	69	**1**	34	12	9	56	1	**5**	52	12	70	214
05:30 PM	0	2	7	**7**	16	0	**4**	**93**	**10**	**107**	0	**45**	7	5	57	**3**	4	**90**	**31**	**128**	**308**
05:45 PM	0	**7**	4	1	12	0	3	84	10	97	1	33	**21**	8	**63**	1	3	64	21	89	261
Total Volume	0	20	22	20	62	0	11	327	37	375	2	136	57	31	226	6	12	256	85	359	1022
% App. Total	0	32.3	35.5	32.3		0	2.9	87.2	9.9		0.9	60.2	25.2	13.7		1.7	3.3	71.3	23.7		
PHF	.000	.714	.786	.714	.816	.000	.688	.879	.925	.876	.500	.756	.679	.861	.897	.500	.600	.711	.685	.701	.830
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	100	100	100	100	0	100	99.1	100	99.2	100	100	96.5	100	99.1	100	75.0	98.8	98.8	98.1	98.8
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	0.9	0	0.8	0	0	3.5	0	0.9	0	25.0	1.2	1.2	1.9	1.2



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KIMBERLY BOULEVARD & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : kimberly & sw 64 terrace
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	SW 64TH TERRACE From North				KIMBERLY BOULEVARD From East				SW 64TH TERRACE From South				KIMBERLY BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
07:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
04:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	1	0	0	2	1	0	0	0	0	0	0	0	2	0	6
05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	2	1	0	3	3	0	0	0	1	0	0	0	4	0	14
Apprch %	0	0	66.7	33.3	0	50	50	0	0	0	100	0	0	0	100	0	
Total %	0	0	14.3	7.1	0	21.4	21.4	0	0	0	7.1	0	0	0	28.6	0	

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KIMBERLY BOULEVARD & SW 64TH TERRACE
NORTH LAUDERDALE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : kimberly & sw 64 terrace
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SW 64TH TERRACE From North				KIMBERLY BOULEVARD From East				SW 64TH TERRACE From South				KIMBERLY BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:15 AM	4	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	8
07:30 AM	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4
07:45 AM	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	11	0	3	0	1	0	0	0	2	0	1	0	1	0	0	0	19
08:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:15 AM	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3
Total	7	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	10
04:00 PM	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
04:15 PM	6	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	8
04:30 PM	3	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	6
04:45 PM	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4
Total	13	0	2	0	1	0	0	0	1	0	4	0	0	0	0	0	21
05:00 PM	5	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	9
05:15 PM	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	6
05:30 PM	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:45 PM	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4
Total	11	0	5	0	5	0	0	0	1	0	1	0	0	0	0	0	23
Grand Total	42	0	11	0	7	0	0	0	5	0	7	0	1	0	0	0	73
Apprch %	79.2	0	20.8	0	100	0	0	0	41.7	0	58.3	0	100	0	0	0	
Total %	57.5	0	15.1	0	9.6	0	0	0	6.8	0	9.6	0	1.4	0	0	0	

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SOUTHGATE BOULEVARD & SW 61ST AVENUE
MARGATE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : southgate & sw 61 avenue
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- LIGHT VEHICLES - HEAVY VEHICLES

	SW 61ST AVENUE From North				SOUTHGATE BOULEVARD From East				SW 61ST AVENUE From South				SOUTHGATE BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00 AM	0	4	0	1	0	3	132	2	0	7	0	17	0	0	260	1	427
07:15 AM	0	1	1	2	0	3	168	1	0	10	0	8	1	0	245	3	443
07:30 AM	0	6	2	1	0	3	169	0	0	2	0	22	1	0	290	3	499
07:45 AM	0	6	0	1	0	2	161	2	0	9	0	12	0	0	269	9	471
Total	0	17	3	5	0	11	630	5	0	28	0	59	2	0	1064	16	1840
08:00 AM	0	0	0	0	0	2	117	3	0	8	0	16	0	0	216	1	363
08:15 AM	0	3	1	3	0	3	153	2	0	6	0	10	1	0	252	8	442
08:30 AM	0	2	0	1	0	2	158	5	0	3	0	16	1	0	196	4	388
08:45 AM	0	5	0	1	0	2	127	2	0	7	0	10	0	0	251	12	417
Total	0	10	1	5	0	9	555	12	0	24	0	52	2	0	915	25	1610
04:00 PM	0	4	0	0	0	2	181	4	0	4	0	7	2	1	137	1	343
04:15 PM	0	2	0	0	0	12	173	10	0	4	0	4	0	0	184	5	394
04:30 PM	0	4	0	2	0	7	224	7	0	4	1	7	0	1	179	4	440
04:45 PM	0	6	0	0	1	8	177	4	0	7	0	6	1	1	128	7	346
Total	0	16	0	2	1	29	755	25	0	19	1	24	3	3	628	17	1523
05:00 PM	0	3	0	0	0	6	197	8	0	3	3	12	1	1	149	6	389
05:15 PM	0	6	0	0	0	12	223	8	0	7	3	8	2	1	168	4	442
05:30 PM	0	2	0	2	0	2	229	10	0	3	1	5	1	0	169	5	429
05:45 PM	0	0	0	4	0	6	219	11	0	4	0	8	0	2	172	4	430
Total	0	11	0	6	0	26	868	37	0	17	7	33	4	4	658	19	1690
Grand Total	0	54	4	18	1	75	2808	79	0	88	8	168	11	7	3265	77	6663
Apprch %	0	71.1	5.3	23.7	0	2.5	94.8	2.7	0	33.3	3	63.6	0.3	0.2	97.2	2.3	
Total %	0	0.8	0.1	0.3	0	1.1	42.1	1.2	0	1.3	0.1	2.5	0.2	0.1	49	1.2	
LIGHT VEHICLES	0	53	4	16	1	75	2758	77	0	85	8	167	11	7	3218	77	6557
% LIGHT VEHICLES	0	98.1	100	88.9	100	100	98.2	97.5	0	96.6	100	99.4	100	100	98.6	100	98.4
HEAVY VEHICLES	0	1	0	2	0	0	50	2	0	3	0	1	0	0	47	0	106
% HEAVY VEHICLES	0	1.9	0	11.1	0	0	1.8	2.5	0	3.4	0	0.6	0	0	1.4	0	1.6

Traffic Survey Specialists, Inc.

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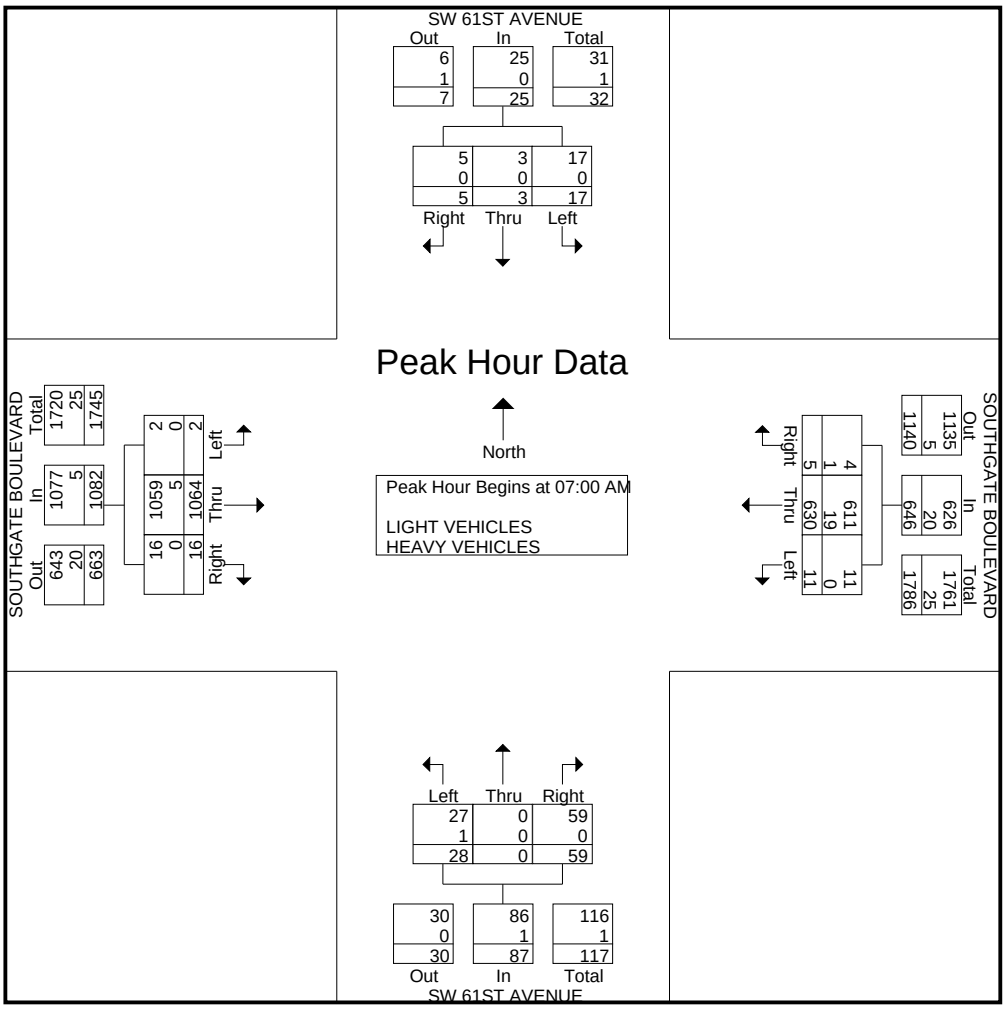
SOUTHGATE BOULEVARD & SW 61ST AVENUE
MARGATE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : southgate & sw 61 avenue
Site Code : 230081
Start Date : 5/9/2023
Page No : 2

	SW 61ST AVENUE From North					SOUTHGATE BOULEVARD From East					SW 61ST AVENUE From South					SOUTHGATE BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	4	0	1	5	0	**3**	132	**2**	137	0	7	0	17	**24**	0	0	260	1	261	427
07:15 AM	0	1	1	**2**	4	0	3	168	1	**172**	0	**10**	0	8	18	**1**	0	245	3	249	443
07:30 AM	0	**6**	**2**	1	**9**	0	3	**169**	0	172	0	2	0	**22**	24	1	0	**290**	3	**294**	**499**
07:45 AM	0	6	0	1	7	0	2	161	2	165	0	9	0	12	21	0	0	269	**9**	278	471
Total Volume	0	17	3	5	25	0	11	630	5	646	0	28	0	59	87	2	0	1064	16	1082	1840
% App. Total	0	68	12	20		0	1.7	97.5	0.8		0	32.2	0	67.8		0.2	0	98.3	1.5		
PHF	.000	.708	.375	.625	.694	.000	.917	.932	.625	.939	.000	.700	.000	.670	.906	.500	.000	.917	.444	.920	.922
LIGHT VEHICLES																		1059			
% LIGHT VEHICLES	0	100	100	100	100	0	100	97.0	80.0	96.9	0	96.4	0	100	98.9	100	0	99.5	100	99.5	98.6
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	3.0	20.0	3.1	0	3.6	0	0	1.1	0	0	0.5	0	0.5	1.4



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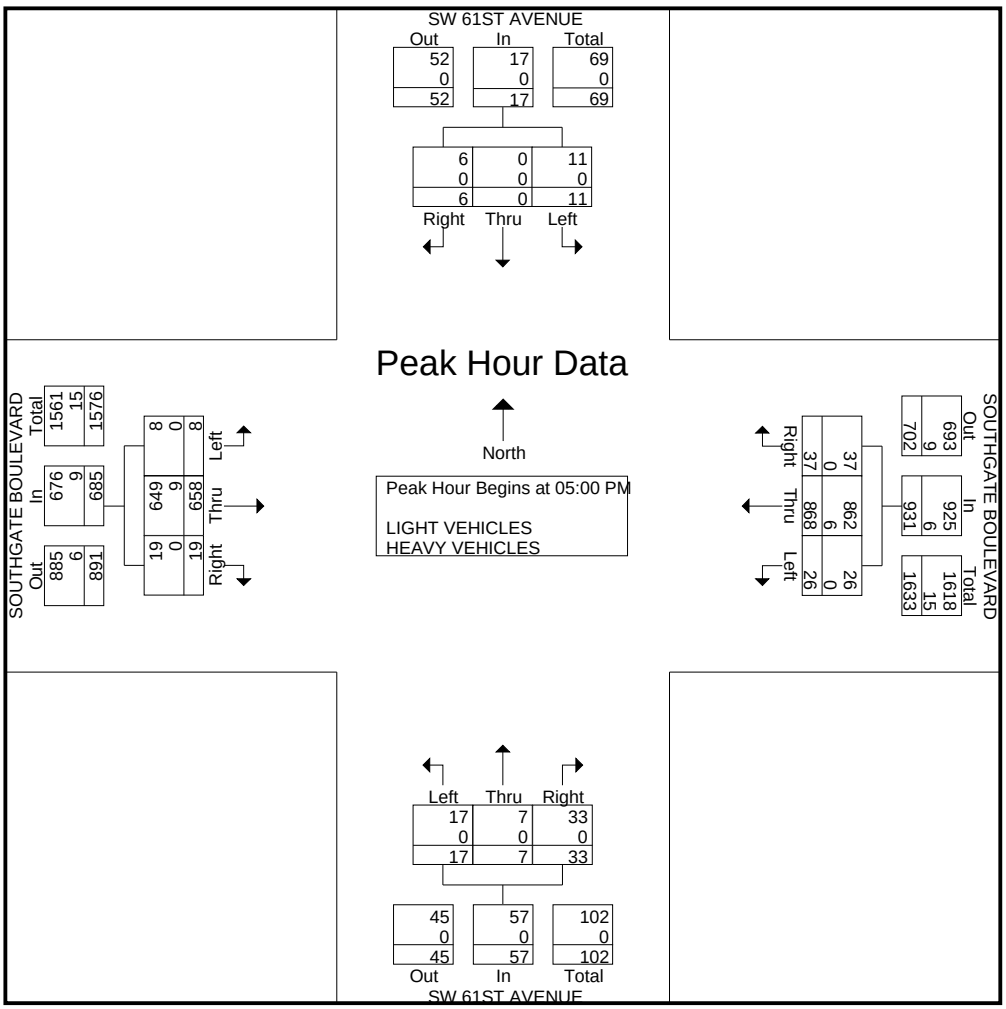
SOUTHGATE BOULEVARD & SW 61ST AVENUE
MARGATE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : southgate & sw 61 avenue
Site Code : 230081
Start Date : 5/9/2023
Page No : 3

	SW 61ST AVENUE From North					SOUTHGATE BOULEVARD From East					SW 61ST AVENUE From South					SOUTHGATE BOULEVARD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	3	0	0	3	0	6	197	8	211	0	3	**3**	**12**	**18**	1	1	149	**6**	157	389
05:15 PM	0	**6**	0	0	**6**	0	**12**	223	8	**243**	0	**7**	3	8	18	**2**	1	168	4	175	**442**
05:30 PM	0	2	0	2	4	0	2	**229**	10	241	0	3	1	5	9	1	0	169	5	175	429
05:45 PM	0	0	0	**4**	4	0	6	219	**11**	236	0	4	0	8	12	0	**2**	**172**	4	**178**	430
Total Volume	0	11	0	6	17	0	26	868	37	931	0	17	7	33	57	4	4	658	19	685	1690
% App. Total	0	64.7	0	35.3		0	2.8	93.2	4		0	29.8	12.3	57.9		0.6	0.6	96.1	2.8		
PHF	.000	.458	.000	.375	.708	.000	.542	.948	.841	.958	.000	.607	.583	.688	.792	.500	.500	.956	.792	.962	.956
LIGHT VEHICLES																					
% LIGHT VEHICLES	0	100	0	100	100	0	100	99.3	100	99.4	0	100	100	100	100	100	100	98.6	100	98.7	99.1
HEAVY VEHICLES																					
% HEAVY VEHICLES	0	0	0	0	0	0	0	0.7	0	0.6	0	0	0	0	0	0	0	1.4	0	1.3	0.9



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SOUTHGATE BOULEVARD & SW 61ST AVENUE
MARGATE, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : southgate & sw 61 avenue
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

	SW 61ST AVENUE From North				SOUTHGATE BOULEVARD From East				SW 61ST AVENUE From South				SOUTHGATE BOULEVARD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	1	0	0	1	1	0	0	0	0	2	0	0	1	0	6
Apprch %	0	0	100	0	0	50	50	0	0	0	0	100	0	0	100	0	
Total %	0	0	16.7	0	0	16.7	16.7	0	0	0	0	33.3	0	0	16.7	0	

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VIDEO COUNT
NOT SIGNALIZED

File Name : southgate & sw 61 avenue
Site Code : 230081
Start Date : 5/9/2023
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	SW 61ST AVENUE From North				SOUTHGATE BOULEVARD From East				SW 61ST AVENUE From South				SOUTHGATE BOULEVARD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	3
07:15 AM	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
07:30 AM	1	0	0	0	0	0	1	0	2	0	2	0	0	0	0	0	6
07:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	4	0	0	0	0	0	1	0	5	0	3	0	0	0	0	0	13
08:00 AM	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	3
08:15 AM	1	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	4
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	1	0	2	0	0	0	0	0	2	0	2	0	2	0	0	0	9
04:00 PM	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3
04:15 PM	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
04:30 PM	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3
04:45 PM	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	6	0	2	0	0	0	1	0	3	0	0	0	0	0	0	0	12
05:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	3	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	5
05:30 PM	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4
05:45 PM	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	6
Total	11	0	1	0	1	0	0	0	2	0	2	0	0	0	0	0	17
Grand Total	22	0	5	0	1	0	2	0	12	0	7	0	2	0	0	0	51
Apprch %	81.5	0	18.5	0	33.3	0	66.7	0	63.2	0	36.8	0	100	0	0	0	
Total %	43.1	0	9.8	0	2	0	3.9	0	23.5	0	13.7	0	3.9	0	0	0	

APPENDIX C

FDOT Peak Season Conversion Factor Report

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8630 WEST-W OF US441

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2022 - 01/01/2022	0.99	1.02
2	01/02/2022 - 01/08/2022	1.01	1.04
3	01/09/2022 - 01/15/2022	1.02	1.05
4	01/16/2022 - 01/22/2022	1.01	1.04
5	01/23/2022 - 01/29/2022	1.00	1.03
6	01/30/2022 - 02/05/2022	0.98	1.01
* 7	02/06/2022 - 02/12/2022	0.97	1.00
* 8	02/13/2022 - 02/19/2022	0.96	0.99
* 9	02/20/2022 - 02/26/2022	0.96	0.99
*10	02/27/2022 - 03/05/2022	0.96	0.99
*11	03/06/2022 - 03/12/2022	0.96	0.99
*12	03/13/2022 - 03/19/2022	0.96	0.99
*13	03/20/2022 - 03/26/2022	0.96	0.99
*14	03/27/2022 - 04/02/2022	0.97	1.00
*15	04/03/2022 - 04/09/2022	0.97	1.00
*16	04/10/2022 - 04/16/2022	0.97	1.00
*17	04/17/2022 - 04/23/2022	0.97	1.00
*18	04/24/2022 - 04/30/2022	0.98	1.01
*19	05/01/2022 - 05/07/2022	0.98	1.01
20	05/08/2022 - 05/14/2022	0.99	1.02
21	05/15/2022 - 05/21/2022	1.00	1.03
22	05/22/2022 - 05/28/2022	1.01	1.04
23	05/29/2022 - 06/04/2022	1.02	1.05
24	06/05/2022 - 06/11/2022	1.03	1.06
25	06/12/2022 - 06/18/2022	1.04	1.07
26	06/19/2022 - 06/25/2022	1.04	1.07
27	06/26/2022 - 07/02/2022	1.05	1.08
28	07/03/2022 - 07/09/2022	1.05	1.08
29	07/10/2022 - 07/16/2022	1.06	1.09
30	07/17/2022 - 07/23/2022	1.05	1.08
31	07/24/2022 - 07/30/2022	1.04	1.07
32	07/31/2022 - 08/06/2022	1.03	1.06
33	08/07/2022 - 08/13/2022	1.02	1.05
34	08/14/2022 - 08/20/2022	1.01	1.04
35	08/21/2022 - 08/27/2022	1.02	1.05
36	08/28/2022 - 09/03/2022	1.02	1.05
37	09/04/2022 - 09/10/2022	1.03	1.06
38	09/11/2022 - 09/17/2022	1.03	1.06
39	09/18/2022 - 09/24/2022	1.02	1.05
40	09/25/2022 - 10/01/2022	1.01	1.04
41	10/02/2022 - 10/08/2022	0.99	1.02
42	10/09/2022 - 10/15/2022	0.98	1.01
43	10/16/2022 - 10/22/2022	0.99	1.02
44	10/23/2022 - 10/29/2022	1.00	1.03
45	10/30/2022 - 11/05/2022	1.00	1.03
46	11/06/2022 - 11/12/2022	1.01	1.04
47	11/13/2022 - 11/19/2022	1.02	1.05
48	11/20/2022 - 11/26/2022	1.01	1.04
49	11/27/2022 - 12/03/2022	1.01	1.04
50	12/04/2022 - 12/10/2022	1.00	1.03
51	12/11/2022 - 12/17/2022	0.99	1.02
52	12/18/2022 - 12/24/2022	1.01	1.04
53	12/25/2022 - 12/31/2022	1.02	1.05

* PEAK SEASON

APPENDIX D

ITE *Trip Generation Manual (11th Edition)*

Relevant Excerpts

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

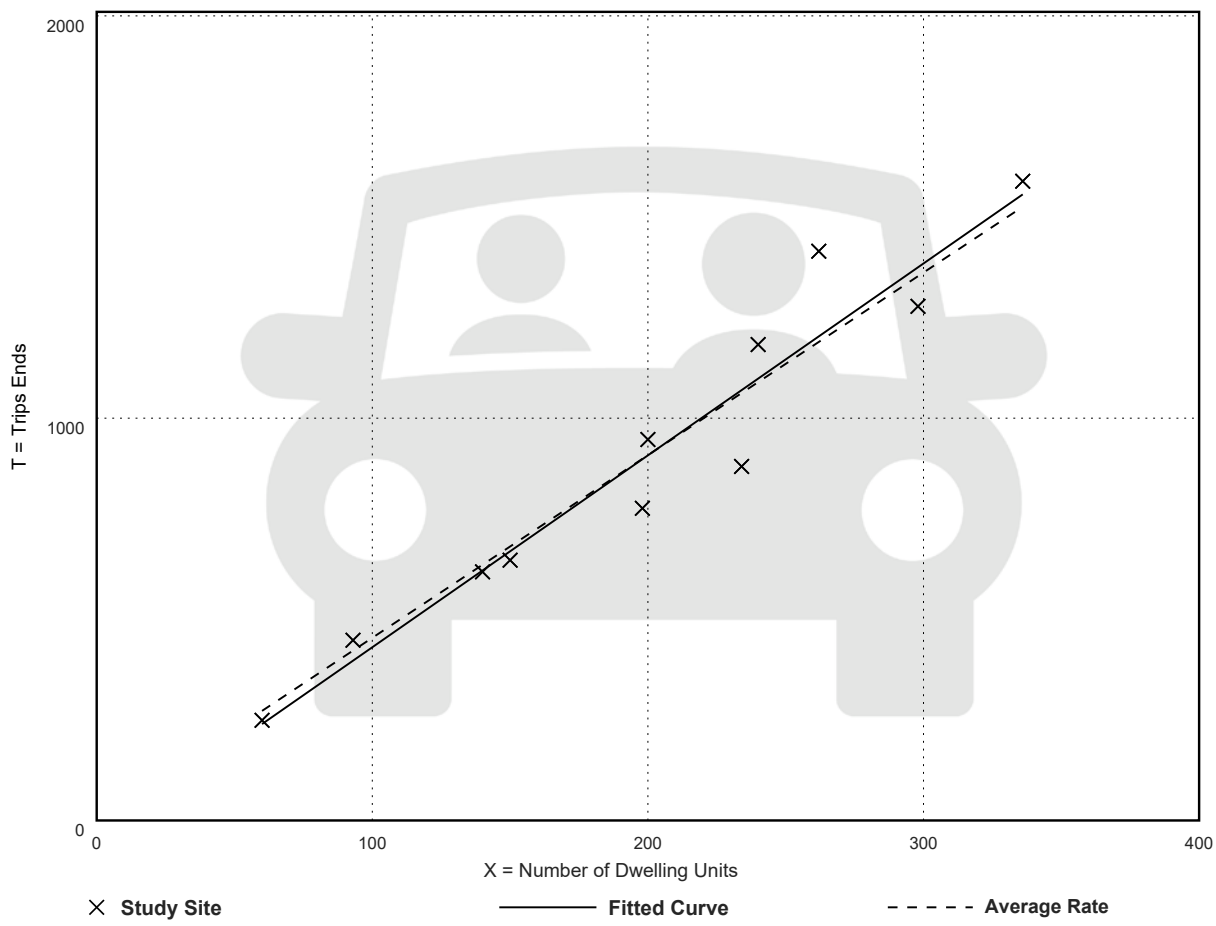
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Fitted Curve Equation: T = 4.77(X) - 46.46

R^2= 0.93

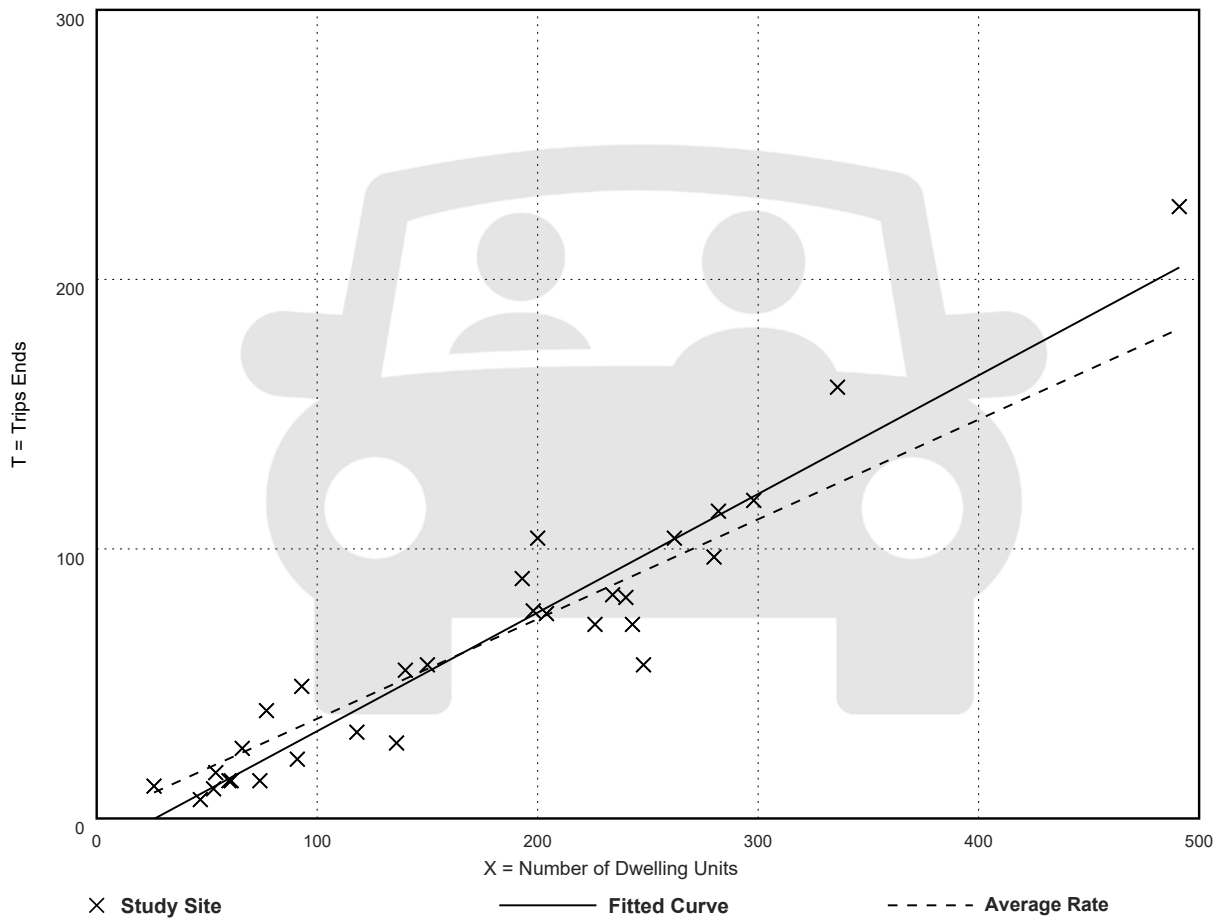
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



Fitted Curve Equation: T = 0.44(X) - 11.61

R^2= 0.91

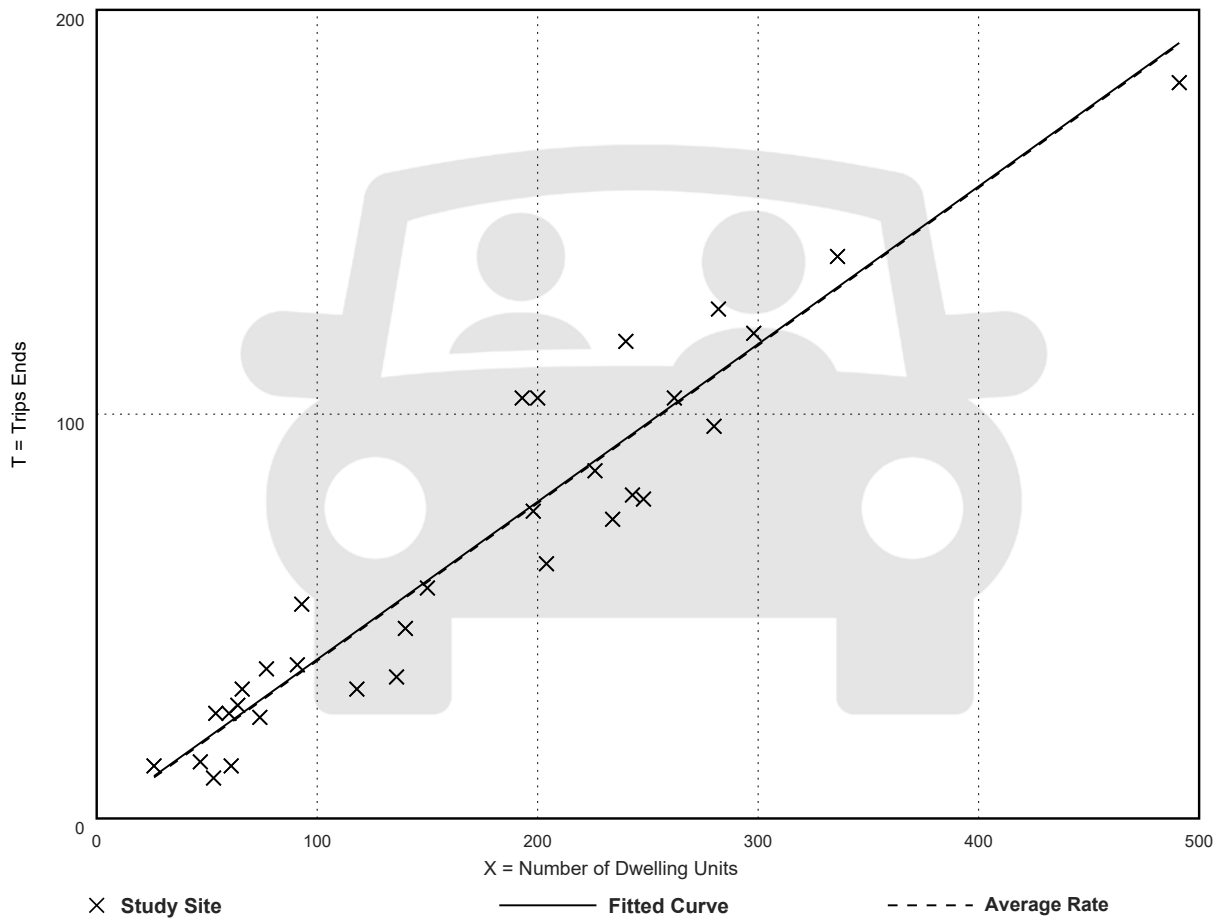
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Fitted Curve Equation: T = 0.39(X) + 0.34

R^2= 0.91

APPENDIX E

Historic Traffic Counts
And Growth Rate Analysis

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0014 - SR 814/ATLANTIC BLVD - E OF SR 7/US 441

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	52500 C	E 27000	W 25500	9.00	57.00	2.90
2021	46500 C	E 21000	W 25500	9.00	53.80	1.90
2020	53000 F	E 26500	W 26500	9.00	53.90	1.90
2019	56000 C	E 28000	W 28000	9.00	54.60	1.90
2018	53500 C	E 25500	W 28000	9.00	54.50	3.10
2017	53500 C	E 25500	W 28000	9.00	51.90	3.10
2016	50000 C	E 25000	W 25000	9.00	54.10	3.10
2015	47000 C	E 22000	W 25000	9.00	54.00	4.60
2014	51500 C	E 25500	W 26000	9.00	54.20	4.60
2013	51000 C	E 24000	W 27000	9.00	53.60	3.00
2012	43000 C	E 21500	W 21500	9.00	52.20	4.30
2011	45000 C	E 22500	W 22500	9.00	52.50	4.30
2010	49500 C	E 23500	W 26000	8.35	52.69	4.30
2009	47000 C	E 23000	W 24000	8.53	53.89	4.70
2008	49000 C	E 24000	W 25000	8.81	54.16	4.70
2007	52000 C	E 25500	W 26500	8.63	55.75	2.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0426 - SR 7 - S OF SOUTHGATE BLVD,CABINET AT AZTEC BLVD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	47000 C	N 23500	S 23500	9.00	57.00	2.90
2021	47500 C	N 24000	S 23500	9.00	53.80	2.90
2020	55000 C	N 28500	S 26500	9.00	53.90	2.90
2019	43500 C	N 21500	S 22000	9.00	54.60	3.50
2018	49000 C	N 24500	S 24500	9.00	54.50	3.50
2017	48000 C	N 25000	S 23000	9.00	51.90	3.50
2016	50000 C	N 24500	S 25500	9.00	54.10	2.90
2015	47500 C	N 22500	S 25000	9.00	54.00	2.90
2014	47500 C	N 22500	S 25000	9.00	54.20	3.10
2013	47500 C	N 22500	S 25000	9.00	53.60	3.10
2012	49500 C	N 24000	S 25500	9.00	52.20	3.40
2011	44500 C	N 22000	S 22500	9.00	52.50	3.30
2010	39500 C	N 19500	S 20000	8.35	52.69	4.00
2009	45500 C	N 22500	S 23000	8.53	53.89	4.10
2008	45000 C	N 23000	S 22000	8.81	54.16	3.80
2007	48000 C	N 24500	S 23500	8.63	55.75	3.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 5238 - CR 814 - ATLANTIC BLVD - W OF SR 7/US 441

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	49500 C	E 25500	W 24000	9.00	53.80	4.50
2021	49000 F	E 25500	W 23500	9.00	54.00	2.90
2020	50000 C	E 26000	W 24000	9.00	55.10	2.90
2019	53500 C	E 26500	W 27000	9.00	56.00	2.90
2018	57500 S	E 29500	W 28000	9.00	56.30	3.20
2017	56500 F	E 29000	W 27500	9.00	57.10	3.20
2016	55000 C	E 28000	W 27000	9.00	56.10	3.20
2015	43500 S	E 20500	W 23000	9.00	56.20	5.70
2014	42500 F	E 20000	W 22500	9.00	56.80	5.70
2013	41500 C	E 19500	W 22000	9.00	56.20	5.70
2012	42500 C	E 21000	W 21500	9.00	57.00	4.10
2011	49000 C	E 23000	W 26000	9.00	59.10	4.10
2010	49000 C	E 25000	W 24000	9.60	57.92	4.10
2009	45000 C	E 22500	W 22500	9.71	58.42	3.50
2008	53500 C	E 26500	W 27000	9.67	56.67	3.50
2007	48500 C	E 24000	W 24500	10.19	60.63	4.40

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 5307 - SR 7 - N OF BAILEY ROAD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	44000 C	N 22000	S 22000	9.00	57.00	3.40
2021	44500 C	N 22000	S 22500	9.00	53.80	2.20
2020	44000 F	N 21500	S 22500	9.00	53.90	2.20
2019	46500 C	N 22500	S 24000	9.00	54.60	2.20
2018	43500 C	N 21500	S 22000	9.00	54.50	1.80
2017	44500 C	N 22000	S 22500	9.00	51.90	1.80
2016	40500 C	N 18000	S 22500	9.00	54.10	1.80
2015	39500 C	N 20000	S 19500	9.00	54.00	3.40
2014	39500 C	N 20500	S 19000	9.00	54.20	3.60
2013	40000 C	N 20500	S 19500	9.00	53.60	3.90
2012	46500 C	N 23500	S 23000	9.00	52.20	3.60
2011	41500 C	N 20500	S 21000	9.00	52.50	3.60
2010	46000 C	N 22500	S 23500	8.35	52.69	3.60
2009	40000 C	N 19500	S 20500	8.53	53.89	4.40
2008	48500 C	N 25500	S 23000	8.81	54.16	4.40
2007	42000 C	N 20500	S 21500	8.63	55.75	2.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7491 - SR 7 - S OF ATLANTIC BLVD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	54500 C	N 27000	S 27500	9.00	57.00	3.40
2021	53500 C	N 27500	S 26000	9.00	53.80	3.40
2020	51000 F	N 25000	S 26000	9.00	53.90	2.20
2019	54000 C	N 26500	S 27500	9.00	54.60	2.20
2018	51500 C	N 26500	S 25000	9.00	54.50	2.20
2017	54000 C	N 26500	S 27500	9.00	51.90	3.10
2016	56000 C	N 28000	S 28000	9.00	54.10	3.10
2015	48500 C	N 23500	S 25000	9.00	54.00	3.10
2014	54500 C	N 27500	S 27000	9.00	54.20	2.90
2013	52500 C	N 26000	S 26500	9.00	53.60	3.00
2012	55000 C	N 29000	S 26000	9.00	52.20	3.00
2011	48500 C	N 24500	S 24000	9.00	52.50	5.30
2010	55500 C	N 29500	S 26000	8.35	52.69	5.30
2009	54000 C	N 27500	S 26500	8.53	53.89	5.30
2008	61500 S	N 30500	S 31000	8.81	54.16	3.80
2007	63500 F	N 31500	S 32000	8.63	55.75	3.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7512 - SOUTHGATE BLVD, W OF SR 7

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	13600 S	E 7300	W 6300	9.00	53.80	5.40
2021	13700 F	E 7400	W 6300	9.00	54.00	14.30
2020	13900 C	E 7500	W 6400	9.00	55.10	8.80
2019	21300 T	E 12000	W 9300	9.00	56.00	5.50
2018	21200 S	E 12000	W 9200	9.00	56.30	6.00
2017	21100 F	E 12000	W 9100	9.00	57.10	6.20
2016	20400 C	E 11500	W 8900	9.00	56.10	2.90
2015	20000 V	0	0	9.00	56.20	3.40
2014	19500 R			9.00	56.80	7.40
2013	19000 T	0	0	9.00	56.20	7.60
2012	19000 S	0	0	9.00	57.00	5.90
2011	18900 F	0	0	9.00	59.10	6.30
2010	18500 C	E 9100	W 9400	9.60	57.92	9.30
2009	17800 F	E 9000	W 8800	9.71	58.42	5.30
2008	17600 C	E 8900	W 8700	9.67	56.67	6.50
2007	17800 C	E 9200	W 8600	10.19	60.63	4.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7524 - KIMBERLY BLVD, W OF SR 7

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	7700 S	E 4100	W 3600	9.00	53.80	5.40
2021	7700 F	E 4100	W 3600	9.00	54.00	14.30
2020	7800 C	E 4200	W 3600	9.00	55.10	8.80
2019	11000 R	E 6000	W 5000	9.00	56.00	5.50
2018	10900 T	E 5900	W 5000	9.00	56.30	6.00
2017	10700 S	E 5800	W 4900	9.00	57.10	6.20
2016	10400 F	E 5600	W 4800	9.00	56.10	2.90
2015	10200 C	E 5500	W 4700	9.00	56.20	3.40
2014	9900 X			9.00	56.80	7.40
2013	9700 X	0	0	9.00	56.20	7.60
2012	9600 T	0	0	9.00	57.00	5.90
2011	9500 S	0	0	9.00	59.10	6.30
2010	9300 F	E 4700	W 4600	9.60	57.92	9.30
2009	9100 C	E 4600	W 4500	9.71	58.42	5.30
2008	8900 C	E 4600	W 4300	9.67	56.67	6.50
2007	9300 C	E 4700	W 4600	10.19	60.63	4.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

REZ SR 7 Multifamily

Margate, FL

Growth Rate Analysis

Site #860014 - SR 814 / Atlantic Boulevard - East of SR 7 / US 441

Year	Volume	Growth Rate
2018	53,500	
2022	52,500	-0.38%

Site #860426 - SR 7 - South of Southgate Boulevard

Year	Volume	Growth Rate
2018	49,000	
2022	47,000	-0.83%

Site #865238 - CR 814 - Atlantic Boulevard - West of SR 7 / US 441

Year	Volume	Growth Rate
2018	57,500	
2022	49,500	-2.95%

Site #865307 - SR 7 - North of Bailey Road

Year	Volume	Growth Rate
2018	43,500	
2022	44,000	0.23%

Site #867491 - SR 7 - South of Atlantic Boulevard

Year	Volume	Growth Rate
2018	51,500	
2022	54,500	1.14%

Site #867512 - Southgate Boulevard - West of SR 7

Year	Volume	Growth Rate
2018	21,200	
2022	13,600	-8.50%

Site #867524 - Kimberly Boulevard - West of SR 7

Year	Volume	Growth Rate
2018	10,900	
2022	7,700	-6.71%

Total - All Count Stations

Year	Volume	Growth Rate
2018	287,100	
2022	268,800	-1.31%

APPENDIX F

Existing Office Buildings at 777 S. State Road 7

Development of Traffic Volumes

MARTY KIAR
BROWARD COUNTY
PROPERTY APPRAISER

Site Address	767 S STATE ROAD 7, MARGATE FL 33068	ID #	4941 01 31 0010
Property Owner	767 BUILDING LLC	Millage	1212
Mailing Address	%777 PROPERTIES INC 541 S STATE ROAD 7 STE 11 MARGATE FL 33068	Use	17-01

Abbr Legal Description	441 SOUTH,LTD II 124-41 B PARCEL A THE N1/2,LESS POR DESC AS:BEG NE COR SAID PAR "A",S 336.52,W 521,N 336.52,E 512.96 TO POB TOG WITH MINI MART DEV CORP SUB 81-49 B PAR B

The just values displayed below were set in compliance with Sec. 193.011, Fla. Stat., and include a reduction for costs of sale and other adjustments required by Sec. 193.011(8).

* 2024 values are considered "working values" and are subject to change.

Property Assessment Values

Year	Land	Building / Improvement	Just / Market Value	Assessed / SOH Value	Tax
2024	$1,787,480	$1,959,020	$3,746,500	$3,746,500	
2023	$1,787,480	$1,987,710	$3,775,190	$3,759,770	$82,909.45
2022	$1,787,480	$1,630,500	$3,417,980	$3,417,980	$74,420.03

2024 Exemptions and Taxable Values by Taxing Authority

	County	School Board	Municipal	Independent
Just Value	$3,746,500	$3,746,500	$3,746,500	$3,746,500
Portability	0	0	0	0
Assessed/SOH	$3,746,500	$3,746,500	$3,746,500	$3,746,500
Homestead	0	0	0	0
Add. Homestead	0	0	0	0
Wid/Vet/Dis	0	0	0	0
Senior	0	0	0	0
Exempt Type	0	0	0	0
Taxable	$3,746,500	$3,746,500	$3,746,500	$3,746,500

Sales History

Date	Type	Price	Book/Page or CIN
7/16/2004	WD*	$1,950,000	37932 / 22

* Denotes Multi-Parcel Sale (See Deed)

Land Calculations

Price	Factor	Type
$10.00	178,748	SF
Adj. Bldg. S.F. (Card, Sketch)		36637

Eff./Act. Year Built: 1987/1986

Special Assessments

Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc

Please Note: The City of Margate levies a non-ad valorem fire assessment.
The fire assessment, if any, is not included in the tax amounts shown above.

MARTY KIAR
BROWARD COUNTY
PROPERTY APPRAISER

Site Address	777 S STATE ROAD 7, MARGATE FL 33068-2823	ID #	4941 01 31 0011
Property Owner	777 PROPERTIES INC	Millage	1212
Mailing Address	541 S STATE ROAD 7 #11 MARGATE FL 33068	Use	17-01

Abbr Legal Description	441 SOUTH,LTD II 124-41 B POR OF PAR A N1/2 DESC AS:BEG NE COR SAID PAR A,S 336.52, W 521,N 336.52,E 512.96 TO POB

The just values displayed below were set in compliance with Sec. 193.011, Fla. Stat., and include a reduction for costs of sale and other adjustments required by Sec. 193.011(8).

* 2024 values are considered "working values" and are subject to change.

Property Assessment Values

Year	Land	Building / Improvement	Just / Market Value	Assessed / SOH Value	Tax
2024	$1,740,000	$2,063,000	$3,803,000	$3,803,000	
2023	$1,740,000	$2,030,890	$3,770,890	$3,755,040	$82,808.13
2022	$1,740,000	$1,673,680	$3,413,680	$3,413,680	$74,326.40

2024 Exemptions and Taxable Values by Taxing Authority

	County	School Board	Municipal	Independent
Just Value	$3,803,000	$3,803,000	$3,803,000	$3,803,000
Portability	0	0	0	0
Assessed/SOH	$3,803,000	$3,803,000	$3,803,000	$3,803,000
Homestead	0	0	0	0
Add. Homestead	0	0	0	0
Wid/Vet/Dis	0	0	0	0
Senior	0	0	0	0
Exempt Type	0	0	0	0
Taxable	$3,803,000	$3,803,000	$3,803,000	$3,803,000

Sales History

Date	Type	Price	Book/Page or CIN
8/1/1994	WD	$1,950,000	22553 / 810

Land Calculations

Price	Factor	Type
$10.00	174,000	SF
Adj. Bldg. S.F. (Card, Sketch)		36637

Eff./Act. Year Built: 1988/1987

Special Assessments

Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc

Please Note: The City of Margate levies a non-ad valorem fire assessment.
The fire assessment, if any, is not included in the tax amounts shown above.

Land Use: 710
General Office Building

Description

A general office building is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers. A general office building with a gross floor area of 10,000 square feet or less is classified as a small office building (Land Use 712). Corporate headquarters building (Land Use 714), single tenant office building (Land Use 715), medical-dental office building (Land Use 720), office park (Land Use 750), research and development center (Land Use 760), and business park (Land Use 770) are additional related uses.

Additional Data

If two or more general office buildings are in close physical proximity (within a close walk) and function as a unit (perhaps with a shared parking facility and common or complementary tenants), the total gross floor area or employment of the paired office buildings can be used for calculating the site trip generation. If the individual buildings are isolated or not functionally related to one another, trip generation should be calculated for each building separately.

For study sites with reported gross floor area and employees, an average employee density of 3.3 employees per 1,000 square feet GFA (or roughly 300 square feet per employee) has been consistent through the 1980s, 1990s, and 2000s. No sites counted in the 2010s reported both GFA and employees.

The average building occupancy varies considerably within the studies for which occupancy data were provided. The reported occupied gross floor area was 88 percent for general urban/suburban sites and 96 percent for the center city core and dense multi-use urban sites.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The average numbers of person trips per vehicle trip at the eight center city core sites at which both person trip and vehicle trip data were collected are as follows:

- 2.8 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.9 during Weekday, AM Peak Hour of Generator
- 2.9 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 3.0 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 18 dense multi-use urban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.5 during Weekday, AM Peak Hour of Generator
- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.5 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 23 general urban/suburban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.3 during Weekday, AM Peak Hour of Generator
- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.4 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Ontario (CAN)Pennsylvania, Texas, Utah, Virginia, and Washington.

Source Numbers

161, 175, 183, 184, 185, 207, 212, 217, 247, 253, 257, 260, 262, 273, 279, 297, 298, 300, 301, 302, 303, 304, 321, 322, 323, 324, 327, 404, 407, 408, 419, 423, 562, 734, 850, 859, 862, 867, 869, 883, 884, 890, 891, 904, 940, 944, 946, 964, 965, 972, 1009, 1030, 1058, 1061

General Office Building
(710)

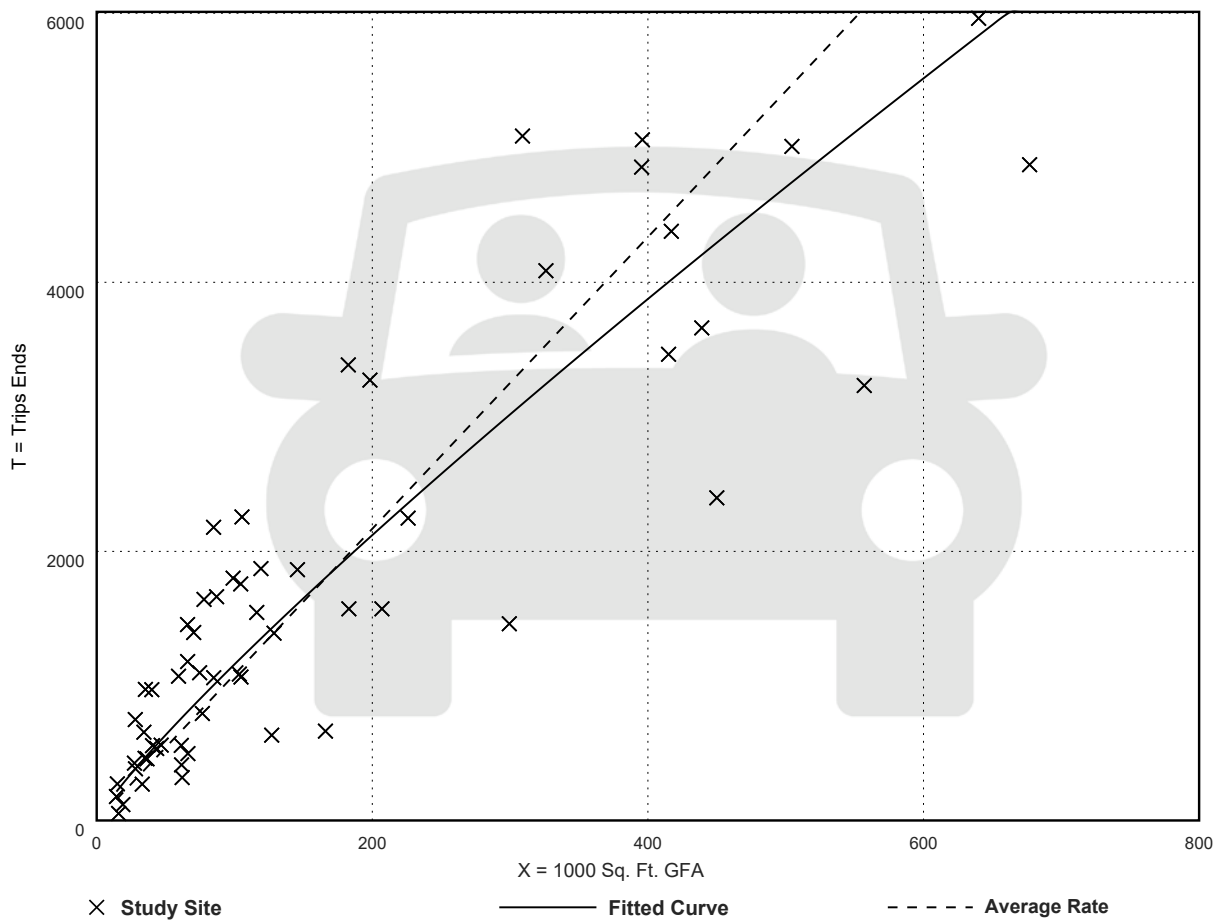
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. 1000 Sq. Ft. GFA: 163
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.84	3.27 - 27.56	4.76

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.87 Ln(X) + 3.05 **R^2= 0.78**

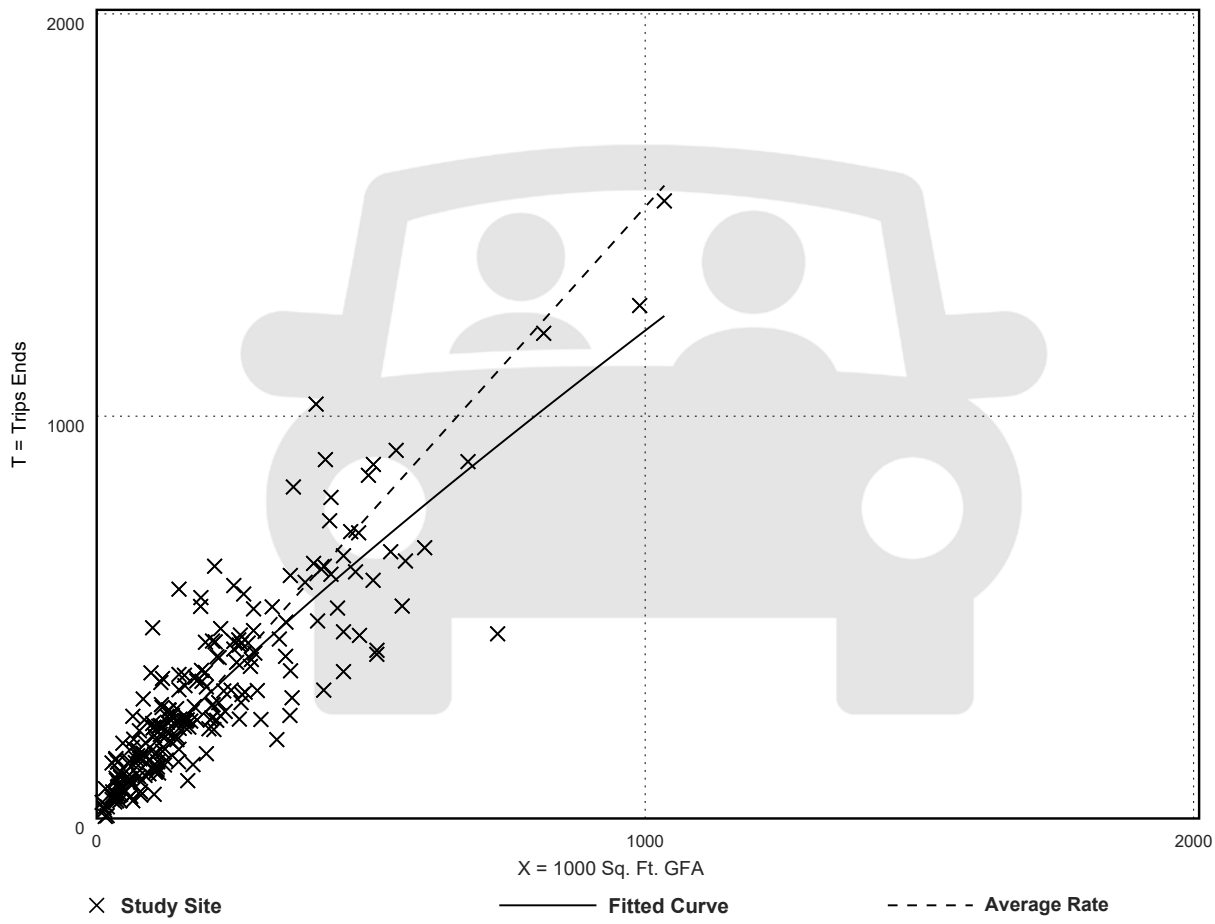
General Office Building
(710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 221
Avg. 1000 Sq. Ft. GFA: 201
Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.52	0.32 - 4.93	0.58

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.86 Ln(X) + 1.16

R^2= 0.78

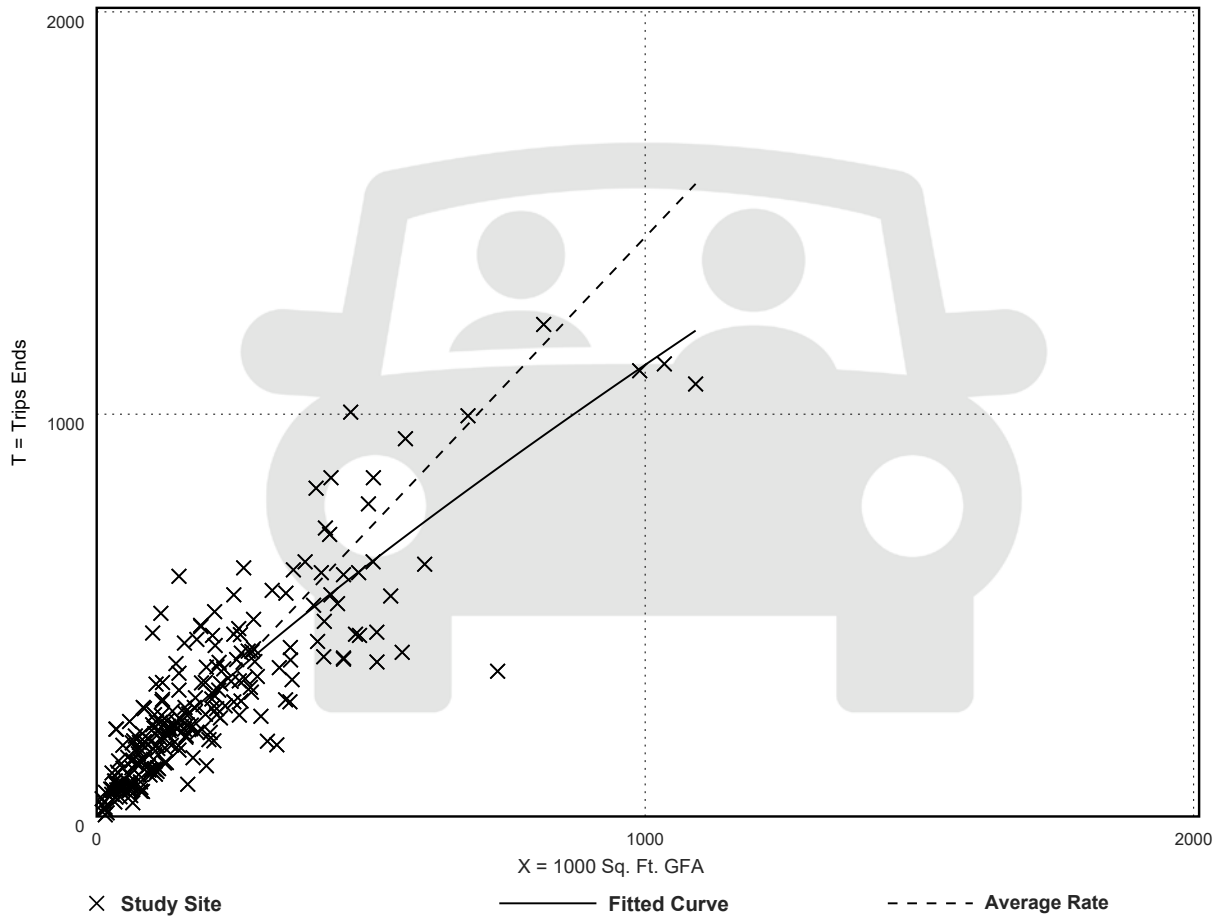
General Office Building
(710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 232
Avg. 1000 Sq. Ft. GFA: 199
Directional Distribution: 17% entering, 83% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.44	0.26 - 6.20	0.60

Data Plot and Equation



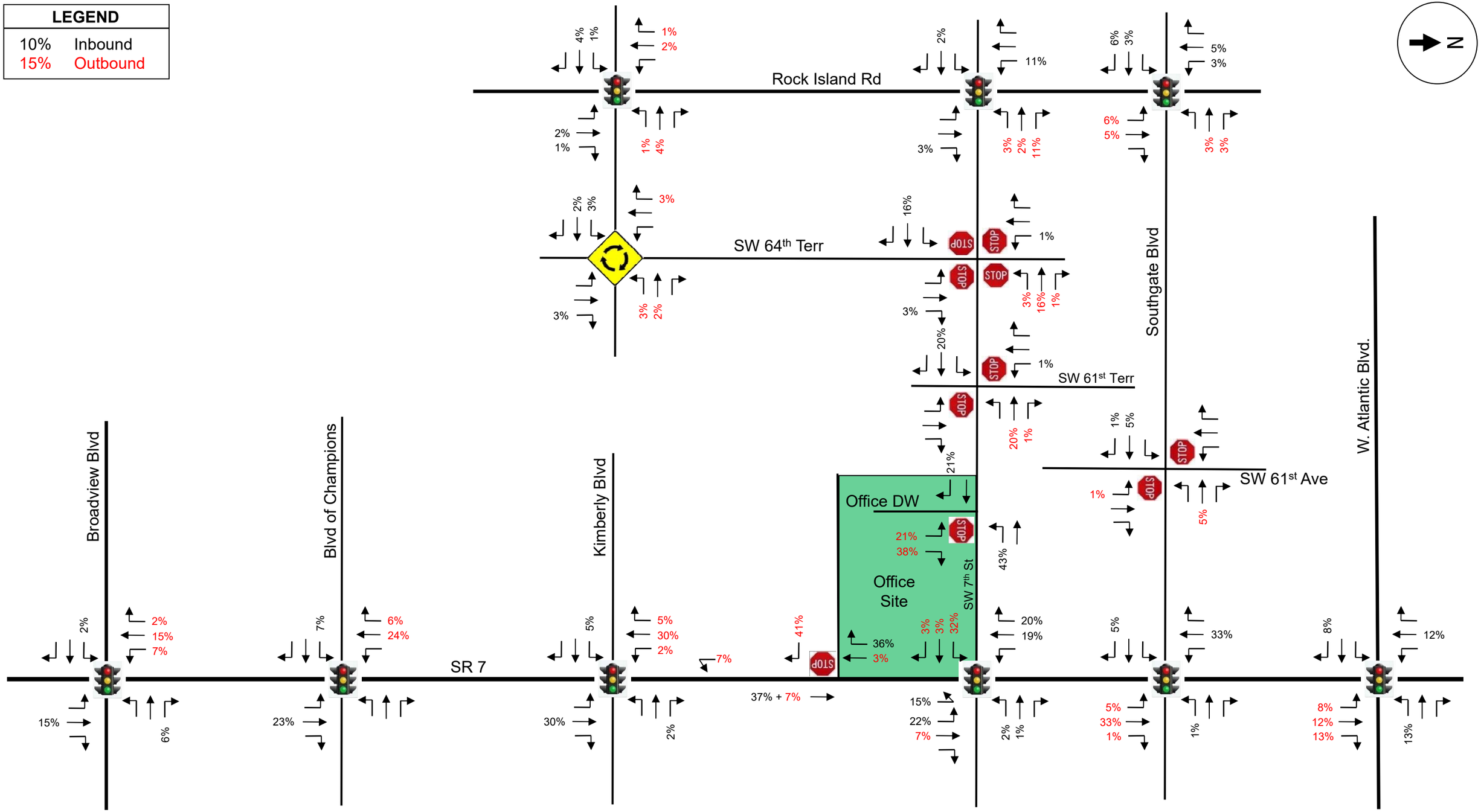
Fitted Curve Equation: Ln(T) = 0.83 Ln(X) + 1.29 **R^2= 0.77**

Table 1
Existing Office Building - 777 S. State Road 7
Trip Generation Summary
Margate, Florida

Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Proposed Use								
General Office Building	73,274 SF	885	113	15	128	22	106	128

Compiled by: KBP Consulting, Inc. (December 2023).

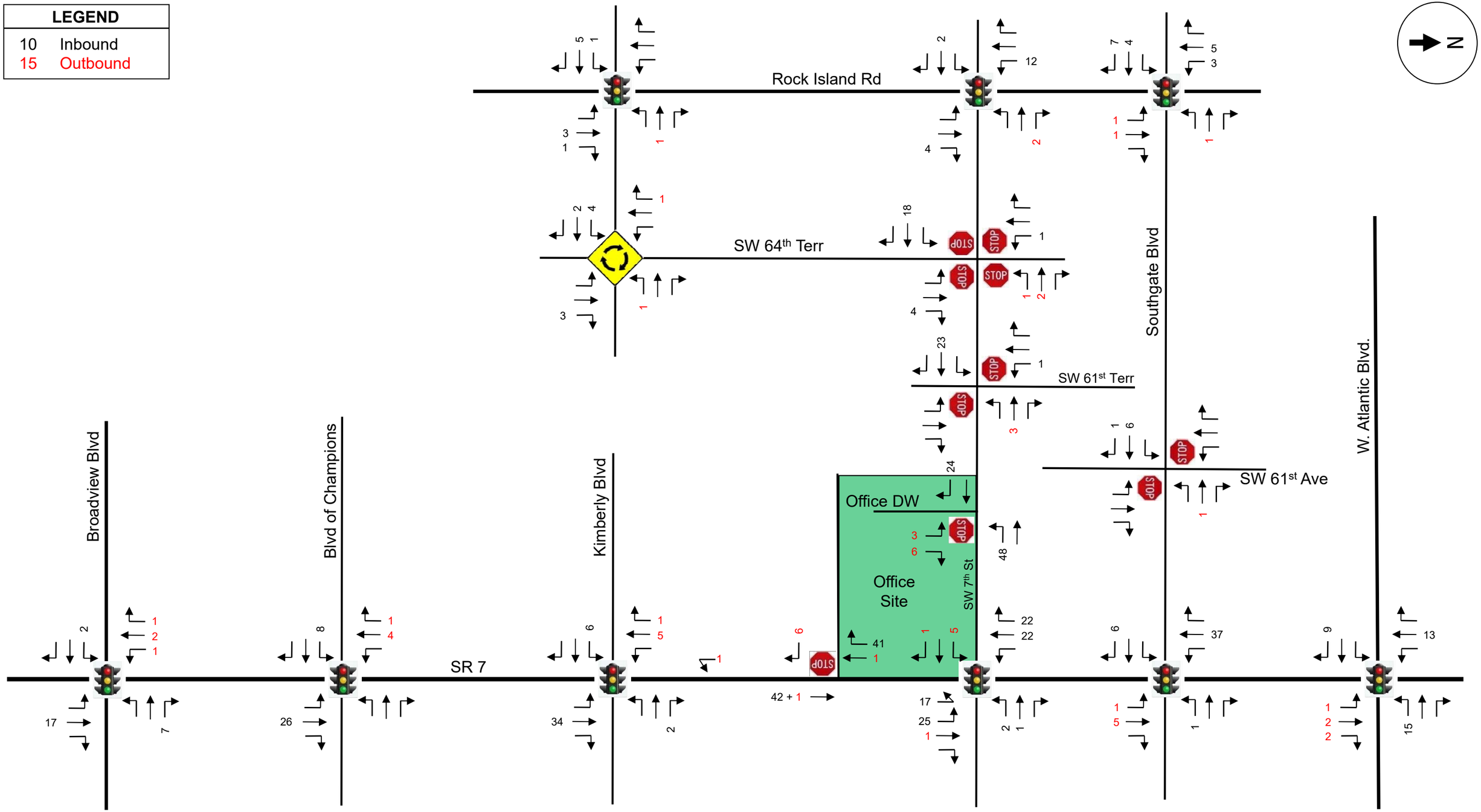
Source: Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition), Land Use #710 - General Office Building.



KBP
CONSULTING, INC.

Trip Distribution – Existing Office Development

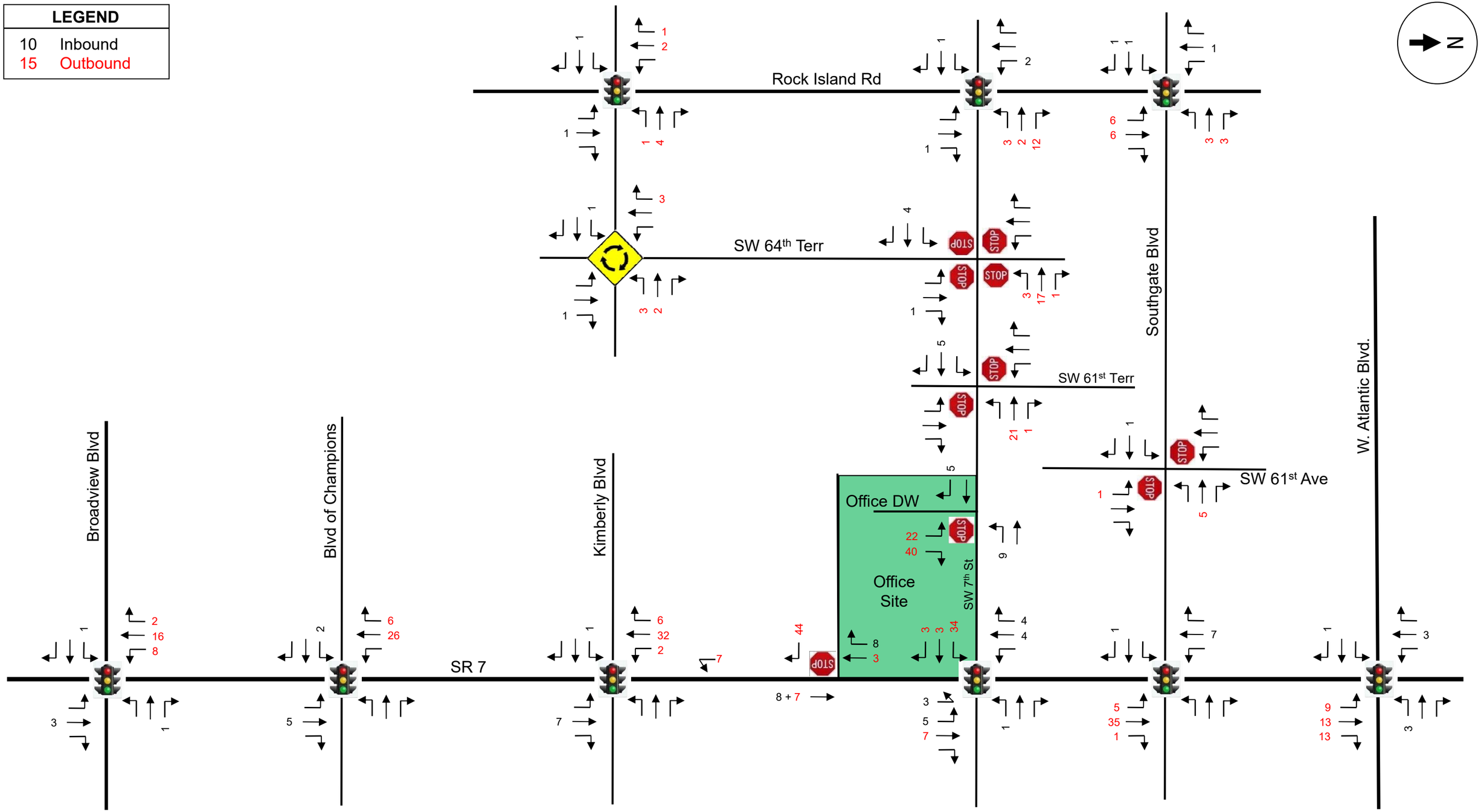
FIGURE F-1
The Forest Apartments
Margate, Florida



KBP
CONSULTING, INC.

Office Development Traffic Assignment
AM Peak Hour

FIGURE F-2
The Forest Apartments
Margate, Florida



KBP
CONSULTING, INC.

Office Development Traffic Assignment
PM Peak Hour

FIGURE F-3
The Forest Apartments
Margate, Florida

APPENDIX G

Future Traffic Volumes Spreadsheets

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Broadview Boulevard / SW 17th Street
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Broadview Boulevard Eastbound			NW 62nd St Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	38	1,342	236	306	1,691	48	68	18	63	230	3	233
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	39	1,369	241	312	1,725	49	69	18	64	235	3	238
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		17		1	2	1	2					7
2026 Background Traffic	40	1,427	248	323	1,779	51	73	19	66	242	3	252
The Forest Apartments		4		6	14	2						2
2026 Total Traffic	**40**	**1,431**	**248**	**329**	**1,793**	**53**	**73**	**19**	**66**	**242**	**3**	**254**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Broadview Boulevard / SW 17th Street
PM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Broadview Boulevard Eastbound			NW 62nd St Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	78	1,832	72	238	1,337	110	80	22	48	58	0	157
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	80	1,869	73	243	1,364	112	82	22	49	59	0	160
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		3		8	16	2	1					1
2026 Background Traffic	82	1,928	76	258	1,421	118	85	23	50	61	0	166
The Forest Apartments		11		3	7	1	1					4
2026 Total Traffic	**82**	**1,939**	**76**	**261**	**1,428**	**119**	**86**	**23**	**50**	**61**	**0**	**170**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Boulevard of Champions
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Boulevard of Champions Eastbound			Church DW Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	257	1,489	13	22	1,783	237	152	0	278	12	6	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	262	1,519	13	22	1,819	242	155	0	284	12	6	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		26			4	1	8					
2026 Background Traffic	270	1,591	14	23	1,878	250	168	0	292	13	6	0
The Forest Apartments		6			22	5	2					
2026 Total Traffic	**270**	**1,597**	**14**	**23**	**1,900**	**255**	**170**	**0**	**292**	**13**	**6**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Boulevard of Champions
PM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Boulevard of Champions Eastbound			Church DW Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	254	1,854	10	41	1,402	141	292	0	255	8	3	1
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	259	1,891	10	42	1,430	144	298	0	260	8	3	1
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		5			26	6	2					
2026 Background Traffic	267	1,953	11	43	1,499	154	309	0	268	8	3	1
The Forest Apartments		16			11	3	5					
2026 Total Traffic	**267**	**1,969**	**11**	**43**	**1,510**	**157**	**314**	**0**	**268**	**8**	**3**	**1**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Kimberly Boulevard
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Kimberly Boulevard Eastbound			SW 11th St Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	119	1,500	67	62	1,701	79	147	21	174	175	23	83
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	121	1,530	68	63	1,735	81	150	21	177	179	23	85
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		34			5	1	6					2
2026 Background Traffic	125	1,610	70	65	1,793	84	160	22	183	184	24	89
The Forest Apartments		8		2	27	5	1					1
2026 Total Traffic	**125**	**1,618**	**70**	**67**	**1,820**	**89**	**161**	**22**	**183**	**184**	**24**	**90**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Kimberly Boulevard
PM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Kimberly Boulevard Eastbound			SW 11th St Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	272	1,740	170	76	1,276	144	139	60	218	126	53	52
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	277	1,775	173	78	1,302	147	142	61	222	129	54	53
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		7		2	32	6	1					
2026 Background Traffic	286	1,836	179	82	1,373	157	147	63	229	132	56	55
The Forest Apartments		21		1	14	1	4					1
2026 Total Traffic	**286**	**1,857**	**179**	**83**	**1,387**	**158**	**151**	**63**	**229**	**132**	**56**	**56**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Project Driveway
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Project Driveway Eastbound			Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	0	1,722	0	0	1,825	2	0	0	2	0	0	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	0	1,756	0	0	1,862	2	0	0	2	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		43			1	41			6			
2026 Background Traffic	0	1,853	0	0	1,919	43	0	0	8	0	0	0
The Forest Apartments		23				18			47			
2026 Total Traffic	**0**	**1,876**	**0**	**0**	**1,919**	**61**	**0**	**0**	**55**	**0**	**0**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Project Driveway
PM Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			Project Driveway Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	0	1,869	0	0	1,495	1	0	0	10	0	0	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	0	1,906	0	0	1,525	1	0	0	10	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		15			3	8			44			
2026 Background Traffic	0	1,979	0	0	1,574	9	0	0	55	0	0	0
The Forest Apartments		33				45			23			
2026 Total Traffic	**0**	**2,012**	**0**	**0**	**1,574**	**54**	**0**	**0**	**78**	**0**	**0**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and SW 7th Street
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	116	1,569	19	16	1,545	56	79	11	222	46	21	10
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	118	1,600	19	16	1,576	57	81	11	226	47	21	10
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	42	1			22	22	5		1	2	1	
2026 Background Traffic	164	1,650	20	17	1,646	81	88	12	234	50	23	11
The Forest Apartments	10	13			10	1	23	3		1		
2026 Total Traffic	**174**	**1,663**	**20**	**17**	**1,656**	**82**	**111**	**15**	**234**	**51**	**23**	**11**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and SW 7th Street
PM Peak Hour

	SR 7 Northbound			SR 7 Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	182	1,639	30	39	1,358	119	66	13	108	27	16	16
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	186	1,672	31	40	1,385	121	67	13	110	28	16	16
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	8	7			4	4	34	3	3	1		
2026 Background Traffic	199	1,729	32	41	1,431	129	103	17	116	29	17	17
The Forest Apartments	26	7			24	4	12	1		2		
2026 Total Traffic	**225**	**1,736**	**32**	**41**	**1,455**	**133**	**115**	**18**	**116**	**31**	**17**	**17**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Southgate Boulevard
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Southgate Boulevard Eastbound			SW 2nd Court Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	176	1,411	22	58	1,252	375	652	121	291	62	64	140
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	180	1,439	22	59	1,277	383	665	123	297	63	65	143
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	1	5			37				6	1		
2026 Background Traffic	186	1,488	23	61	1,353	394	685	127	312	66	67	147
The Forest Apartments	5	30	1		9				2			
2026 Total Traffic	**191**	**1,518**	**24**	**61**	**1,362**	**394**	**685**	**127**	**314**	**66**	**67**	**147**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Southgate Boulevard
PM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Southgate Boulevard Eastbound			SW 2nd Court Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	375	1,384	41	86	1,422	431	425	51	225	61	55	54
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	383	1,412	42	88	1,450	440	434	52	230	62	56	55
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	5	35	1		7				1			
2026 Background Traffic	399	1,489	44	90	1,501	453	447	54	237	64	58	57
The Forest Apartments	2	16	1		23				4	1		
2026 Total Traffic	**401**	**1,505**	**45**	**90**	**1,524**	**453**	**447**	**54**	**241**	**65**	**58**	**57**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Atlantic Boulevard
AM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	78	1,441	588	262	1,270	136	365	1,355	211	330	669	117
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	80	1,470	600	267	1,295	139	372	1,382	215	337	682	119
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	1	2	2		13				9	15		
2026 Background Traffic	83	1,516	620	275	1,348	143	384	1,424	231	362	703	123
The Forest Apartments	7	11	12		3				2	4		
2026 Total Traffic	**90**	**1,527**	**632**	**275**	**1,351**	**143**	**384**	**1,424**	**233**	**366**	**703**	**123**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

State Road 7 and Atlantic Boulevard
PM Peak Hour

	SR 7 Northbound			SR 7 Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	215	1,170	448	148	1,174	205	290	865	282	606	1,463	147
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	219	1,193	457	151	1,197	209	296	882	288	618	1,492	150
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	9	13	13		3				1	3		
2026 Background Traffic	235	1,243	484	156	1,237	215	305	909	297	640	1,537	154
The Forest Apartments	4	6	6		8				6	9		
2026 Total Traffic	**239**	**1,249**	**490**	**156**	**1,245**	**215**	**305**	**909**	**303**	**649**	**1,537**	**154**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Rock Island Road and Southgate Boulevard
AM Peak Hour

	Rock Island Road Northbound			Rock Island Road Southbound			Southgate Boulevard Eastbound			Southgate Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	157	944	171	211	824	483	466	745	175	73	504	270
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	160	963	174	215	840	493	475	760	179	74	514	275
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	1	1		3	5			4	7		1	
2026 Background Traffic	166	993	180	225	871	508	490	787	191	77	531	284
The Forest Apartments	5	5		2	1			1	2		3	3
2026 Total Traffic	**171**	**998**	**180**	**227**	**872**	**508**	**490**	**788**	**193**	**77**	**534**	**287**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Rock Island Road and Southgate Boulevard
PM Peak Hour

	Rock Island Road Northbound			Rock Island Road Southbound			Southgate Boulevard Eastbound			Southgate Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	175	885	131	175	893	601	388	481	193	111	549	222
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	179	903	134	179	911	613	396	491	197	113	560	226
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	6	6			1			1	1		3	3
2026 Background Traffic	190	936	138	184	939	632	408	506	204	117	580	236
The Forest Apartments	3	2		2	4			3	4		1	2
2026 Total Traffic	**193**	**938**	**138**	**186**	**943**	**632**	**408**	**509**	**208**	**117**	**581**	**238**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Rock Island Road and SW 7th Street
AM Peak Hour

	Rock Island Road Northbound			Rock Island Road Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	81	1,049	38	130	1,011	40	111	59	88	75	36	106
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	83	1,070	39	133	1,031	41	113	60	90	77	37	108
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings			4	12				2				2
2026 Background Traffic	85	1,102	44	149	1,062	42	117	64	92	79	38	113
The Forest Apartments			1	3				1		2	2	10
2026 Total Traffic	**85**	**1,102**	**45**	**152**	**1,062**	**42**	**117**	**65**	**92**	**81**	**40**	**123**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Rock Island Road and SW 7th Street
PM Peak Hour

	Rock Island Road Northbound			Rock Island Road Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	147	1,087	80	45	1,060	74	68	36	92	88	61	74
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	150	1,109	82	46	1,081	75	69	37	94	90	62	75
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings			1	2				1		3	2	12
2026 Background Traffic	154	1,142	85	49	1,114	78	71	39	97	95	66	90
The Forest Apartments			2	8				2		1	1	5
2026 Total Traffic	**154**	**1,142**	**87**	**57**	**1,114**	**78**	**71**	**41**	**97**	**96**	**67**	**95**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Rock Island Road and Kimberly Boulevard
AM Peak Hour

	Rock Island Road Northbound			Rock Island Road Southbound			Kimberly Boulevard Eastbound			Kimberly Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	62	1,004	112	111	901	80	94	117	99	129	108	107
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	63	1,024	114	113	919	82	96	119	101	132	110	109
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		3	1				1	5			1	
2026 Background Traffic	65	1,058	119	117	947	84	100	128	104	136	114	112
The Forest Apartments		1			2	1		1		1	4	
2026 Total Traffic	**65**	**1,059**	**119**	**117**	**949**	**85**	**100**	**129**	**104**	**137**	**118**	**112**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Rock Island Road and Kimberly Boulevard
PM Peak Hour

	Rock Island Road Northbound			Rock Island Road Southbound			Kimberly Boulevard Eastbound			Kimberly Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	94	989	226	150	986	134	103	88	75	152	180	201
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	96	1,009	231	153	1,006	137	105	90	77	155	184	205
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings		1			2	1		1		1	4	
2026 Background Traffic	99	1,040	238	158	1,038	142	108	93	79	161	193	211
The Forest Apartments		1	1		1		1	3			2	
2026 Total Traffic	**99**	**1,041**	**239**	**158**	**1,039**	**142**	**109**	**96**	**79**	**161**	**195**	**211**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 7th Street and Office Driveway
AM Peak Hour

	Office Driveway Northbound			Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	2	0	0	0	0	0	0	315	2	2	163	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	2	0	0	0	0	0	0	321	2	2	166	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	3		6						24	48		
2026 Background Traffic	5	0	6	0	0	0	0	331	26	50	171	0
The Forest Apartments	19		26						6	4		
2026 Total Traffic	**24**	**0**	**32**	**0**	**0**	**0**	**0**	**331**	**32**	**54**	**171**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 7th Street and Office Driveway
PM Peak Hour

	Office Driveway Northbound			Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	3	0	2	0	0	0	0	171	3	0	294	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	3	0	2	0	0	0	0	174	3	0	300	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	22		40						5	9		
2026 Background Traffic	25	0	42	0	0	0	0	180	8	9	309	0
The Forest Apartments	10		13						15	11		
2026 Total Traffic	**35**	**0**	**55**	**0**	**0**	**0**	**0**	**180**	**23**	**20**	**309**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 7th Street and SW 61st Terrace
AM Peak Hour

Description	SW 61st Terrace Northbound			SW 61st Terrace Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	7	4	5	29	2	21	29	278	9	6	145	14
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	7	4	5	30	2	21	30	284	9	6	148	14
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings				1				23			3	
2026 Background Traffic	7	4	5	31	2	22	30	315	9	6	155	15
The Forest Apartments				1				5			18	1
2026 Total Traffic	**7**	**4**	**5**	**32**	**2**	**22**	**30**	**320**	**9**	**6**	**173**	**16**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 7th Street and SW 61st Terrace
PM Peak Hour

Description	SW 61st Terrace Northbound			SW 61st Terrace Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	30	3	19	10	4	20	23	140	21	25	246	26
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	31	3	19	10	4	20	23	143	21	26	251	27
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings								5			21	1
2026 Background Traffic	32	3	20	11	4	21	24	152	22	26	280	28
The Forest Apartments				1				14			9	1
2026 Total Traffic	**32**	**3**	**20**	**12**	**4**	**21**	**24**	**166**	**22**	**26**	**289**	**29**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 7th Street and SW 64th Terrace
AM Peak Hour

	SW 64th Terrace Northbound			SW 64th Terrace Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	43	18	40	13	13	11	6	196	36	18	128	13
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	44	18	41	13	13	11	6	200	37	18	131	13
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings			4	1				18		1	2	
2026 Background Traffic	45	19	46	15	14	12	6	224	38	20	137	14
The Forest Apartments			1					4		3	14	1
2026 Total Traffic	**45**	**19**	**47**	**15**	**14**	**12**	**6**	**228**	**38**	**23**	**151**	**15**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 7th Street and SW 64th Terrace
PM Peak Hour

Description	SW 64th Terrace Northbound			SW 64th Terrace Southbound			SW 7th Street Eastbound			SW 7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	32	22	48	7	14	9	14	106	26	49	189	17
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	33	22	49	7	14	9	14	108	27	50	193	17
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings			1					4		3	17	1
2026 Background Traffic	34	23	51	7	15	9	15	115	27	54	216	19
The Forest Apartments			2					12		1	7	1
2026 Total Traffic	**34**	**23**	**53**	**7**	**15**	**9**	**15**	**127**	**27**	**55**	**223**	**20**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Kimberly Boulevard and SW 64th Terrace
AM Peak Hour

	SW 64th Terrace Northbound			SW 64th Terrace Southbound			Kimberly Boulevard Eastbound			Kimberly Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	43	27	18	37	16	14	12	259	30	5	168	26
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	44	28	18	38	16	14	12	264	31	5	171	27
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings			3			1	4	2		1		
2026 Background Traffic	45	28	22	39	17	16	17	274	32	6	177	27
The Forest Apartments			1			3	1			3	2	
2026 Total Traffic	**45**	**28**	**23**	**39**	**17**	**19**	**18**	**274**	**32**	**9**	**179**	**27**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Kimberly Boulevard and SW 64th Terrace
PM Peak Hour

	SW 64th Terrace Northbound			SW 64th Terrace Southbound			Kimberly Boulevard Eastbound			Kimberly Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	138	57	31	20	22	20	18	256	85	11	327	37
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	141	58	32	20	22	20	18	261	87	11	334	38
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings			1			3	1			3	2	
2026 Background Traffic	145	60	34	21	23	24	20	269	89	15	346	39
The Forest Apartments			2			1	2	2		1		
2026 Total Traffic	**145**	**60**	**36**	**21**	**23**	**25**	**22**	**271**	**89**	**16**	**346**	**39**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Southgate Boulevard and SW 61st Avenue
AM Peak Hour

	SW 61st Avenue Northbound			SW 61st Avenue Southbound			Southgate Boulevard Eastbound			Southgate Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	28	0	59	17	3	5	2	1,064	16	11	630	5
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	29	0	60	17	3	5	2	1,085	16	11	643	5
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings								6	1		1	
2026 Background Traffic	29	0	62	18	3	5	2	1,124	18	12	663	5
The Forest Apartments	1							2	1		5	
2026 Total Traffic	**30**	**0**	**62**	**18**	**3**	**5**	**2**	**1,126**	**19**	**12**	**668**	**5**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Southgate Boulevard and SW 61st Avenue
PM Peak Hour

	SW 61st Avenue Northbound			SW 61st Avenue Southbound			Southgate Boulevard Eastbound			Southgate Boulevard Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/9/2023)	17	7	33	11	0	6	8	658	19	26	868	37
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2023 Peak Season Traffic	17	7	34	11	0	6	8	671	19	27	885	38
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Committed Development:												
- Existing Office Buildings	1							1			5	
2026 Background Traffic	19	7	35	12	0	6	8	692	20	27	917	39
The Forest Apartments	1							4	1		2	
2026 Total Traffic	**20**	**7**	**35**	**12**	**0**	**6**	**8**	**696**	**21**	**27**	**919**	**39**

APPENDIX H

Signal Timing Data

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1022	**Initial Operation Date**	UNKNOWN
Controller Type	2070 LN	**System Number**	1022
Modification Number	20	**Modification Date**	09/25/2020
Drawing/Project No	416877-1-52-01	**FPL Grid Number**	87286282202
Intersection	SR 7 (US 441) and SW 17 STREET		
Municipality	NORTH LAUDERDALE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3,8	4,7	5	6		
Direction	SBL	NB	WB	EB	NBL	SB		
Initial Green(MIN)	5	10	6	6	5	10		
Vehicle Ext.(GAP)	2.0	3.0	2.0	2.0	1.5	3.0		
Maximum Green I	22	50	22	22	15	50		
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0		
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0		
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN		
Detector Delay								
Walk		7	7			7		
Pedestrian Clearance		26	33			26		
Permissive	DUAL				NO			
Flash Operation	RED	YELLOW	RED	RED	RED	YELLOW		

Attachment

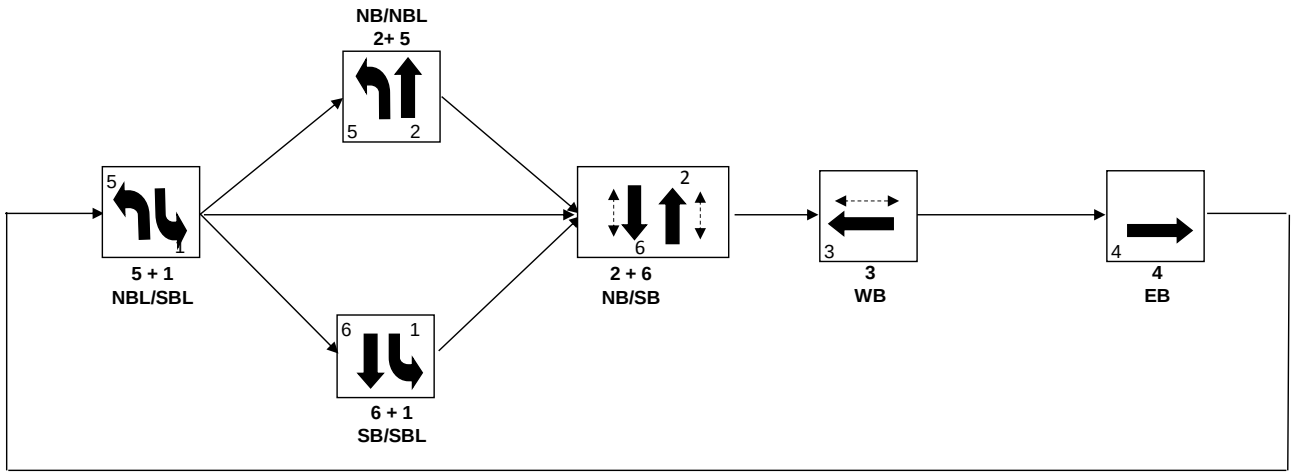
NOTES:

1. MOD. 20 UPDATES WALK ON PHASE 3 PER CURRENT STANDARDS.

Submitted By _____ **Approved By** _____

Sequence of Operation for A-022

SR 7 (US 441) and SW 17 Street (North Lauderdale)



Broward County Timing Sheet 6/27/2023 10:23:59 AM

Station : 1022 - SR 7 & SW 17 St (Standard File)

Phase	1 (SL)	2 (NT)	3 (WT)	4 (ET)	5 (NL)	6 (ST)	7	8	9	10	11	12	13	14	15	16
Walk		7	7			7										
Ped Clearance		26	33			26										
Min Green	5	10	6	6	5	10										
Gap Ext	2	3	2	2	1.5	3										
Max1	22	50	22	22	15	50										
Max2																
Yellow Clr	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON										
Auto Flash Entry				ON												
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON				ON											
Min Recall			ON	ON												
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON					
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash		ON				
Override Higher Preempt		ON				
Flash in Dwell		ON				
Link to Preempt						
Delay						
Min Duration						
Min Green	6		6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8		8	8	8	8
Max Presence	180		180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2		1	3	2	4
Dwell Cyc Veh 2	6		6		5	
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1			2	4	2	2
Exit 2	3		6		6	6
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:23:59 AM

Station : 1022 - SR 7 & SW 17 St (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	133	2	1	5	17		28	52	45	35	19	61										
9		3	3	160	88	3	1	5	17		17	66	47	30	23	60										
15		4	4	160	114	4	3	5	17		28	56	47	29	28	56										
20		3	3	160	88	3	1	5	17		17	66	47	30	23	60										
Day Plan 2											**Easy**															
		3	3	160	88	3	1	5	17		17	66	47	30	23	60										
1		100	254																							
6	30	3	3	160	88	3	1	5	17		17	66	47	30	23	60										

Day Plan 3											**Easy**																
		3	3	160	88	3	1	5	17		17	66	47	30	23	60											
1		100	254																								
6	30	3	3	160	88	3	1	5	17		17	66	47	30	23	60											
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:23:59 AM

Station : 1022 - SR 7 & SW 17 St (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														2
8							1							1	1	1	1	1					1																													2
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																									1	1	1	1	1	1	1			2
13												1		1				1																										1								2
14												1		1	1	1	1	1																											1							2
15												1		1																																1						2
16												1		1				1																																	1	2
17																																																				1
18																																																				1
19																																																				1
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28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1055	**Initial Operation Date**	10/4/74
Controller Type	2070 LN	**System Number**	1055
Modification Number	14	**Modification Date**	03/23/2021
Drawing/Project No	86100-3585	**FPL Grid Number**	87287274505
Intersection	SR 7 (US 441) and SW 7 STREET		
Municipality	MARGATE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2		4	5	6		8
Direction	SBL	NB		EB	NBL	SB		WB
Initial Green(MIN)	5	10		6	5	10		6
Vehicle Ext.(GAP)	1.5	3.0		2.0	1.5	3.0		2.0
Maximum Green I	12	50		20	12	50		20
Maximum Green II								
Yellow Clearance	5.0	5.0		4.0	5.0	5.0		4.0
All Red Clearance	2.0	2.0		2.0	2.0	2.0		2.0
Phase Recall	OFF	MIN		OFF	OFF	MIN		OFF
Detector Delay				30-RT				
Walk		7+A		7+A		7+A		7+A
Pedestrian Clearance		13		33		16		32
Permissive	5-SECT				5-SECT			
Flash Operation		YELLOW		RED		YELLOW		RED

Attachment

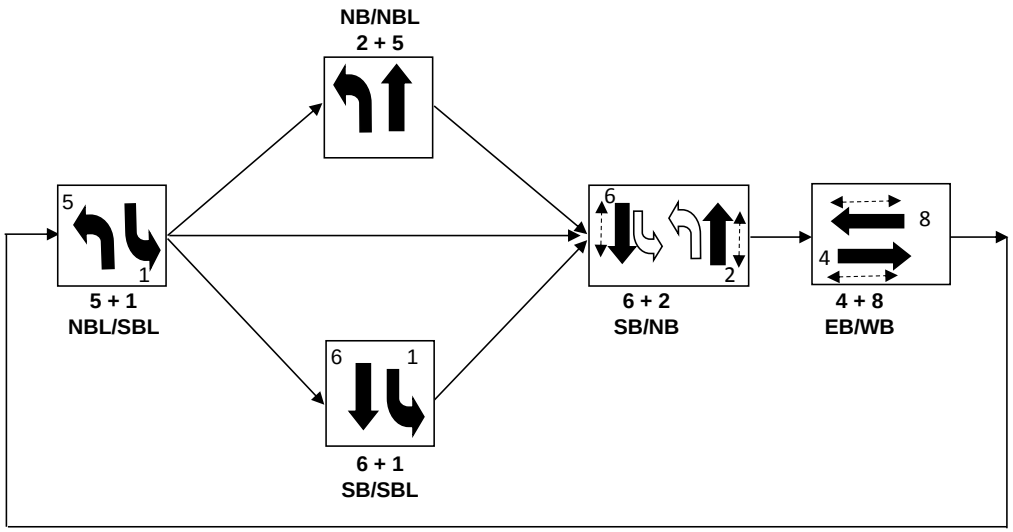
NOTES:

1. DUAL ENTRY EAST/WEST.
2. AUDIBLE PED SIGNALS(BEACONING): EAST/WEST BEEP, NORTH/SOUTH TONE.
3. ANTI-BACKDOWN NORTH/SOUTH: PHASES 2+6 ON---> OMIT PHASES 1+5.
4. MOD. 14 UPDATES PEDESTRIAN CLEARANCES AND EBR DELAY.

Submitted By _____ **Approved By** _____

Sequence of Operation for A-055

SR 7 (US 441) and Forrest Blvd



Broward County Timing Sheet 6/27/2023 10:26:21 AM

Station : 1055 - SR 7 & SW 7 St (Standard File)

Phase	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		13		33		16		32								
Min Green	5	10		6	5	10		6								
Gap Ext	1.5	3		2	1.5	3		2								
Max1	12	50		20	12	50		20								
Max2																
Yellow Clr	5	5		4	5	5		4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2		2	2	2		2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON	ON	ON		ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6		6	
Min Walk						
Ped Clear						
Track Green			1		1	
Min Dwell	8	8	8		8	
Max Presence	180	180	180		180	
Track Veh 1			9		9	
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1		2	
Dwell Cyc Veh 2	6	8	6		5	
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	4	1	2		2	
Exit 2	8	5	6		6	
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:26:21 AM

Station : 1055 - SR 7 & SW 7 St (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	74	2	1	5	17		15	90		55	15	90		55								
9		3	3	160	158	3	1	5	17		22	80		58	22	80		58								
15		4	4	160	76	4	1	5	17		15	94		51	15	94		51								
20		3	3	160	158	3	1	5	17		22	80		58	22	80		58								
Day Plan 2											**Easy**															
		3	3	160	158	3	1	5	17		22	80		58	22	80		58								
1		100	254																							
6	30	3	3	160	158	3	1	5	17		22	80		58	22	80		58								

Day Plan 3											**Easy**																
		3	3	160	158	3	1	5	17		22	80		58	22	80		58									
1		100	254																								
6	30	3	3	160	158	3	1	5	17		22	80		58	22	80		58									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:26:21 AM

Station : 1055 - SR 7 & SW 7 St (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														2
8							1							1	1	1	1	1					1																													2
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																										1							2
14												1		1	1	1	1	1																											1						2
15												1		1																																1					2
16												1		1				1																																	1	2
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18																																																			1
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32																																																			1

User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1056	**Initial Operation Date**	03/23/87
Controller Type	2070 LN	**System Number**	1056
Modification Number	17	**Modification Date**	07/08/2014
Drawing/Project No	416878-1-52-01	**FPL Grid Number**	87288274002
Intersection	SR 7 (US 441) and ATLANTIC BOULEVARD (SR 814)		
Municipality	MARGATE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	5	8	4	6	5	8	4	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.5	1.5	3.0	1.5	2.5
Maximum Green I	25	45	20	40	25	45	20	40
Maximum Green II								
Yellow Clearance	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7+A		7+A		7+A		7+A
Pedestrian Clearance		36		33		36		30
Permissive	NO		DUAL		NO		DUAL	
Flash Operation	RED	RED	RED	RED	RED	RED	RED	RED

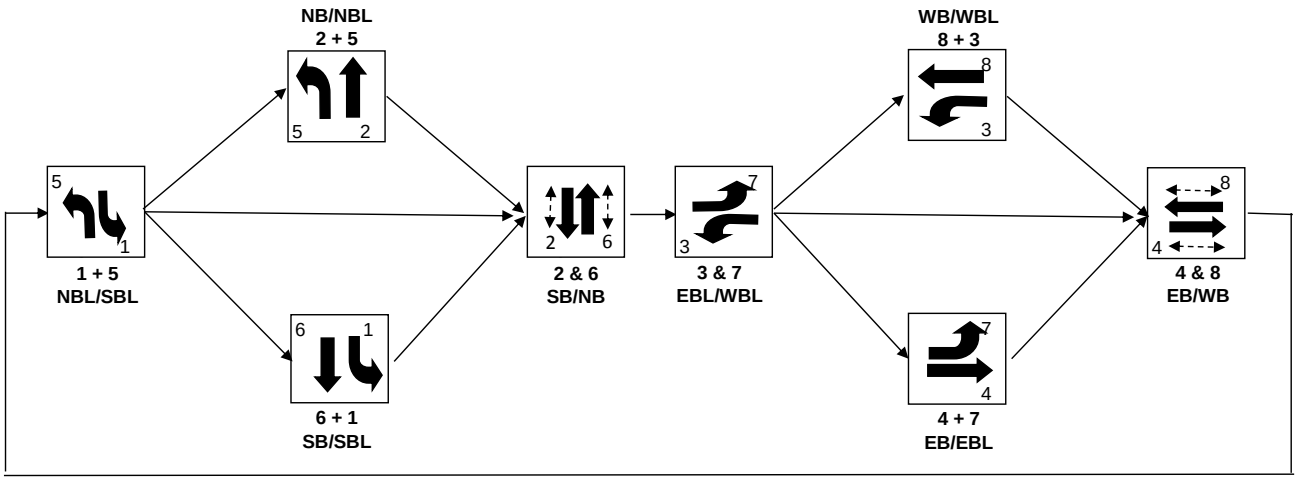
Attachment

NOTES:

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. PHOTO ENFORCEMENT, CITY OF MARGATE.
3. AUDIBLE PEDESTRIAN SIGNALS: E/W BEEP, N/S TONE.
4. MOD. 17 UPDATES YELLOW AND PEDESTRIAN CLEARANCES.

Submitted By _____ **Approved By** _____

Sequence of Operation for (1056) SR 7 (US 441) and Atlantic Blvd (SR 814)
Margate



Broward County Timing Sheet 6/27/2023 10:28:19 AM

Station : 1056 - SR 7 & Atlantic Blvd (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		36		33		36		30								
Min Green	5	8	4	6	5	8	4	6								
Gap Ext	1.5	3	1.5	2.5	1.5	3	1.5	2.5								
Max1	25	45	20	40	25	45	20	40								
Max2																
Yellow Clr	5	5	5	5	5	5	5	5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON								ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall						ON										
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1	3	2	4
Dwell Cyc Veh 2	6	8	6	8	5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	2	4
Exit 2	7	5	6	8	6	8
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:28:19 AM

Station : 1056 - SR 7 & Atlantic Blvd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	115	2	1	5	17		29	57	21	53	19	67	31	43								
9		3	3	160	59	3	1	5	17		29	54	28	49	29	54	28	49								
15		4	4	160	114	4	1	5	17		24	55	39	42	24	55	22	59								
20		3	3	160	59	3	1	5	17		29	54	28	49	29	54	28	49								
Day Plan 2											**Easy**															
		3	3	160	59	3	1	5	17		29	54	28	49	29	54	28	49								
1		100	254																							
6	30	3	3	160	59	3	1	5	17		29	54	28	49	29	54	28	49								

Day Plan 3											**Easy**																
		3	3	160	59	3	1	5	17		29	54	28	49	29	54	28	49									
1		100	254																								
6	30	3	3	160	59	3	1	5	17		29	54	28	49	29	54	28	49									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:28:19 AM

Station : 1056 - SR 7 & Atlantic Blvd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														2
8							1							1	1	1	1	1					1																													2
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																									1	1	1	1	1	1	1			2
13												1		1				1																										1								2
14												1		1	1	1	1	1																											1							2
15												1		1																																1						2
16												1		1				1																																	1	2
17																																																				1
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User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1158	**Initial Operation Date**	3/16/73
Controller Type	2070 LN	**System Number**	1158
Modification Number	19	**Modification Date**	04/17/2015
Drawing/Project No	86100-3585	**FPL Grid Number**	87286299105
Intersection	SR 7 (US 441) and KIMBERLY BOULEVARD		
Municipality	NORTH LAUDERDALE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	5	10	5	6	5	10	5	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	12	50	12	20	24	50	12	20
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0
All Red Clearance	2.0	2.0	2.5	2.0	2.0	2.0	2.0	2.5
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		26		25		26		27
Permissive	NO		5 SECT		NO		5 SECT	
Flash Operation	RED	YELLOW		RED	RED	YELLOW		RED

Attachment

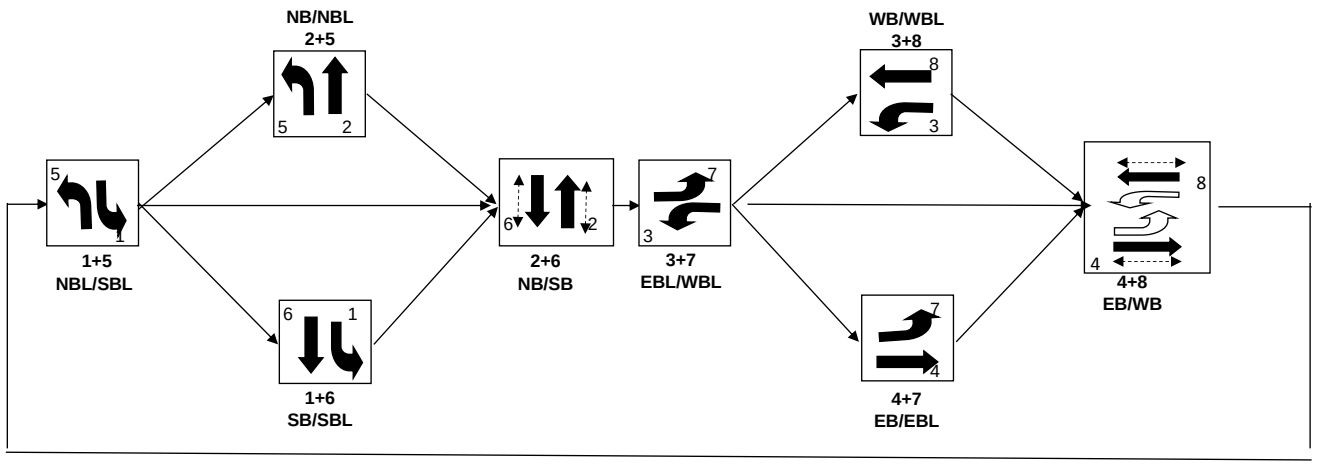
NOTES:

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. MOD. 18 UPDATES WALK TIMES ON PHASES 4 & 8 PER BCTED STANDARDS.

Submitted By _____ **Approved By** _____

Sequence of Operation for A-158

SR 7 (US 441) and Kimberly Boulevard (North Lauderdale)



Broward County Timing Sheet 6/27/2023 10:25:34 AM

Station : 1158 - SR 7 & Kimberly Blvd/SW 11 St (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		26		25		26		27								
Min Green	5	10	5	6	5	10	5	6								
Gap Ext	2	3	1.5	2	1.5	3	1.5	2								
Max1	12	50	12	20	24	50	12	20								
Max2																
Yellow Clr	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2.5	2	2	2	2	2.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt		ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	6	6	6	6	6	6
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1	3	2	4
Dwell Cyc Veh 2	6	8	6	8	5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	6	4
Exit 2	7	5	6	8	2	8
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:25:34 AM

Station : 1158 - SR 7 & Kimberly Blvd/SW 11 St (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	113	2	1	5	17		20	76	21	43	23	73	21	43								
9		3	3	160	64	3	1	5	17		15	87	15	43	27	75	15	43								
15		4	4	160	142	4	1	5	17		24	77	18	41	34	67	18	41								
20		3	3	160	64	3	1	5	17		15	87	15	43	27	75	15	43								
Day Plan 2											**Easy**															
		3	3	160	64	3	1	5	17		15	87	15	43	27	75	15	43								
1		100	254																							
6	30	3	3	160	64	3	1	5	17		15	87	15	43	27	75	15	43								

Day Plan 3											**Easy**																
		3	3	160	64	3	1	5	17		15	87	15	43	27	75	15	43									
1		100	254																								
6	30	3	3	160	64	3	1	5	17		15	87	15	43	27	75	15	43									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:25:34 AM

Station : 1158 - SR 7 & Kimberly Blvd/SW 11 St (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														2
8							1							1	1	1	1	1					1																													2
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																										1							2
14												1		1	1	1	1	1																											1						2
15												1		1																																1					2
16												1		1				1																																	1	2
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User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1160	**Initial Operation Date**	1/22/74
Controller Type	2070 TS 2	**System Number**	1160
Modification Number	18	**Modification Date**	03/23/2021
Drawing/Project No	86100-3585	**FPL Grid Number**	87287258704
Intersection	SR 7 (US 441) and SOUTHGATE BOULEVARD/SW 2 COURT		
Municipality	MARGATE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	5	12	4	6	5	12	5	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	12	50	12	25	20	50	12	25
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		23		34		24		30
Permissive	NO		YES		DUAL		DUAL	
Flash Operation	RED	RED	RED	RED	RED	RED	RED	RED

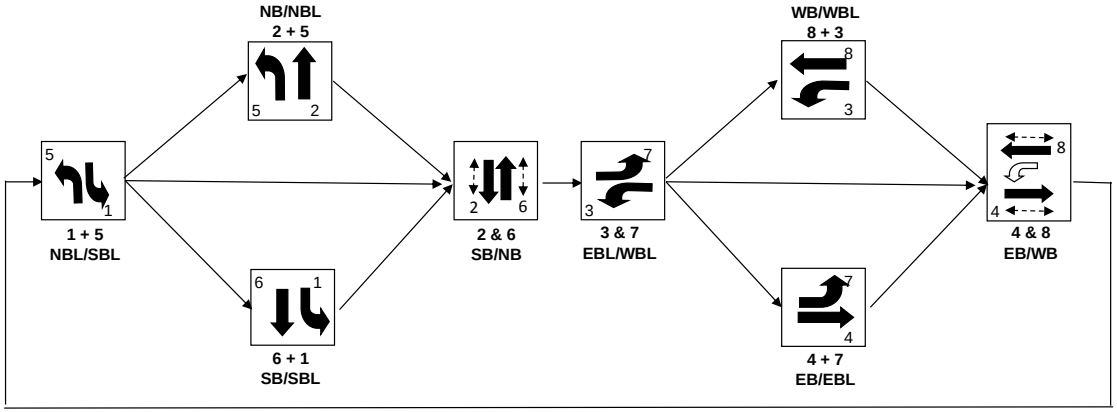
Attachment

NOTES:

1. DUAL ENTRY EAST/WEST.
2. MOD. 18 UPDATES PEDESTRIAN CLEARANCES.

Submitted By _____ **Approved By** _____

Sequence of Operation for (1160) SR 7 (US 441) and Southgate Blvd/SW 2 Court Tamarac



Broward County Timing Sheet 6/27/2023 10:27:30 AM

Station : 1160 - SR 7 & Southgate Blvd (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		23		34		24		30								
Min Green	5	12	4	6	5	12	5	6								
Gap Ext	1.5	3	1.5	2	1.5	3	1.5	2								
Max1	12	50	12	25	20	50	12	25								
Max2																
Yellow Clr	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON		ON		ON		ON		ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1	3	2	4
Dwell Cyc Veh 2	6	8	6	8	5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	2	4
Exit 2	7	5	6	8	6	8
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:27:30 AM

Station : 1160 - SR 7 & Southgate Blvd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	24	2	1	5	17		25	60	40	35	25	60	40	35								
9		3	3	160	139	3	1	5	17		25	70	40	25	25	70	40	25								
15		4	4	160	49	4	1	5	17		25	70	40	25	25	70	40	25								
20		3	3	160	139	3	1	5	17		25	70	40	25	25	70	40	25								
Day Plan 2											**Easy**															
		3	3	160	139	3	1	5	17		25	70	40	25	25	70	40	25								
1		100	254																							
6	30	3	3	160	139	3	1	5	17		25	70	40	25	25	70	40	25								

Day Plan 3											**Easy**																
		3	3	160	139	3	1	5	17		25	70	40	25	25	70	40	25									
1		100	254																								
6	30	3	3	160	139	3	1	5	17		25	70	40	25	25	70	40	25									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:27:30 AM

Station : 1160 - SR 7 & Southgate Blvd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														2
8							1							1	1	1	1	1					1																													2
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																									1	1	1	1	1	1	1			2
13												1		1				1																										1								2
14												1		1	1	1	1	1																											1							2
15												1		1																																1						2
16												1		1				1																																	1	2
17																																																				1
18																																																				1
19																																																				1
20																																																				1
21																																																				1
22																																																				1

23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1186	**Initial Operation Date**	UNKNOWN
Controller Type	2070	**System Number**	1186
Modification Number	17	**Modification Date**	09/15/2020
Drawing/Project No	416877-1-52-01	**FPL Grid Number**	87286294707
Intersection	SR 7 (US 441) and BOULEVARD OF CHAMPIONS		
Municipality	NORTH LAUDERDALE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3,8	4,7	5	6		
Direction	SBL	NB	WB	EB	NBL	SB		
Initial Green(MIN)	5	10	6	6	5	10		
Vehicle Ext.(GAP)	1.5	3.0	2.2	2.2	1.5	3.0		
Maximum Green I	20	50	20	25	20	50		
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0		
All Red Clearance	2.0	2.0	2.5	2.0	2.0	2.0		
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN		
Detector Delay								
Walk		7-A	7-A			7-A		
Pedestrian Clearance		29	34			29		
Permissive	NO				DUAL			
Flash Operation	RED	YELLOW	RED	RED	RED	YELLOW		

Attachment

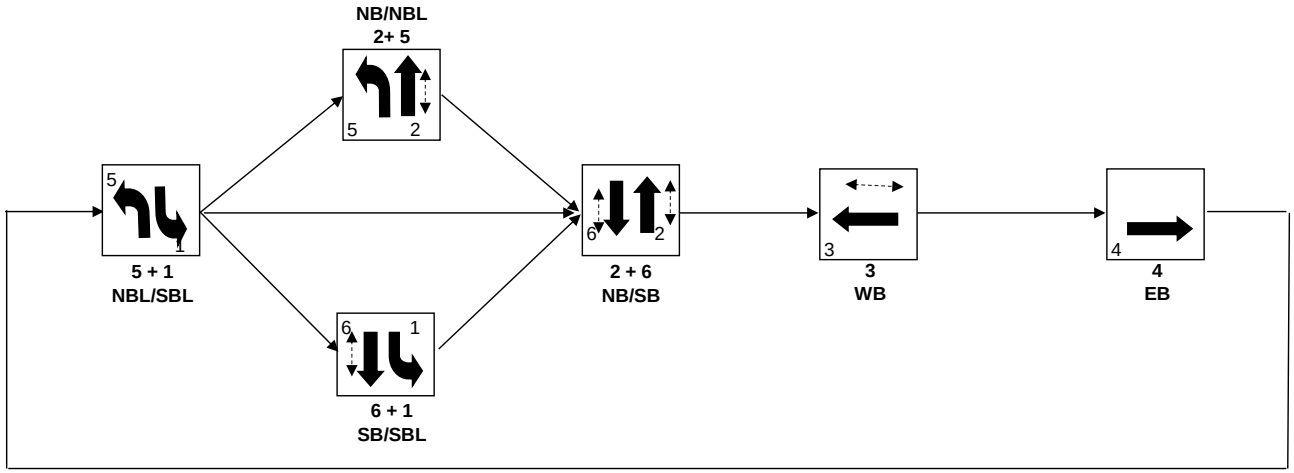
NOTES:

1. >EBR IS OVERLAPPPED WITH SBL AND NBL.
2. AUDIBLE PEDESTRIAN SIGNAL: WB BEEP, N/S TONE.
3. MOD. 17 UPDATES WALK VALUE ON PHASE 3 PER CURRENT STANDARDS.

Submitted By _____ **Approved By** _____

Sequence of Operation for 1186

SR 7 (US 441) and Boulevard of Champions (North Lauderdale)



NOTE: EBR IS OVERLAPPED WITH EB AND NBL.

Broward County Timing Sheet 6/27/2023 10:24:47 AM

Station : 1186 - SR 7 & Blvd of Champions (Standard File)

Phase	1 (SL)	2 (NT)	3 (WT)	4 (ET)	5 (NL)	6 (ST)	7	8	9	10	11	12	13	14	15	16
Walk		7	7			7										
Ped Clearance		29	34			29										
Min Green	5	10	6	6	5	10										
Gap Ext	1.5	3	2.2	2.2	1.5	3										
Max1	20	50	20	25	20	50										
Max2																
Yellow Clr	5	5	4	4	5	5		4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2.5	2	2	2			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON										
Auto Flash Entry				ON												
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6		6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8		8	8	8	8
Max Presence	180		180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2		1	3	2	4
Dwell Cyc Veh 2	6		6		5	
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3		2	4	2	1
Exit 2			6		6	5
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:24:47 AM

Station : 1186 - SR 7 & Blvd of Champions (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	121	2	1	5	17		16	75	50	19	16	75										
9		3	3	160	96	3	1	5	17		17	74	50	19	17	74										
15		4	4	160	153	4	2	5	17		15	76	50	19	25	66										
20		3	3	160	96	3	1	5	17		17	74	50	19	17	74										
Day Plan 2											**Easy**															
		3	3	160	96	3	1	5	17		17	74	50	19	17	74										
1		100	254																							
6	30	3	3	160	96	3	1	5	17		17	74	50	19	17	74										

Day Plan 3											**Easy**																
		3	3	160	96	3	1	5	17		17	74	50	19	17	74											
1		100	254																								
6	30	3	3	160	96	3	1	5	17		17	74	50	19	17	74											
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:24:47 AM

Station : 1186 - SR 7 & Blvd of Champions (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Weekk							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																																2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														2
8							1							1	1	1	1	1					1																													2
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																										1								2
14												1		1	1	1	1	1																											1							2
15												1		1																																1						2
16												1		1				1																																	1	2
17																																																				1
18																																																				1
19																																																				1
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30																																																			1
31																																																			1
32																																																			1

User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1204	**Initial Operation Date**	12/11/78
Controller Type	2070 LX TS2 (BIU)	**System Number**	1204
Modification Number	14	**Modification Date**	02/11/2019
Drawing/Project No	DES. GRP. 4	**FPL Grid Number**	87187228602
Intersection	ROCK ISLAND ROAD and SOUTHGATE BOULEVARD		
Municipality	NORTH LAUDERDALE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	4	12	5	6	4	12	5	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	15	45	20	30	15	45	20	30
Maximum Green II								
Yellow Clearance	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		31		23		31		34
Permissive	YES		NO		YES		DUAL	
Flash Operation		YELLOW	RED	RED		YELLOW	RED	RED

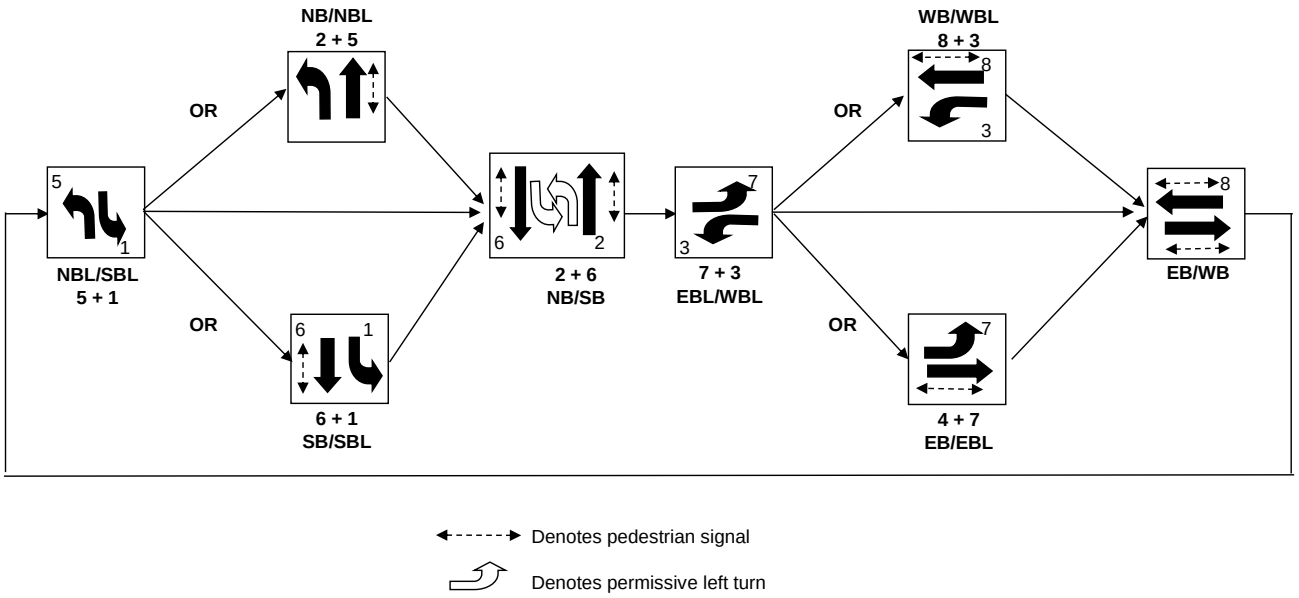
Attachment

NOTES:

1. ANTI-BACKDOWN NORTH/SOUTH: PHASES 2+6 ON--->OMIT PHASES 1+5.
2. DUAL ENTRY HARDWIRED EAST/WEST.
3. MOD. 14 UPDATES PHASE 2 & 8 PEDESTRIAN CLEARANCES.

Submitted By _____ **Approved By** _____

Sequence of Operation for (1204) Rock Island Road and Southgate Boulevard
North Lauderdale



Broward County Timing Sheet 6/27/2023 10:29:06 AM

Station : 1204 - Rock Island Rd & Southgate Blvd (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		31		23		31		34								
Min Green	4	12	5	6	4	12	5	6								
Gap Ext	1.5	3	1.5	2	1.5	3	1.5	2								
Max1	15	45	20	30	15	45	20	30								
Max2																
Yellow Clr	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call			ON						ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green			1		1	
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1			9		9	
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1	3	2	4
Dwell Cyc Veh 2	6	8	6	8	5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	2	4
Exit 2	7	5	6	8	6	8
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:29:06 AM

Station : 1204 - Rock Island Rd & Southgate Blvd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	60	2	1	2	50		19	66	26	49	19	66	26	49								
9		3	3	160	69	3	1	2	50		17	70	24	49	17	70	24	49								
15		4	4	160	80	4	1	2	50		20	65	21	54	20	65	26	49								
20		3	3	160	69	3	1	2	50		17	70	24	49	17	70	24	49								
23		100	254																							
Day Plan 2											**Easy**															
		100	254																							
7		3	3	160	69	3	1	2	50		17	70	24	49	17	70	24	49								
23		100	254																							

Day Plan 3											**Easy**																
		100	254																								
7		3	3	160	69	3	1	2	50		17	70	24	49	17	70	24	49									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:29:06 AM

Station : 1204 - Rock Island Rd & Southgate Blvd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														1
8							1							1	1	1	1	1					1																													1
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1						1																										1							2
14												1		1	1	1	1	1																											1						2
15												1		1																																1					2
16												1		1																																				1	2
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User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1229	**Initial Operation Date**	4/20/81
Controller Type	2070 LN	**System Number**	
Modification Number	8	**Modification Date**	04/09/2019
Drawing/Project No	GRP 4	**FPL Grid Number**	87187241803
Intersection	ROCK ISLAND ROAD and KIMBERLY BOULEVARD		
Municipality	NORTH LAUDERDALE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	5	10	5	6	5	10	5	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	12	50	12	30	12	50	12	30
Maximum Green II								
Yellow Clearance	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		21		29		21		29
Permissive	5 SECT		5 SECT		5 SECT		5 SECT	
Flash Operation		YELLOW		RED		YELLOW		RED

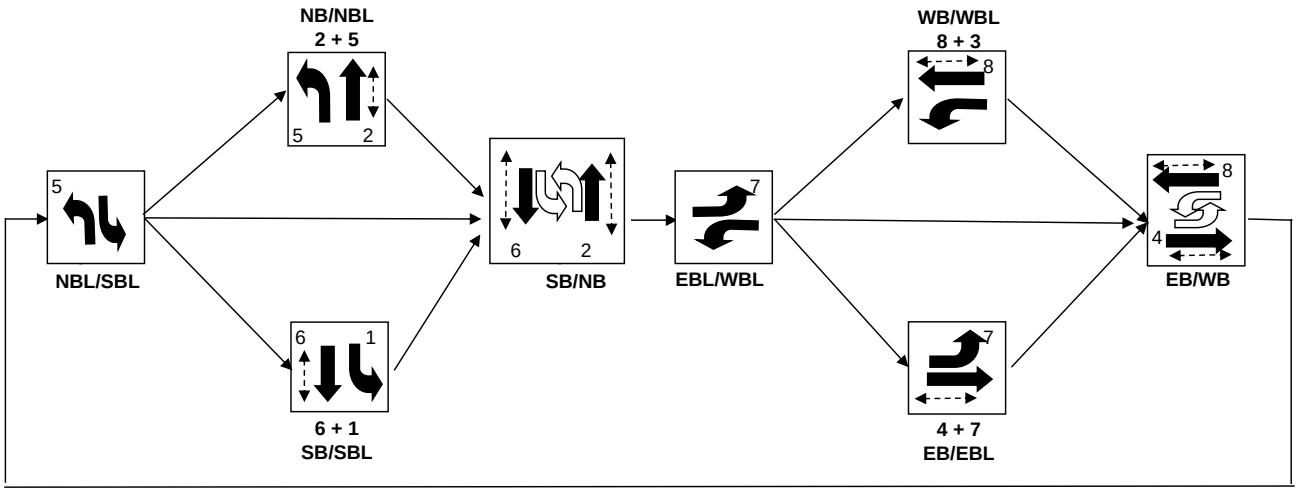
Attachment

NOTES:

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. ANTI-BACKDOWN NORTH/SOUTH: PHASES 2+6 ON--->OMIT PHASES 1+5.
3. MOD. 8 UPDATES NS/NSL YELLOW CLEARANCE VALUES.

Submitted By _____ **Approved By** _____

Sequence of Operation for (1229) Rock Island & Kimberly Blvd
North Lauderdale



Denotes permissive left turn

Denotes pedestrian crosswalk

Broward County Timing Sheet 6/27/2023 10:30:55 AM

Station : 1229 - Rock Island Rd & Kimberly Blvd (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		21		29		21		29								
Min Green	5	10	5	6	5	10	5	6								
Gap Ext	1.5	3	1.5	2	1.5	3	1.5	2								
Max1	12	50	12	30	12	50	12	30								
Max2																
Yellow Clr	4.5	4.5	4	4	4.5	4.5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable				ON				ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1	3	2	4
Dwell Cyc Veh 2	6	6	6	8	5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	2	4
Exit 2	7	5	6	8	6	8
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:30:55 AM

Station : 1229 - Rock Island Rd & Kimberly Blvd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	123	2	1	10	50		21	73	20	46	21	73	20	46								
9		3	3	160	150	3	1	10	50		16	82	16	46	16	82	16	46								
15		4	4	160	63	4	1	10	50		24	70	20	46	16	78	20	46								
20		3	3	160	150	3	1	10	50		16	82	16	46	16	82	16	46								
23		100	254																							
Day Plan 2											**Easy**															
		100	254																							
7		3	3	160	150	3	1	10	50		16	82	16	46	16	82	16	46								
23		100	254																							

Day Plan 3											**Easy**																
		100	254																								
7		3	3	160	150	3	1	10	50		16	82	16	46	16	82	16	46									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:30:55 AM

Station : 1229 - Rock Island Rd & Kimberly Blvd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														1
8							1							1	1	1	1	1					1																													1
9							1							1										1																												2
10									1					1						1	1	1	1	1	1	1																										2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1						1																										1							2
14												1		1	1	1	1	1																											1						2
15												1		1																																1					2
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User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1243	**Initial Operation Date**	12/31/03
Controller Type	2070 LN	**System Number**	
Modification Number	5	**Modification Date**	02/15/2018
Drawing/Project No	BOND 5024	**FPL Grid Number**	87187234505
Intersection	ROCK ISLAND ROAD and FOREST BOULEVARD		
Municipality	NORTH LAUDERDALE		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	4	12	4	6	4	12	4	6
Vehicle Ext.(GAP)	1.5	2.5	1.5	2.0	1.5	2.5	1.5	2.0
Maximum Green I	12	50	12	20	12	50	12	20
Maximum Green II								
Yellow Clearance	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0
All Red Clearance	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		14		21		14		21
Permissive	5-SECT		5-SECT		5-SECT		5-SECT	
Flash Operation		YELLOW		RED		YELLOW		RED

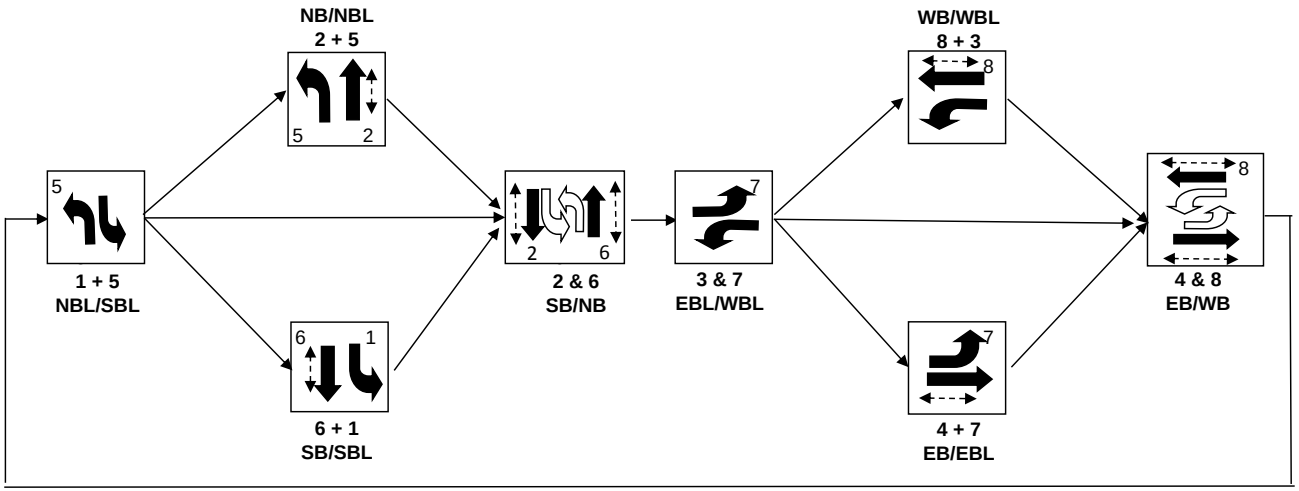
Attachment

NOTES:

1. ANTI-BACKDOWN NORTH/SOUTH: PHASES 2+6 ON--->OMIT PHASES 1+5.
2. DUAL ENTRY HARDWIRED EAST/WEST.
3. FLASH OPERATION: 0000-0600, 7 DAYS.
4. DETECTOR SWITCH PROGRAMMED (DETECTOR 3 CALL PHASE 3, SWITCH PHASE 8; DETECTOR 7 CALL PHASE 7 SWITCH PHASE 4)
5. MOD. 5 UPDATE YELLOW AND ALL RED CLEARANCE.

Submitted By _____ **Approved By** _____

Sequence of Operation for (1243) ROCK ISLAND ROAD AND FOREST BOULEVARD



Denotes permissive left turn

Denotes pedestrian clearance.

Broward County Timing Sheet 6/27/2023 10:29:58 AM

Station : 1243 - Rock Island Rd & Forest Blvd (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		14		21		14		21								
Min Green	4	12	4	6	4	12	4	6								
Gap Ext	1.5	2.5	1.5	2	1.5	2.5	1.5	2								
Max1	12	50	12	20	12	50	12	20								
Max2																
Yellow Clr	4.5	4.5	4	4	4.5	4.5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	3	3	2	2	3	3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable		ON		ON		ON		ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green			1		1	
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1			9			
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	6	8	2	7
Dwell Cyc Veh 2	6	8	1	3	5	4
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	2	4
Exit 2	7	5	6	8	6	8
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 6/27/2023 10:29:58 AM

Station : 1243 - Rock Island Rd & Forest Blvd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		25	255																							
6		2	2	160	131	2	1	10	50		16	88	20	36	16	88	20	36								
9		3	3	160	159	3	1	10	50		15	95	15	35	15	95	15	35								
15		4	4	160	93	4	1	10	50		21	83	20	36	21	83	20	36								
20		3	3	160	159	3	1	10	50		15	95	15	35	15	95	15	35								
23		100	254																							
Day Plan 2											**Easy**															
		25	255																							
6		100	254																							
7		3	3	160	159	3	1	10	50		15	95	15	35	15	95	15	35								
23		100	254																							

Day Plan 3											**Easy**																
		25	255																								
6		100	254																								
7		3	3	160	159	3	1	10	50		15	95	15	35	15	95	15	35									
23		100	254																								

Broward County Timing Sheet 6/27/2023 10:29:58 AM

Station : 1243 - Rock Island Rd & Forest Blvd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month											Day of Weekk							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																															2
6					1									1																															1	1	1	1	1	1	1	2
7							1											1				1																														1
8							1							1	1	1	1	1					1																													1
9							1							1										1																												2
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11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1						1																										1							2
14												1		1	1	1	1	1																											1						2
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User Comments:

APPENDIX I

SYNCHRO Output

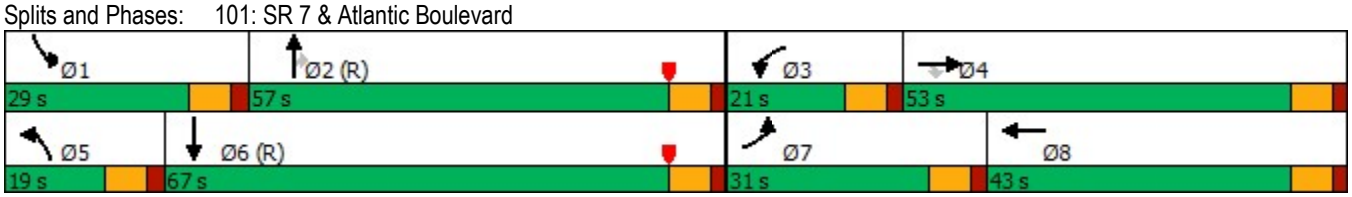
Existing (2023) SYNCHRO Output

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	372	1382	215	337	682	80	1470	600	267	1295
Future Volume (vph)	372	1382	215	337	682	80	1470	600	267	1295
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	11.0	47.0	47.0	11.0	43.0	12.0	50.0	50.0	12.0	50.0
Total Split (s)	31.0	53.0	53.0	21.0	43.0	19.0	57.0	57.0	29.0	67.0
Total Split (%)	19.4%	33.1%	33.1%	13.1%	26.9%	11.9%	35.6%	35.6%	18.1%	41.9%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	20.9	46.0	46.0	14.0	39.1	10.2	50.0	50.0	22.0	61.8
Actuated g/C Ratio	0.13	0.29	0.29	0.09	0.24	0.06	0.31	0.31	0.14	0.39
v/c Ratio	0.85	0.97	0.39	1.15	0.67	0.73	0.94	0.95	1.12	0.76
Control Delay	85.4	72.4	13.2	159.2	56.8	99.4	48.8	39.5	153.4	45.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	72.4	13.2	159.2	56.8	99.4	48.8	39.5	153.4	45.5
LOS	F	E	B	F	E	F	D	D	F	D
Approach Delay		68.4			87.1		48.1			62.4
Approach LOS		E			F		D			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 115 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 63.7	Intersection LOS: E
Intersection Capacity Utilization 113.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	380	1410	219	344	817	82	1500	612	272	1463
v/c Ratio	0.85	0.97	0.39	1.15	0.67	0.73	0.94	0.95	1.12	0.76
Control Delay	85.4	72.4	13.2	159.2	56.8	99.4	48.8	39.5	153.4	45.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	72.4	13.2	159.2	56.8	99.4	48.8	39.5	153.4	45.5
Queue Length 50th (ft)	202	535	36	~216	279	82	519	358	~326	487
Queue Length 95th (ft)	259	#636	112	#323	338	m107	m#649	m#635	#519	550
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	514	1461	562	300	1224	132	1589	647	243	1937
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.97	0.39	1.15	0.67	0.62	0.94	0.95	1.12	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	1382	215	337	682	119	80	1470	600	267	1295	139
Future Volume (veh/h)	372	1382	215	337	682	119	80	1470	600	267	1295	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	380	1410	219	344	696	121	82	1500	612	272	1321	142
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	423	1465	446	302	1098	188	101	1599	484	245	1840	198
Arrive On Green	0.12	0.29	0.29	0.09	0.25	0.25	0.08	0.42	0.42	0.18	0.52	0.52
Sat Flow, veh/h	3456	5106	1555	3456	4360	748	1781	5106	1546	1781	4669	502
Grp Volume(v), veh/h	380	1410	219	344	541	276	82	1500	612	272	963	500
Grp Sat Flow(s),veh/h/ln	1728	1702	1555	1728	1702	1704	1781	1702	1546	1781	1702	1767
Q Serve(g_s), s	17.3	43.5	18.7	14.0	22.6	23.1	7.3	45.0	50.1	22.0	34.5	34.5
Cycle Q Clear(g_c), s	17.3	43.5	18.7	14.0	22.6	23.1	7.3	45.0	50.1	22.0	34.5	34.5
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	423	1465	446	302	858	429	101	1599	484	245	1342	696
V/C Ratio(X)	0.90	0.96	0.49	1.14	0.63	0.64	0.82	0.94	1.26	1.11	0.72	0.72
Avail Cap(c_a), veh/h	518	1468	447	302	858	429	134	1599	484	245	1342	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.52	0.52	0.52	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.2	56.2	47.3	73.0	53.2	53.4	73.2	45.2	46.7	65.4	31.3	31.3
Incr Delay (d2), s/veh	14.4	15.4	0.6	94.3	1.4	3.0	10.6	7.1	127.8	90.4	3.3	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	20.8	7.4	10.2	9.9	10.3	3.6	19.2	35.5	15.9	14.0	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	71.6	48.0	167.3	54.6	56.4	83.8	52.3	174.5	155.7	34.6	37.5
LnGrp LOS	F	E	D	F	D	E	F	D	F	F	C	D
Approach Vol, veh/h		2009			1161			2194			1735	
Approach Delay, s/veh		71.3			88.4			87.6			54.4	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	57.1	21.0	52.9	16.0	70.1	26.6	47.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	22.0	50.0	14.0	46.0	12.0	60.0	24.0	36.0
Max Q Clear Time (g_c+I1), s	24.0	52.1	16.0	45.5	9.3	36.5	19.3	25.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	11.5	0.3	3.5

Intersection Summary	
HCM 6th Ctrl Delay	75.0
HCM 6th LOS	E

Notes

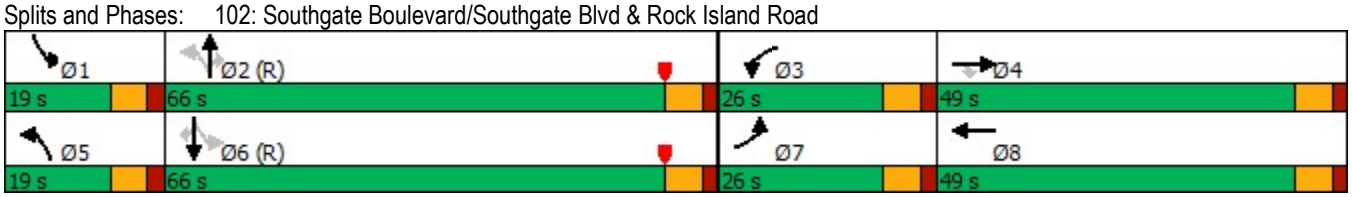
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	475	760	179	74	514	160	963	174	215	840	493
Future Volume (vph)	475	760	179	74	514	160	963	174	215	840	493
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	49.0	49.0	26.0	49.0	19.0	66.0	66.0	19.0	66.0	66.0
Total Split (%)	16.3%	30.6%	30.6%	16.3%	30.6%	11.9%	41.3%	41.3%	11.9%	41.3%	41.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	49.0	49.0	11.0	40.5	70.7	59.5	59.5	76.3	62.9	62.9
Actuated g/C Ratio	0.12	0.31	0.31	0.07	0.25	0.44	0.37	0.37	0.48	0.39	0.39
v/c Ratio	1.20	0.74	0.34	0.64	0.93	0.66	0.77	0.28	0.96	0.64	0.63
Control Delay	166.4	54.8	19.1	96.1	49.5	47.6	68.1	28.5	81.7	42.6	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	166.4	54.8	19.1	96.1	49.5	47.6	68.1	28.5	81.7	42.6	16.7
LOS	F	D	B	F	D	D	E	C	F	D	B
Approach Delay		87.8			53.5		60.3			39.7	
Approach LOS		F			D		E			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 60 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 60.5	Intersection LOS: E
Intersection Capacity Utilization 101.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	500	800	188	78	830	168	1014	183	226	884	519
v/c Ratio	1.20	0.74	0.34	0.64	0.93	0.66	0.77	0.28	0.96	0.64	0.63
Control Delay	166.4	54.8	19.1	96.1	49.5	47.6	68.1	28.5	81.7	42.6	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	166.4	54.8	19.1	96.1	49.5	47.6	68.1	28.5	81.7	42.6	16.7
Queue Length 50th (ft)	~324	388	57	76	377	144	588	84	~180	406	151
Queue Length 95th (ft)	#444	489	134	m101	m#470	213	657	169	#362	484	288
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1083	552	215	935	270	1316	665	236	1390	819
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.74	0.34	0.36	0.89	0.62	0.77	0.28	0.96	0.64	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	760	179	74	514	275	160	963	174	215	840	493
Future Volume (veh/h)	475	760	179	74	514	275	160	963	174	215	840	493
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	500	800	188	78	541	289	168	1014	0	226	884	519
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1152	505	97	574	306	251	1354		270	1382	613
Arrive On Green	0.12	0.32	0.32	0.05	0.26	0.26	0.09	0.51	0.00	0.10	0.52	0.52
Sat Flow, veh/h	3456	3554	1557	1781	2237	1192	1781	3554	1585	1781	3554	1578
Grp Volume(v), veh/h	500	800	188	78	430	400	168	1014	0	226	884	519
Grp Sat Flow(s),veh/h/ln	1728	1777	1557	1781	1777	1652	1781	1777	1585	1781	1777	1578
Q Serve(g_s), s	19.5	31.4	14.9	6.9	37.9	38.1	9.2	36.3	0.0	12.5	28.7	45.2
Cycle Q Clear(g_c), s	19.5	31.4	14.9	6.9	37.9	38.1	9.2	36.3	0.0	12.5	28.7	45.2
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1152	505	97	456	424	251	1354		270	1382	613
V/C Ratio(X)	1.19	0.69	0.37	0.81	0.94	0.94	0.67	0.75		0.84	0.64	0.85
Avail Cap(c_a), veh/h	421	1152	505	217	472	439	265	1354		270	1382	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	47.2	41.6	74.8	58.3	58.4	30.0	33.4	0.0	33.6	30.5	34.5
Incr Delay (d2), s/veh	105.8	1.5	0.2	5.8	26.6	28.4	3.5	2.9	0.0	19.1	2.3	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	14.3	5.8	3.4	20.5	19.3	4.1	15.3	0.0	6.7	12.1	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	176.1	48.7	41.7	80.7	84.9	86.8	33.5	36.3	0.0	52.7	32.8	48.0
LnGrp LOS	F	D	D	F	F	F	C	D		D	C	D
Approach Vol, veh/h		1488			908			1182			1629	
Approach Delay, s/veh		90.6			85.4			35.9			40.4	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	67.5	15.2	58.4	17.7	68.7	26.0	47.5
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	12.5	59.5	19.5	42.5	12.5	59.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	14.5	38.3	8.9	33.4	11.2	47.2	21.5	40.1
Green Ext Time (p_c), s	0.0	7.6	0.0	3.0	0.0	6.5	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	61.6
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1085	16	11	643	5	29	0	60	17	3	5
Future Vol, veh/h	2	1085	16	11	643	5	29	0	60	17	3	5
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1179	17	12	699	5	32	0	65	18	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	708	0	0	1201	0	0	1572	1929	603	1324	1935	356
Stage 1	-	-	-	-	-	-	1197	1197	-	730	730	-
Stage 2	-	-	-	-	-	-	375	732	-	594	1205	-
Critical Hdwy	4.14	-	-	4.14	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	887	-	-	577	-	-	243	166	718	315	164	889
Stage 1	-	-	-	-	-	-	360	360	-	581	581	-
Stage 2	-	-	-	-	-	-	830	580	-	667	357	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	884	-	-	574	-	-	230	159	715	277	157	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	230	159	-	277	157	-
Stage 1	-	-	-	-	-	-	357	357	-	578	559	-
Stage 2	-	-	-	-	-	-	792	558	-	605	355	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	16	18.7
HCM LOS			C	C

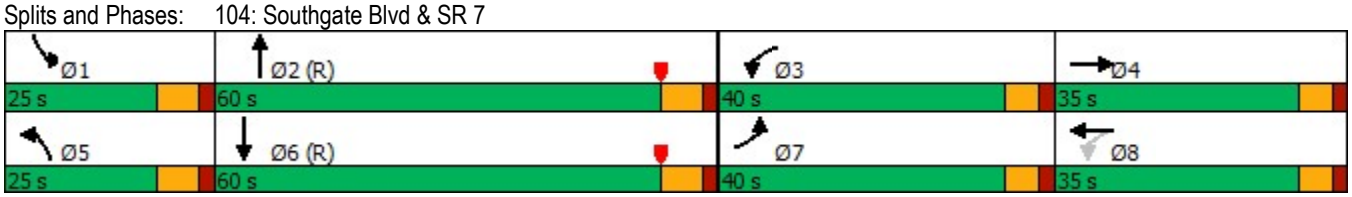
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	424	884	-	-	574	-	-	290
HCM Lane V/C Ratio	0.228	0.002	-	-	0.021	-	-	0.094
HCM Control Delay (s)	16	9.1	-	-	11.4	0.2	-	18.7
HCM Lane LOS	C	A	-	-	B	A	-	C
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.3

Timings
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	665	123	63	65	180	1439	59	1277
Future Volume (vph)	665	123	63	65	180	1439	59	1277
Turn Type	Prot	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases			8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	6.0	4.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	35.0	10.0	35.0	12.0	37.0	12.0	38.0
Total Split (s)	40.0	35.0	40.0	35.0	25.0	60.0	25.0	60.0
Total Split (%)	25.0%	21.9%	25.0%	21.9%	15.6%	37.5%	15.6%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.2	56.0	35.5	28.1	12.5	65.8	9.3	60.2
Actuated g/C Ratio	0.21	0.35	0.22	0.18	0.08	0.41	0.06	0.38
v/c Ratio	0.95	0.70	0.26	0.62	0.69	0.71	0.58	0.90
Control Delay	82.5	26.3	34.2	52.4	87.4	38.5	122.3	39.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.5	26.3	34.2	52.4	87.4	38.5	122.3	39.6
LOS	F	C	C	D	F	D	F	D
Approach Delay		60.8		48.2		43.8		42.4
Approach LOS		E		D		D		D

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 24 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 47.5	Intersection LOS: D
Intersection Capacity Utilization 93.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 104: Southgate Blvd & SR 7



Queues
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	679	429	64	212	184	1490	60	1694
v/c Ratio	0.95	0.70	0.26	0.62	0.69	0.71	0.58	0.90
Control Delay	82.5	26.3	34.2	52.4	87.4	38.5	122.3	39.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.5	26.3	34.2	52.4	87.4	38.5	122.3	39.6
Queue Length 50th (ft)	252	224	41	152	103	325	66	634
Queue Length 95th (ft)	m#448	m309	71	242	146	416	m83	m#712
Internal Link Dist (ft)		1738		1039		1330		2623
Turn Bay Length (ft)	125		205		235		215	
Base Capacity (vph)	729	616	543	357	386	2086	199	1872
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.70	0.12	0.59	0.48	0.71	0.30	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Southgate Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	665	123	297	63	65	143	180	1439	22	59	1277	383
Future Volume (veh/h)	665	123	297	63	65	143	180	1439	22	59	1277	383
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	679	126	303	64	66	146	184	1468	22	60	1303	391
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	717	156	375	197	79	176	227	2239	34	76	1594	477
Arrive On Green	0.21	0.32	0.32	0.04	0.16	0.16	0.09	0.57	0.57	0.06	0.54	0.54
Sat Flow, veh/h	3456	484	1164	1781	511	1130	3456	5182	78	1781	3896	1166
Grp Volume(v), veh/h	679	0	429	64	0	212	184	964	526	60	1138	556
Grp Sat Flow(s),veh/h/ln	1728	0	1648	1781	0	1641	1728	1702	1856	1781	1702	1657
Q Serve(g_s), s	31.0	0.0	38.1	4.8	0.0	20.1	8.4	30.9	30.9	5.3	43.9	44.2
Cycle Q Clear(g_c), s	31.0	0.0	38.1	4.8	0.0	20.1	8.4	30.9	30.9	5.3	43.9	44.2
Prop In Lane	1.00		0.71	1.00		0.69	1.00		0.04	1.00		0.70
Lane Grp Cap(c), veh/h	717	0	532	197	0	255	227	1471	802	76	1393	678
V/C Ratio(X)	0.95	0.00	0.81	0.33	0.00	0.83	0.81	0.66	0.66	0.79	0.82	0.82
Avail Cap(c_a), veh/h	734	0	532	504	0	297	389	1471	802	200	1393	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	0.53	0.53	0.53
Uniform Delay (d), s/veh	62.6	0.0	49.6	54.1	0.0	65.5	72.0	25.9	25.9	74.7	31.6	31.6
Incr Delay (d2), s/veh	20.8	0.0	8.3	0.4	0.0	13.9	2.4	2.1	3.8	3.6	3.0	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	0.0	17.0	2.2	0.0	9.4	3.7	12.1	13.5	2.5	17.4	17.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	0.0	58.0	54.5	0.0	79.4	74.4	28.0	29.7	78.3	34.5	37.6
LnGrp LOS	F	A	E	D	A	E	E	C	C	E	C	D
Approach Vol, veh/h		1108			276			1674			1754	
Approach Delay, s/veh		73.5			73.6			33.6			37.0	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	76.1	12.4	57.6	17.5	72.5	39.2	30.9
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	53.0	34.0	29.0	18.0	53.0	34.0	29.0
Max Q Clear Time (g_c+I1), s	7.3	32.9	6.8	40.1	10.4	46.2	33.0	22.1
Green Ext Time (p_c), s	0.0	10.6	0.0	0.0	0.1	5.3	0.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Notes

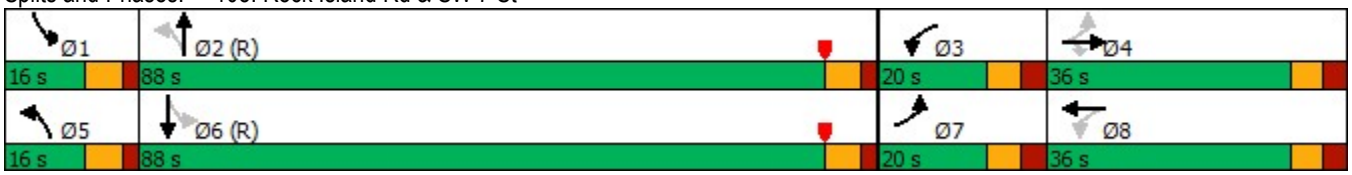
User approved pedestrian interval to be less than phase max green.

Timings
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	113	60	90	77	37	83	1070	133	1031
Future Volume (vph)	113	60	90	77	37	83	1070	133	1031
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	12.0	4.0	12.0
Minimum Split (s)	11.0	35.0	35.0	11.0	35.0	10.5	27.5	10.5	27.5
Total Split (s)	20.0	36.0	36.0	20.0	36.0	16.0	88.0	16.0	88.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.3	15.3	15.3	24.0	13.6	104.1	97.2	110.6	100.5
Actuated g/C Ratio	0.17	0.10	0.10	0.15	0.08	0.65	0.61	0.69	0.63
v/c Ratio	0.73	0.40	0.41	0.40	0.79	0.37	0.60	0.56	0.56
Control Delay	76.9	73.1	12.7	56.8	61.6	12.6	22.4	23.4	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	73.1	12.7	56.8	61.6	12.6	22.4	23.4	10.2
LOS	E	E	B	E	E	B	C	C	B
Approach Delay		54.0			59.9		21.7		11.7
Approach LOS		D			E		C		B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 131 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.4	Intersection LOS: C
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: Rock Island Rd & SW 7 St



Queues
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	131	70	105	90	169	97	1289	155	1247
v/c Ratio	0.73	0.40	0.41	0.40	0.79	0.37	0.60	0.56	0.56
Control Delay	76.9	73.1	12.7	56.8	61.6	12.6	22.4	23.4	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	73.1	12.7	56.8	61.6	12.6	22.4	23.4	10.2
Queue Length 50th (ft)	118	70	0	79	92	29	420	36	79
Queue Length 95th (ft)	165	114	41	120	158	56	565	57	606
Internal Link Dist (ft)		723			1226		764		1324
Turn Bay Length (ft)	215		215	125		195		205	
Base Capacity (vph)	190	337	381	256	362	295	2141	287	2209
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.21	0.28	0.35	0.47	0.33	0.60	0.54	0.56

Intersection Summary

HCM 6th Signalized Intersection Summary
105: Rock Island Rd & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	60	90	77	37	108	83	1070	39	133	1031	41
Future Volume (veh/h)	113	60	90	77	37	108	83	1070	39	133	1031	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	70	105	90	43	126	97	1244	45	155	1199	48
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	267	225	276	51	148	315	2046	74	317	2083	83
Arrive On Green	0.08	0.14	0.14	0.06	0.12	0.12	0.05	0.78	0.78	0.06	0.80	0.80
Sat Flow, veh/h	1781	1870	1578	1781	413	1212	1781	3497	126	1781	3479	139
Grp Volume(v), veh/h	131	70	105	90	0	169	97	632	657	155	612	635
Grp Sat Flow(s),veh/h/ln	1781	1870	1578	1781	0	1625	1781	1777	1847	1781	1777	1842
Q Serve(g_s), s	10.2	5.3	9.8	7.0	0.0	16.3	3.5	23.9	24.0	5.7	20.7	20.7
Cycle Q Clear(g_c), s	10.2	5.3	9.8	7.0	0.0	16.3	3.5	23.9	24.0	5.7	20.7	20.7
Prop In Lane	1.00		1.00	1.00		0.75	1.00		0.07	1.00		0.08
Lane Grp Cap(c), veh/h	205	267	225	276	0	199	315	1039	1080	317	1064	1103
V/C Ratio(X)	0.64	0.26	0.47	0.33	0.00	0.85	0.31	0.61	0.61	0.49	0.58	0.58
Avail Cap(c_a), veh/h	214	339	286	322	0	295	360	1039	1080	337	1064	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	56.4	61.1	63.0	57.0	0.0	68.8	13.5	10.0	10.0	14.4	8.6	8.6
Incr Delay (d2), s/veh	4.3	0.2	0.6	0.3	0.0	9.8	0.2	2.6	2.6	0.3	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	2.6	4.0	3.2	0.0	7.4	1.4	8.0	8.3	2.3	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	61.3	63.5	57.3	0.0	78.6	13.7	12.7	12.6	14.7	10.4	10.4
LnGrp LOS	E	E	E	E	A	E	B	B	B	B	B	B
Approach Vol, veh/h		306			259			1386			1402	
Approach Delay, s/veh		61.8			71.2			12.7			10.9	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	100.1	15.9	29.8	12.0	102.3	19.2	26.5
Change Period (Y+Rc), s	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
Max Green Setting (Gmax), s	9.5	81.5	13.0	29.0	9.5	81.5	13.0	29.0
Max Q Clear Time (g_c+I1), s	7.7	26.0	9.0	11.8	5.5	22.7	12.2	18.3
Green Ext Time (p_c), s	0.0	9.7	0.0	0.3	0.0	9.2	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	200	37	18	131	13	44	18	41	13	13	11
Future Vol, veh/h	6	200	37	18	131	13	44	18	41	13	13	11
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	235	44	21	154	15	52	21	48	15	15	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	9.2	8.9	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	43%	2%	11%	35%
Vol Thru, %	17%	82%	81%	35%
Vol Right, %	40%	15%	8%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	243	162	37
LT Vol	44	6	18	13
Through Vol	18	200	131	13
RT Vol	41	37	13	11
Lane Flow Rate	121	286	191	44
Geometry Grp	1	1	1	1
Degree of Util (X)	0.165	0.356	0.245	0.061
Departure Headway (Hd)	4.916	4.477	4.637	5.076
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	800	772	701
Service Time	2.969	2.514	2.679	3.137
HCM Lane V/C Ratio	0.167	0.357	0.247	0.063
HCM Control Delay	8.9	10	9.2	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.6	1	0.2

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	284	9	6	148	14	7	4	5	30	2	21
Future Vol, veh/h	30	284	9	6	148	14	7	4	5	30	2	21
Conflicting Peds, #/hr	1	0	6	6	0	1	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	293	9	6	153	14	7	4	5	31	2	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	308	0	0	552	546	304	537	543	163
Stage 1	-	-	-	-	-	-	366	366	-	173	173	-
Stage 2	-	-	-	-	-	-	186	180	-	364	370	-
Critical Hdwy	4.12	-	-	4.12	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1410	-	-	1253	-	-	695	700	929	706	702	1047
Stage 1	-	-	-	-	-	-	837	837	-	1013	1013	-
Stage 2	-	-	-	-	-	-	1000	1006	-	839	834	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1409	-	-	1246	-	-	658	673	924	682	675	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	658	673	-	682	675	-
Stage 1	-	-	-	-	-	-	810	810	-	986	1007	-
Stage 2	-	-	-	-	-	-	971	1000	-	808	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.3	10.1	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	728	1409	-	-	1246	-	-	790
HCM Lane V/C Ratio	0.023	0.022	-	-	0.005	-	-	0.069
HCM Control Delay (s)	10.1	7.6	0	-	7.9	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	321	2	2	166	2	0
Future Vol, veh/h	321	2	2	166	2	0
Conflicting Peds, #/hr	0	9	9	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	357	2	2	171	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	368	0	542	368
Stage 1	-	-	-	-	367	-
Stage 2	-	-	-	-	175	-
Critical Hdwy	-	-	4.12	-	5	4.5
Critical Hdwy Stg 1	-	-	-	-	5	-
Critical Hdwy Stg 2	-	-	-	-	5	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	1191	-	703	880
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1181	-	695	872
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	1009	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.2
HCM LOS			B

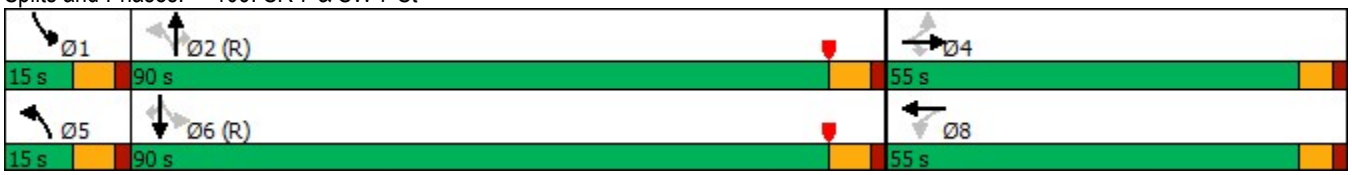
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	695	-	-	-	1181	-
HCM Lane V/C Ratio	0.003	-	-	-	0.002	-
HCM Control Delay (s)	10.2	0	-	-	8.1	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	-

Timings
109: SR 7 & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	81	11	226	47	21	118	1600	19	16	1576	57
Future Volume (vph)	81	11	226	47	21	118	1600	19	16	1576	57
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	45.0	45.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	15.0	90.0	90.0	15.0	90.0	90.0
Total Split (%)	34.4%	34.4%	34.4%	34.4%	34.4%	9.4%	56.3%	56.3%	9.4%	56.3%	56.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		19.1	19.1		19.1	126.0	120.7	120.7	118.4	113.4	113.4
Actuated g/C Ratio		0.12	0.12		0.12	0.79	0.75	0.75	0.74	0.71	0.71
v/c Ratio		0.64	0.85		0.54	0.52	0.44	0.02	0.08	0.46	0.06
Control Delay		84.0	62.9		73.2	12.3	9.0	0.1	3.1	5.6	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		84.0	62.9		73.2	12.3	9.0	0.1	3.1	5.6	0.1
LOS		F	E		E	B	A	A	A	A	A
Approach Delay		69.0			73.2		9.1			5.4	
Approach LOS		E			E		A			A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 109: SR 7 & SW 7 St



Queues
109: SR 7 & SW 7 St

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	97	238	82	124	1684	20	17	1659	60
v/c Ratio	0.64	0.85	0.54	0.52	0.44	0.02	0.08	0.46	0.06
Control Delay	84.0	62.9	73.2	12.3	9.0	0.1	3.1	5.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.0	62.9	73.2	12.3	9.0	0.1	3.1	5.6	0.1
Queue Length 50th (ft)	98	140	77	24	243	0	2	124	0
Queue Length 95th (ft)	155	229	129	54	345	0	m3	145	m0
Internal Link Dist (ft)	972		833		582			1330	
Turn Bay Length (ft)		100		330		105	275		95
Base Capacity (vph)	391	552	382	249	3835	1176	247	3602	1053
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.43	0.21	0.50	0.44	0.02	0.07	0.46	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
109: SR 7 & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	11	226	47	21	10	118	1600	19	16	1576	57
Future Volume (veh/h)	81	11	226	47	21	10	118	1600	19	16	1576	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.97	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	12	238	49	22	11	124	1684	20	17	1659	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	29	261	109	46	18	281	3532	1062	260	3440	1056
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.92	0.92	0.02	0.90	0.90
Sat Flow, veh/h	1076	172	1565	437	276	111	1781	5106	1536	1781	5106	1567
Grp Volume(v), veh/h	97	0	238	82	0	0	124	1684	20	17	1659	60
Grp Sat Flow(s),veh/h/ln	1247	0	1565	824	0	0	1781	1702	1536	1781	1702	1567
Q Serve(g_s), s	0.0	0.0	23.9	7.7	0.0	0.0	3.5	7.5	0.2	0.5	9.5	0.7
Cycle Q Clear(g_c), s	11.8	0.0	23.9	19.5	0.0	0.0	3.5	7.5	0.2	0.5	9.5	0.7
Prop In Lane	0.88		1.00	0.60		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	250	0	261	173	0	0	281	3532	1062	260	3440	1056
V/C Ratio(X)	0.39	0.00	0.91	0.47	0.00	0.00	0.44	0.48	0.02	0.07	0.48	0.06
Avail Cap(c_a), veh/h	447	0	479	356	0	0	308	3532	1062	319	3440	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.35	0.35	0.35
Uniform Delay (d), s/veh	60.4	0.0	65.5	66.5	0.0	0.0	7.7	2.3	2.0	7.8	3.2	2.7
Incr Delay (d2), s/veh	0.4	0.0	5.1	0.7	0.0	0.0	0.4	0.5	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	10.0	3.3	0.0	0.0	1.4	1.9	0.1	0.2	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	0.0	70.6	67.3	0.0	0.0	8.1	2.7	2.0	7.8	3.4	2.8
LnGrp LOS	E	A	E	E	A	A	A	A	A	A	A	A
Approach Vol, veh/h		335			82			1828			1736	
Approach Delay, s/veh		67.8			67.3			3.1			3.4	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	117.7		32.7	12.5	114.8		32.7
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	8.0	83.0		49.0	8.0	83.0		49.0
Max Q Clear Time (g_c+I1), s	2.5	9.5		25.9	5.5	11.5		21.5
Green Ext Time (p_c), s	0.0	22.9		0.8	0.0	22.5		0.3

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Timings
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	96	119	101	132	110	63	1024	114	113	919	82
Future Volume (vph)	96	119	101	132	110	63	1024	114	113	919	82
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	47.5	11.5	44.5	44.5	16.5	44.6	44.6
Total Split (s)	20.0	46.0	46.0	20.0	46.0	21.0	73.0	73.0	21.0	73.0	73.0
Total Split (%)	12.5%	28.8%	28.8%	12.5%	28.8%	13.1%	45.6%	45.6%	13.1%	45.6%	45.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.3	15.2	15.2	29.7	16.9	105.0	99.0	99.0	108.9	101.0	101.0
Actuated g/C Ratio	0.16	0.10	0.10	0.19	0.11	0.66	0.62	0.62	0.68	0.63	0.63
v/c Ratio	0.50	0.71	0.44	0.63	0.54	0.19	0.49	0.12	0.37	0.43	0.10
Control Delay	59.8	90.8	15.5	65.8	37.9	9.5	18.7	3.8	11.3	16.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	90.8	15.5	65.8	37.9	9.5	18.7	3.8	11.3	16.5	1.6
LOS	E	F	B	E	D	A	B	A	B	B	A
Approach Delay		57.3			48.4		16.8			14.9	
Approach LOS		E			D		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 123 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 24.1	Intersection LOS: C
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 110: Kimberly Blvd & Rock Island Road

Queues
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	125	106	139	231	66	1078	120	119	967	86
v/c Ratio	0.50	0.71	0.44	0.63	0.54	0.19	0.49	0.12	0.37	0.43	0.10
Control Delay	59.8	90.8	15.5	65.8	37.9	9.5	18.7	3.8	11.3	16.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	90.8	15.5	65.8	37.9	9.5	18.7	3.8	11.3	16.5	1.6
Queue Length 50th (ft)	88	129	0	125	60	20	315	6	37	262	0
Queue Length 95th (ft)	139	196	56	185	105	41	441	38	68	355	16
Internal Link Dist (ft)		387			3410		622			1269	
Turn Bay Length (ft)	250		250	200		280		150	240		160
Base Capacity (vph)	236	465	463	234	853	447	2190	998	394	2233	832
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.27	0.23	0.59	0.27	0.15	0.49	0.12	0.30	0.43	0.10

Intersection Summary

HCM 6th Signalized Intersection Summary
110: Kimberly Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	119	101	132	110	109	63	1024	114	113	919	82
Future Volume (veh/h)	96	119	101	132	110	109	63	1024	114	113	919	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.92		0.87	0.93		0.88	1.00		0.87	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	125	106	139	116	115	66	1078	120	119	967	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	416	307	351	425	333	305	1792	693	282	1847	759
Arrive On Green	0.06	0.22	0.22	0.07	0.24	0.24	0.04	0.67	0.67	0.06	0.69	0.69
Sat Flow, veh/h	1781	1870	1380	1781	1777	1395	1781	3554	1374	1781	3554	1461
Grp Volume(v), veh/h	101	125	106	139	116	115	66	1078	120	119	967	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1380	1781	1777	1395	1781	1777	1374	1781	1777	1461
Q Serve(g_s), s	6.9	8.9	10.4	9.6	8.5	10.9	2.9	26.8	5.2	5.2	21.1	3.2
Cycle Q Clear(g_c), s	6.9	8.9	10.4	9.6	8.5	10.9	2.9	26.8	5.2	5.2	21.1	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	416	307	351	425	333	305	1792	693	282	1847	759
V/C Ratio(X)	0.31	0.30	0.35	0.40	0.27	0.34	0.22	0.60	0.17	0.42	0.52	0.11
Avail Cap(c_a), veh/h	382	468	345	378	444	349	413	1792	693	364	1847	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	51.9	52.4	43.5	49.6	50.5	19.1	17.5	13.9	20.1	15.1	12.4
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.3	0.1	0.2	0.1	1.5	0.5	0.4	1.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.3	3.7	4.3	3.9	3.9	1.2	10.1	1.7	2.2	7.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	52.0	52.7	43.7	49.7	50.7	19.2	19.0	14.5	20.5	16.2	12.7
LnGrp LOS	D	D	D	D	D	D	B	B	B	C	B	B
Approach Vol, veh/h		332			370			1264			1172	
Approach Delay, s/veh		50.0			47.8			18.6			16.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	87.2	17.6	41.6	11.2	89.7	14.9	44.2
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
Max Green Setting (Gmax), s	14.5	66.5	14.0	40.0	14.5	66.5	14.0	40.0
Max Q Clear Time (g_c+I1), s	7.2	28.8	11.6	12.4	4.9	23.1	8.9	12.9
Green Ext Time (p_c), s	0.0	10.8	0.0	0.7	0.0	9.3	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	369	245	109	82
Demand Flow Rate, veh/h	376	250	111	83
Vehicles Circulating, veh/h	72	103	385	270
Vehicles Exiting, veh/h	281	393	63	83
Ped Vol Crossing Leg, #/h	0	0	1	7
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	5.5	4.7	5.0	4.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	376	250	111	83
Cap Entry Lane, veh/h	1282	1242	932	1048
Entry HV Adj Factor	0.980	0.980	0.985	0.983
Flow Entry, veh/h	369	245	109	82
Cap Entry, veh/h	1257	1217	917	1029
V/C Ratio	0.293	0.201	0.119	0.079
Control Delay, s/veh	5.5	4.7	5.0	4.2
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	0

Timings
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	150	21	177	179	23	85	121	1530	63	1735	81
Future Volume (vph)	150	21	177	179	23	85	121	1530	63	1735	81
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	40.0	40.0	12.0	40.0	12.0	40.0	40.0
Total Split (s)	21.0	43.0	43.0	21.0	43.0	43.0	23.0	76.0	20.0	73.0	73.0
Total Split (%)	13.1%	26.9%	26.9%	13.1%	26.9%	26.9%	14.4%	47.5%	12.5%	45.6%	45.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.0	8.2	8.2	23.3	8.8	8.8	15.2	104.1	9.7	96.2	96.2
Actuated g/C Ratio	0.14	0.05	0.05	0.15	0.06	0.06	0.10	0.65	0.06	0.60	0.60
v/c Ratio	0.70	0.22	0.72	0.80	0.23	0.45	0.73	0.50	0.60	0.58	0.09
Control Delay	75.8	76.8	25.7	85.3	76.5	11.9	90.0	23.6	94.8	21.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.8	76.8	25.7	85.3	76.5	11.9	90.0	23.6	94.8	21.5	1.5
LOS	E	E	C	F	E	B	F	C	F	C	A
Approach Delay		50.3			62.8			28.3		23.1	
Approach LOS		D			E			C		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 113 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 112: Kimberly Blvd & SR 7

Queues
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	153	21	181	183	23	87	123	1630	64	1770	83
v/c Ratio	0.70	0.22	0.72	0.80	0.23	0.45	0.73	0.50	0.60	0.58	0.09
Control Delay	75.8	76.8	25.7	85.3	76.5	11.9	90.0	23.6	94.8	21.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.8	76.8	25.7	85.3	76.5	11.9	90.0	23.6	94.8	21.5	1.5
Queue Length 50th (ft)	147	22	0	180	24	0	137	316	67	391	0
Queue Length 95th (ft)	213	51	80	252	54	28	209	447	117	534	15
Internal Link Dist (ft)		1738			1039			1330		793	
Turn Bay Length (ft)	175			110		110	325		330		235
Base Capacity (vph)	233	430	498	235	430	435	192	3285	145	3056	948
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.05	0.36	0.78	0.05	0.20	0.64	0.50	0.44	0.58	0.09

Intersection Summary

HCM 6th Signalized Intersection Summary
112: Kimberly Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	21	177	179	23	85	121	1530	68	63	1735	81
Future Volume (veh/h)	150	21	177	179	23	85	121	1530	68	63	1735	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.96		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	21	181	183	23	87	123	1561	69	64	1770	83
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	413	337	272	407	359	287	143	2594	115	81	2468	740
Arrive On Green	0.08	0.18	0.18	0.09	0.19	0.19	0.11	0.69	0.69	0.06	0.64	0.64
Sat Flow, veh/h	1781	1870	1509	1781	1870	1494	1781	5005	221	1781	5106	1532
Grp Volume(v), veh/h	153	21	181	183	23	87	123	1062	568	64	1770	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1509	1781	1870	1494	1781	1702	1822	1781	1702	1532
Q Serve(g_s), s	11.1	1.5	17.9	13.3	1.6	8.0	10.9	26.5	26.5	5.7	36.8	3.3
Cycle Q Clear(g_c), s	11.1	1.5	17.9	13.3	1.6	8.0	10.9	26.5	26.5	5.7	36.8	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	413	337	272	407	359	287	143	1764	944	81	2468	740
V/C Ratio(X)	0.37	0.06	0.67	0.45	0.06	0.30	0.86	0.60	0.60	0.79	0.72	0.11
Avail Cap(c_a), veh/h	434	433	349	407	433	345	178	1764	944	145	2468	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	54.4	61.1	47.0	52.9	55.4	70.6	16.1	16.1	74.4	21.3	15.4
Incr Delay (d2), s/veh	0.2	0.0	1.5	0.3	0.0	0.2	22.0	1.4	2.5	6.4	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.7	7.0	6.0	0.8	3.1	5.7	9.4	10.3	2.7	13.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	54.4	62.6	47.3	52.9	55.7	92.6	17.5	18.6	80.9	23.2	15.7
LnGrp LOS	D	D	E	D	D	E	F	B	B	F	C	B
Approach Vol, veh/h		355			293			1753			1917	
Approach Delay, s/veh		55.8			50.2			23.1			24.8	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	89.9	21.0	34.8	19.8	84.3	19.1	36.7
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	13.0	69.0	15.0	37.0	16.0	66.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	7.7	28.5	15.3	19.9	12.9	38.8	13.1	10.0
Green Ext Time (p_c), s	0.0	16.9	0.0	0.4	0.0	16.6	0.0	0.2

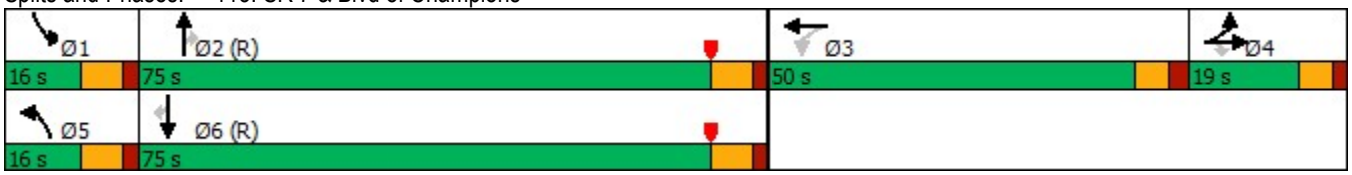
Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Timings
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	155	0	284	12	6	262	1519	13	22	1819	242
Future Volume (vph)	155	0	284	12	6	262	1519	13	22	1819	242
Turn Type	Split	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3	5	2		1	6	
Permitted Phases			4	3				2			6
Detector Phase	4	4	4	3	3	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	19.0	19.0	19.0	47.5	47.5	12.0	43.0	43.0	12.0	43.0	43.0
Total Split (s)	19.0	19.0	19.0	50.0	50.0	16.0	75.0	75.0	16.0	75.0	75.0
Total Split (%)	11.9%	11.9%	11.9%	31.3%	31.3%	10.0%	46.9%	46.9%	10.0%	46.9%	46.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.5	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.2	12.2	12.2		9.4	23.5	115.4	115.4	6.3	93.4	93.4
Actuated g/C Ratio	0.08	0.08	0.08		0.06	0.15	0.72	0.72	0.04	0.58	0.58
v/c Ratio	0.61	0.28	0.28		0.36	0.54	0.43	0.01	0.33	0.64	0.25
Control Delay	81.4	1.3	1.3		88.9	70.0	9.4	0.0	85.6	13.4	0.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	1.3	1.3		88.9	70.0	9.4	0.0	85.6	13.4	0.6
LOS	F	A	A		F	E	A	A	F	B	A
Approach Delay		29.5			88.9		18.2			12.6	
Approach LOS		C			F		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 121 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 77.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 113: SR 7 & Blvd of Champions



Queues
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	161	148	148	19	273	1582	14	23	1895	252
v/c Ratio	0.61	0.28	0.28	0.36	0.54	0.43	0.01	0.33	0.64	0.25
Control Delay	81.4	1.3	1.3	88.9	70.0	9.4	0.0	85.6	13.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	1.3	1.3	88.9	70.0	9.4	0.0	85.6	13.4	0.6
Queue Length 50th (ft)	85	0	0	20	154	160	0	24	197	0
Queue Length 95th (ft)	123	0	0	49	205	258	m0	m43	224	m6
Internal Link Dist (ft)		446		833		1028			1330	
Turn Bay Length (ft)	170		300		300		160	160		425
Base Capacity (vph)	295	543	543	247	504	3666	1137	99	2968	1005
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.27	0.27	0.08	0.54	0.43	0.01	0.23	0.64	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
113: SR 7 & Blvd of Champions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	0	284	12	6	0	262	1519	13	22	1819	242
Future Volume (vph)	155	0	284	12	6	0	262	1519	13	22	1819	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	0.97	0.95	0.95		1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.97	1.00	1.00	0.97
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	0.85	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1504	1504		1801		3433	5085	1534	1770	5085	1543
Flt Permitted	0.95	1.00	1.00		0.49		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1504	1504		909		3433	5085	1534	1770	5085	1543
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	161	0	296	12	6	0	273	1582	14	23	1895	252
RTOR Reduction (vph)	0	137	137	0	0	0	0	0	4	0	0	109
Lane Group Flow (vph)	161	11	11	0	19	0	273	1582	10	23	1895	143
Confl. Peds. (#/hr)	11					11	9		5	5		9
Confl. Bikes (#/hr)												4
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3					2			6
Actuated Green, G (s)	12.2	12.2	12.2		6.9		23.5	110.1	110.1	4.3	90.9	90.9
Effective Green, g (s)	12.2	12.2	12.2		6.9		23.5	110.1	110.1	4.3	90.9	90.9
Actuated g/C Ratio	0.08	0.08	0.08		0.04		0.15	0.69	0.69	0.03	0.57	0.57
Clearance Time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	2.2	2.2	2.2		2.2		1.5	3.0	3.0	1.5	3.0	3.0
Lane Grp Cap (vph)	261	114	114		39		504	3499	1055	47	2888	876
v/s Ratio Prot	c0.05	0.01					c0.08	0.31		0.01	c0.37	
v/s Ratio Perm			0.01		c0.02				0.01			0.09
v/c Ratio	0.62	0.10	0.10		0.49		0.54	0.45	0.01	0.49	0.66	0.16
Uniform Delay, d1	71.6	68.8	68.8		74.8		63.3	11.3	7.8	76.8	23.8	16.4
Progression Factor	1.00	1.00	1.00		1.00		1.03	0.77	1.00	1.01	0.53	0.07
Incremental Delay, d2	3.3	0.2	0.2		4.8		0.6	0.4	0.0	2.4	1.0	0.3
Delay (s)	74.9	69.0	69.0		79.6		65.6	9.1	7.8	80.3	13.6	1.5
Level of Service	E	E	E		E		E	A	A	F	B	A
Approach Delay (s)		71.1			79.6			17.4			12.9	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

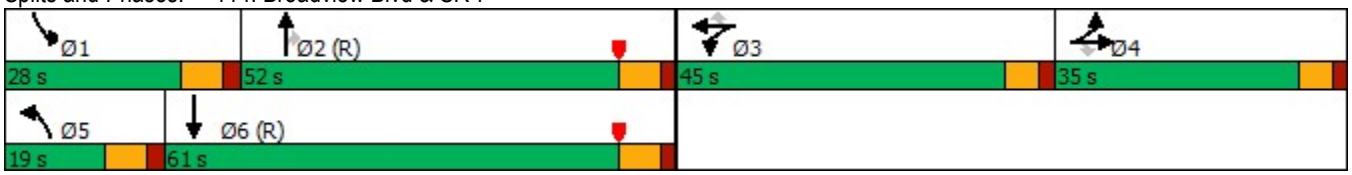
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	69	18	64	235	3	238	39	1369	241	312	1725
Future Volume (vph)	69	18	64	235	3	238	39	1369	241	312	1725
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		3	3		5	2		1	6
Permitted Phases			4			3			2		
Detector Phase	4	4	4	3	3	3	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	24.0	24.0	45.0	45.0	45.0	12.0	40.0	40.0	12.0	40.0
Total Split (s)	35.0	35.0	35.0	45.0	45.0	45.0	19.0	52.0	52.0	28.0	61.0
Total Split (%)	21.9%	21.9%	21.9%	28.1%	28.1%	28.1%	11.9%	32.5%	32.5%	17.5%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	7.9	7.9	7.9	16.9	16.9	16.9	7.8	89.5	89.5	19.7	103.8
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.05	0.56	0.56	0.12	0.65
v/c Ratio	0.43	0.21	0.29	0.72	0.71	0.65	0.48	0.51	0.27	0.78	0.57
Control Delay	81.3	77.5	3.1	90.2	89.6	14.9	91.3	23.9	8.9	101.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	77.5	3.1	90.2	89.6	14.9	91.3	23.9	8.9	101.2	6.2
LOS	F	E	A	F	F	B	F	C	A	F	A
Approach Delay		47.6			52.4			23.3			20.4
Approach LOS		D			D			C			C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 133 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Broadview Blvd & SR 7



Queues
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	19	68	127	126	253	41	1456	256	332	1887
v/c Ratio	0.43	0.21	0.29	0.72	0.71	0.65	0.48	0.51	0.27	0.78	0.57
Control Delay	81.3	77.5	3.1	90.2	89.6	14.9	91.3	23.9	8.9	101.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	77.5	3.1	90.2	89.6	14.9	91.3	23.9	8.9	101.2	6.2
Queue Length 50th (ft)	39	20	0	137	136	0	43	332	47	188	90
Queue Length 95th (ft)	67	49	0	208	207	86	85	460	123	241	124
Internal Link Dist (ft)		559			661			481			1028
Turn Bay Length (ft)	160		260	270		260	270		150	290	
Base Capacity (vph)	622	337	421	409	410	572	132	2843	940	470	3284
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.06	0.16	0.31	0.31	0.44	0.31	0.51	0.27	0.71	0.57

Intersection Summary

HCM Signalized Intersection Capacity Analysis
114: Broadview Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	18	64	235	3	238	39	1369	241	312	1725	49
Future Volume (vph)	69	18	64	235	3	238	39	1369	241	312	1725	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	1863	1583	1681	1687	1562	1770	5085	1560	3433	5060	
Flt Permitted	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	1863	1583	1681	1687	1562	1770	5085	1560	3433	5060	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	73	19	68	250	3	253	41	1456	256	332	1835	52
RTOR Reduction (vph)	0	0	65	0	0	226	0	0	69	0	1	0
Lane Group Flow (vph)	73	19	3	127	126	27	41	1456	187	332	1886	0
Confl. Peds. (#/hr)	1					1	3		1	1		3
Confl. Bikes (#/hr)									3			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			
Actuated Green, G (s)	7.9	7.9	7.9	16.9	16.9	16.9	6.8	89.5	89.5	19.7	102.4	
Effective Green, g (s)	7.9	7.9	7.9	16.9	16.9	16.9	6.8	89.5	89.5	19.7	102.4	
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.04	0.56	0.56	0.12	0.64	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	169	91	78	177	178	164	75	2844	872	422	3238	
v/s Ratio Prot	c0.02	0.01		c0.08	0.07		0.02	0.29		c0.10	c0.37	
v/s Ratio Perm			0.00			0.02			0.12			
v/c Ratio	0.43	0.21	0.04	0.72	0.71	0.16	0.55	0.51	0.21	0.79	0.58	
Uniform Delay, d1	73.9	73.0	72.4	69.2	69.2	65.1	75.1	21.8	17.6	68.1	16.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	0.32	
Incremental Delay, d2	0.6	0.4	0.1	10.9	10.0	0.2	4.3	0.7	0.6	7.2	0.6	
Delay (s)	74.5	73.5	72.5	80.2	79.2	65.3	79.4	22.4	18.2	97.6	5.9	
Level of Service	E	E	E	F	E	E	E	C	B	F	A	
Approach Delay (s)		73.5			72.5			23.1			19.6	
Approach LOS		E			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱		↑↑↑	↑↑↑	↱
Traffic Vol, veh/h	0	2	0	1756	1862	2
Future Vol, veh/h	0	2	0	1756	1862	2
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	240
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	1810	1920	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	961	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	525	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	525	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

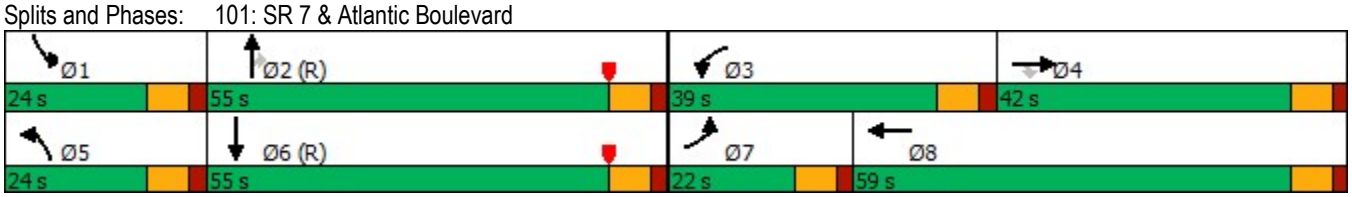
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	525	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s)	-	11.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	296	882	288	618	1492	219	1193	457	151	1197
Future Volume (vph)	296	882	288	618	1492	219	1193	457	151	1197
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	11.0	42.0	42.0	11.0	59.0	12.0	50.0	50.0	12.0	50.0
Total Split (s)	22.0	42.0	42.0	39.0	59.0	24.0	55.0	55.0	24.0	55.0
Total Split (%)	13.8%	26.3%	26.3%	24.4%	36.9%	15.0%	34.4%	34.4%	15.0%	34.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	15.0	35.9	35.9	31.1	52.0	17.0	49.1	49.1	15.9	48.0
Actuated g/C Ratio	0.09	0.22	0.22	0.19	0.32	0.11	0.31	0.31	0.10	0.30
v/c Ratio	0.94	0.79	0.58	0.95	1.03	1.19	0.78	0.63	0.88	0.96
Control Delay	108.0	64.6	20.8	86.9	81.3	176.4	51.3	15.6	112.3	68.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.0	64.6	20.8	86.9	81.3	176.4	51.3	15.6	112.3	68.6
LOS	F	E	C	F	F	F	D	B	F	E
Approach Delay		64.7			82.8		57.2			72.8
Approach LOS		E			F		E			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 70.3	Intersection LOS: E
Intersection Capacity Utilization 112.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	302	900	294	631	1675	223	1217	466	154	1434
v/c Ratio	0.94	0.79	0.58	0.95	1.03	1.19	0.78	0.63	0.88	0.96
Control Delay	108.0	64.6	20.8	86.9	81.3	176.4	51.3	15.6	112.3	68.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.0	64.6	20.8	86.9	81.3	176.4	51.3	15.6	112.3	68.6
Queue Length 50th (ft)	164	330	73	337	~679	~275	463	131	161	535
Queue Length 95th (ft)	#260	386	179	#447	#776	#452	520	367	#286	#633
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	321	1140	507	686	1631	188	1561	735	188	1501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.79	0.58	0.92	1.03	1.19	0.78	0.63	0.82	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	296	882	288	618	1492	150	219	1193	457	151	1197	209
Future Volume (veh/h)	296	882	288	618	1492	150	219	1193	457	151	1197	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	900	294	631	1522	153	223	1217	466	154	1221	213
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1149	343	669	1527	153	189	1576	469	174	1303	227
Arrive On Green	0.09	0.23	0.23	0.19	0.32	0.32	0.14	0.41	0.41	0.13	0.40	0.40
Sat Flow, veh/h	3456	5106	1524	3456	4699	472	1781	5106	1520	1781	4343	758
Grp Volume(v), veh/h	302	900	294	631	1102	573	223	1217	466	154	957	477
Grp Sat Flow(s),veh/h/ln	1728	1702	1524	1728	1702	1767	1781	1702	1520	1781	1702	1697
Q Serve(g_s), s	13.9	26.5	29.6	28.8	51.7	51.8	17.0	32.9	48.8	13.6	43.2	43.2
Cycle Q Clear(g_c), s	13.9	26.5	29.6	28.8	51.7	51.8	17.0	32.9	48.8	13.6	43.2	43.2
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	324	1149	343	669	1106	574	189	1576	469	174	1021	509
V/C Ratio(X)	0.93	0.78	0.86	0.94	1.00	1.00	1.18	0.77	0.99	0.89	0.94	0.94
Avail Cap(c_a), veh/h	324	1149	343	691	1106	574	189	1576	469	189	1021	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.0	58.3	59.5	63.6	53.9	53.9	68.7	42.3	47.0	68.8	46.6	46.6
Incr Delay (d2), s/veh	32.4	3.5	18.6	20.6	26.1	36.9	112.8	2.7	33.8	32.5	16.6	27.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	11.9	13.3	14.6	26.1	28.9	13.5	13.7	22.0	7.6	19.8	21.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.4	61.8	78.1	84.3	80.0	90.8	181.5	45.0	80.8	101.2	63.2	73.6
LnGrp LOS	F	E	E	F	F	F	F	D	F	F	E	E
Approach Vol, veh/h		1496			2306			1906			1588	
Approach Delay, s/veh		73.6			83.9			69.7			70.0	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	56.4	38.0	43.0	24.0	55.0	22.0	59.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	17.0	48.0	32.0	35.0	17.0	48.0	15.0	52.0
Max Q Clear Time (g_c+I1), s	15.6	50.8	30.8	31.6	19.0	45.2	15.9	53.8
Green Ext Time (p_c), s	0.0	0.0	0.2	1.9	0.0	2.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	75.1
HCM 6th LOS	E

Notes

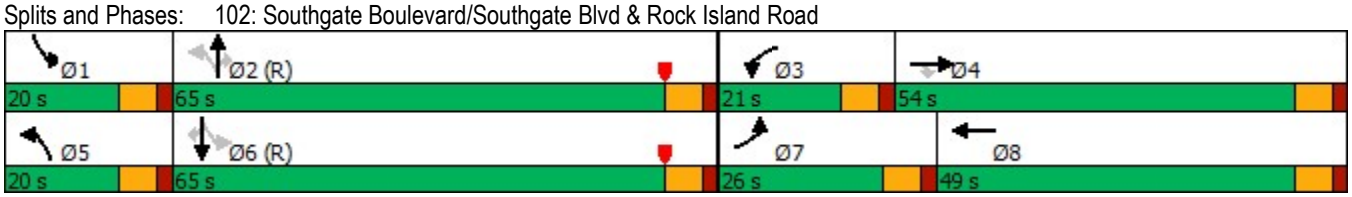
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	396	491	197	113	560	179	903	134	179	911	613
Future Volume (vph)	396	491	197	113	560	179	903	134	179	911	613
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	54.0	54.0	21.0	49.0	20.0	65.0	65.0	20.0	65.0	65.0
Total Split (%)	16.3%	33.8%	33.8%	13.1%	30.6%	12.5%	40.6%	40.6%	12.5%	40.6%	40.6%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	46.9	46.9	13.1	40.5	74.0	61.6	61.6	74.0	61.6	61.6
Actuated g/C Ratio	0.12	0.29	0.29	0.08	0.25	0.46	0.38	0.38	0.46	0.38	0.38
v/c Ratio	0.99	0.49	0.36	0.82	0.93	0.77	0.69	0.21	0.76	0.70	0.82
Control Delay	109.9	48.5	12.7	94.8	57.2	57.1	33.0	5.0	43.7	45.3	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.9	48.5	12.7	94.8	57.2	57.1	33.0	5.0	43.7	45.3	33.4
LOS	F	D	B	F	E	E	C	A	D	D	C
Approach Delay		64.5			61.9		33.5			40.8	
Approach LOS		E			E		C			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 80 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 97.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	413	511	205	118	818	186	941	140	186	949	639
v/c Ratio	0.99	0.49	0.36	0.82	0.93	0.77	0.69	0.21	0.76	0.70	0.82
Control Delay	109.9	48.5	12.7	94.8	57.2	57.1	33.0	5.0	43.7	45.3	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.9	48.5	12.7	94.8	57.2	57.1	33.0	5.0	43.7	45.3	33.4
Queue Length 50th (ft)	226	232	34	129	418	97	389	4	109	452	366
Queue Length 95th (ft)	#341	291	104	m142	m478	#219	278	35	#181	535	564
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1050	571	160	923	254	1363	670	258	1362	779
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.49	0.36	0.74	0.89	0.73	0.69	0.21	0.72	0.70	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	396	491	197	113	560	226	179	903	134	179	911	613
Future Volume (veh/h)	396	491	197	113	560	226	179	903	134	179	911	613
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	412	511	205	118	583	235	186	941	0	186	949	639
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1059	462	138	623	251	240	1371		292	1371	600
Arrive On Green	0.12	0.30	0.30	0.08	0.25	0.25	0.10	0.51	0.00	0.10	0.51	0.51
Sat Flow, veh/h	3456	3554	1551	1781	2456	988	1781	3554	1585	1781	3554	1556
Grp Volume(v), veh/h	412	511	205	118	421	397	186	941	0	186	949	639
Grp Sat Flow(s),veh/h/ln	1728	1777	1551	1781	1777	1667	1781	1777	1585	1781	1777	1556
Q Serve(g_s), s	19.0	18.9	17.1	10.5	37.1	37.3	10.2	31.9	0.0	10.2	32.3	61.7
Cycle Q Clear(g_c), s	19.0	18.9	17.1	10.5	37.1	37.3	10.2	31.9	0.0	10.2	32.3	61.7
Prop In Lane	1.00		1.00	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1059	462	138	451	423	240	1371		292	1371	600
V/C Ratio(X)	0.98	0.48	0.44	0.85	0.93	0.94	0.78	0.69		0.64	0.69	1.07
Avail Cap(c_a), veh/h	421	1059	462	161	472	443	254	1371		306	1371	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.0	46.0	45.4	72.9	58.4	58.4	32.1	31.7	0.0	29.6	31.8	39.0
Incr Delay (d2), s/veh	37.9	0.1	0.2	27.1	24.8	26.5	9.7	2.3	0.0	3.0	2.9	55.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	8.5	6.7	5.9	19.8	18.9	4.9	13.4	0.0	4.5	13.6	31.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.9	46.2	45.7	100.0	83.2	84.9	41.8	34.0	0.0	32.6	34.7	94.2
LnGrp LOS	F	D	D	F	F	F	D	C		C	C	F
Approach Vol, veh/h		1128			936			1127			1774	
Approach Delay, s/veh		68.6			86.1			35.3			55.9	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	68.2	18.9	54.2	18.7	68.2	26.0	47.1
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	58.5	14.5	47.5	13.5	58.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	12.2	33.9	12.5	20.9	12.2	63.7	21.0	39.3
Green Ext Time (p_c), s	0.0	7.4	0.0	2.7	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	59.8
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	671	19	27	885	38	17	7	34	11	0	6
Future Vol, veh/h	8	671	19	27	885	38	17	7	34	11	0	6
Conflicting Peds, #/hr	11	0	2	2	0	11	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	699	20	28	922	40	18	7	35	11	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	973	0	0	721	0	0	1244	1756	363	1379	1746	492
Stage 1	-	-	-	-	-	-	727	727	-	1009	1009	-
Stage 2	-	-	-	-	-	-	517	1029	-	370	737	-
Critical Hdwy	4.14	-	-	4.14	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	704	-	-	877	-	-	342	199	883	297	202	791
Stage 1	-	-	-	-	-	-	583	583	-	437	437	-
Stage 2	-	-	-	-	-	-	720	428	-	834	577	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	697	-	-	875	-	-	318	181	880	257	184	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	318	181	-	257	184	-
Stage 1	-	-	-	-	-	-	575	575	-	427	403	-
Stage 2	-	-	-	-	-	-	665	395	-	780	569	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	14.4	16.3
HCM LOS			B	C

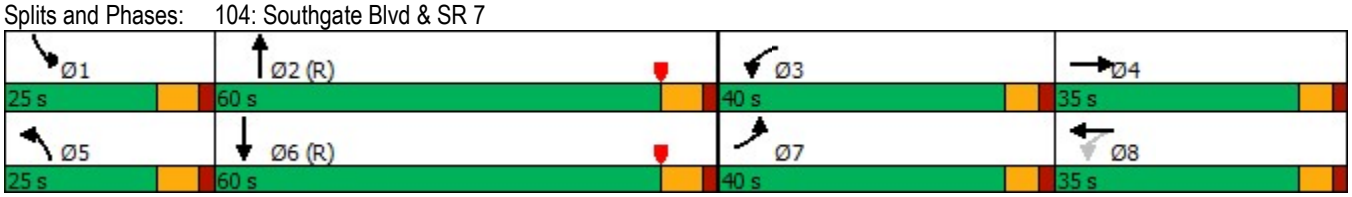
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	444	697	-	-	875	-	-	337
HCM Lane V/C Ratio	0.136	0.012	-	-	0.032	-	-	0.053
HCM Control Delay (s)	14.4	10.2	-	-	9.3	0.3	-	16.3
HCM Lane LOS	B	B	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.2

Timings
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	434	52	62	56	383	1412	88	1450
Future Volume (vph)	434	52	62	56	383	1412	88	1450
Turn Type	Prot	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases			8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	6.0	4.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	35.0	10.0	35.0	12.0	37.0	12.0	38.0
Total Split (s)	40.0	35.0	40.0	35.0	25.0	60.0	25.0	60.0
Total Split (%)	25.0%	21.9%	25.0%	21.9%	15.6%	37.5%	15.6%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.0	29.5	21.2	12.8	25.8	83.9	12.2	70.4
Actuated g/C Ratio	0.16	0.18	0.13	0.08	0.16	0.52	0.08	0.44
v/c Ratio	0.84	0.74	0.41	0.72	0.72	0.57	0.68	0.91
Control Delay	71.9	27.4	50.6	77.9	85.1	23.1	108.2	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.9	27.4	50.6	77.9	85.1	23.1	108.2	21.8
LOS	E	C	D	E	F	C	F	C
Approach Delay		54.3		68.0		36.0		25.7
Approach LOS		D		E		D		C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 49 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 101.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 104: Southgate Blvd & SR 7



Queues
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	452	294	65	115	399	1515	92	1968
v/c Ratio	0.84	0.74	0.41	0.72	0.72	0.57	0.68	0.91
Control Delay	71.9	27.4	50.6	77.9	85.1	23.1	108.2	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.9	27.4	50.6	77.9	85.1	23.1	108.2	21.8
Queue Length 50th (ft)	171	50	52	91	221	249	102	559
Queue Length 95th (ft)	195	284	84	158	286	432	m105	m#928
Internal Link Dist (ft)		1738		1039		1330		2623
Turn Bay Length (ft)	125		205		235		215	
Base Capacity (vph)	729	417	427	329	552	2655	199	2171
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.71	0.15	0.35	0.72	0.57	0.46	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Southgate Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	434	52	230	62	56	55	383	1412	42	88	1450	440
Future Volume (veh/h)	434	52	230	62	56	55	383	1412	42	88	1450	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.98		0.96	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	452	54	240	65	58	57	399	1471	44	92	1510	458
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	499	70	310	190	116	114	389	2509	75	111	1717	514
Arrive On Green	0.14	0.24	0.24	0.04	0.14	0.14	0.15	0.66	0.66	0.08	0.59	0.59
Sat Flow, veh/h	3456	290	1290	1781	846	832	3456	5088	152	1781	3875	1159
Grp Volume(v), veh/h	452	0	294	65	0	115	399	984	531	92	1324	644
Grp Sat Flow(s),veh/h/ln	1728	0	1580	1781	0	1678	1728	1702	1836	1781	1702	1631
Q Serve(g_s), s	20.6	0.0	27.8	5.0	0.0	10.2	18.0	25.9	25.9	8.1	52.9	54.7
Cycle Q Clear(g_c), s	20.6	0.0	27.8	5.0	0.0	10.2	18.0	25.9	25.9	8.1	52.9	54.7
Prop In Lane	1.00		0.82	1.00		0.50	1.00		0.08	1.00		0.71
Lane Grp Cap(c), veh/h	499	0	380	190	0	231	389	1678	905	111	1508	722
V/C Ratio(X)	0.91	0.00	0.77	0.34	0.00	0.50	1.03	0.59	0.59	0.83	0.88	0.89
Avail Cap(c_a), veh/h	734	0	380	495	0	304	389	1678	905	200	1508	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	0.30	0.30	0.30
Uniform Delay (d), s/veh	67.4	0.0	56.7	56.4	0.0	63.9	68.0	18.4	18.4	72.5	29.2	29.5
Incr Delay (d2), s/veh	8.5	0.0	8.7	0.4	0.0	0.6	50.2	1.4	2.5	1.8	2.5	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	12.1	2.3	0.0	4.4	10.5	9.5	10.5	3.7	20.3	20.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	0.0	65.4	56.8	0.0	64.5	118.2	19.8	20.9	74.3	31.6	35.1
LnGrp LOS	E	A	E	E	A	E	F	B	C	E	C	D
Approach Vol, veh/h		746			180			1914			2060	
Approach Delay, s/veh		71.7			61.7			40.6			34.6	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	85.9	12.6	44.5	25.0	77.9	29.1	28.0
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	53.0	34.0	29.0	18.0	53.0	34.0	29.0
Max Q Clear Time (g_c+I1), s	10.1	27.9	7.0	29.8	20.0	56.7	22.6	12.2
Green Ext Time (p_c), s	0.0	12.3	0.0	0.0	0.0	0.0	0.5	0.3

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

Notes

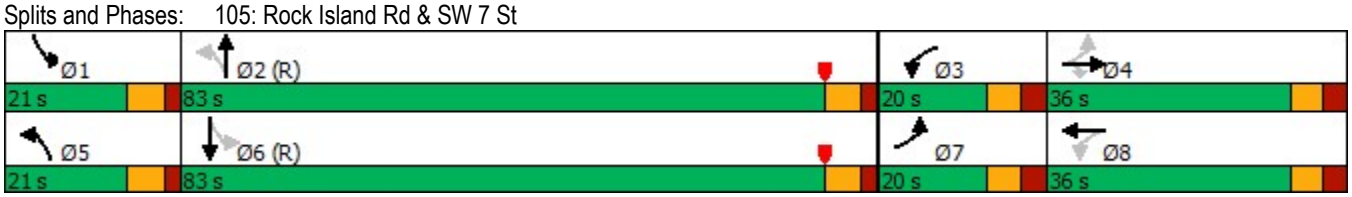
User approved pedestrian interval to be less than phase max green.

Timings
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	69	37	94	90	62	150	1109	46	1081
Future Volume (vph)	69	37	94	90	62	150	1109	46	1081
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	12.0	4.0	12.0
Minimum Split (s)	11.0	35.0	35.0	11.0	35.0	10.5	27.5	10.5	27.5
Total Split (s)	20.0	36.0	36.0	20.0	36.0	21.0	83.0	21.0	83.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	13.1%	51.9%	13.1%	51.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	24.0	14.3	14.3	26.4	15.5	112.6	104.5	103.6	98.1
Actuated g/C Ratio	0.15	0.09	0.09	0.16	0.10	0.70	0.65	0.65	0.61
v/c Ratio	0.42	0.24	0.42	0.41	0.77	0.58	0.56	0.20	0.59
Control Delay	58.2	68.7	12.2	57.2	78.2	16.6	18.2	10.0	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	68.7	12.2	57.2	78.2	16.6	18.2	10.0	15.7
LOS	E	E	B	E	E	B	B	A	B
Approach Delay		38.5			69.9		18.0		15.5
Approach LOS		D			E		B		B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 93 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 76.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: Rock Island Rd & SW 7 St



Queues
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	40	102	98	149	163	1294	50	1257
v/c Ratio	0.42	0.24	0.42	0.41	0.77	0.58	0.56	0.20	0.59
Control Delay	58.2	68.7	12.2	57.2	78.2	16.6	18.2	10.0	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	68.7	12.2	57.2	78.2	16.6	18.2	10.0	15.7
Queue Length 50th (ft)	66	40	0	88	120	50	385	12	198
Queue Length 95th (ft)	108	76	44	134	194	95	552	m27	317
Internal Link Dist (ft)		723			1226		764		1324
Turn Bay Length (ft)	215		215	125		195		205	
Base Capacity (vph)	216	337	377	264	333	334	2291	346	2145
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.12	0.27	0.37	0.45	0.49	0.56	0.14	0.59

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: Rock Island Rd & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	37	94	90	62	75	150	1109	82	46	1081	75
Future Volume (veh/h)	69	37	94	90	62	75	150	1109	82	46	1081	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	40	102	98	67	82	163	1205	89	50	1175	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	190	159	254	86	105	353	2170	160	319	2093	146
Arrive On Green	0.05	0.10	0.10	0.06	0.11	0.11	0.06	0.86	0.86	0.03	0.83	0.83
Sat Flow, veh/h	1781	1870	1566	1781	752	921	1781	3354	247	1781	3364	234
Grp Volume(v), veh/h	75	40	102	98	0	149	163	638	656	50	620	637
Grp Sat Flow(s),veh/h/ln	1781	1870	1566	1781	0	1673	1781	1777	1825	1781	1777	1821
Q Serve(g_s), s	6.0	3.1	10.0	7.8	0.0	13.9	5.4	15.3	15.4	1.6	18.0	18.0
Cycle Q Clear(g_c), s	6.0	3.1	10.0	7.8	0.0	13.9	5.4	15.3	15.4	1.6	18.0	18.0
Prop In Lane	1.00		1.00	1.00		0.55	1.00		0.14	1.00		0.13
Lane Grp Cap(c), veh/h	164	190	159	254	0	191	353	1149	1180	319	1106	1133
V/C Ratio(X)	0.46	0.21	0.64	0.39	0.00	0.78	0.46	0.55	0.56	0.16	0.56	0.56
Avail Cap(c_a), veh/h	223	339	284	291	0	303	431	1149	1180	441	1106	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	60.9	66.0	69.1	59.5	0.0	69.0	11.1	5.0	5.0	10.8	6.8	6.8
Incr Delay (d2), s/veh	0.7	0.2	1.6	0.4	0.0	2.6	0.3	1.9	1.9	0.1	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.5	4.1	3.6	0.0	6.1	2.1	4.4	4.5	0.7	5.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	66.2	70.7	59.8	0.0	71.6	11.4	6.9	6.9	10.8	8.2	8.2
LnGrp LOS	E	E	E	E	A	E	B	A	A	B	A	A
Approach Vol, veh/h		217			247			1457			1307	
Approach Delay, s/veh		66.7			66.9			7.4			8.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	110.0	16.7	23.2	14.0	106.1	14.7	25.2
Change Period (Y+Rc), s	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
Max Green Setting (Gmax), s	14.5	76.5	13.0	29.0	14.5	76.5	13.0	29.0
Max Q Clear Time (g_c+I1), s	3.6	17.4	9.8	12.0	7.4	20.0	8.0	15.9
Green Ext Time (p_c), s	0.0	9.9	0.0	0.2	0.1	9.4	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	108	27	50	193	17	33	22	49	7	14	9
Future Vol, veh/h	14	108	27	50	193	17	33	22	49	7	14	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	126	31	58	224	20	38	26	57	8	16	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	10.3	8.8	8.4
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	9%	19%	23%
Vol Thru, %	21%	72%	74%	47%
Vol Right, %	47%	18%	7%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	104	149	260	30
LT Vol	33	14	50	7
Through Vol	22	108	193	14
RT Vol	49	27	17	9
Lane Flow Rate	121	173	302	35
Geometry Grp	1	1	1	1
Degree of Util (X)	0.162	0.22	0.379	0.049
Departure Headway (Hd)	4.837	4.566	4.512	5.047
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	739	785	795	706
Service Time	2.887	2.605	2.547	3.106
HCM Lane V/C Ratio	0.164	0.22	0.38	0.05
HCM Control Delay	8.8	8.9	10.3	8.4
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.6	0.8	1.8	0.2

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	143	21	26	251	27	31	3	19	10	4	20
Future Vol, veh/h	23	143	21	26	251	27	31	3	19	10	4	20
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	4	4	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	161	24	29	282	30	35	3	21	11	4	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	312	0	0	192	0	0	602	602	184	596	599	299
Stage 1	-	-	-	-	-	-	232	232	-	355	355	-
Stage 2	-	-	-	-	-	-	370	370	-	241	244	-
Critical Hdwy	4.12	-	-	4.12	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1248	-	-	1381	-	-	661	661	1028	665	663	933
Stage 1	-	-	-	-	-	-	956	956	-	847	847	-
Stage 2	-	-	-	-	-	-	834	834	-	948	945	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1248	-	-	1372	-	-	613	625	1017	622	627	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	613	625	-	622	627	-
Stage 1	-	-	-	-	-	-	927	927	-	828	825	-
Stage 2	-	-	-	-	-	-	787	812	-	900	917	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.7	10.5	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	716	1248	-	-	1372	-	-	774
HCM Lane V/C Ratio	0.083	0.021	-	-	0.021	-	-	0.049
HCM Control Delay (s)	10.5	7.9	0	-	7.7	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	174	3	0	300	3	2
Future Vol, veh/h	174	3	0	300	3	2
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	196	3	0	337	3	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	199	0	539	198
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	4.12	-	5	4.5
Critical Hdwy Stg 1	-	-	-	-	5	-
Critical Hdwy Stg 2	-	-	-	-	5	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	1373	-	705	1016
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1373	-	702	1016
Mov Cap-2 Maneuver	-	-	-	-	702	-
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

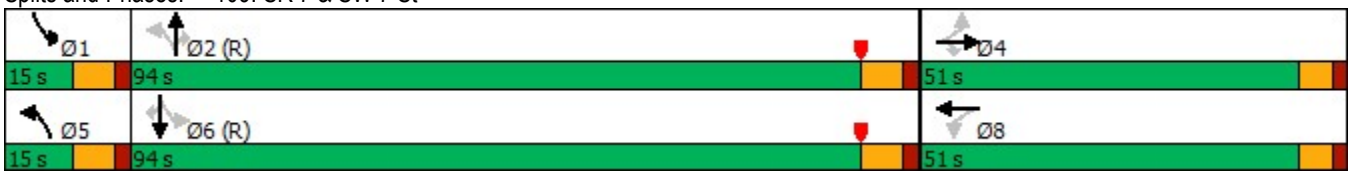
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	702	1016	-	-	1373	-
HCM Lane V/C Ratio	0.005	0.002	-	-	-	-
HCM Control Delay (s)	10.2	8.6	-	-	0	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-

Timings
109: SR 7 & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	67	13	110	28	16	186	1672	31	40	1385	121
Future Volume (vph)	67	13	110	28	16	186	1672	31	40	1385	121
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	45.0	45.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	15.0	94.0	94.0	15.0	94.0	94.0
Total Split (%)	31.9%	31.9%	31.9%	31.9%	31.9%	9.4%	58.8%	58.8%	9.4%	58.8%	58.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		14.0	14.0		14.0	131.1	123.3	123.3	121.9	116.8	116.8
Actuated g/C Ratio		0.09	0.09		0.09	0.82	0.77	0.77	0.76	0.73	0.73
v/c Ratio		0.69	0.47		0.48	0.59	0.44	0.03	0.19	0.38	0.11
Control Delay		98.5	16.9		67.5	10.8	7.5	0.0	3.6	4.9	1.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		98.5	16.9		67.5	10.8	7.5	0.0	3.6	4.9	1.6
LOS		F	B		E	B	A	A	A	A	A
Approach Delay		51.1			67.5		7.7			4.6	
Approach LOS		D			E		A			A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 76 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 109: SR 7 & SW 7 St



Queues
109: SR 7 & SW 7 St

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	81	112	61	190	1706	32	41	1413	123
v/c Ratio	0.69	0.47	0.48	0.59	0.44	0.03	0.19	0.38	0.11
Control Delay	98.5	16.9	67.5	10.8	7.5	0.0	3.6	4.9	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.5	16.9	67.5	10.8	7.5	0.0	3.6	4.9	1.6
Queue Length 50th (ft)	84	0	50	31	215	0	4	99	2
Queue Length 95th (ft)	140	62	99	61	290	0	m6	134	m5
Internal Link Dist (ft)	972		833		582			1330	
Turn Bay Length (ft)		100		330		105	275		95
Base Capacity (vph)	377	517	388	323	3917	1205	252	3711	1128
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.22	0.16	0.59	0.44	0.03	0.16	0.38	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
109: SR 7 & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	13	110	28	16	16	186	1672	31	40	1385	121
Future Volume (veh/h)	67	13	110	28	16	16	186	1672	31	40	1385	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	13	112	29	16	16	190	1706	32	41	1413	123
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	27	200	71	39	27	351	3687	1117	286	3598	1113
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.06	0.96	0.96	0.03	0.94	0.94
Sat Flow, veh/h	931	213	1574	298	307	215	1781	5106	1547	1781	5106	1579
Grp Volume(v), veh/h	81	0	112	61	0	0	190	1706	32	41	1413	123
Grp Sat Flow(s),veh/h/ln	1145	0	1574	819	0	0	1781	1702	1547	1781	1702	1579
Q Serve(g_s), s	0.0	0.0	10.7	3.8	0.0	0.0	4.9	3.8	0.1	1.0	4.4	0.9
Cycle Q Clear(g_c), s	11.6	0.0	10.7	15.4	0.0	0.0	4.9	3.8	0.1	1.0	4.4	0.9
Prop In Lane	0.84		1.00	0.48		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	0	200	137	0	0	351	3687	1117	286	3598	1113
V/C Ratio(X)	0.43	0.00	0.56	0.45	0.00	0.00	0.54	0.46	0.03	0.14	0.39	0.11
Avail Cap(c_a), veh/h	408	0	443	362	0	0	363	3687	1117	328	3598	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.33	0.33	0.33
Uniform Delay (d), s/veh	65.9	0.0	65.7	68.4	0.0	0.0	5.7	1.0	0.9	5.9	1.6	1.5
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.8	0.0	0.0	0.7	0.4	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	4.4	2.5	0.0	0.0	1.8	1.0	0.1	0.4	1.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.5	0.0	66.6	69.2	0.0	0.0	6.5	1.4	0.9	5.9	1.7	1.6
LnGrp LOS	E	A	E	E	A	A	A	A	A	A	A	A
Approach Vol, veh/h		193			61			1928			1577	
Approach Delay, s/veh		66.6			69.2			1.9			1.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.2	122.5		26.3	14.0	119.8		26.3
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	8.0	87.0		45.0	8.0	87.0		45.0
Max Q Clear Time (g_c+I1), s	3.0	5.8		13.6	6.9	6.4		17.4
Green Ext Time (p_c), s	0.0	24.0		0.5	0.0	17.5		0.2

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Timings
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	90	77	155	184	96	1009	231	153	1006	137
Future Volume (vph)	105	90	77	155	184	96	1009	231	153	1006	137
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	47.5	11.5	44.5	44.5	16.5	44.6	44.6
Total Split (s)	20.0	46.0	46.0	20.0	46.0	16.0	70.0	70.0	24.0	78.0	78.0
Total Split (%)	12.5%	28.8%	28.8%	12.5%	28.8%	10.0%	43.8%	43.8%	15.0%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.1	16.3	16.3	31.3	17.9	100.3	93.1	93.1	109.7	98.1	98.1
Actuated g/C Ratio	0.18	0.10	0.10	0.20	0.11	0.63	0.58	0.58	0.69	0.61	0.61
v/c Ratio	0.65	0.52	0.29	0.65	0.83	0.34	0.53	0.26	0.49	0.50	0.15
Control Delay	67.0	76.3	2.4	64.6	56.1	12.6	23.3	8.5	14.1	19.5	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	76.3	2.4	64.6	56.1	12.6	23.3	8.5	14.1	19.5	5.6
LOS	E	E	A	E	E	B	C	A	B	B	A
Approach Delay		51.8			58.5		20.0			17.4	
Approach LOS		D			E		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 63 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 110: Kimberly Blvd & Rock Island Road

Queues
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	114	98	84	168	423	104	1097	251	166	1093	149
v/c Ratio	0.65	0.52	0.29	0.65	0.83	0.34	0.53	0.26	0.49	0.50	0.15
Control Delay	67.0	76.3	2.4	64.6	56.1	12.6	23.3	8.5	14.1	19.5	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	76.3	2.4	64.6	56.1	12.6	23.3	8.5	14.1	19.5	5.6
Queue Length 50th (ft)	99	99	0	151	142	33	357	46	55	326	17
Queue Length 95th (ft)	150	155	0	213	197	65	520	120	98	455	58
Internal Link Dist (ft)		387			3410		622			1269	
Turn Bay Length (ft)	250		250	200		280		150	240		160
Base Capacity (vph)	201	465	498	266	928	334	2059	962	393	2169	982
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.21	0.17	0.63	0.46	0.31	0.53	0.26	0.42	0.50	0.15

Intersection Summary

HCM 6th Signalized Intersection Summary
110: Kimberly Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	90	77	155	184	205	96	1009	231	153	1006	137
Future Volume (veh/h)	105	90	77	155	184	205	96	1009	231	153	1006	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	98	84	168	200	223	104	1097	251	166	1093	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	306	250	340	331	285	301	1909	843	301	1968	862
Arrive On Green	0.06	0.16	0.16	0.09	0.19	0.19	0.05	0.71	0.71	0.07	0.74	0.74
Sat Flow, veh/h	1781	1870	1526	1781	1777	1533	1781	3554	1570	1781	3554	1556
Grp Volume(v), veh/h	114	98	84	168	200	223	104	1097	251	166	1093	149
Grp Sat Flow(s),veh/h/ln	1781	1870	1526	1781	1777	1533	1781	1777	1570	1781	1777	1556
Q Serve(g_s), s	8.4	7.4	7.8	12.5	16.5	22.2	4.2	23.9	9.3	6.8	21.9	4.6
Cycle Q Clear(g_c), s	8.4	7.4	7.8	12.5	16.5	22.2	4.2	23.9	9.3	6.8	21.9	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	206	306	250	340	331	285	301	1909	843	301	1968	862
V/C Ratio(X)	0.55	0.32	0.34	0.49	0.60	0.78	0.35	0.57	0.30	0.55	0.56	0.17
Avail Cap(c_a), veh/h	246	468	382	340	444	383	337	1909	843	397	1968	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	59.1	59.2	49.7	59.7	62.0	16.6	14.0	11.9	17.3	12.3	10.0
Incr Delay (d2), s/veh	0.9	0.2	0.3	0.4	0.7	5.0	0.3	1.3	0.9	0.6	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.6	3.1	5.7	7.6	9.1	1.8	8.6	3.3	2.8	7.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	59.3	59.5	50.1	60.4	67.0	16.8	15.3	12.8	17.9	13.4	10.4
LnGrp LOS	D	E	E	D	E	E	B	B	B	B	B	B
Approach Vol, veh/h		296			591			1452			1408	
Approach Delay, s/veh		56.9			60.0			14.9			13.6	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	92.4	20.0	32.2	12.7	95.1	16.4	35.8
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
Max Green Setting (Gmax), s	17.5	63.5	14.0	40.0	9.5	71.5	14.0	40.0
Max Q Clear Time (g_c+I1), s	8.8	25.9	14.5	9.8	6.2	23.9	10.4	24.2
Green Ext Time (p_c), s	0.1	11.7	0.0	0.5	0.0	11.5	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	441	461	279	75
Demand Flow Rate, veh/h	449	470	284	76
Vehicles Circulating, veh/h	65	266	366	596
Vehicles Exiting, veh/h	607	384	148	140
Ped Vol Crossing Leg, #/h	0	5	1	11
Ped Cap Adj	1.000	0.999	1.000	0.998
Approach Delay, s/veh	6.1	8.5	7.0	5.9
Approach LOS	A	A	A	A

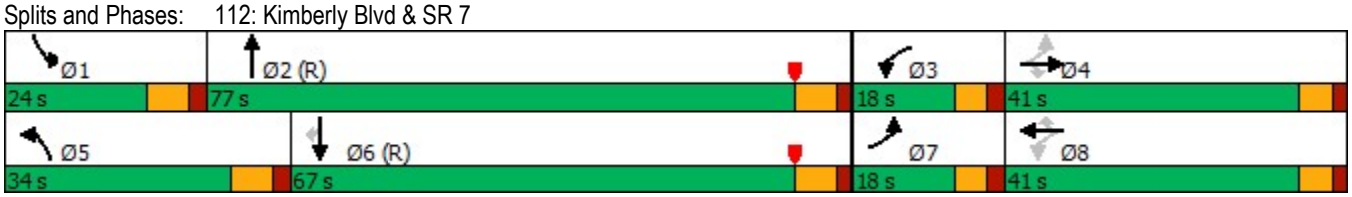
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	449	470	284	76
Cap Entry Lane, veh/h	1291	1052	950	751
Entry HV Adj Factor	0.982	0.981	0.981	0.993
Flow Entry, veh/h	441	461	279	75
Cap Entry, veh/h	1268	1031	932	745
V/C Ratio	0.348	0.447	0.299	0.101
Control Delay, s/veh	6.1	8.5	7.0	5.9
LOS	A	A	A	A
95th %tile Queue, veh	2	2	1	0

Timings
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	142	61	222	129	54	53	277	1775	78	1302	147
Future Volume (vph)	142	61	222	129	54	53	277	1775	78	1302	147
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	40.0	40.0	12.0	40.0	12.0	40.0	40.0
Total Split (s)	18.0	41.0	41.0	18.0	41.0	41.0	34.0	77.0	24.0	67.0	67.0
Total Split (%)	11.3%	25.6%	25.6%	11.3%	25.6%	25.6%	21.3%	48.1%	15.0%	41.9%	41.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.0	10.4	10.4	21.7	10.3	10.3	33.0	100.9	11.2	79.2	79.2
Actuated g/C Ratio	0.14	0.06	0.06	0.14	0.06	0.06	0.21	0.63	0.07	0.50	0.50
v/c Ratio	0.70	0.53	0.73	0.64	0.47	0.22	0.79	0.64	0.66	0.54	0.19
Control Delay	78.0	87.1	21.7	73.0	83.9	2.0	78.1	15.9	95.8	29.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.0	87.1	21.7	73.0	83.9	2.0	78.1	15.9	95.8	29.9	3.9
LOS	E	F	C	E	F	A	E	B	F	C	A
Approach Delay		50.0			59.5			23.7		30.7	
Approach LOS		D			E			C		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 142 (89%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 30.6	Intersection LOS: C
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 112: Kimberly Blvd & SR 7



Queues
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	148	64	231	134	56	55	289	2029	81	1356	153
v/c Ratio	0.70	0.53	0.73	0.64	0.47	0.22	0.79	0.64	0.66	0.54	0.19
Control Delay	78.0	87.1	21.7	73.0	83.9	2.0	78.1	15.9	95.8	29.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.0	87.1	21.7	73.0	83.9	2.0	78.1	15.9	95.8	29.9	3.9
Queue Length 50th (ft)	142	66	0	127	58	0	305	242	84	354	0
Queue Length 95th (ft)	209	116	89	191	105	0	387	337	141	454	42
Internal Link Dist (ft)		1738			1039			1330		793	
Turn Bay Length (ft)	175			110		110	325		330		235
Base Capacity (vph)	215	407	520	217	407	457	365	3162	188	2516	810
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.16	0.44	0.62	0.14	0.12	0.79	0.64	0.43	0.54	0.19

Intersection Summary

HCM 6th Signalized Intersection Summary
112: Kimberly Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	61	222	129	54	53	277	1775	173	78	1302	147
Future Volume (veh/h)	142	61	222	129	54	53	277	1775	173	78	1302	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.94	0.97		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	148	64	231	134	56	55	289	1849	180	81	1356	153
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	379	354	283	344	349	283	301	2450	237	100	2078	616
Arrive On Green	0.08	0.19	0.19	0.07	0.19	0.19	0.22	0.69	0.69	0.07	0.54	0.54
Sat Flow, veh/h	1781	1870	1498	1781	1870	1516	1781	4714	456	1781	5106	1514
Grp Volume(v), veh/h	148	64	231	134	56	55	289	1332	697	81	1356	153
Grp Sat Flow(s),veh/h/ln	1781	1870	1498	1781	1870	1516	1781	1702	1766	1781	1702	1514
Q Serve(g_s), s	10.7	4.6	23.7	9.6	4.0	4.9	25.7	40.3	41.0	7.2	30.1	8.6
Cycle Q Clear(g_c), s	10.7	4.6	23.7	9.6	4.0	4.9	25.7	40.3	41.0	7.2	30.1	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	379	354	283	344	349	283	301	1769	918	100	2078	616
V/C Ratio(X)	0.39	0.18	0.82	0.39	0.16	0.19	0.96	0.75	0.76	0.81	0.65	0.25
Avail Cap(c_a), veh/h	379	409	328	348	409	332	301	1769	918	189	2078	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	54.5	62.2	47.5	54.5	54.9	61.5	18.1	18.2	73.2	28.7	23.7
Incr Delay (d2), s/veh	0.2	0.1	11.3	0.3	0.1	0.1	33.8	2.2	4.3	5.9	1.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	2.2	9.9	4.4	1.9	1.9	14.1	14.3	15.6	3.4	11.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	54.5	73.5	47.8	54.6	55.0	95.4	20.3	22.5	79.1	30.3	24.7
LnGrp LOS	D	D	E	D	D	E	F	C	C	E	C	C
Approach Vol, veh/h		443			245			2318			1590	
Approach Delay, s/veh		62.2			51.0			30.3			32.2	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	90.2	17.6	36.3	34.0	72.1	18.0	35.9
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	70.0	12.0	35.0	27.0	60.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	9.2	43.0	11.6	25.7	27.7	32.1	12.7	6.9
Green Ext Time (p_c), s	0.0	18.2	0.0	0.5	0.0	12.7	0.0	0.3

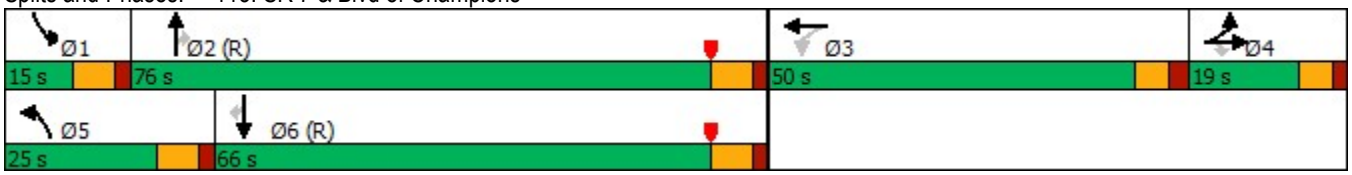
Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Timings
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	298	0	260	8	3	259	1891	10	42	1430	144
Future Volume (vph)	298	0	260	8	3	259	1891	10	42	1430	144
Turn Type	Split	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3	5	2		1	6	
Permitted Phases			4	3				2			6
Detector Phase	4	4	4	3	3	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	19.0	19.0	19.0	47.5	47.5	12.0	43.0	43.0	12.0	43.0	43.0
Total Split (s)	19.0	19.0	19.0	50.0	50.0	25.0	76.0	76.0	15.0	66.0	66.0
Total Split (%)	11.9%	11.9%	11.9%	31.3%	31.3%	15.6%	47.5%	47.5%	9.4%	41.3%	41.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.5	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.1	26.1	26.1		7.7	17.3	101.5	101.5	8.3	90.1	90.1
Actuated g/C Ratio	0.16	0.16	0.16		0.05	0.11	0.63	0.63	0.05	0.56	0.56
v/c Ratio	0.59	0.22	0.21		0.17	0.78	0.65	0.01	0.52	0.55	0.17
Control Delay	67.2	0.7	0.7		72.9	93.1	15.5	0.0	89.9	13.9	0.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	0.7	0.7		72.9	93.1	15.5	0.0	89.9	13.9	0.7
LOS	E	A	A		E	F	B	A	F	B	A
Approach Delay		36.2			72.9		24.7			14.7	
Approach LOS		D			E		C			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 153 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 113: SR 7 & Blvd of Champions



Queues
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	331	145	144	13	288	2101	11	47	1589	160
v/c Ratio	0.59	0.22	0.21	0.17	0.78	0.65	0.01	0.52	0.55	0.17
Control Delay	67.2	0.7	0.7	72.9	93.1	15.5	0.0	89.9	13.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	0.7	0.7	72.9	93.1	15.5	0.0	89.9	13.9	0.7
Queue Length 50th (ft)	169	0	0	12	140	554	0	0	159	1
Queue Length 95th (ft)	222	0	0	37	180	799	m0	m97	202	5
Internal Link Dist (ft)		446		833		1028			1330	
Turn Bay Length (ft)	170		300		300		160	160		425
Base Capacity (vph)	559	670	670	435	408	3226	1013	101	2864	940
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.22	0.21	0.03	0.71	0.65	0.01	0.47	0.55	0.17

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
113: SR 7 & Blvd of Champions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	298	0	260	8	3	1	259	1891	10	42	1430	144
Future Volume (vph)	298	0	260	8	3	1	259	1891	10	42	1430	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	0.97	0.95	0.95		1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.97	1.00	1.00	0.98
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	0.85	0.85		0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1504	1504		1780		3433	5085	1533	1770	5085	1548
Flt Permitted	0.95	1.00	1.00		0.87		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1504	1504		1598		3433	5085	1533	1770	5085	1548
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	331	0	289	9	3	1	288	2101	11	47	1589	160
RTOR Reduction (vph)	0	121	121	0	1	0	0	0	4	0	0	74
Lane Group Flow (vph)	331	24	23	0	12	0	288	2101	7	47	1589	86
Confl. Peds. (#/hr)	2					2	6		5	5		6
Confl. Bikes (#/hr)									1			6
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3					2			6
Actuated Green, G (s)	26.1	26.1	26.1		3.9		17.3	96.2	96.2	7.3	86.2	86.2
Effective Green, g (s)	26.1	26.1	26.1		3.9		17.3	96.2	96.2	7.3	86.2	86.2
Actuated g/C Ratio	0.16	0.16	0.16		0.02		0.11	0.60	0.60	0.05	0.54	0.54
Clearance Time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	2.2	2.2	2.2		2.2		1.5	3.0	3.0	1.5	3.0	3.0
Lane Grp Cap (vph)	560	245	245		38		371	3057	921	80	2739	833
v/s Ratio Prot	c0.10	0.02					c0.08	c0.41		0.03	0.31	
v/s Ratio Perm			0.02		c0.01				0.00			0.06
v/c Ratio	0.59	0.10	0.10		0.32		0.78	0.69	0.01	0.59	0.58	0.10
Uniform Delay, d1	62.0	56.9	56.9		76.7		69.5	21.7	12.8	74.9	24.8	18.0
Progression Factor	1.00	1.00	1.00		1.00		1.16	0.72	1.00	1.00	0.56	0.10
Incremental Delay, d2	1.2	0.1	0.1		2.4		7.7	1.1	0.0	6.1	0.8	0.2
Delay (s)	63.2	57.0	57.0		79.2		88.4	16.6	12.8	80.8	14.6	2.0
Level of Service	E	E	E		E		F	B	B	F	B	A
Approach Delay (s)		60.3			79.2			25.2			15.2	
Approach LOS		E			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

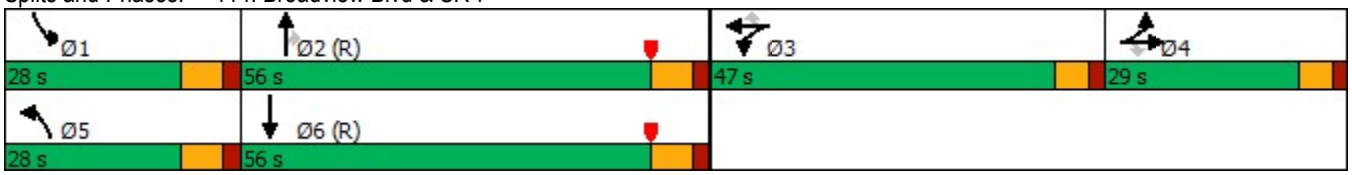
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	82	22	49	59	0	160	80	1869	73	243	1364
Future Volume (vph)	82	22	49	59	0	160	80	1869	73	243	1364
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		3	3		5	2		1	6
Permitted Phases			4			3			2		
Detector Phase	4	4	4	3	3	3	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	24.0	24.0	47.0	47.0	47.0	12.0	40.0	40.0	12.0	40.0
Total Split (s)	29.0	29.0	29.0	47.0	47.0	47.0	28.0	56.0	56.0	28.0	56.0
Total Split (%)	18.1%	18.1%	18.1%	29.4%	29.4%	29.4%	17.5%	35.0%	35.0%	17.5%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.5	8.5	8.5	8.4	8.4	8.4	11.6	100.7	100.7	16.4	105.5
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.63	0.63	0.10	0.66
v/c Ratio	0.48	0.23	0.27	0.36	0.37	0.70	0.66	0.62	0.08	0.74	0.47
Control Delay	82.0	77.4	3.4	83.1	83.7	24.8	95.5	20.1	1.1	52.8	30.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.0	77.4	3.4	83.1	83.7	24.8	95.5	20.1	1.1	52.8	30.8
LOS	F	E	A	F	F	C	F	C	A	D	C
Approach Delay		56.1			40.6			22.4			33.9
Approach LOS		E			D			C			C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Broadview Blvd & SR 7



Queues
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	87	23	52	31	32	170	85	1988	78	259	1570
v/c Ratio	0.48	0.23	0.27	0.36	0.37	0.70	0.66	0.62	0.08	0.74	0.47
Control Delay	82.0	77.4	3.4	83.1	83.7	24.8	95.5	20.1	1.1	52.8	30.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.0	77.4	3.4	83.1	83.7	24.8	95.5	20.1	1.1	52.8	30.8
Queue Length 50th (ft)	46	24	0	33	34	0	88	435	0	138	441
Queue Length 95th (ft)	76	55	0	71	72	78	146	596	11	173	548
Internal Link Dist (ft)		559			661			481			1028
Turn Bay Length (ft)	160		260	270		260	270		150	290	
Base Capacity (vph)	493	267	326	430	430	532	232	3201	1021	450	3312
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.16	0.07	0.07	0.32	0.37	0.62	0.08	0.58	0.47

Intersection Summary

HCM Signalized Intersection Capacity Analysis
114: Broadview Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	22	49	59	0	160	80	1869	73	243	1364	112
Future Volume (vph)	82	22	49	59	0	160	80	1869	73	243	1364	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	1863	1583	1681	1681	1583	1770	5085	1560	3433	5017	
Flt Permitted	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	1863	1583	1681	1681	1583	1770	5085	1560	3433	5017	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	87	23	52	63	0	170	85	1988	78	259	1451	119
RTOR Reduction (vph)	0	0	49	0	0	161	0	0	29	0	3	0
Lane Group Flow (vph)	87	23	3	31	32	9	85	1988	49	259	1567	0
Confl. Peds. (#/hr)							3		1	1		3
Confl. Bikes (#/hr)									3			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			
Actuated Green, G (s)	8.5	8.5	8.5	8.4	8.4	8.4	11.6	100.7	100.7	16.4	105.5	
Effective Green, g (s)	8.5	8.5	8.5	8.4	8.4	8.4	11.6	100.7	100.7	16.4	105.5	
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.63	0.63	0.10	0.66	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	182	98	84	88	88	83	128	3200	981	351	3308	
v/s Ratio Prot	c0.03	0.01		0.02	c0.02		0.05	c0.39		c0.08	c0.31	
v/s Ratio Perm			0.00			0.01			0.03			
v/c Ratio	0.48	0.23	0.03	0.35	0.36	0.11	0.66	0.62	0.05	0.74	0.47	
Uniform Delay, d1	73.6	72.6	71.9	73.2	73.2	72.2	72.3	18.0	11.3	69.7	13.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.60	2.11	
Incremental Delay, d2	0.7	0.5	0.1	0.9	0.9	0.2	9.6	0.9	0.1	6.0	0.4	
Delay (s)	74.3	73.1	71.9	74.1	74.2	72.4	81.9	19.0	11.4	47.6	29.0	
Level of Service	E	E	E	E	E	E	F	B	B	D	C	
Approach Delay (s)		73.4			72.9			21.2			31.6	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱		↑↑↑	↑↑↑	↱
Traffic Vol, veh/h	0	10	0	1906	1525	1
Future Vol, veh/h	0	10	0	1906	1525	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	240
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	1925	1540	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	770	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	621	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	621	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	621	-	-
HCM Lane V/C Ratio	-	0.016	-	-
HCM Control Delay (s)	-	10.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

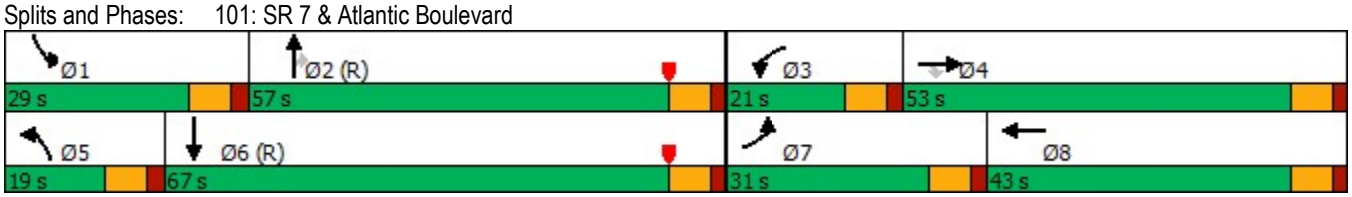
Future (2026) Background SYNCHRO Output

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	384	1424	231	362	703	83	1516	620	275	1348
Future Volume (vph)	384	1424	231	362	703	83	1516	620	275	1348
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	11.0	47.0	47.0	11.0	43.0	12.0	50.0	50.0	12.0	50.0
Total Split (s)	31.0	53.0	53.0	21.0	43.0	19.0	57.0	57.0	29.0	67.0
Total Split (%)	19.4%	33.1%	33.1%	13.1%	26.9%	11.9%	35.6%	35.6%	18.1%	41.9%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.3	46.0	46.0	14.0	38.7	10.5	50.0	50.0	22.0	61.5
Actuated g/C Ratio	0.13	0.29	0.29	0.09	0.24	0.07	0.31	0.31	0.14	0.38
v/c Ratio	0.86	0.99	0.42	1.23	0.69	0.74	0.97	0.98	1.16	0.79
Control Delay	86.3	78.5	15.6	186.2	57.9	100.6	51.9	44.5	164.4	46.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.3	78.5	15.6	186.2	57.9	100.6	51.9	44.5	164.4	46.9
LOS	F	E	B	F	E	F	D	D	F	D
Approach Delay		72.8			96.9		51.6			65.3
Approach LOS		E			F		D			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 115 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 68.4	Intersection LOS: E
Intersection Capacity Utilization 114.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	392	1453	236	369	843	85	1547	633	281	1522
v/c Ratio	0.86	0.99	0.42	1.23	0.69	0.74	0.97	0.98	1.16	0.79
Control Delay	86.3	78.5	15.6	186.2	57.9	100.6	51.9	44.5	164.4	46.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.3	78.5	15.6	186.2	57.9	100.6	51.9	44.5	164.4	46.9
Queue Length 50th (ft)	208	558	51	~244	292	81	554	401	~345	517
Queue Length 95th (ft)	266	#669	132	#354	350	m106	m#676	m#669	#540	579
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	514	1461	562	300	1213	132	1589	647	243	1932
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.99	0.42	1.23	0.69	0.64	0.97	0.98	1.16	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	384	1424	231	362	703	123	83	1516	620	275	1348	143
Future Volume (veh/h)	384	1424	231	362	703	123	83	1516	620	275	1348	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	1453	236	369	717	126	85	1547	633	281	1376	146
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	1468	447	302	1084	188	104	1596	483	245	1832	194
Arrive On Green	0.13	0.29	0.29	0.09	0.25	0.25	0.08	0.42	0.42	0.18	0.52	0.52
Sat Flow, veh/h	3456	5106	1555	3456	4351	755	1781	5106	1546	1781	4676	496
Grp Volume(v), veh/h	392	1453	236	369	559	284	85	1547	633	281	1002	520
Grp Sat Flow(s),veh/h/ln	1728	1702	1555	1728	1702	1702	1781	1702	1546	1781	1702	1768
Q Serve(g_s), s	17.9	45.3	20.4	14.0	23.6	24.1	7.5	47.4	50.0	22.0	37.1	37.1
Cycle Q Clear(g_c), s	17.9	45.3	20.4	14.0	23.6	24.1	7.5	47.4	50.0	22.0	37.1	37.1
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	435	1468	447	302	848	424	104	1596	483	245	1334	693
V/C Ratio(X)	0.90	0.99	0.53	1.22	0.66	0.67	0.82	0.97	1.31	1.15	0.75	0.75
Avail Cap(c_a), veh/h	518	1468	447	302	848	424	134	1596	483	245	1334	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.46	0.46	0.46	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.9	56.8	47.9	73.0	54.0	54.1	73.0	46.0	46.8	65.4	32.2	32.2
Incr Delay (d2), s/veh	15.4	21.0	0.9	125.3	1.7	3.7	10.6	9.7	146.7	103.1	3.9	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	22.3	8.1	11.5	10.4	10.8	3.7	20.5	38.0	16.7	15.1	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	77.7	48.8	198.3	55.7	57.9	83.6	55.7	193.4	168.5	36.1	39.5
LnGrp LOS	F	E	D	F	E	E	F	E	F	F	D	D
Approach Vol, veh/h		2081			1212			2265			1803	
Approach Delay, s/veh		75.7			99.6			95.2			57.7	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	57.0	21.0	53.0	16.3	69.7	27.1	46.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	22.0	50.0	14.0	46.0	12.0	60.0	24.0	36.0
Max Q Clear Time (g_c+I1), s	24.0	52.0	16.0	47.3	9.5	39.1	19.9	26.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	11.3	0.2	3.4

Intersection Summary	
HCM 6th Ctrl Delay	81.2
HCM 6th LOS	F

Notes

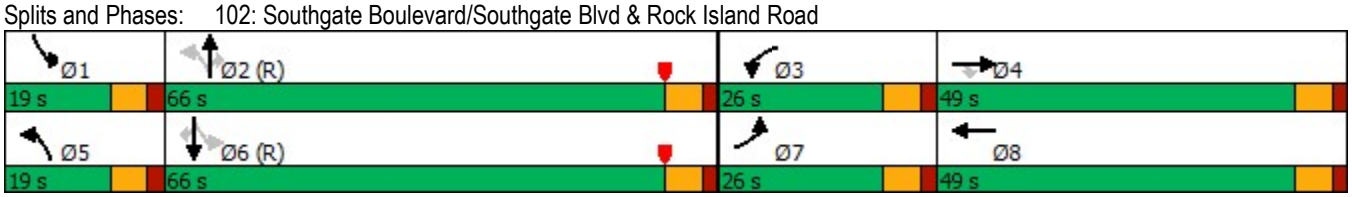
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	490	787	191	77	531	166	993	180	225	871	508
Future Volume (vph)	490	787	191	77	531	166	993	180	225	871	508
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	49.0	49.0	26.0	49.0	19.0	66.0	66.0	19.0	66.0	66.0
Total Split (%)	16.3%	30.6%	30.6%	16.3%	30.6%	11.9%	41.3%	41.3%	11.9%	41.3%	41.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	49.5	49.5	11.2	41.2	70.9	59.5	59.5	75.0	61.8	61.8
Actuated g/C Ratio	0.12	0.31	0.31	0.07	0.26	0.44	0.37	0.37	0.47	0.39	0.39
v/c Ratio	1.23	0.76	0.36	0.65	0.94	0.72	0.79	0.28	1.08	0.67	0.66
Control Delay	179.8	55.4	20.8	94.4	52.8	50.3	67.7	28.4	117.1	44.1	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	179.8	55.4	20.8	94.4	52.8	50.3	67.7	28.4	117.1	44.1	18.4
LOS	F	E	C	F	D	D	E	C	F	D	B
Approach Delay		92.4			56.4		60.3			46.2	
Approach LOS		F			E		E			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 60 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 64.3	Intersection LOS: E
Intersection Capacity Utilization 103.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	516	828	201	81	858	175	1045	189	237	917	535
v/c Ratio	1.23	0.76	0.36	0.65	0.94	0.72	0.79	0.28	1.08	0.67	0.66
Control Delay	179.8	55.4	20.8	94.4	52.8	50.3	67.7	28.4	117.1	44.1	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	179.8	55.4	20.8	94.4	52.8	50.3	67.7	28.4	117.1	44.1	18.4
Queue Length 50th (ft)	~342	407	68	70	404	150	608	94	~219	427	173
Queue Length 95th (ft)	#463	512	149	m102	m466	m221	677	m177	#403	507	315
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1095	556	215	935	255	1316	665	220	1368	809
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.76	0.36	0.38	0.92	0.69	0.79	0.28	1.08	0.67	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	787	191	77	531	284	166	993	180	225	871	508
Future Volume (veh/h)	490	787	191	77	531	284	166	993	180	225	871	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	516	828	201	81	559	299	175	1045	0	237	917	535
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1165	510	100	586	313	244	1334		256	1352	600
Arrive On Green	0.12	0.33	0.33	0.06	0.26	0.26	0.10	0.50	0.00	0.10	0.51	0.51
Sat Flow, veh/h	3456	3554	1557	1781	2235	1194	1781	3554	1585	1781	3554	1578
Grp Volume(v), veh/h	516	828	201	81	444	414	175	1045	0	237	917	535
Grp Sat Flow(s),veh/h/ln	1728	1777	1557	1781	1777	1652	1781	1777	1585	1781	1777	1578
Q Serve(g_s), s	19.5	32.7	15.9	7.2	39.4	39.4	9.7	38.7	0.0	12.5	31.1	48.8
Cycle Q Clear(g_c), s	19.5	32.7	15.9	7.2	39.4	39.4	9.7	38.7	0.0	12.5	31.1	48.8
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1165	510	100	466	433	244	1334		256	1352	600
V/C Ratio(X)	1.23	0.71	0.39	0.81	0.95	0.96	0.72	0.78		0.92	0.68	0.89
Avail Cap(c_a), veh/h	421	1165	510	217	472	439	252	1334		256	1352	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	47.1	41.5	74.7	58.1	58.1	31.5	34.7	0.0	37.4	32.2	36.6
Incr Delay (d2), s/veh	120.8	1.8	0.2	5.8	29.5	31.3	5.6	3.3	0.0	36.0	2.8	18.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	14.9	6.3	3.5	21.5	20.3	4.4	16.4	0.0	8.2	13.2	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	191.1	48.9	41.7	80.4	87.6	89.4	37.1	38.0	0.0	73.4	34.9	54.6
LnGrp LOS	F	D	D	F	F	F	D	D		E	C	D
Approach Vol, veh/h		1545			939			1220			1689	
Approach Delay, s/veh		95.4			87.8			37.9			46.5	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	66.6	15.5	58.9	18.2	67.4	26.0	48.4
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	12.5	59.5	19.5	42.5	12.5	59.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	14.5	40.7	9.2	34.7	11.7	50.8	21.5	41.4
Green Ext Time (p_c), s	0.0	7.5	0.0	2.8	0.0	5.3	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	65.8
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1124	18	12	663	5	29	0	62	18	3	5
Future Vol, veh/h	2	1124	18	12	663	5	29	0	62	18	3	5
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1222	20	13	721	5	32	0	67	20	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	730	0	0	1247	0	0	1629	1997	626	1369	2005	367
Stage 1	-	-	-	-	-	-	1241	1241	-	754	754	-
Stage 2	-	-	-	-	-	-	388	756	-	615	1251	-
Critical Hdwy	4.14	-	-	4.14	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	870	-	-	554	-	-	228	154	704	301	152	880
Stage 1	-	-	-	-	-	-	344	344	-	567	567	-
Stage 2	-	-	-	-	-	-	819	566	-	653	340	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	867	-	-	551	-	-	215	146	701	262	144	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	215	146	-	262	144	-
Stage 1	-	-	-	-	-	-	342	342	-	564	542	-
Stage 2	-	-	-	-	-	-	777	541	-	589	338	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	16.7	19.7
HCM LOS			C	C

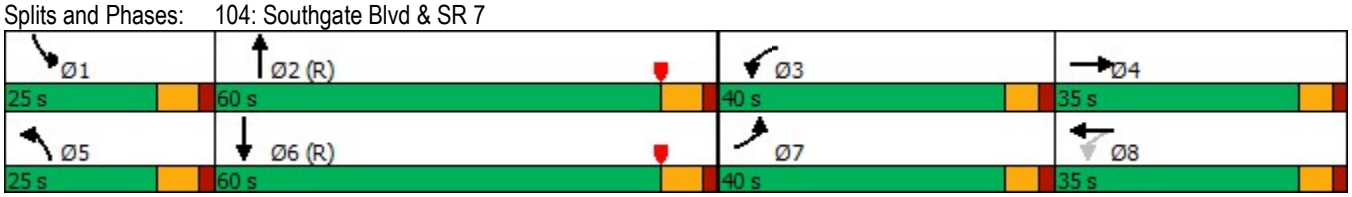
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	407	867	-	-	551	-	-	273
HCM Lane V/C Ratio	0.243	0.003	-	-	0.024	-	-	0.104
HCM Control Delay (s)	16.7	9.2	-	-	11.7	0.2	-	19.7
HCM Lane LOS	C	A	-	-	B	A	-	C
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.3

Timings
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	685	127	66	67	186	1488	61	1353
Future Volume (vph)	685	127	66	67	186	1488	61	1353
Turn Type	Prot	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases			8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	6.0	4.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	35.0	10.0	35.0	12.0	37.0	12.0	38.0
Total Split (s)	40.0	35.0	40.0	35.0	25.0	60.0	25.0	60.0
Total Split (%)	25.0%	21.9%	25.0%	21.9%	15.6%	37.5%	15.6%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.6	55.3	36.8	29.3	12.7	64.1	9.5	58.4
Actuated g/C Ratio	0.21	0.35	0.23	0.18	0.08	0.40	0.06	0.36
v/c Ratio	0.97	0.73	0.28	0.62	0.70	0.76	0.59	0.98
Control Delay	85.7	28.8	33.6	51.6	87.7	41.0	121.9	49.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	28.8	33.6	51.6	87.7	41.0	121.9	49.5
LOS	F	C	C	D	F	D	F	D
Approach Delay		63.5		47.4		46.2		52.0
Approach LOS		E		D		D		D

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 24 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 52.3	Intersection LOS: D
Intersection Capacity Utilization 96.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 104: Southgate Blvd & SR 7



Queues
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	699	448	67	218	190	1541	62	1783
v/c Ratio	0.97	0.73	0.28	0.62	0.70	0.76	0.59	0.98
Control Delay	85.7	28.8	33.6	51.6	87.7	41.0	121.9	49.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	28.8	33.6	51.6	87.7	41.0	121.9	49.5
Queue Length 50th (ft)	279	257	41	154	106	338	68	704
Queue Length 95th (ft)	m#458	m316	75	250	151	450	m81	m#768
Internal Link Dist (ft)		1738		1039		1330		2623
Turn Bay Length (ft)	125		205		235		215	
Base Capacity (vph)	729	610	530	353	386	2031	199	1817
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.73	0.13	0.62	0.49	0.76	0.31	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Southgate Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	685	127	312	66	67	147	186	1488	23	61	1353	394
Future Volume (veh/h)	685	127	312	66	67	147	186	1488	23	61	1353	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	699	130	318	67	68	150	190	1518	23	62	1381	402
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	734	157	384	192	81	178	233	2194	33	78	1572	455
Arrive On Green	0.21	0.33	0.33	0.04	0.16	0.16	0.09	0.56	0.56	0.06	0.53	0.53
Sat Flow, veh/h	3456	478	1169	1781	512	1129	3456	5181	79	1781	3928	1138
Grp Volume(v), veh/h	699	0	448	67	0	218	190	997	544	62	1196	587
Grp Sat Flow(s),veh/h/ln	1728	0	1647	1781	0	1641	1728	1702	1856	1781	1702	1662
Q Serve(g_s), s	32.0	0.0	40.2	5.0	0.0	20.6	8.6	33.5	33.5	5.5	49.4	49.9
Cycle Q Clear(g_c), s	32.0	0.0	40.2	5.0	0.0	20.6	8.6	33.5	33.5	5.5	49.4	49.9
Prop In Lane	1.00		0.71	1.00		0.69	1.00		0.04	1.00		0.68
Lane Grp Cap(c), veh/h	734	0	541	192	0	259	233	1441	786	78	1362	665
V/C Ratio(X)	0.95	0.00	0.83	0.35	0.00	0.84	0.82	0.69	0.69	0.79	0.88	0.88
Avail Cap(c_a), veh/h	734	0	541	496	0	297	389	1441	786	200	1362	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	0.46	0.46	0.46
Uniform Delay (d), s/veh	62.2	0.0	49.6	53.8	0.0	65.4	71.9	27.5	27.5	74.6	34.0	34.1
Incr Delay (d2), s/veh	22.1	0.0	9.8	0.4	0.0	15.5	2.4	2.5	4.4	3.1	4.1	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.3	0.0	18.1	2.3	0.0	9.8	3.9	13.2	14.8	2.6	19.8	20.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	0.0	59.4	54.2	0.0	80.9	74.2	29.9	31.9	77.7	38.1	42.2
LnGrp LOS	F	A	E	D	A	F	E	C	C	E	D	D
Approach Vol, veh/h		1147			285			1731			1845	
Approach Delay, s/veh		74.6			74.6			35.4			40.7	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	74.8	12.7	58.5	17.8	71.0	40.0	31.2
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	53.0	34.0	29.0	18.0	53.0	34.0	29.0
Max Q Clear Time (g_c+I1), s	7.5	35.5	7.0	42.2	10.6	51.9	34.0	22.6
Green Ext Time (p_c), s	0.0	10.1	0.0	0.0	0.1	1.0	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

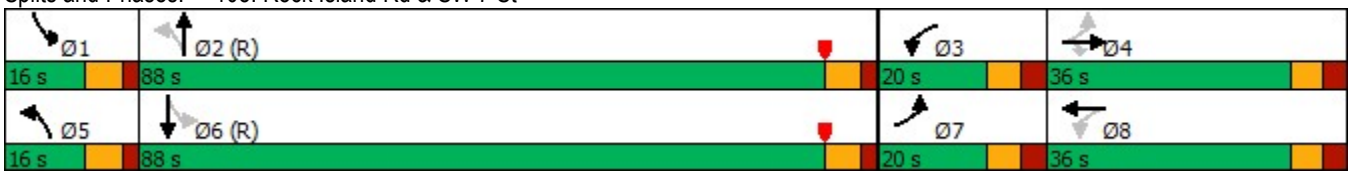
User approved pedestrian interval to be less than phase max green.

Timings
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	117	64	92	79	38	85	1102	149	1062
Future Volume (vph)	117	64	92	79	38	85	1102	149	1062
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	12.0	4.0	12.0
Minimum Split (s)	11.0	35.0	35.0	11.0	35.0	10.5	27.5	10.5	27.5
Total Split (s)	20.0	36.0	36.0	20.0	36.0	16.0	88.0	16.0	88.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.9	15.7	15.7	24.5	14.0	101.1	94.1	112.2	99.8
Actuated g/C Ratio	0.17	0.10	0.10	0.15	0.09	0.63	0.59	0.70	0.62
v/c Ratio	0.75	0.40	0.41	0.40	0.80	0.39	0.64	0.62	0.59
Control Delay	78.6	72.9	13.0	56.4	63.0	13.8	25.2	35.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	72.9	13.0	56.4	63.0	13.8	25.2	35.0	10.6
LOS	E	E	B	E	E	B	C	D	B
Approach Delay		55.1			60.7		24.4		13.5
Approach LOS		E			E		C		B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 131 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 79.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: Rock Island Rd & SW 7 St



Queues
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	74	107	92	175	99	1332	173	1284
v/c Ratio	0.75	0.40	0.41	0.40	0.80	0.39	0.64	0.62	0.59
Control Delay	78.6	72.9	13.0	56.4	63.0	13.8	25.2	35.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	72.9	13.0	56.4	63.0	13.8	25.2	35.0	10.6
Queue Length 50th (ft)	123	74	0	81	98	30	478	56	82
Queue Length 95th (ft)	170	118	43	122	164	57	607	85	642
Internal Link Dist (ft)		723			1226		764		1324
Turn Bay Length (ft)	215		215	125		195		205	
Base Capacity (vph)	190	337	381	259	363	281	2071	283	2194
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.22	0.28	0.36	0.48	0.35	0.64	0.61	0.59

Intersection Summary

HCM 6th Signalized Intersection Summary
105: Rock Island Rd & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	64	92	79	38	113	85	1102	44	149	1062	42
Future Volume (veh/h)	117	64	92	79	38	113	85	1102	44	149	1062	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	74	107	92	44	131	99	1281	51	173	1235	49
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	276	233	280	51	153	301	2000	80	306	2061	82
Arrive On Green	0.08	0.15	0.15	0.06	0.13	0.13	0.05	0.76	0.76	0.07	0.79	0.79
Sat Flow, veh/h	1781	1870	1579	1781	408	1216	1781	3483	139	1781	3481	138
Grp Volume(v), veh/h	136	74	107	92	0	175	99	653	679	173	630	654
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	0	1625	1781	1777	1845	1781	1777	1842
Q Serve(g_s), s	10.5	5.6	9.9	7.1	0.0	16.9	3.7	27.2	27.3	6.5	22.8	22.9
Cycle Q Clear(g_c), s	10.5	5.6	9.9	7.1	0.0	16.9	3.7	27.2	27.3	6.5	22.8	22.9
Prop In Lane	1.00		1.00	1.00		0.75	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	208	276	233	280	0	204	301	1020	1059	306	1052	1091
V/C Ratio(X)	0.65	0.27	0.46	0.33	0.00	0.86	0.33	0.64	0.64	0.57	0.60	0.60
Avail Cap(c_a), veh/h	214	339	286	324	0	294	344	1020	1059	317	1052	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	55.9	60.5	62.4	56.5	0.0	68.6	14.4	11.3	11.3	16.0	9.4	9.4
Incr Delay (d2), s/veh	5.2	0.2	0.5	0.3	0.0	11.5	0.2	3.1	3.0	0.9	1.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	2.7	4.0	3.3	0.0	7.7	1.5	9.4	9.7	2.6	7.2	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	60.7	62.9	56.7	0.0	80.0	14.6	14.3	14.3	16.9	11.2	11.2
LnGrp LOS	E	E	E	E	A	F	B	B	B	B	B	B
Approach Vol, veh/h		317			267			1431			1457	
Approach Delay, s/veh		61.6			72.0			14.3			11.9	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	98.4	16.0	30.6	12.2	101.2	19.5	27.1
Change Period (Y+Rc), s	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
Max Green Setting (Gmax), s	9.5	81.5	13.0	29.0	9.5	81.5	13.0	29.0
Max Q Clear Time (g_c+I1), s	8.5	29.3	9.1	11.9	5.7	24.9	12.5	18.9
Green Ext Time (p_c), s	0.0	10.3	0.0	0.4	0.0	9.7	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	224	38	20	137	14	45	19	46	15	14	12
Future Vol, veh/h	6	224	38	20	137	14	45	19	46	15	14	12
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	264	45	24	161	16	53	22	54	18	16	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	9.5	9.2	8.7
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	41%	2%	12%	37%
Vol Thru, %	17%	84%	80%	34%
Vol Right, %	42%	14%	8%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	268	171	41
LT Vol	45	6	20	15
Through Vol	19	224	137	14
RT Vol	46	38	14	12
Lane Flow Rate	129	315	201	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.18	0.397	0.264	0.07
Departure Headway (Hd)	5.009	4.538	4.716	5.199
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	712	788	758	683
Service Time	3.072	2.586	2.768	3.274
HCM Lane V/C Ratio	0.181	0.4	0.265	0.07
HCM Control Delay	9.2	10.6	9.5	8.7
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.7	1.9	1.1	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	315	9	6	155	15	7	4	5	31	2	22
Future Vol, veh/h	30	315	9	6	155	15	7	4	5	31	2	22
Conflicting Peds, #/hr	1	0	6	6	0	1	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	325	9	6	160	15	7	4	5	32	2	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	176	0	0	340	0	0	592	586	336	577	583	171
Stage 1	-	-	-	-	-	-	398	398	-	181	181	-
Stage 2	-	-	-	-	-	-	194	188	-	396	402	-
Critical Hdwy	4.12	-	-	4.12	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1400	-	-	1219	-	-	668	672	904	678	674	1040
Stage 1	-	-	-	-	-	-	811	811	-	1005	1005	-
Stage 2	-	-	-	-	-	-	993	999	-	813	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1399	-	-	1212	-	-	631	646	899	654	648	1037
Mov Cap-2 Maneuver	-	-	-	-	-	-	631	646	-	654	648	-
Stage 1	-	-	-	-	-	-	784	784	-	977	999	-
Stage 2	-	-	-	-	-	-	963	993	-	782	781	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	10.3	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	700	1399	-	-	1212	-	-	767
HCM Lane V/C Ratio	0.024	0.022	-	-	0.005	-	-	0.074
HCM Control Delay (s)	10.3	7.6	0	-	8	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	331	26	50	171	5	6
Future Vol, veh/h	331	26	50	171	5	6
Conflicting Peds, #/hr	0	9	9	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	368	27	52	176	5	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	404	0	671	392
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	280	-
Critical Hdwy	-	-	4.12	-	5	4.5
Critical Hdwy Stg 1	-	-	-	-	5	-
Critical Hdwy Stg 2	-	-	-	-	5	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	1155	-	617	862
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1145	-	581	854
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	866	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	10.2
HCM LOS			B

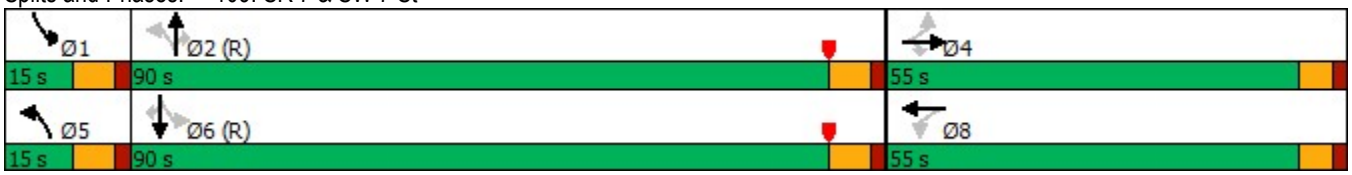
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	581	854	-	-	1145	-
HCM Lane V/C Ratio	0.009	0.007	-	-	0.045	-
HCM Control Delay (s)	11.3	9.2	-	-	8.3	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-

Timings
109: SR 7 & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	88	12	234	50	23	164	1650	20	17	1646	81
Future Volume (vph)	88	12	234	50	23	164	1650	20	17	1646	81
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	45.0	45.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	15.0	90.0	90.0	15.0	90.0	90.0
Total Split (%)	34.4%	34.4%	34.4%	34.4%	34.4%	9.4%	56.3%	56.3%	9.4%	56.3%	56.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		20.2	20.2		20.2	126.8	119.6	119.6	109.1	104.1	104.1
Actuated g/C Ratio		0.13	0.13		0.13	0.79	0.75	0.75	0.68	0.65	0.65
v/c Ratio		0.67	0.85		0.58	0.59	0.46	0.02	0.09	0.52	0.09
Control Delay		85.2	64.1		75.0	21.9	9.6	0.1	3.4	7.3	0.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		85.2	64.1		75.0	21.9	9.6	0.1	3.4	7.3	0.5
LOS		F	E		E	C	A	A	A	A	A
Approach Delay		70.4			75.0		10.6			7.0	
Approach LOS		E			E		B			A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 73.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 109: SR 7 & SW 7 St



Queues
109: SR 7 & SW 7 St

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	246	89	173	1737	21	18	1733	85
v/c Ratio	0.67	0.85	0.58	0.59	0.46	0.02	0.09	0.52	0.09
Control Delay	85.2	64.1	75.0	21.9	9.6	0.1	3.4	7.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.2	64.1	75.0	21.9	9.6	0.1	3.4	7.3	0.5
Queue Length 50th (ft)	108	151	84	38	262	0	2	135	1
Queue Length 95th (ft)	165	240	138	136	371	0	m3	m148	m0
Internal Link Dist (ft)	972		833		582			1330	
Turn Bay Length (ft)		100		330		105	275		95
Base Capacity (vph)	386	550	368	292	3801	1167	234	3308	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.45	0.24	0.59	0.46	0.02	0.08	0.52	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
109: SR 7 & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	12	234	50	23	11	164	1650	20	17	1646	81
Future Volume (veh/h)	88	12	234	50	23	11	164	1650	20	17	1646	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.97	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	13	246	53	24	12	173	1737	21	18	1733	85
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	29	274	109	46	19	274	3487	1049	246	3343	1026
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.06	0.91	0.91	0.02	0.87	0.87
Sat Flow, veh/h	1064	167	1566	418	265	106	1781	5106	1535	1781	5106	1567
Grp Volume(v), veh/h	106	0	246	89	0	0	173	1737	21	18	1733	85
Grp Sat Flow(s),veh/h/ln	1232	0	1566	789	0	0	1781	1702	1535	1781	1702	1567
Q Serve(g_s), s	0.0	0.0	24.6	8.6	0.0	0.0	5.3	9.1	0.2	0.5	12.8	1.2
Cycle Q Clear(g_c), s	13.0	0.0	24.6	21.5	0.0	0.0	5.3	9.1	0.2	0.5	12.8	1.2
Prop In Lane	0.88		1.00	0.60		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	0	274	174	0	0	274	3487	1049	246	3343	1026
V/C Ratio(X)	0.41	0.00	0.90	0.51	0.00	0.00	0.63	0.50	0.02	0.07	0.52	0.08
Avail Cap(c_a), veh/h	443	0	480	346	0	0	282	3487	1049	305	3343	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.19	0.19	0.19
Uniform Delay (d), s/veh	59.7	0.0	64.6	66.7	0.0	0.0	9.4	2.7	2.3	8.7	4.4	3.7
Incr Delay (d2), s/veh	0.4	0.0	5.4	0.9	0.0	0.0	3.2	0.5	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	10.3	3.6	0.0	0.0	2.2	2.2	0.1	0.2	3.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	0.0	70.0	67.6	0.0	0.0	12.6	3.3	2.4	8.7	4.5	3.7
LnGrp LOS	E	A	E	E	A	A	B	A	A	A	A	A
Approach Vol, veh/h		352			89			1931			1836	
Approach Delay, s/veh		67.0			67.6			4.1			4.5	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	116.3		34.0	14.3	111.7		34.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	8.0	83.0		49.0	8.0	83.0		49.0
Max Q Clear Time (g_c+I1), s	2.5	11.1		26.6	7.3	14.8		23.5
Green Ext Time (p_c), s	0.0	24.2		0.8	0.0	24.4		0.3

Intersection Summary			
HCM 6th Ctrl Delay			10.9
HCM 6th LOS			B

Timings
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	128	104	136	114	65	1058	119	117	947	84
Future Volume (vph)	100	128	104	136	114	65	1058	119	117	947	84
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	47.5	11.5	44.5	44.5	16.5	44.6	44.6
Total Split (s)	20.0	46.0	46.0	20.0	46.0	21.0	73.0	73.0	21.0	73.0	73.0
Total Split (%)	12.5%	28.8%	28.8%	12.5%	28.8%	13.1%	45.6%	45.6%	13.1%	45.6%	45.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.4	16.1	16.1	30.5	17.6	103.6	97.5	97.5	108.5	99.9	99.9
Actuated g/C Ratio	0.17	0.10	0.10	0.19	0.11	0.65	0.61	0.61	0.68	0.62	0.62
v/c Ratio	0.50	0.72	0.43	0.64	0.54	0.20	0.52	0.13	0.39	0.45	0.11
Control Delay	59.1	90.5	15.6	66.0	37.5	10.1	20.1	4.3	12.2	17.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	90.5	15.6	66.0	37.5	10.1	20.1	4.3	12.2	17.4	1.8
LOS	E	F	B	E	D	B	C	A	B	B	A
Approach Delay		57.7			48.2		18.1			15.7	
Approach LOS		E			D		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 123 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 91.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 110: Kimberly Blvd & Rock Island Road

Queues
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	105	135	109	143	238	68	1114	125	123	997	88
v/c Ratio	0.50	0.72	0.43	0.64	0.54	0.20	0.52	0.13	0.39	0.45	0.11
Control Delay	59.1	90.5	15.6	66.0	37.5	10.1	20.1	4.3	12.2	17.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	90.5	15.6	66.0	37.5	10.1	20.1	4.3	12.2	17.4	1.8
Queue Length 50th (ft)	91	139	0	127	62	21	337	8	39	279	0
Queue Length 95th (ft)	143	209	59	187	106	43	477	43	72	377	18
Internal Link Dist (ft)		387			3410		622			1269	
Turn Bay Length (ft)	250		250	200		280		150	240		160
Base Capacity (vph)	239	465	463	233	856	431	2156	985	376	2209	824
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.29	0.24	0.61	0.28	0.16	0.52	0.13	0.33	0.45	0.11

Intersection Summary

HCM 6th Signalized Intersection Summary
110: Kimberly Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	128	104	136	114	112	65	1058	119	117	947	84
Future Volume (veh/h)	100	128	104	136	114	112	65	1058	119	117	947	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.93		0.87	0.93		0.88	1.00		0.87	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	135	109	143	120	118	68	1114	125	123	997	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	416	307	347	425	333	294	1781	688	272	1840	756
Arrive On Green	0.06	0.22	0.22	0.07	0.24	0.24	0.04	0.67	0.67	0.06	0.69	0.69
Sat Flow, veh/h	1781	1870	1380	1781	1777	1395	1781	3554	1373	1781	3554	1461
Grp Volume(v), veh/h	105	135	109	143	120	118	68	1114	125	123	997	88
Grp Sat Flow(s),veh/h/ln	1781	1870	1380	1781	1777	1395	1781	1777	1373	1781	1777	1461
Q Serve(g_s), s	7.2	9.7	10.7	9.8	8.8	11.3	3.0	28.7	5.5	5.4	22.3	3.3
Cycle Q Clear(g_c), s	7.2	9.7	10.7	9.8	8.8	11.3	3.0	28.7	5.5	5.4	22.3	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	416	307	347	425	333	294	1781	688	272	1840	756
V/C Ratio(X)	0.32	0.32	0.36	0.41	0.28	0.35	0.23	0.63	0.18	0.45	0.54	0.12
Avail Cap(c_a), veh/h	379	468	345	371	444	349	402	1781	688	351	1840	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	52.2	52.5	43.4	49.7	50.6	19.5	18.1	14.2	20.8	15.5	12.5
Incr Delay (d2), s/veh	0.2	0.2	0.3	0.3	0.1	0.2	0.1	1.7	0.6	0.4	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.6	3.8	4.4	4.0	4.0	1.3	10.9	1.8	2.3	8.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	52.3	52.8	43.7	49.8	50.9	19.6	19.8	14.8	21.2	16.6	12.8
LnGrp LOS	D	D	D	D	D	D	B	B	B	C	B	B
Approach Vol, veh/h		349			381			1307			1208	
Approach Delay, s/veh		50.1			47.8			19.3			16.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	86.7	17.8	41.6	11.3	89.3	15.2	44.2
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
Max Green Setting (Gmax), s	14.5	66.5	14.0	40.0	14.5	66.5	14.0	40.0
Max Q Clear Time (g_c+I1), s	7.4	30.7	11.8	12.7	5.0	24.3	9.2	13.3
Green Ext Time (p_c), s	0.1	11.1	0.0	0.7	0.0	9.6	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	389	253	115	86
Demand Flow Rate, veh/h	397	258	118	87
Vehicles Circulating, veh/h	75	110	405	279
Vehicles Exiting, veh/h	291	413	67	89
Ped Vol Crossing Leg, #/h	0	0	1	7
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	5.7	4.8	5.3	4.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	397	258	118	87
Cap Entry Lane, veh/h	1278	1233	913	1038
Entry HV Adj Factor	0.981	0.980	0.977	0.984
Flow Entry, veh/h	389	253	115	86
Cap Entry, veh/h	1254	1208	892	1021
V/C Ratio	0.311	0.209	0.129	0.084
Control Delay, s/veh	5.7	4.8	5.3	4.3
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	0

Timings
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	160	22	183	184	24	89	125	1610	65	1793	84
Future Volume (vph)	160	22	183	184	24	89	125	1610	65	1793	84
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	40.0	40.0	12.0	40.0	12.0	40.0	40.0
Total Split (s)	21.0	43.0	43.0	21.0	43.0	43.0	23.0	76.0	20.0	73.0	73.0
Total Split (%)	13.1%	26.9%	26.9%	13.1%	26.9%	26.9%	14.4%	47.5%	12.5%	45.6%	45.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.3	8.2	8.2	23.2	8.6	8.6	15.8	101.4	9.9	95.5	95.5
Actuated g/C Ratio	0.14	0.05	0.05	0.14	0.05	0.05	0.10	0.63	0.06	0.60	0.60
v/c Ratio	0.73	0.23	0.73	0.81	0.24	0.48	0.74	0.54	0.61	0.60	0.09
Control Delay	78.6	77.1	25.6	87.2	77.1	13.3	89.0	25.0	95.0	22.4	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	77.1	25.6	87.2	77.1	13.3	89.0	25.0	95.0	22.4	1.6
LOS	E	E	C	F	E	B	F	C	F	C	A
Approach Delay		51.8			64.2			29.4		23.9	
Approach LOS		D			E			C		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 113 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 31.2	Intersection LOS: C
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 112: Kimberly Blvd & SR 7

Queues
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	163	22	187	188	24	91	128	1714	66	1830	86
v/c Ratio	0.73	0.23	0.73	0.81	0.24	0.48	0.74	0.54	0.61	0.60	0.09
Control Delay	78.6	77.1	25.6	87.2	77.1	13.3	89.0	25.0	95.0	22.4	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	77.1	25.6	87.2	77.1	13.3	89.0	25.0	95.0	22.4	1.6
Queue Length 50th (ft)	158	23	0	185	25	0	143	353	69	417	0
Queue Length 95th (ft)	226	53	82	259	56	33	214	440	121	567	17
Internal Link Dist (ft)		1738			1039			1330		793	
Turn Bay Length (ft)	175			110		110	325		330		235
Base Capacity (vph)	233	430	503	236	430	435	194	3199	146	3035	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.05	0.37	0.80	0.06	0.21	0.66	0.54	0.45	0.60	0.09

Intersection Summary

HCM 6th Signalized Intersection Summary
112: Kimberly Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	22	183	184	24	89	125	1610	70	65	1793	84
Future Volume (veh/h)	160	22	183	184	24	89	125	1610	70	65	1793	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	22	187	188	24	91	128	1643	71	66	1830	86
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	339	274	406	353	282	148	2585	112	83	2448	734
Arrive On Green	0.09	0.18	0.18	0.09	0.19	0.19	0.11	0.69	0.69	0.06	0.64	0.64
Sat Flow, veh/h	1781	1870	1509	1781	1870	1493	1781	5011	216	1781	5106	1532
Grp Volume(v), veh/h	163	22	187	188	24	91	128	1116	598	66	1830	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1509	1781	1870	1493	1781	1702	1823	1781	1702	1532
Q Serve(g_s), s	11.8	1.6	18.5	13.7	1.7	8.4	11.3	29.2	29.2	5.8	39.7	3.5
Cycle Q Clear(g_c), s	11.8	1.6	18.5	13.7	1.7	8.4	11.3	29.2	29.2	5.8	39.7	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	417	339	274	406	353	282	148	1756	941	83	2448	734
V/C Ratio(X)	0.39	0.06	0.68	0.46	0.07	0.32	0.87	0.64	0.64	0.80	0.75	0.12
Avail Cap(c_a), veh/h	430	433	349	406	433	345	178	1756	941	145	2448	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	54.3	61.2	47.0	53.3	56.1	70.3	16.7	16.7	74.3	22.3	15.7
Incr Delay (d2), s/veh	0.2	0.0	2.0	0.3	0.0	0.2	23.8	1.6	2.9	6.3	2.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.7	7.3	6.2	0.8	3.2	6.0	10.4	11.5	2.8	14.8	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	54.3	63.2	47.3	53.4	56.3	94.1	18.3	19.6	80.6	24.4	16.1
LnGrp LOS	D	D	E	D	D	E	F	B	B	F	C	B
Approach Vol, veh/h		372			303			1842			1982	
Approach Delay, s/veh		55.8			50.5			24.0			25.9	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	89.5	21.0	35.0	20.3	83.7	19.8	36.2
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	13.0	69.0	15.0	37.0	16.0	66.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	7.8	31.2	15.7	20.5	13.3	41.7	13.8	10.4
Green Ext Time (p_c), s	0.0	17.7	0.0	0.4	0.0	16.0	0.0	0.2

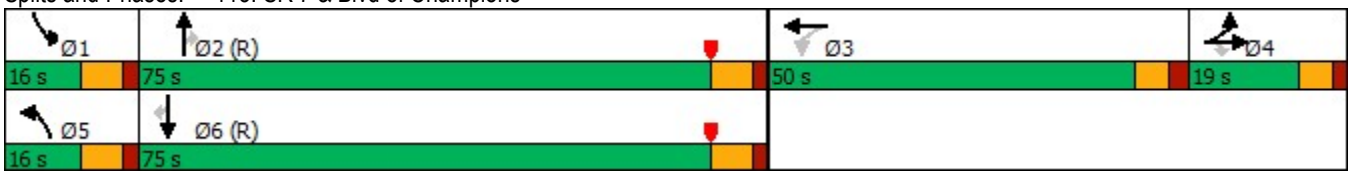
Intersection Summary	
HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Timings
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	168	0	292	13	6	270	1591	14	23	1878	250
Future Volume (vph)	168	0	292	13	6	270	1591	14	23	1878	250
Turn Type	Split	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3	5	2		1	6	
Permitted Phases			4	3				2			6
Detector Phase	4	4	4	3	3	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	19.0	19.0	19.0	47.5	47.5	12.0	43.0	43.0	12.0	43.0	43.0
Total Split (s)	19.0	19.0	19.0	50.0	50.0	16.0	75.0	75.0	16.0	75.0	75.0
Total Split (%)	11.9%	11.9%	11.9%	31.3%	31.3%	10.0%	46.9%	46.9%	10.0%	46.9%	46.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.5	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.1	13.1	13.1		9.8	24.4	114.2	114.2	6.4	91.4	91.4
Actuated g/C Ratio	0.08	0.08	0.08		0.06	0.15	0.71	0.71	0.04	0.57	0.57
v/c Ratio	0.62	0.28	0.28		0.38	0.54	0.46	0.01	0.34	0.67	0.26
Control Delay	80.7	1.3	1.3		90.1	69.8	10.7	0.0	86.3	14.0	0.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.7	1.3	1.3		90.1	69.8	10.7	0.0	86.3	14.0	0.7
LOS	F	A	A		F	E	B	A	F	B	A
Approach Delay		30.3			90.1		19.1			13.3	
Approach LOS		C			F		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 121 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 113: SR 7 & Blvd of Champions



Queues
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	175	152	152	20	281	1657	15	24	1956	260
v/c Ratio	0.62	0.28	0.28	0.38	0.54	0.46	0.01	0.34	0.67	0.26
Control Delay	80.7	1.3	1.3	90.1	69.8	10.7	0.0	86.3	14.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.7	1.3	1.3	90.1	69.8	10.7	0.0	86.3	14.0	0.7
Queue Length 50th (ft)	93	0	0	21	158	169	0	25	204	0
Queue Length 95th (ft)	131	0	0	51	210	304	m0	m44	231	m7
Internal Link Dist (ft)		446		833		1028			1330	
Turn Bay Length (ft)	170		300		300		160	160		425
Base Capacity (vph)	306	544	544	238	523	3629	1126	99	2905	990
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.28	0.28	0.08	0.54	0.46	0.01	0.24	0.67	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
113: SR 7 & Blvd of Champions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	0	292	13	6	0	270	1591	14	23	1878	250
Future Volume (vph)	168	0	292	13	6	0	270	1591	14	23	1878	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	0.97	0.95	0.95		1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.97	1.00	1.00	0.97
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	0.85	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1504	1504		1800		3433	5085	1534	1770	5085	1543
Flt Permitted	0.95	1.00	1.00		0.47		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1504	1504		880		3433	5085	1534	1770	5085	1543
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	175	0	304	14	6	0	281	1657	15	24	1956	260
RTOR Reduction (vph)	0	140	140	0	0	0	0	0	5	0	0	114
Lane Group Flow (vph)	175	12	12	0	20	0	281	1657	10	24	1956	146
Confl. Peds. (#/hr)	11					11	9		5	5		9
Confl. Bikes (#/hr)												4
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3					2			6
Actuated Green, G (s)	13.1	13.1	13.1		7.2		24.4	108.8	108.8	4.4	88.8	88.8
Effective Green, g (s)	13.1	13.1	13.1		7.2		24.4	108.8	108.8	4.4	88.8	88.8
Actuated g/C Ratio	0.08	0.08	0.08		0.05		0.15	0.68	0.68	0.03	0.55	0.55
Clearance Time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	2.2	2.2	2.2		2.2		1.5	3.0	3.0	1.5	3.0	3.0
Lane Grp Cap (vph)	281	123	123		39		523	3457	1043	48	2822	856
v/s Ratio Prot	c0.05	0.01					c0.08	c0.33		0.01	c0.38	
v/s Ratio Perm			0.01		c0.02				0.01			0.09
v/c Ratio	0.62	0.10	0.10		0.51		0.54	0.48	0.01	0.50	0.69	0.17
Uniform Delay, d1	71.1	68.0	68.0		74.7		62.6	12.2	8.2	76.7	25.7	17.5
Progression Factor	1.00	1.00	1.00		1.00		1.04	0.82	1.00	1.02	0.51	0.07
Incremental Delay, d2	3.3	0.2	0.2		6.1		0.5	0.4	0.0	2.4	1.2	0.4
Delay (s)	74.4	68.2	68.2		80.8		65.3	10.4	8.3	80.8	14.4	1.6
Level of Service	E	E	E		F		E	B	A	F	B	A
Approach Delay (s)		70.4			80.8			18.3			13.6	
Approach LOS		E			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

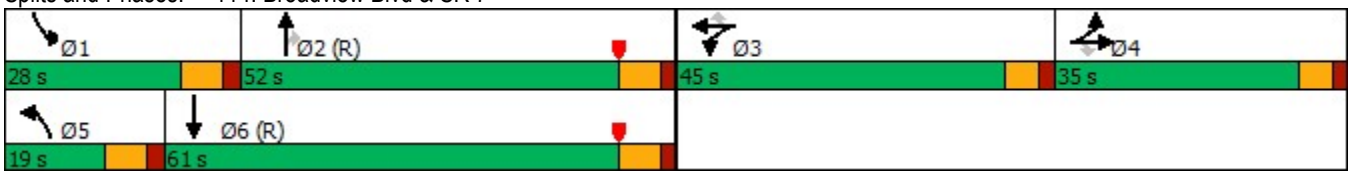
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	73	19	66	242	3	252	40	1427	248	323	1779
Future Volume (vph)	73	19	66	242	3	252	40	1427	248	323	1779
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		3	3		5	2		1	6
Permitted Phases			4			3			2		
Detector Phase	4	4	4	3	3	3	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	24.0	24.0	45.0	45.0	45.0	12.0	40.0	40.0	12.0	40.0
Total Split (s)	35.0	35.0	35.0	45.0	45.0	45.0	19.0	52.0	52.0	28.0	61.0
Total Split (%)	21.9%	21.9%	21.9%	28.1%	28.1%	28.1%	11.9%	32.5%	32.5%	17.5%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.2	8.2	8.2	17.3	17.3	17.3	8.0	88.2	88.2	20.4	103.0
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.05	0.55	0.55	0.13	0.64
v/c Ratio	0.45	0.21	0.30	0.72	0.71	0.66	0.49	0.54	0.28	0.79	0.60
Control Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.3	9.6	100.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.3	9.6	100.4	6.8
LOS	F	E	A	F	F	B	F	C	A	F	A
Approach Delay		48.3			51.5			24.6			20.9
Approach LOS		D			D			C			C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 133 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 26.6	Intersection LOS: C
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Broadview Blvd & SR 7



Queues
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	20	70	131	129	268	43	1518	264	344	1947
v/c Ratio	0.45	0.21	0.30	0.72	0.71	0.66	0.49	0.54	0.28	0.79	0.60
Control Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.3	9.6	100.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.3	9.6	100.4	6.8
Queue Length 50th (ft)	41	20	0	142	140	0	45	360	52	195	94
Queue Length 95th (ft)	70	51	0	212	209	88	88	495	132	249	150
Internal Link Dist (ft)		559			661			481			1028
Turn Bay Length (ft)	160		260	270		260	270		150	290	
Base Capacity (vph)	622	337	421	409	410	583	132	2803	929	475	3259
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.06	0.17	0.32	0.31	0.46	0.33	0.54	0.28	0.72	0.60

Intersection Summary

HCM Signalized Intersection Capacity Analysis
114: Broadview Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	19	66	242	3	252	40	1427	248	323	1779	51
Future Volume (vph)	73	19	66	242	3	252	40	1427	248	323	1779	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	1863	1583	1681	1687	1562	1770	5085	1560	3433	5060	
Flt Permitted	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	1863	1583	1681	1687	1562	1770	5085	1560	3433	5060	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	78	20	70	257	3	268	43	1518	264	344	1893	54
RTOR Reduction (vph)	0	0	66	0	0	239	0	0	71	0	1	0
Lane Group Flow (vph)	78	20	4	131	129	29	43	1518	193	344	1946	0
Confl. Peds. (#/hr)	1					1	3		1	1		3
Confl. Bikes (#/hr)									3			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			
Actuated Green, G (s)	8.2	8.2	8.2	17.3	17.3	17.3	7.0	88.1	88.1	20.4	101.5	
Effective Green, g (s)	8.2	8.2	8.2	17.3	17.3	17.3	7.0	88.1	88.1	20.4	101.5	
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.04	0.55	0.55	0.13	0.63	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	175	95	81	181	182	168	77	2799	858	437	3209	
v/s Ratio Prot	c0.02	0.01		c0.08	0.08		0.02	0.30		c0.10	c0.38	
v/s Ratio Perm			0.00			0.02			0.12			
v/c Ratio	0.45	0.21	0.04	0.72	0.71	0.17	0.56	0.54	0.23	0.79	0.61	
Uniform Delay, d1	73.7	72.8	72.2	69.0	68.9	64.8	75.0	23.0	18.4	67.7	17.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	0.33	
Incremental Delay, d2	0.7	0.4	0.1	11.5	9.9	0.2	4.9	0.8	0.6	6.8	0.7	
Delay (s)	74.4	73.2	72.3	80.5	78.8	65.0	79.9	23.8	19.1	96.7	6.5	
Level of Service	E	E	E	F	E	E	E	C	B	F	A	
Approach Delay (s)		73.3			72.2			24.4			20.0	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱		↑↑↑	↑↑↑	↱
Traffic Vol, veh/h	0	8	0	1853	1919	43
Future Vol, veh/h	0	8	0	1853	1919	43
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	240
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	1910	1978	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	990	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	511	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	511	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

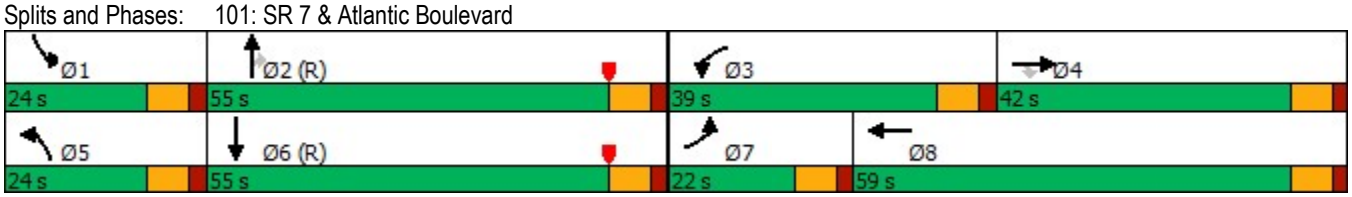
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	511	-	-
HCM Lane V/C Ratio	-	0.016	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	305	909	297	640	1537	235	1243	484	156	1237
Future Volume (vph)	305	909	297	640	1537	235	1243	484	156	1237
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	11.0	42.0	42.0	11.0	59.0	12.0	50.0	50.0	12.0	50.0
Total Split (s)	22.0	42.0	42.0	39.0	59.0	24.0	55.0	55.0	24.0	55.0
Total Split (%)	13.8%	26.3%	26.3%	24.4%	36.9%	15.0%	34.4%	34.4%	15.0%	34.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	15.0	35.4	35.4	31.6	52.0	17.0	48.9	48.9	16.1	48.0
Actuated g/C Ratio	0.09	0.22	0.22	0.20	0.32	0.11	0.31	0.31	0.10	0.30
v/c Ratio	0.97	0.82	0.60	0.96	1.06	1.28	0.82	0.67	0.89	0.99
Control Delay	113.7	66.6	22.5	90.0	90.0	208.3	51.0	16.2	113.9	74.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.7	66.6	22.5	90.0	90.0	208.3	51.0	16.2	113.9	74.5
LOS	F	E	C	F	F	F	D	B	F	E
Approach Delay		67.4			90.0		61.3			78.4
Approach LOS		E			F		E			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 75.3	Intersection LOS: E
Intersection Capacity Utilization 114.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	311	928	303	653	1725	240	1268	494	159	1481
v/c Ratio	0.97	0.82	0.60	0.96	1.06	1.28	0.82	0.67	0.89	0.99
Control Delay	113.7	66.6	22.5	90.0	90.0	208.3	51.0	16.2	113.9	74.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.7	66.6	22.5	90.0	90.0	208.3	51.0	16.2	113.9	74.5
Queue Length 50th (ft)	170	343	84	352	~719	~312	486	125	166	560
Queue Length 95th (ft)	#271	400	193	#473	#815	#494	546	387	#297	#671
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	321	1126	503	686	1631	188	1552	732	188	1501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.82	0.60	0.95	1.06	1.28	0.82	0.67	0.85	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	909	297	640	1537	154	235	1243	484	156	1237	215
Future Volume (veh/h)	305	909	297	640	1537	154	235	1243	484	156	1237	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	928	303	653	1568	157	240	1268	494	159	1262	219
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1121	334	688	1528	153	189	1562	465	179	1304	226
Arrive On Green	0.09	0.22	0.22	0.20	0.32	0.32	0.14	0.41	0.41	0.13	0.40	0.40
Sat Flow, veh/h	3456	5106	1523	3456	4701	470	1781	5106	1520	1781	4347	754
Grp Volume(v), veh/h	311	928	303	653	1135	590	240	1268	494	159	988	493
Grp Sat Flow(s),veh/h/ln	1728	1702	1523	1728	1702	1767	1781	1702	1520	1781	1702	1697
Q Serve(g_s), s	14.3	27.7	31.0	29.9	52.0	52.0	17.0	35.2	49.0	14.0	45.5	45.5
Cycle Q Clear(g_c), s	14.3	27.7	31.0	29.9	52.0	52.0	17.0	35.2	49.0	14.0	45.5	45.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	324	1121	334	688	1106	574	189	1562	465	179	1021	509
V/C Ratio(X)	0.96	0.83	0.91	0.95	1.03	1.03	1.27	0.81	1.06	0.89	0.97	0.97
Avail Cap(c_a), veh/h	324	1121	334	691	1106	574	189	1562	465	189	1021	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.2	59.6	60.8	63.3	54.0	54.0	68.7	43.4	47.4	68.5	47.3	47.3
Incr Delay (d2), s/veh	39.0	5.2	26.9	22.1	33.8	44.8	146.6	3.3	52.6	34.1	21.4	32.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	12.6	14.5	15.3	27.4	30.2	15.3	14.7	24.5	7.9	21.4	23.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.2	64.7	87.7	85.4	87.8	98.8	215.3	46.7	100.1	102.6	68.7	80.0
LnGrp LOS	F	E	F	F	F	F	F	D	F	F	E	E
Approach Vol, veh/h		1542			2378			2002			1640	
Approach Delay, s/veh		78.6			89.9			80.1			75.4	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	56.0	38.9	42.1	24.0	55.0	22.0	59.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	17.0	48.0	32.0	35.0	17.0	48.0	15.0	52.0
Max Q Clear Time (g_c+I1), s	16.0	51.0	31.9	33.0	19.0	47.5	16.3	54.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	81.8
HCM 6th LOS	F

Notes

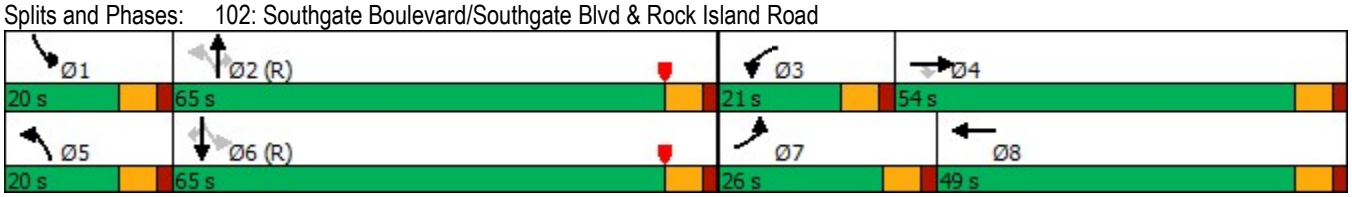
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	408	506	204	117	580	190	936	138	184	939	632
Future Volume (vph)	408	506	204	117	580	190	936	138	184	939	632
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	54.0	54.0	21.0	49.0	20.0	65.0	65.0	20.0	65.0	65.0
Total Split (%)	16.3%	33.8%	33.8%	13.1%	30.6%	12.5%	40.6%	40.6%	12.5%	40.6%	40.6%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	47.7	47.7	13.2	41.4	73.4	60.4	60.4	72.8	60.1	60.1
Actuated g/C Ratio	0.12	0.30	0.30	0.08	0.26	0.46	0.38	0.38	0.46	0.38	0.38
v/c Ratio	1.02	0.50	0.37	0.84	0.95	0.84	0.73	0.22	0.82	0.74	0.87
Control Delay	115.9	48.3	13.6	97.2	58.0	71.4	35.4	6.5	52.9	47.5	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	48.3	13.6	97.2	58.0	71.4	35.4	6.5	52.9	47.5	38.9
LOS	F	D	B	F	E	E	D	A	D	D	D
Approach Delay		66.6			62.9		37.7			45.0	
Approach LOS		E			E		D			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 80 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 51.2	Intersection LOS: D
Intersection Capacity Utilization 99.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	425	527	213	122	850	198	975	144	192	978	658
v/c Ratio	1.02	0.50	0.37	0.84	0.95	0.84	0.73	0.22	0.82	0.74	0.87
Control Delay	115.9	48.3	13.6	97.2	58.0	71.4	35.4	6.5	52.9	47.5	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	48.3	13.6	97.2	58.0	71.4	35.4	6.5	52.9	47.5	38.9
Queue Length 50th (ft)	~241	241	39	135	432	127	371	4	113	471	409
Queue Length 95th (ft)	#355	301	112	m146	m#483	#254	334	47	#225	556	#663
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1054	574	160	923	240	1335	659	242	1329	760
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.50	0.37	0.76	0.92	0.82	0.73	0.22	0.79	0.74	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	506	204	117	580	236	190	936	138	184	939	632
Future Volume (veh/h)	408	506	204	117	580	236	190	936	138	184	939	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	425	527	212	122	604	246	198	975	0	192	978	658
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1073	468	142	636	259	238	1338		279	1330	582
Arrive On Green	0.12	0.30	0.30	0.08	0.26	0.26	0.11	0.50	0.00	0.11	0.50	0.50
Sat Flow, veh/h	3456	3554	1551	1781	2447	995	1781	3554	1585	1781	3554	1555
Grp Volume(v), veh/h	425	527	212	122	438	412	198	975	0	192	978	658
Grp Sat Flow(s),veh/h/ln	1728	1777	1551	1781	1777	1666	1781	1777	1585	1781	1777	1555
Q Serve(g_s), s	19.5	19.4	17.7	10.8	38.8	38.9	11.0	34.5	0.0	10.7	34.9	59.9
Cycle Q Clear(g_c), s	19.5	19.4	17.7	10.8	38.8	38.9	11.0	34.5	0.0	10.7	34.9	59.9
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1073	468	142	462	433	238	1338		279	1330	582
V/C Ratio(X)	1.01	0.49	0.45	0.86	0.95	0.95	0.83	0.73		0.69	0.74	1.13
Avail Cap(c_a), veh/h	421	1073	468	161	472	442	243	1338		288	1330	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	45.8	45.2	72.7	58.2	58.2	33.8	33.5	0.0	31.3	33.9	40.2
Incr Delay (d2), s/veh	46.2	0.1	0.3	28.9	28.3	29.9	15.8	2.8	0.0	5.3	3.6	78.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	8.7	6.9	6.1	21.1	20.0	5.6	14.6	0.0	4.9	14.9	34.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.4	45.9	45.4	101.6	86.5	88.1	49.6	36.3	0.0	36.6	37.5	118.8
LnGrp LOS	F	D	D	F	F	F	D	D		D	D	F
Approach Vol, veh/h		1164			972			1173			1828	
Approach Delay, s/veh		71.6			89.1			38.5			66.7	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	66.7	19.3	54.8	19.5	66.4	26.0	48.1
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	58.5	14.5	47.5	13.5	58.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	12.7	36.5	12.8	21.4	13.0	61.9	21.5	40.9
Green Ext Time (p_c), s	0.0	7.4	0.0	2.8	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	65.6
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	692	20	27	917	39	19	7	35	12	0	6
Future Vol, veh/h	8	692	20	27	917	39	19	7	35	12	0	6
Conflicting Peds, #/hr	11	0	2	2	0	11	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	721	21	28	955	41	20	7	36	13	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1007	0	0	744	0	0	1284	1813	374	1424	1803	509
Stage 1	-	-	-	-	-	-	750	750	-	1043	1043	-
Stage 2	-	-	-	-	-	-	534	1063	-	381	760	-
Critical Hdwy	4.14	-	-	4.14	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	684	-	-	859	-	-	328	188	875	284	190	779
Stage 1	-	-	-	-	-	-	569	569	-	422	422	-
Stage 2	-	-	-	-	-	-	708	413	-	825	564	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	677	-	-	857	-	-	304	170	873	243	172	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	170	-	243	172	-
Stage 1	-	-	-	-	-	-	561	561	-	413	387	-
Stage 2	-	-	-	-	-	-	650	379	-	770	556	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	15	17.2
HCM LOS			C	C

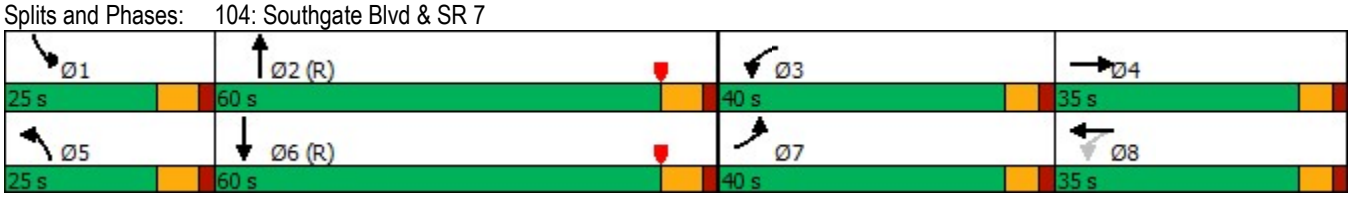
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	424	677	-	-	857	-	-	315
HCM Lane V/C Ratio	0.15	0.012	-	-	0.033	-	-	0.06
HCM Control Delay (s)	15	10.4	-	-	9.3	0.3	-	17.2
HCM Lane LOS	C	B	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.2

Timings
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	447	54	64	58	399	1489	90	1501
Future Volume (vph)	447	54	64	58	399	1489	90	1501
Turn Type	Prot	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases			8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	6.0	4.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	35.0	10.0	35.0	12.0	37.0	12.0	38.0
Total Split (s)	40.0	35.0	40.0	35.0	25.0	60.0	25.0	60.0
Total Split (%)	25.0%	21.9%	25.0%	21.9%	15.6%	37.5%	15.6%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.7	30.4	21.7	13.2	27.5	82.8	12.4	67.6
Actuated g/C Ratio	0.16	0.19	0.14	0.08	0.17	0.52	0.08	0.42
v/c Ratio	0.85	0.75	0.42	0.73	0.71	0.61	0.69	0.98
Control Delay	71.1	28.4	50.2	78.5	81.7	23.4	107.1	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.1	28.4	50.2	78.5	81.7	23.4	107.1	29.1
LOS	E	C	D	E	F	C	F	C
Approach Delay		54.3		68.3		35.4		32.5
Approach LOS		D		E		D		C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 49 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 38.2	Intersection LOS: D
Intersection Capacity Utilization 103.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 104: Southgate Blvd & SR 7



Queues
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	466	303	67	119	416	1597	94	2036
v/c Ratio	0.85	0.75	0.42	0.73	0.71	0.61	0.69	0.98
Control Delay	71.1	28.4	50.2	78.5	81.7	23.4	107.1	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.1	28.4	50.2	78.5	81.7	23.4	107.1	29.1
Queue Length 50th (ft)	174	55	53	96	228	270	104	589
Queue Length 95th (ft)	200	m300	85	163	294	297	m102	m#975
Internal Link Dist (ft)		1738		1039		1330		2623
Turn Bay Length (ft)	125		205		235		215	
Base Capacity (vph)	729	422	429	329	590	2618	199	2087
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.72	0.16	0.36	0.71	0.61	0.47	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Southgate Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	54	237	64	58	57	399	1489	44	90	1501	453
Future Volume (veh/h)	447	54	237	64	58	57	399	1489	44	90	1501	453
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.98		0.96	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	466	56	247	67	60	59	416	1551	46	94	1564	472
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	71	315	190	117	115	389	2478	73	113	1701	504
Arrive On Green	0.15	0.24	0.24	0.04	0.14	0.14	0.15	0.65	0.65	0.08	0.58	0.58
Sat Flow, veh/h	3456	292	1289	1781	846	832	3456	5090	151	1781	3884	1152
Grp Volume(v), veh/h	466	0	303	67	0	119	416	1037	560	94	1367	669
Grp Sat Flow(s),veh/h/ln	1728	0	1581	1781	0	1678	1728	1702	1837	1781	1702	1632
Q Serve(g_s), s	21.2	0.0	28.7	5.1	0.0	10.5	18.0	28.9	28.9	8.3	57.6	60.2
Cycle Q Clear(g_c), s	21.2	0.0	28.7	5.1	0.0	10.5	18.0	28.9	28.9	8.3	57.6	60.2
Prop In Lane	1.00		0.82	1.00		0.50	1.00		0.08	1.00		0.71
Lane Grp Cap(c), veh/h	513	0	387	190	0	233	389	1657	894	113	1491	715
V/C Ratio(X)	0.91	0.00	0.78	0.35	0.00	0.51	1.07	0.63	0.63	0.83	0.92	0.94
Avail Cap(c_a), veh/h	734	0	387	492	0	304	389	1657	894	200	1491	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.24	0.24	0.24
Uniform Delay (d), s/veh	67.1	0.0	56.5	56.2	0.0	63.9	68.0	19.6	19.6	72.4	30.8	31.3
Incr Delay (d2), s/veh	9.3	0.0	9.3	0.4	0.0	0.6	62.8	1.6	2.9	1.4	3.0	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	0.0	12.5	2.4	0.0	4.6	11.1	10.7	11.9	3.8	22.2	23.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	0.0	65.8	56.6	0.0	64.5	130.8	21.2	22.5	73.8	33.8	38.4
LnGrp LOS	E	A	E	E	A	E	F	C	C	E	C	D
Approach Vol, veh/h		769			186			2013			2130	
Approach Delay, s/veh		72.2			61.7			44.2			37.0	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	84.9	12.8	45.1	25.0	77.1	29.7	28.2
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	53.0	34.0	29.0	18.0	53.0	34.0	29.0
Max Q Clear Time (g_c+I1), s	10.3	30.9	7.1	30.7	20.0	62.2	23.2	12.5
Green Ext Time (p_c), s	0.0	12.2	0.0	0.0	0.0	0.0	0.5	0.3

Intersection Summary	
HCM 6th Ctrl Delay	46.0
HCM 6th LOS	D

Notes

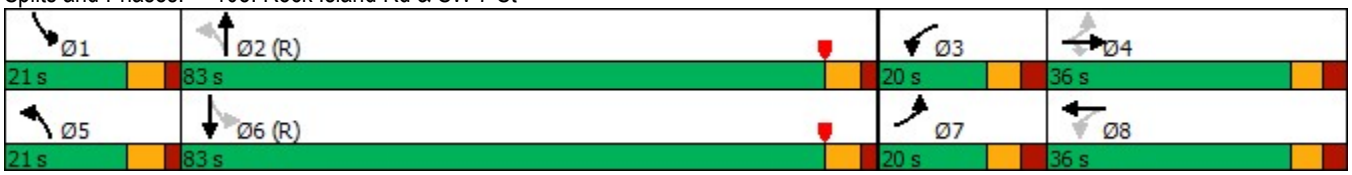
User approved pedestrian interval to be less than phase max green.

Timings
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	71	39	97	95	66	154	1142	49	1114
Future Volume (vph)	71	39	97	95	66	154	1142	49	1114
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	12.0	4.0	12.0
Minimum Split (s)	11.0	35.0	35.0	11.0	35.0	10.5	27.5	10.5	27.5
Total Split (s)	20.0	36.0	36.0	20.0	36.0	21.0	83.0	21.0	83.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	13.1%	51.9%	13.1%	51.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.9	16.1	16.1	28.3	17.3	111.2	102.5	100.7	95.2
Actuated g/C Ratio	0.16	0.10	0.10	0.18	0.11	0.70	0.64	0.63	0.60
v/c Ratio	0.43	0.22	0.40	0.40	0.79	0.61	0.59	0.23	0.62
Control Delay	57.1	66.4	12.1	55.3	78.8	19.1	19.9	11.4	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	66.4	12.1	55.3	78.8	19.1	19.9	11.4	17.8
LOS	E	E	B	E	E	B	B	B	B
Approach Delay		37.7			69.9		19.8		17.6
Approach LOS		D			E		B		B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 93 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: Rock Island Rd & SW 7 St



Queues
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	77	42	105	103	170	167	1333	53	1296
v/c Ratio	0.43	0.22	0.40	0.40	0.79	0.61	0.59	0.23	0.62
Control Delay	57.1	66.4	12.1	55.3	78.8	19.1	19.9	11.4	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	66.4	12.1	55.3	78.8	19.1	19.9	11.4	17.8
Queue Length 50th (ft)	67	41	0	91	139	54	420	12	216
Queue Length 95th (ft)	107	79	47	137	217	102	600	m30	345
Internal Link Dist (ft)		723			1226		764		1324
Turn Bay Length (ft)	215		215	125		195		205	
Base Capacity (vph)	214	337	377	280	334	316	2247	326	2081
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.12	0.28	0.37	0.51	0.53	0.59	0.16	0.62

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: Rock Island Rd & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	39	97	95	66	90	154	1142	85	49	1114	78
Future Volume (veh/h)	71	39	97	95	66	90	154	1142	85	49	1114	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	42	105	103	72	98	167	1241	92	53	1211	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	208	174	268	88	120	335	2129	158	299	2046	143
Arrive On Green	0.05	0.11	0.11	0.06	0.12	0.12	0.07	0.84	0.84	0.03	0.81	0.81
Sat Flow, veh/h	1781	1870	1568	1781	706	961	1781	3353	248	1781	3362	236
Grp Volume(v), veh/h	77	42	105	103	0	170	167	657	676	53	639	657
Grp Sat Flow(s),veh/h/ln	1781	1870	1568	1781	0	1666	1781	1777	1825	1781	1777	1821
Q Serve(g_s), s	6.1	3.3	10.2	8.1	0.0	15.9	5.8	18.1	18.2	1.8	21.0	21.1
Cycle Q Clear(g_c), s	6.1	3.3	10.2	8.1	0.0	15.9	5.8	18.1	18.2	1.8	21.0	21.1
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.14	1.00		0.13
Lane Grp Cap(c), veh/h	163	208	174	268	0	208	335	1128	1159	299	1081	1108
V/C Ratio(X)	0.47	0.20	0.60	0.38	0.00	0.82	0.50	0.58	0.58	0.18	0.59	0.59
Avail Cap(c_a), veh/h	220	339	284	301	0	302	409	1128	1159	420	1081	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	59.6	64.7	67.8	58.0	0.0	68.2	12.4	5.9	6.0	11.8	8.0	8.0
Incr Delay (d2), s/veh	0.8	0.2	1.3	0.3	0.0	7.0	0.4	2.2	2.2	0.1	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.6	4.2	3.7	0.0	7.2	2.3	5.1	5.3	0.7	6.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	64.9	69.0	58.4	0.0	75.3	12.9	8.1	8.1	11.9	9.6	9.6
LnGrp LOS	E	E	E	E	A	E	B	A	A	B	A	A
Approach Vol, veh/h		224			273			1500			1349	
Approach Delay, s/veh		65.3			68.9			8.7			9.7	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	108.1	17.0	24.8	14.3	103.9	14.8	27.0
Change Period (Y+Rc), s	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
Max Green Setting (Gmax), s	14.5	76.5	13.0	29.0	14.5	76.5	13.0	29.0
Max Q Clear Time (g_c+I1), s	3.8	20.2	10.1	12.2	7.8	23.1	8.1	17.9
Green Ext Time (p_c), s	0.0	10.4	0.0	0.3	0.1	9.9	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	115	27	54	216	19	34	23	51	7	15	9
Future Vol, veh/h	15	115	27	54	216	19	34	23	51	7	15	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	134	31	63	251	22	40	27	59	8	17	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	10.9	9	8.5
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	10%	19%	23%
Vol Thru, %	21%	73%	75%	48%
Vol Right, %	47%	17%	7%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	108	157	289	31
LT Vol	34	15	54	7
Through Vol	23	115	216	15
RT Vol	51	27	19	9
Lane Flow Rate	126	183	336	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.172	0.235	0.424	0.052
Departure Headway (Hd)	4.941	4.633	4.544	5.168
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	772	790	688
Service Time	2.997	2.68	2.586	3.236
HCM Lane V/C Ratio	0.175	0.237	0.425	0.052
HCM Control Delay	9	9.1	10.9	8.5
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.6	0.9	2.1	0.2

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	152	22	26	280	28	32	3	20	11	4	21
Future Vol, veh/h	24	152	22	26	280	28	32	3	20	11	4	21
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	4	4	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	171	25	29	315	31	36	3	22	12	4	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	346	0	0	203	0	0	650	649	195	643	646	333
Stage 1	-	-	-	-	-	-	245	245	-	389	389	-
Stage 2	-	-	-	-	-	-	405	404	-	254	257	-
Critical Hdwy	4.12	-	-	4.12	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1213	-	-	1369	-	-	630	631	1019	635	633	906
Stage 1	-	-	-	-	-	-	944	944	-	819	819	-
Stage 2	-	-	-	-	-	-	806	806	-	936	933	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1213	-	-	1360	-	-	581	594	1008	592	596	904
Mov Cap-2 Maneuver	-	-	-	-	-	-	581	594	-	592	596	-
Stage 1	-	-	-	-	-	-	914	914	-	799	797	-
Stage 2	-	-	-	-	-	-	758	784	-	886	903	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.6	10.7	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	688	1213	-	-	1360	-	-	742
HCM Lane V/C Ratio	0.09	0.022	-	-	0.021	-	-	0.055
HCM Control Delay (s)	10.7	8	0	-	7.7	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	180	8	9	309	25	42
Future Vol, veh/h	180	8	9	309	25	42
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	9	10	347	28	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	211	0	578	207
Stage 1	-	-	-	-	207	-
Stage 2	-	-	-	-	371	-
Critical Hdwy	-	-	4.12	-	5	4.5
Critical Hdwy Stg 1	-	-	-	-	5	-
Critical Hdwy Stg 2	-	-	-	-	5	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	1360	-	678	1009
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1360	-	669	1009
Mov Cap-2 Maneuver	-	-	-	-	669	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	822	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.4
HCM LOS			A

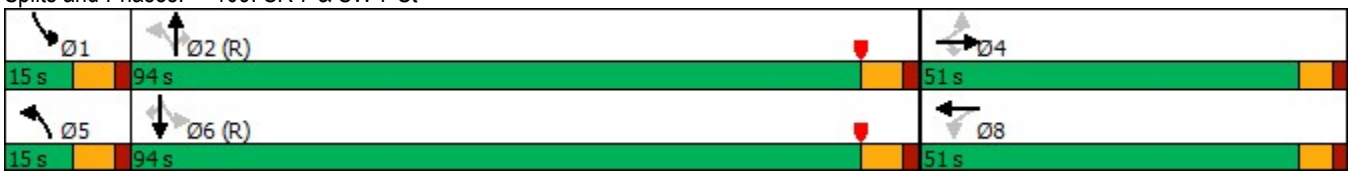
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	669	1009	-	-	1360	-
HCM Lane V/C Ratio	0.042	0.047	-	-	0.007	-
HCM Control Delay (s)	10.6	8.7	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-

Timings
109: SR 7 & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	103	17	116	29	17	199	1729	32	41	1431	129
Future Volume (vph)	103	17	116	29	17	199	1729	32	41	1431	129
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	45.0	45.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	15.0	94.0	94.0	15.0	94.0	94.0
Total Split (%)	31.9%	31.9%	31.9%	31.9%	31.9%	9.4%	58.8%	58.8%	9.4%	58.8%	58.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		19.0	19.0		19.0	127.8	118.2	118.2	113.9	108.7	108.7
Actuated g/C Ratio		0.12	0.12		0.12	0.80	0.74	0.74	0.71	0.68	0.68
v/c Ratio		0.78	0.41		0.43	0.63	0.47	0.03	0.21	0.42	0.13
Control Delay		98.1	13.5		61.3	15.7	9.8	0.0	4.5	6.6	2.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		98.1	13.5		61.3	15.7	9.8	0.0	4.5	6.6	2.2
LOS		F	B		E	B	A	A	A	A	A
Approach Delay		56.5			61.3		10.3			6.2	
Approach LOS		E			E		B			A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 76 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 109: SR 7 & SW 7 St



Queues
109: SR 7 & SW 7 St

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	118	64	203	1764	33	42	1460	132
v/c Ratio	0.78	0.41	0.43	0.63	0.47	0.03	0.21	0.42	0.13
Control Delay	98.1	13.5	61.3	15.7	9.8	0.0	4.5	6.6	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.1	13.5	61.3	15.7	9.8	0.0	4.5	6.6	2.2
Queue Length 50th (ft)	126	0	52	41	261	0	4	106	3
Queue Length 95th (ft)	192	60	99	104	357	1	m7	m141	m7
Internal Link Dist (ft)	972		833		582			1330	
Turn Bay Length (ft)		100		330		105	275		95
Base Capacity (vph)	373	521	336	320	3757	1158	230	3455	1055
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.23	0.19	0.63	0.47	0.03	0.18	0.42	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
109: SR 7 & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	17	116	29	17	17	199	1729	32	41	1431	129
Future Volume (veh/h)	103	17	116	29	17	17	199	1729	32	41	1431	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	17	118	30	17	17	203	1764	33	42	1460	132
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	24	269	67	38	26	324	3461	1049	253	3341	1033
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.07	0.90	0.90	0.04	0.87	0.87
Sat Flow, veh/h	882	143	1577	199	221	152	1781	5106	1547	1781	5106	1579
Grp Volume(v), veh/h	122	0	118	64	0	0	203	1764	33	42	1460	132
Grp Sat Flow(s),veh/h/ln	1025	0	1577	572	0	0	1781	1702	1547	1781	1702	1579
Q Serve(g_s), s	0.0	0.0	10.7	4.1	0.0	0.0	6.2	10.1	0.3	1.2	9.6	2.0
Cycle Q Clear(g_c), s	19.3	0.0	10.7	23.4	0.0	0.0	6.2	10.1	0.3	1.2	9.6	2.0
Prop In Lane	0.86		1.00	0.47		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	0	269	131	0	0	324	3461	1049	253	3341	1033
V/C Ratio(X)	0.56	0.00	0.44	0.49	0.00	0.00	0.63	0.51	0.03	0.17	0.44	0.13
Avail Cap(c_a), veh/h	374	0	443	292	0	0	324	3461	1049	295	3341	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.19	0.19	0.19
Uniform Delay (d), s/veh	63.0	0.0	59.5	66.2	0.0	0.0	8.5	3.0	2.6	8.4	4.2	3.7
Incr Delay (d2), s/veh	0.9	0.0	0.4	1.1	0.0	0.0	2.8	0.5	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	4.4	2.6	0.0	0.0	2.6	2.5	0.1	0.5	2.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	0.0	59.9	67.3	0.0	0.0	11.4	3.6	2.6	8.4	4.3	3.8
LnGrp LOS	E	A	E	E	A	A	B	A	A	A	A	A
Approach Vol, veh/h		240			64			2000			1634	
Approach Delay, s/veh		61.9			67.3			4.3			4.4	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.2	115.5		33.3	15.0	111.7		33.3
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	8.0	87.0		45.0	8.0	87.0		45.0
Max Q Clear Time (g_c+I1), s	3.2	12.1		21.3	8.2	11.6		25.4
Green Ext Time (p_c), s	0.0	25.3		0.6	0.0	18.6		0.2

Intersection Summary			
HCM 6th Ctrl Delay			8.9
HCM 6th LOS			A

Timings
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	108	93	79	161	193	99	1040	238	158	1038	142
Future Volume (vph)	108	93	79	161	193	99	1040	238	158	1038	142
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	47.5	11.5	44.5	44.5	16.5	44.6	44.6
Total Split (s)	20.0	46.0	46.0	20.0	46.0	16.0	70.0	70.0	24.0	78.0	78.0
Total Split (%)	12.5%	28.8%	28.8%	12.5%	28.8%	10.0%	43.8%	43.8%	15.0%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.2	17.3	17.3	32.4	18.9	98.2	90.8	90.8	109.1	96.8	96.8
Actuated g/C Ratio	0.18	0.11	0.11	0.20	0.12	0.61	0.57	0.57	0.68	0.60	0.60
v/c Ratio	0.66	0.50	0.28	0.66	0.84	0.37	0.56	0.27	0.52	0.53	0.16
Control Delay	66.9	74.3	2.4	64.2	57.2	13.8	25.3	9.5	15.2	20.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	74.3	2.4	64.2	57.2	13.8	25.3	9.5	15.2	20.7	6.1
LOS	E	E	A	E	E	B	C	A	B	C	A
Approach Delay		51.1			59.2		21.7			18.5	
Approach LOS		D			E		C			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 63 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 110: Kimberly Blvd & Rock Island Road

Queues
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	117	101	86	175	439	108	1130	259	172	1128	154
v/c Ratio	0.66	0.50	0.28	0.66	0.84	0.37	0.56	0.27	0.52	0.53	0.16
Control Delay	66.9	74.3	2.4	64.2	57.2	13.8	25.3	9.5	15.2	20.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	74.3	2.4	64.2	57.2	13.8	25.3	9.5	15.2	20.7	6.1
Queue Length 50th (ft)	101	101	0	157	153	35	389	52	59	351	20
Queue Length 95th (ft)	152	157	0	219	208	68	560	131	104	486	62
Internal Link Dist (ft)		387			3410		622			1269	
Turn Bay Length (ft)	250		250	200		280		150	240		160
Base Capacity (vph)	201	465	498	272	927	318	2009	943	377	2140	971
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.22	0.17	0.64	0.47	0.34	0.56	0.27	0.46	0.53	0.16

Intersection Summary

HCM 6th Signalized Intersection Summary
110: Kimberly Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	93	79	161	193	211	99	1040	238	158	1038	142
Future Volume (veh/h)	108	93	79	161	193	211	99	1040	238	158	1038	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	101	86	175	210	229	108	1130	259	172	1128	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	313	256	342	335	289	289	1888	834	292	1950	854
Arrive On Green	0.07	0.17	0.17	0.09	0.19	0.19	0.05	0.71	0.71	0.08	0.73	0.73
Sat Flow, veh/h	1781	1870	1527	1781	1777	1533	1781	3554	1570	1781	3554	1556
Grp Volume(v), veh/h	117	101	86	175	210	229	108	1130	259	172	1128	154
Grp Sat Flow(s),veh/h/ln	1781	1870	1527	1781	1777	1533	1781	1777	1570	1781	1777	1556
Q Serve(g_s), s	8.6	7.6	7.9	13.0	17.4	22.8	4.5	25.9	9.9	7.1	23.7	4.9
Cycle Q Clear(g_c), s	8.6	7.6	7.9	13.0	17.4	22.8	4.5	25.9	9.9	7.1	23.7	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	313	256	342	335	289	289	1888	834	292	1950	854
V/C Ratio(X)	0.57	0.32	0.34	0.51	0.63	0.79	0.37	0.60	0.31	0.59	0.58	0.18
Avail Cap(c_a), veh/h	244	468	382	342	444	383	323	1888	834	384	1950	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	58.6	58.8	49.5	59.7	61.9	17.2	14.8	12.5	18.3	13.0	10.4
Incr Delay (d2), s/veh	0.9	0.2	0.3	0.6	0.7	5.8	0.3	1.4	1.0	0.7	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	3.7	3.1	5.9	8.0	9.4	1.8	9.4	3.5	2.9	8.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	58.9	59.1	50.0	60.4	67.7	17.5	16.2	13.4	19.0	14.2	10.9
LnGrp LOS	D	E	E	D	E	E	B	B	B	B	B	B
Approach Vol, veh/h		304			614			1497			1454	
Approach Delay, s/veh		56.5			60.2			15.8			14.4	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	91.5	20.0	32.8	12.9	94.3	16.6	36.2
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
Max Green Setting (Gmax), s	17.5	63.5	14.0	40.0	9.5	71.5	14.0	40.0
Max Q Clear Time (g_c+I1), s	9.1	27.9	15.0	9.9	6.5	25.7	10.6	24.8
Green Ext Time (p_c), s	0.1	12.0	0.0	0.5	0.0	12.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	455	482	288	82
Demand Flow Rate, veh/h	463	491	293	85
Vehicles Circulating, veh/h	72	275	379	621
Vehicles Exiting, veh/h	633	397	156	145
Ped Vol Crossing Leg, #/h	0	5	1	11
Ped Cap Adj	1.000	0.999	1.000	0.998
Approach Delay, s/veh	6.3	9.0	7.2	6.3
Approach LOS	A	A	A	A

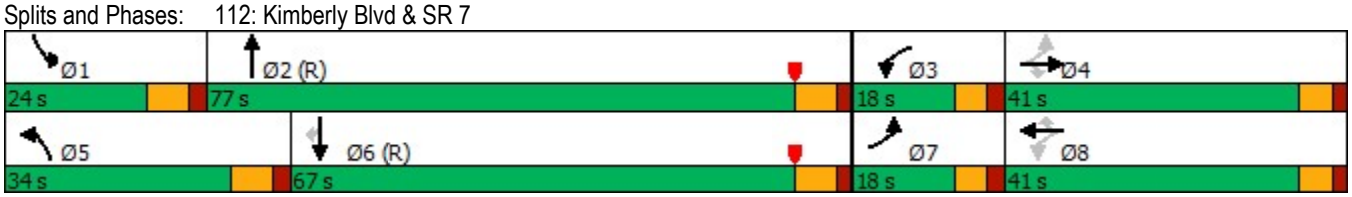
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	463	491	293	85
Cap Entry Lane, veh/h	1282	1042	937	732
Entry HV Adj Factor	0.982	0.981	0.981	0.970
Flow Entry, veh/h	455	482	288	82
Cap Entry, veh/h	1259	1022	920	709
V/C Ratio	0.361	0.471	0.313	0.116
Control Delay, s/veh	6.3	9.0	7.2	6.3
LOS	A	A	A	A
95th %tile Queue, veh	2	3	1	0

Timings
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	147	63	229	132	56	55	286	1836	82	1373	157
Future Volume (vph)	147	63	229	132	56	55	286	1836	82	1373	157
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	40.0	40.0	12.0	40.0	12.0	40.0	40.0
Total Split (s)	18.0	41.0	41.0	18.0	41.0	41.0	34.0	77.0	24.0	67.0	67.0
Total Split (%)	11.3%	25.6%	25.6%	11.3%	25.6%	25.6%	21.3%	48.1%	15.0%	41.9%	41.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.3	10.6	10.6	21.9	10.4	10.4	34.8	100.3	11.6	77.1	77.1
Actuated g/C Ratio	0.14	0.07	0.07	0.14	0.06	0.06	0.22	0.63	0.07	0.48	0.48
v/c Ratio	0.72	0.54	0.74	0.65	0.48	0.23	0.78	0.67	0.66	0.58	0.21
Control Delay	79.1	87.1	21.5	73.5	84.1	2.1	74.8	17.1	95.6	32.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.1	87.1	21.5	73.5	84.1	2.1	74.8	17.1	95.6	32.0	4.9
LOS	E	F	C	E	F	A	E	B	F	C	A
Approach Delay		50.2			59.8			24.3		32.6	
Approach LOS		D			E			C		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 142 (89%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 31.6	Intersection LOS: C
Intersection Capacity Utilization 83.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 112: Kimberly Blvd & SR 7



Queues
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	153	66	239	138	58	57	298	2099	85	1430	164
v/c Ratio	0.72	0.54	0.74	0.65	0.48	0.23	0.78	0.67	0.66	0.58	0.21
Control Delay	79.1	87.1	21.5	73.5	84.1	2.1	74.8	17.1	95.6	32.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.1	87.1	21.5	73.5	84.1	2.1	74.8	17.1	95.6	32.0	4.9
Queue Length 50th (ft)	147	68	0	131	60	0	317	252	88	389	4
Queue Length 95th (ft)	215	119	90	195	107	0	399	368	146	494	52
Internal Link Dist (ft)		1738			1039			1330		793	
Turn Bay Length (ft)	175			110		110	325		330		235
Base Capacity (vph)	216	407	526	219	407	457	384	3142	188	2450	793
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.16	0.45	0.63	0.14	0.12	0.78	0.67	0.45	0.58	0.21

Intersection Summary

HCM 6th Signalized Intersection Summary
112: Kimberly Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	63	229	132	56	55	286	1836	179	82	1373	157
Future Volume (veh/h)	147	63	229	132	56	55	286	1836	179	82	1373	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	66	239	138	58	57	298	1912	186	85	1430	164
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	357	286	346	355	288	301	2424	234	104	2061	611
Arrive On Green	0.08	0.19	0.19	0.07	0.19	0.19	0.22	0.68	0.68	0.08	0.54	0.54
Sat Flow, veh/h	1781	1870	1498	1781	1870	1517	1781	4715	455	1781	5106	1514
Grp Volume(v), veh/h	153	66	239	138	58	57	298	1376	722	85	1430	164
Grp Sat Flow(s),veh/h/ln	1781	1870	1498	1781	1870	1517	1781	1702	1766	1781	1702	1514
Q Serve(g_s), s	11.0	4.7	24.6	9.9	4.1	5.1	26.7	44.2	45.3	7.5	33.1	9.4
Cycle Q Clear(g_c), s	11.0	4.7	24.6	9.9	4.1	5.1	26.7	44.2	45.3	7.5	33.1	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	381	357	286	346	355	288	301	1750	908	104	2061	611
V/C Ratio(X)	0.40	0.18	0.84	0.40	0.16	0.20	0.99	0.79	0.79	0.82	0.69	0.27
Avail Cap(c_a), veh/h	381	409	328	347	409	332	301	1750	908	189	2061	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	54.3	62.3	47.0	54.2	54.5	61.9	19.3	19.4	73.0	29.7	24.3
Incr Delay (d2), s/veh	0.3	0.1	13.6	0.3	0.1	0.1	40.7	2.5	5.0	5.8	1.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.3	10.5	4.5	2.0	2.0	15.1	15.8	17.4	3.6	13.1	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	54.4	75.9	47.3	54.2	54.7	102.6	21.8	24.5	78.8	31.7	25.3
LnGrp LOS	D	D	E	D	D	D	F	C	C	E	C	C
Approach Vol, veh/h		458			253			2396			1679	
Approach Delay, s/veh		63.3			50.6			32.7			33.5	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	89.3	17.9	36.5	34.0	71.6	18.0	36.4
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	70.0	12.0	35.0	27.0	60.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	9.5	47.3	11.9	26.6	28.7	35.1	13.0	7.1
Green Ext Time (p_c), s	0.0	16.6	0.0	0.5	0.0	12.8	0.0	0.3

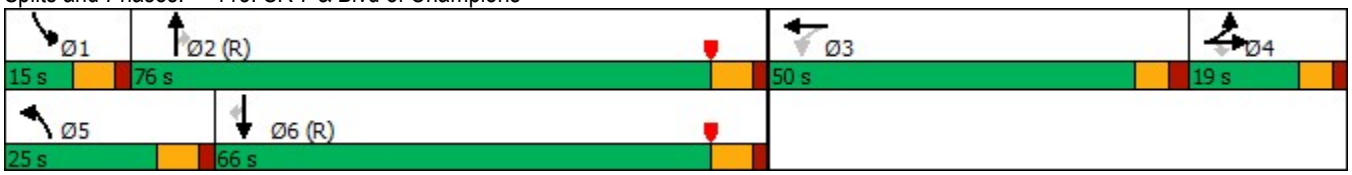
Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Timings
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	309	0	268	8	3	267	1953	11	43	1499	154
Future Volume (vph)	309	0	268	8	3	267	1953	11	43	1499	154
Turn Type	Split	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3	5	2		1	6	
Permitted Phases			4	3				2			6
Detector Phase	4	4	4	3	3	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	19.0	19.0	19.0	47.5	47.5	12.0	43.0	43.0	12.0	43.0	43.0
Total Split (s)	19.0	19.0	19.0	50.0	50.0	25.0	76.0	76.0	15.0	66.0	66.0
Total Split (%)	11.9%	11.9%	11.9%	31.3%	31.3%	15.6%	47.5%	47.5%	9.4%	41.3%	41.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.5	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.4	27.4	27.4		7.7	17.8	100.1	100.1	8.4	88.3	88.3
Actuated g/C Ratio	0.17	0.17	0.17		0.05	0.11	0.63	0.63	0.05	0.55	0.55
v/c Ratio	0.58	0.22	0.22		0.17	0.78	0.68	0.01	0.52	0.59	0.18
Control Delay	66.1	0.7	0.7		72.9	92.3	16.4	0.0	89.3	14.5	0.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	0.7	0.7		72.9	92.3	16.4	0.0	89.3	14.5	0.6
LOS	E	A	A		E	F	B	A	F	B	A
Approach Delay		35.7			72.9		25.4			15.1	
Approach LOS		D			E		C			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 153 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 23.0	Intersection LOS: C
Intersection Capacity Utilization 70.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 113: SR 7 & Blvd of Champions



Queues
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	343	149	149	13	297	2170	12	48	1666	171
v/c Ratio	0.58	0.22	0.22	0.17	0.78	0.68	0.01	0.52	0.59	0.18
Control Delay	66.1	0.7	0.7	72.9	92.3	16.4	0.0	89.3	14.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	0.7	0.7	72.9	92.3	16.4	0.0	89.3	14.5	0.6
Queue Length 50th (ft)	175	0	0	12	143	595	0	52	167	1
Queue Length 95th (ft)	228	0	0	37	187	848	m0	m92	210	5
Internal Link Dist (ft)		446		833		1028			1330	
Turn Bay Length (ft)	170		300		300		160	160		425
Base Capacity (vph)	587	678	678	435	412	3182	1001	101	2807	930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.22	0.22	0.03	0.72	0.68	0.01	0.48	0.59	0.18

Intersection Summary
m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
113: SR 7 & Blvd of Champions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	0	268	8	3	1	267	1953	11	43	1499	154
Future Volume (vph)	309	0	268	8	3	1	267	1953	11	43	1499	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	0.97	0.95	0.95		1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.97	1.00	1.00	0.98
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	0.85	0.85		0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1504	1504		1780		3433	5085	1533	1770	5085	1548
Flt Permitted	0.95	1.00	1.00		0.87		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1504	1504		1598		3433	5085	1533	1770	5085	1548
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	343	0	298	9	3	1	297	2170	12	48	1666	171
RTOR Reduction (vph)	0	123	123	0	1	0	0	0	5	0	0	81
Lane Group Flow (vph)	343	26	26	0	12	0	297	2170	7	48	1666	90
Confl. Peds. (#/hr)	2					2	6		5	5		6
Confl. Bikes (#/hr)									1			6
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3					2			6
Actuated Green, G (s)	27.4	27.4	27.4		3.9		17.8	94.8	94.8	7.4	84.4	84.4
Effective Green, g (s)	27.4	27.4	27.4		3.9		17.8	94.8	94.8	7.4	84.4	84.4
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.11	0.59	0.59	0.05	0.53	0.53
Clearance Time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	2.2	2.2	2.2		2.2		1.5	3.0	3.0	1.5	3.0	3.0
Lane Grp Cap (vph)	587	257	257		38		381	3012	908	81	2682	816
v/s Ratio Prot	c0.10	0.02					c0.09	c0.43		0.03	0.33	
v/s Ratio Perm			0.02		c0.01				0.00			0.06
v/c Ratio	0.58	0.10	0.10		0.32		0.78	0.72	0.01	0.59	0.62	0.11
Uniform Delay, d1	61.1	55.9	55.9		76.7		69.2	23.2	13.3	74.8	26.6	19.0
Progression Factor	1.00	1.00	1.00		1.00		1.16	0.71	1.00	0.99	0.54	0.09
Incremental Delay, d2	1.1	0.1	0.1		2.4		7.5	1.3	0.0	6.4	0.9	0.2
Delay (s)	62.1	56.0	56.0		79.2		88.0	17.8	13.4	80.7	15.2	1.9
Level of Service	E	E	E		E		F	B	B	F	B	A
Approach Delay (s)		59.3			79.2			26.2			15.7	
Approach LOS		E			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

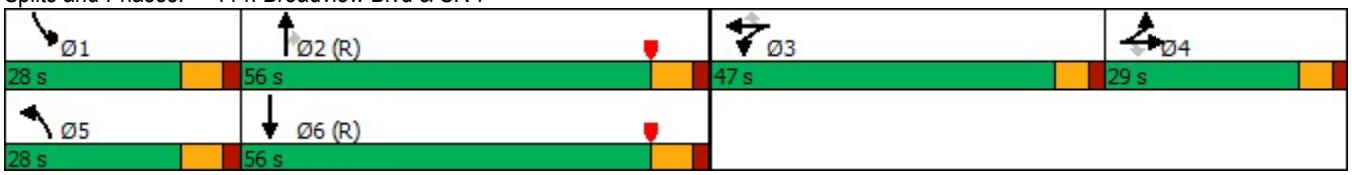
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	85	23	50	61	0	166	82	1928	76	258	1421
Future Volume (vph)	85	23	50	61	0	166	82	1928	76	258	1421
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		3	3		5	2		1	6
Permitted Phases			4			3			2		
Detector Phase	4	4	4	3	3	3	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	24.0	24.0	47.0	47.0	47.0	12.0	40.0	40.0	12.0	40.0
Total Split (s)	29.0	29.0	29.0	47.0	47.0	47.0	28.0	56.0	56.0	28.0	56.0
Total Split (%)	18.1%	18.1%	18.1%	29.4%	29.4%	29.4%	17.5%	35.0%	35.0%	17.5%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.5	8.5	8.5	11.8	99.8	99.8	17.1	105.1
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.62	0.62	0.11	0.66
v/c Ratio	0.49	0.24	0.27	0.36	0.37	0.71	0.67	0.65	0.08	0.75	0.50
Control Delay	82.1	77.4	3.4	83.1	83.7	24.6	95.8	21.2	1.3	51.0	32.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.1	77.4	3.4	83.1	83.7	24.6	95.8	21.2	1.3	51.0	32.1
LOS	F	E	A	F	F	C	F	C	A	D	C
Approach Delay		56.4			40.4			23.4			34.8
Approach LOS		E			D			C			C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Broadview Blvd & SR 7



Queues
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	90	24	53	32	33	177	87	2051	81	274	1638
v/c Ratio	0.49	0.24	0.27	0.36	0.37	0.71	0.67	0.65	0.08	0.75	0.50
Control Delay	82.1	77.4	3.4	83.1	83.7	24.6	95.8	21.2	1.3	51.0	32.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.1	77.4	3.4	83.1	83.7	24.6	95.8	21.2	1.3	51.0	32.1
Queue Length 50th (ft)	47	25	0	34	35	0	90	466	0	146	462
Queue Length 95th (ft)	78	57	0	72	74	79	149	639	13	175	589
Internal Link Dist (ft)		559			661			481			1028
Turn Bay Length (ft)	160		260	270		260	270		150	290	
Base Capacity (vph)	493	267	326	430	430	537	232	3172	1013	453	3296
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.16	0.07	0.08	0.33	0.38	0.65	0.08	0.60	0.50

Intersection Summary

HCM Signalized Intersection Capacity Analysis
114: Broadview Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	23	50	61	0	166	82	1928	76	258	1421	118
Future Volume (vph)	85	23	50	61	0	166	82	1928	76	258	1421	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	1863	1583	1681	1681	1583	1770	5085	1560	3433	5015	
Flt Permitted	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	1863	1583	1681	1681	1583	1770	5085	1560	3433	5015	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	90	24	53	65	0	177	87	2051	81	274	1512	126
RTOR Reduction (vph)	0	0	50	0	0	168	0	0	30	0	3	0
Lane Group Flow (vph)	90	24	3	32	33	9	87	2051	51	274	1635	0
Confl. Peds. (#/hr)							3		1	1		3
Confl. Bikes (#/hr)									3			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			
Actuated Green, G (s)	8.6	8.6	8.6	8.5	8.5	8.5	11.8	99.8	99.8	17.1	105.1	
Effective Green, g (s)	8.6	8.6	8.6	8.5	8.5	8.5	11.8	99.8	99.8	17.1	105.1	
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.62	0.62	0.11	0.66	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	184	100	85	89	89	84	130	3171	973	366	3294	
v/s Ratio Prot	c0.03	0.01		0.02	c0.02		0.05	c0.40		c0.08	c0.33	
v/s Ratio Perm			0.00			0.01			0.03			
v/c Ratio	0.49	0.24	0.03	0.36	0.37	0.11	0.67	0.65	0.05	0.75	0.50	
Uniform Delay, d1	73.6	72.6	71.8	73.1	73.2	72.2	72.2	19.0	11.7	69.4	14.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.57	2.12	
Incremental Delay, d2	0.7	0.5	0.1	0.9	1.0	0.2	9.7	1.0	0.1	6.2	0.5	
Delay (s)	74.3	73.0	71.8	74.0	74.1	72.4	81.9	20.0	11.8	46.0	30.1	
Level of Service	E	E	E	E	E	E	F	C	B	D	C	
Approach Delay (s)		73.3			72.8			22.1			32.4	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱		↑↑↑	↑↑↑	↱
Traffic Vol, veh/h	0	55	0	1979	1574	9
Future Vol, veh/h	0	55	0	1979	1574	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	240
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	56	0	1999	1590	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	795	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	608	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	608	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	608	-	-
HCM Lane V/C Ratio	-	0.091	-	-
HCM Control Delay (s)	-	11.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

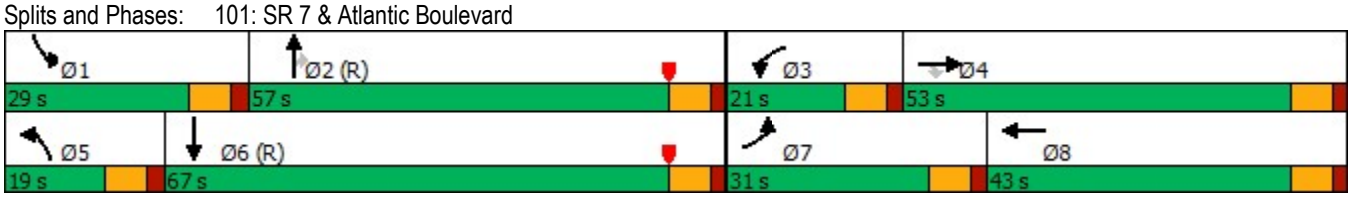
Future (2026) Total SYNCHRO Output

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	384	1424	233	366	703	90	1527	632	275	1351
Future Volume (vph)	384	1424	233	366	703	90	1527	632	275	1351
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	11.0	47.0	47.0	11.0	43.0	12.0	50.0	50.0	12.0	50.0
Total Split (s)	31.0	53.0	53.0	21.0	43.0	19.0	57.0	57.0	29.0	67.0
Total Split (%)	19.4%	33.1%	33.1%	13.1%	26.9%	11.9%	35.6%	35.6%	18.1%	41.9%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.3	46.0	46.0	14.0	38.7	10.8	50.0	50.0	22.0	61.2
Actuated g/C Ratio	0.13	0.29	0.29	0.09	0.24	0.07	0.31	0.31	0.14	0.38
v/c Ratio	0.86	0.99	0.42	1.24	0.69	0.78	0.98	1.00	1.16	0.79
Control Delay	86.3	78.5	15.9	190.7	57.9	102.9	52.7	48.8	164.4	47.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.3	78.5	15.9	190.7	57.9	102.9	52.7	48.8	164.4	47.3
LOS	F	E	B	F	E	F	D	D	F	D
Approach Delay		72.8			98.6		53.6			65.5
Approach LOS		E			F		D			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 115 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 69.3	Intersection LOS: E
Intersection Capacity Utilization 115.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	392	1453	238	373	843	92	1558	645	281	1525
v/c Ratio	0.86	0.99	0.42	1.24	0.69	0.78	0.98	1.00	1.16	0.79
Control Delay	86.3	78.5	15.9	190.7	57.9	102.9	52.7	48.8	164.4	47.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.3	78.5	15.9	190.7	57.9	102.9	52.7	48.8	164.4	47.3
Queue Length 50th (ft)	208	558	53	~248	292	88	562	419	~345	519
Queue Length 95th (ft)	266	#669	134	#359	350	m114	m#685	m#700	#540	582
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	514	1461	562	300	1213	132	1589	647	243	1923
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.99	0.42	1.24	0.69	0.70	0.98	1.00	1.16	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	384	1424	233	366	703	123	90	1527	632	275	1351	143
Future Volume (veh/h)	384	1424	233	366	703	123	90	1527	632	275	1351	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	1453	238	373	717	126	92	1558	645	281	1379	146
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	1468	447	302	1084	188	111	1596	483	245	1813	192
Arrive On Green	0.13	0.29	0.29	0.09	0.25	0.25	0.08	0.42	0.42	0.18	0.52	0.52
Sat Flow, veh/h	3456	5106	1555	3456	4351	755	1781	5106	1546	1781	4677	495
Grp Volume(v), veh/h	392	1453	238	373	559	284	92	1558	645	281	1004	521
Grp Sat Flow(s),veh/h/ln	1728	1702	1555	1728	1702	1702	1781	1702	1546	1781	1702	1768
Q Serve(g_s), s	17.9	45.3	20.6	14.0	23.6	24.1	8.1	48.0	50.0	22.0	37.6	37.6
Cycle Q Clear(g_c), s	17.9	45.3	20.6	14.0	23.6	24.1	8.1	48.0	50.0	22.0	37.6	37.6
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	435	1468	447	302	848	424	111	1596	483	245	1320	685
V/C Ratio(X)	0.90	0.99	0.53	1.23	0.66	0.67	0.83	0.98	1.34	1.15	0.76	0.76
Avail Cap(c_a), veh/h	518	1468	447	302	848	424	134	1596	483	245	1320	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.9	56.8	48.0	73.0	54.0	54.1	72.5	46.2	46.8	65.4	32.8	32.8
Incr Delay (d2), s/veh	15.4	21.0	1.0	130.4	1.7	3.7	12.6	10.4	157.2	103.1	4.2	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	22.3	8.2	11.7	10.4	10.8	4.1	20.9	39.4	16.7	15.4	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	77.7	48.9	203.4	55.7	57.9	85.1	56.6	204.0	168.5	37.0	40.6
LnGrp LOS	F	E	D	F	E	E	F	E	F	F	D	D
Approach Vol, veh/h		2083			1216			2295			1806	
Approach Delay, s/veh		75.7			101.5			99.1			58.5	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	57.0	21.0	53.0	17.0	69.0	27.1	46.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	22.0	50.0	14.0	46.0	12.0	60.0	24.0	36.0
Max Q Clear Time (g_c+I1), s	24.0	52.0	16.0	47.3	10.1	39.6	19.9	26.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	11.1	0.2	3.4

Intersection Summary	
HCM 6th Ctrl Delay	83.0
HCM 6th LOS	F

Notes

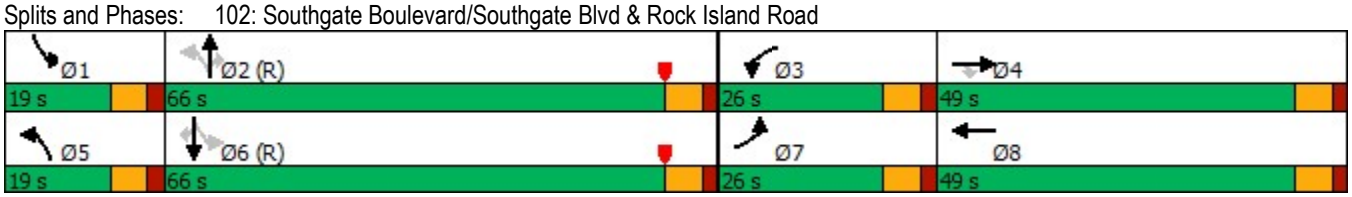
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	490	788	193	77	534	171	998	180	227	872	508
Future Volume (vph)	490	788	193	77	534	171	998	180	227	872	508
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	49.0	49.0	26.0	49.0	19.0	66.0	66.0	19.0	66.0	66.0
Total Split (%)	16.3%	30.6%	30.6%	16.3%	30.6%	11.9%	41.3%	41.3%	11.9%	41.3%	41.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	49.7	49.7	11.2	41.5	71.1	59.5	59.5	74.5	61.4	61.4
Actuated g/C Ratio	0.12	0.31	0.31	0.07	0.26	0.44	0.37	0.37	0.47	0.38	0.38
v/c Ratio	1.23	0.75	0.36	0.65	0.95	0.74	0.80	0.28	1.10	0.68	0.66
Control Delay	179.8	55.2	21.0	93.9	52.9	50.9	67.1	28.0	126.1	44.5	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	179.8	55.2	21.0	93.9	52.9	50.9	67.1	28.0	126.1	44.5	18.6
LOS	F	E	C	F	D	D	E	C	F	D	B
Approach Delay		92.2			56.4		59.8			47.8	
Approach LOS		F			E		E			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 60 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 64.6	Intersection LOS: E
Intersection Capacity Utilization 103.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	516	829	203	81	864	180	1051	189	239	918	535
v/c Ratio	1.23	0.75	0.36	0.65	0.95	0.74	0.80	0.28	1.10	0.68	0.66
Control Delay	179.8	55.2	21.0	93.9	52.9	50.9	67.1	28.0	126.1	44.5	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	179.8	55.2	21.0	93.9	52.9	50.9	67.1	28.0	126.1	44.5	18.6
Queue Length 50th (ft)	~342	408	70	70	411	153	610	94	~225	427	173
Queue Length 95th (ft)	#463	512	152	m100	m#472	m#231	675	m174	#411	507	315
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1100	559	215	935	253	1316	665	217	1358	806
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.75	0.36	0.38	0.92	0.71	0.80	0.28	1.10	0.68	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	788	193	77	534	287	171	998	180	227	872	508
Future Volume (veh/h)	490	788	193	77	534	287	171	998	180	227	872	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	516	829	203	81	562	302	180	1051	0	239	918	535
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1169	512	100	587	315	245	1330		254	1341	595
Arrive On Green	0.12	0.33	0.33	0.06	0.26	0.26	0.10	0.50	0.00	0.10	0.50	0.50
Sat Flow, veh/h	3456	3554	1557	1781	2231	1197	1781	3554	1585	1781	3554	1577
Grp Volume(v), veh/h	516	829	203	81	447	417	180	1051	0	239	918	535
Grp Sat Flow(s),veh/h/ln	1728	1777	1557	1781	1777	1652	1781	1777	1585	1781	1777	1577
Q Serve(g_s), s	19.5	32.7	16.1	7.2	39.7	39.8	10.0	39.2	0.0	12.5	31.4	49.2
Cycle Q Clear(g_c), s	19.5	32.7	16.1	7.2	39.7	39.8	10.0	39.2	0.0	12.5	31.4	49.2
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1169	512	100	468	435	245	1330		254	1341	595
V/C Ratio(X)	1.23	0.71	0.40	0.81	0.96	0.96	0.73	0.79		0.94	0.68	0.90
Avail Cap(c_a), veh/h	421	1169	512	217	472	439	251	1330		254	1341	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	47.0	41.4	74.7	58.1	58.1	31.8	35.0	0.0	38.1	32.6	37.1
Incr Delay (d2), s/veh	120.8	1.7	0.2	5.8	30.2	32.0	6.5	3.4	0.0	40.4	2.9	18.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	14.8	6.3	3.5	21.8	20.5	4.6	16.6	0.0	8.6	13.3	20.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	191.1	48.7	41.6	80.4	88.3	90.0	38.3	38.4	0.0	78.5	35.5	56.0
LnGrp LOS	F	D	D	F	F	F	D	D		E	D	E
Approach Vol, veh/h		1548			945			1231			1692	
Approach Delay, s/veh		95.2			88.4			38.4			48.0	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	66.4	15.5	59.1	18.5	66.9	26.0	48.6
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	12.5	59.5	19.5	42.5	12.5	59.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	14.5	41.2	9.2	34.7	12.0	51.2	21.5	41.8
Green Ext Time (p_c), s	0.0	7.4	0.0	2.9	0.0	5.1	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	66.4
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1126	19	12	668	5	30	0	62	18	3	5
Future Vol, veh/h	2	1126	19	12	668	5	30	0	62	18	3	5
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1224	21	13	726	5	33	0	67	20	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	735	0	0	1250	0	0	1635	2005	628	1375	2013	370
Stage 1	-	-	-	-	-	-	1244	1244	-	759	759	-
Stage 2	-	-	-	-	-	-	391	761	-	616	1254	-
Critical Hdwy	4.14	-	-	4.14	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	866	-	-	553	-	-	227	152	703	299	151	878
Stage 1	-	-	-	-	-	-	342	342	-	564	564	-
Stage 2	-	-	-	-	-	-	817	563	-	652	339	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	863	-	-	550	-	-	214	144	700	260	143	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	214	144	-	260	143	-
Stage 1	-	-	-	-	-	-	340	340	-	561	539	-
Stage 2	-	-	-	-	-	-	775	538	-	588	337	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	16.9	19.8
HCM LOS			C	C

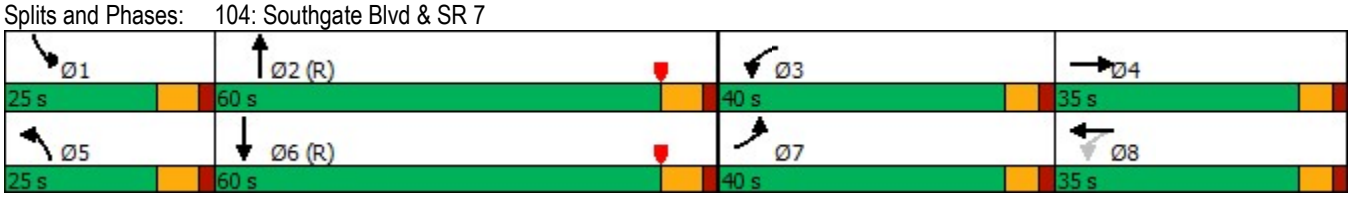
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	402	863	-	-	550	-	-	271
HCM Lane V/C Ratio	0.249	0.003	-	-	0.024	-	-	0.104
HCM Control Delay (s)	16.9	9.2	-	-	11.7	0.2	-	19.8
HCM Lane LOS	C	A	-	-	B	A	-	C
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	0.3

Timings
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	685	127	66	67	191	1518	61	1362
Future Volume (vph)	685	127	66	67	191	1518	61	1362
Turn Type	Prot	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases			8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	6.0	4.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	35.0	10.0	35.0	12.0	37.0	12.0	38.0
Total Split (s)	40.0	35.0	40.0	35.0	25.0	60.0	25.0	60.0
Total Split (%)	25.0%	21.9%	25.0%	21.9%	15.6%	37.5%	15.6%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.6	55.4	36.9	29.3	13.0	64.0	9.5	58.1
Actuated g/C Ratio	0.21	0.35	0.23	0.18	0.08	0.40	0.06	0.36
v/c Ratio	0.97	0.74	0.28	0.62	0.70	0.78	0.59	0.99
Control Delay	85.7	29.0	33.6	51.5	88.2	41.3	121.5	51.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	29.0	33.6	51.5	88.2	41.3	121.5	51.6
LOS	F	C	C	D	F	D	F	D
Approach Delay		63.5		47.3		46.5		54.0
Approach LOS		E		D		D		D

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 24 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 53.1	Intersection LOS: D
Intersection Capacity Utilization 96.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 104: Southgate Blvd & SR 7



Queues
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	699	450	67	218	195	1573	62	1792
v/c Ratio	0.97	0.74	0.28	0.62	0.70	0.78	0.59	0.99
Control Delay	85.7	29.0	33.6	51.5	88.2	41.3	121.5	51.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	29.0	33.6	51.5	88.2	41.3	121.5	51.6
Queue Length 50th (ft)	280	258	41	154	109	348	68	708
Queue Length 95th (ft)	m#453	m313	75	250	153	463	m81	m#776
Internal Link Dist (ft)		1738		1039		1330		2623
Turn Bay Length (ft)	125		205		235		215	
Base Capacity (vph)	729	610	530	353	386	2029	199	1808
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.74	0.13	0.62	0.51	0.78	0.31	0.99

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Southgate Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	685	127	314	66	67	147	191	1518	24	61	1362	394
Future Volume (veh/h)	685	127	314	66	67	147	191	1518	24	61	1362	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	699	130	320	67	68	150	195	1549	24	62	1390	402
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	734	156	384	190	81	178	238	2193	34	78	1569	452
Arrive On Green	0.21	0.33	0.33	0.04	0.16	0.16	0.09	0.56	0.56	0.06	0.53	0.53
Sat Flow, veh/h	3456	476	1171	1781	512	1129	3456	5179	80	1781	3935	1132
Grp Volume(v), veh/h	699	0	450	67	0	218	195	1018	555	62	1201	591
Grp Sat Flow(s),veh/h/ln	1728	0	1647	1781	0	1641	1728	1702	1856	1781	1702	1664
Q Serve(g_s), s	32.0	0.0	40.4	5.0	0.0	20.6	8.9	34.7	34.7	5.5	50.0	50.5
Cycle Q Clear(g_c), s	32.0	0.0	40.4	5.0	0.0	20.6	8.9	34.7	34.7	5.5	50.0	50.5
Prop In Lane	1.00		0.71	1.00		0.69	1.00		0.04	1.00		0.68
Lane Grp Cap(c), veh/h	734	0	540	190	0	259	238	1441	786	78	1357	663
V/C Ratio(X)	0.95	0.00	0.83	0.35	0.00	0.84	0.82	0.71	0.71	0.79	0.89	0.89
Avail Cap(c_a), veh/h	734	0	540	494	0	297	389	1441	786	200	1357	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.45	0.45	0.45
Uniform Delay (d), s/veh	62.2	0.0	49.7	53.8	0.0	65.4	71.7	27.7	27.7	74.6	34.3	34.5
Incr Delay (d2), s/veh	22.1	0.0	10.1	0.4	0.0	15.5	2.5	2.6	4.7	3.0	4.3	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.3	0.0	18.2	2.3	0.0	9.8	4.0	13.7	15.4	2.6	20.1	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	0.0	59.8	54.3	0.0	80.9	74.2	30.3	32.4	77.6	38.6	42.9
LnGrp LOS	F	A	E	D	A	F	E	C	C	E	D	D
Approach Vol, veh/h		1149			285			1768			1854	
Approach Delay, s/veh		74.7			74.7			35.8			41.3	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	74.8	12.7	58.5	18.0	70.8	40.0	31.2
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	53.0	34.0	29.0	18.0	53.0	34.0	29.0
Max Q Clear Time (g_c+I1), s	7.5	36.7	7.0	42.4	10.9	52.5	34.0	22.6
Green Ext Time (p_c), s	0.0	9.9	0.0	0.0	0.1	0.4	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

Notes

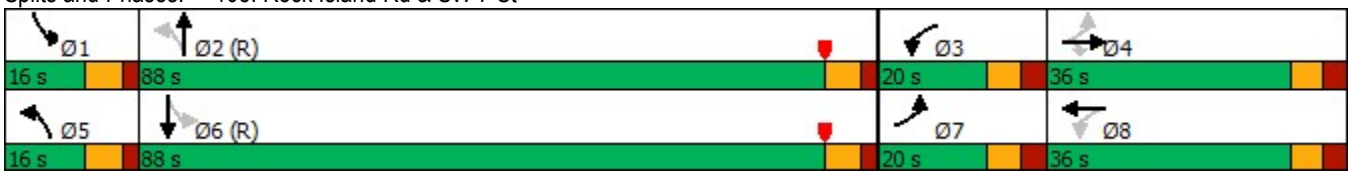
User approved pedestrian interval to be less than phase max green.

Timings
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	117	65	92	81	40	85	1102	152	1062
Future Volume (vph)	117	65	92	81	40	85	1102	152	1062
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	12.0	4.0	12.0
Minimum Split (s)	11.0	35.0	35.0	11.0	35.0	10.5	27.5	10.5	27.5
Total Split (s)	20.0	36.0	36.0	20.0	36.0	16.0	88.0	16.0	88.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	29.1	17.0	17.0	25.9	15.3	99.6	92.6	111.0	98.5
Actuated g/C Ratio	0.18	0.11	0.11	0.16	0.10	0.62	0.58	0.69	0.62
v/c Ratio	0.75	0.39	0.39	0.39	0.82	0.40	0.65	0.64	0.59
Control Delay	77.5	70.8	12.3	54.9	64.9	14.5	26.3	38.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	70.8	12.3	54.9	64.9	14.5	26.3	38.5	11.6
LOS	E	E	B	D	E	B	C	D	B
Approach Delay		54.0			61.6		25.5		14.9
Approach LOS		D			E		C		B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 131 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 26.6	Intersection LOS: C
Intersection Capacity Utilization 80.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: Rock Island Rd & SW 7 St



Queues
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	76	107	94	190	99	1333	177	1284
v/c Ratio	0.75	0.39	0.39	0.39	0.82	0.40	0.65	0.64	0.59
Control Delay	77.5	70.8	12.3	54.9	64.9	14.5	26.3	38.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	70.8	12.3	54.9	64.9	14.5	26.3	38.5	11.6
Queue Length 50th (ft)	121	75	0	82	112	31	495	58	527
Queue Length 95th (ft)	167	120	43	122	180	60	607	98	653
Internal Link Dist (ft)		723			1226		764		1324
Turn Bay Length (ft)	215		215	125		195		205	
Base Capacity (vph)	190	337	381	270	364	275	2036	277	2165
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.23	0.28	0.35	0.52	0.36	0.65	0.64	0.59

Intersection Summary

HCM 6th Signalized Intersection Summary
105: Rock Island Rd & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	65	92	81	40	123	85	1102	45	152	1062	42
Future Volume (veh/h)	117	65	92	81	40	123	85	1102	45	152	1062	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	76	107	94	47	143	99	1281	52	177	1235	49
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	289	244	289	54	164	295	1964	80	301	2032	81
Arrive On Green	0.08	0.15	0.15	0.06	0.13	0.13	0.05	0.75	0.75	0.07	0.78	0.78
Sat Flow, veh/h	1781	1870	1579	1781	402	1222	1781	3480	141	1781	3481	138
Grp Volume(v), veh/h	136	76	107	94	0	190	99	653	680	177	630	654
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	0	1624	1781	1777	1844	1781	1777	1842
Q Serve(g_s), s	10.4	5.7	9.8	7.2	0.0	18.4	3.8	28.7	28.8	6.8	24.0	24.1
Cycle Q Clear(g_c), s	10.4	5.7	9.8	7.2	0.0	18.4	3.8	28.7	28.8	6.8	24.0	24.1
Prop In Lane	1.00		1.00	1.00		0.75	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	206	289	244	289	0	218	295	1003	1041	301	1037	1075
V/C Ratio(X)	0.66	0.26	0.44	0.33	0.00	0.87	0.34	0.65	0.65	0.59	0.61	0.61
Avail Cap(c_a), veh/h	213	339	286	332	0	294	337	1003	1041	309	1037	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	55.0	59.6	61.3	55.3	0.0	67.9	15.1	12.3	12.3	17.0	10.1	10.1
Incr Delay (d2), s/veh	5.5	0.2	0.5	0.2	0.0	15.6	0.2	3.3	3.2	1.4	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.8	4.0	3.3	0.0	8.6	1.6	10.2	10.6	2.8	7.8	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	59.8	61.8	55.6	0.0	83.5	15.4	15.5	15.5	18.4	12.1	12.1
LnGrp LOS	E	E	E	E	A	F	B	B	B	B	B	B
Approach Vol, veh/h		319			284			1432			1461	
Approach Delay, s/veh		60.8			74.3			15.5			12.8	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	96.8	16.1	31.8	12.2	99.9	19.4	28.4
Change Period (Y+Rc), s	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
Max Green Setting (Gmax), s	9.5	81.5	13.0	29.0	9.5	81.5	13.0	29.0
Max Q Clear Time (g_c+I1), s	8.8	30.8	9.2	11.8	5.8	26.1	12.4	20.4
Green Ext Time (p_c), s	0.0	10.3	0.0	0.4	0.0	9.7	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	228	38	23	151	15	45	19	47	15	14	12
Future Vol, veh/h	6	228	38	23	151	15	45	19	47	15	14	12
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	268	45	27	178	18	53	22	55	18	16	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	9.8	9.3	8.8
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	41%	2%	12%	37%
Vol Thru, %	17%	84%	80%	34%
Vol Right, %	42%	14%	8%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	272	189	41
LT Vol	45	6	23	15
Through Vol	19	228	151	14
RT Vol	47	38	15	12
Lane Flow Rate	131	320	222	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.184	0.406	0.292	0.071
Departure Headway (Hd)	5.063	4.57	4.731	5.264
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	703	784	756	674
Service Time	3.134	2.624	2.79	3.347
HCM Lane V/C Ratio	0.186	0.408	0.294	0.071
HCM Control Delay	9.3	10.7	9.8	8.8
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.7	2	1.2	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	320	9	6	173	16	7	4	5	32	2	22
Future Vol, veh/h	30	320	9	6	173	16	7	4	5	32	2	22
Conflicting Peds, #/hr	1	0	6	6	0	1	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	330	9	6	178	16	7	4	5	33	2	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	195	0	0	345	0	0	616	610	341	600	606	189
Stage 1	-	-	-	-	-	-	403	403	-	199	199	-
Stage 2	-	-	-	-	-	-	213	207	-	401	407	-
Critical Hdwy	4.12	-	-	4.12	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1378	-	-	1214	-	-	652	656	900	663	659	1024
Stage 1	-	-	-	-	-	-	807	807	-	988	988	-
Stage 2	-	-	-	-	-	-	974	980	-	809	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1377	-	-	1207	-	-	615	629	895	638	632	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	615	629	-	638	632	-
Stage 1	-	-	-	-	-	-	780	780	-	959	981	-
Stage 2	-	-	-	-	-	-	943	973	-	778	777	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	10.4	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	686	1377	-	-	1207	-	-	748
HCM Lane V/C Ratio	0.024	0.022	-	-	0.005	-	-	0.077
HCM Control Delay (s)	10.4	7.7	0	-	8	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	331	32	54	171	24	32
Future Vol, veh/h	331	32	54	171	24	32
Conflicting Peds, #/hr	0	9	9	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	368	33	56	176	25	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	410	0	682	395
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	-	-	4.12	-	5	4.5
Critical Hdwy Stg 1	-	-	-	-	5	-
Critical Hdwy Stg 2	-	-	-	-	5	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	1149	-	610	860
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1139	-	571	852
Mov Cap-2 Maneuver	-	-	-	-	571	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	855	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10.3
HCM LOS			B

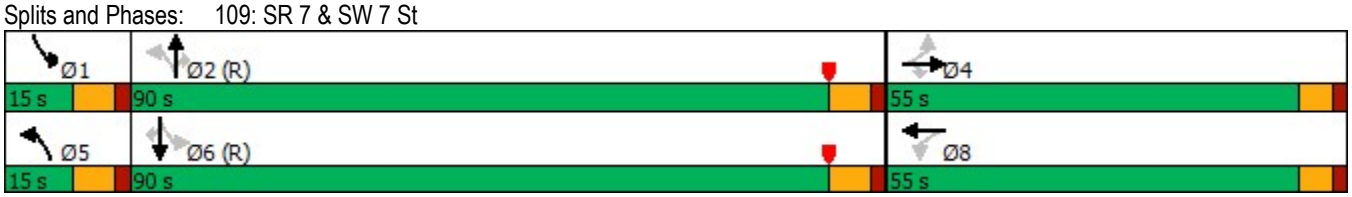
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	571	852	-	-	1139	-
HCM Lane V/C Ratio	0.043	0.039	-	-	0.049	-
HCM Control Delay (s)	11.6	9.4	-	-	8.3	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-

Timings
109: SR 7 & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	111	15	234	51	23	174	1663	20	17	1656	82
Future Volume (vph)	111	15	234	51	23	174	1663	20	17	1656	82
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	45.0	45.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	15.0	90.0	90.0	15.0	90.0	90.0
Total Split (%)	34.4%	34.4%	34.4%	34.4%	34.4%	9.4%	56.3%	56.3%	9.4%	56.3%	56.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		21.3	21.3		21.3	125.7	118.5	118.5	105.5	100.5	100.5
Actuated g/C Ratio		0.13	0.13		0.13	0.79	0.74	0.74	0.66	0.63	0.63
v/c Ratio		0.80	0.83		0.64	0.59	0.47	0.02	0.09	0.55	0.09
Control Delay		97.1	59.6		80.8	25.2	10.0	0.1	3.5	8.0	0.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		97.1	59.6		80.8	25.2	10.0	0.1	3.5	8.0	0.5
LOS		F	E		F	C	B	A	A	A	A
Approach Delay		72.8			80.8		11.3			7.6	
Approach LOS		E			F		B			A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 74.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 109: SR 7 & SW 7 St



Queues
109: SR 7 & SW 7 St

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	133	246	90	183	1751	21	18	1743	86
v/c Ratio	0.80	0.83	0.64	0.59	0.47	0.02	0.09	0.55	0.09
Control Delay	97.1	59.6	80.8	25.2	10.0	0.1	3.5	8.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.1	59.6	80.8	25.2	10.0	0.1	3.5	8.0	0.5
Queue Length 50th (ft)	137	149	86	58	272	0	2	137	1
Queue Length 95th (ft)	205	240	143	157	375	0	m3	m148	m0
Internal Link Dist (ft)	972		833		582			1330	
Turn Bay Length (ft)		100		330		105	275		95
Base Capacity (vph)	386	550	318	310	3765	1156	229	3194	941
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.45	0.28	0.59	0.47	0.02	0.08	0.55	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
109: SR 7 & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	15	234	51	23	11	174	1663	20	17	1656	82
Future Volume (veh/h)	111	15	234	51	23	11	174	1663	20	17	1656	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	16	246	54	24	12	183	1751	21	18	1743	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	28	301	105	44	17	269	3399	1022	235	3235	992
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.07	0.89	0.89	0.02	0.84	0.84
Sat Flow, veh/h	1069	146	1568	362	229	91	1781	5106	1535	1781	5106	1566
Grp Volume(v), veh/h	133	0	246	90	0	0	183	1751	21	18	1743	86
Grp Sat Flow(s),veh/h/ln	1215	0	1568	682	0	0	1781	1702	1535	1781	1702	1566
Q Serve(g_s), s	0.0	0.0	24.1	8.8	0.0	0.0	5.9	11.6	0.3	0.6	15.7	1.5
Cycle Q Clear(g_c), s	16.5	0.0	24.1	25.3	0.0	0.0	5.9	11.6	0.3	0.6	15.7	1.5
Prop In Lane	0.88		1.00	0.60		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	0	301	167	0	0	269	3399	1022	235	3235	992
V/C Ratio(X)	0.48	0.00	0.82	0.54	0.00	0.00	0.68	0.52	0.02	0.08	0.54	0.09
Avail Cap(c_a), veh/h	437	0	480	316	0	0	270	3399	1022	294	3235	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.17	0.17	0.17
Uniform Delay (d), s/veh	58.9	0.0	61.9	67.0	0.0	0.0	11.4	3.7	3.1	9.9	5.9	4.7
Incr Delay (d2), s/veh	0.5	0.0	2.7	1.0	0.0	0.0	5.5	0.6	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	9.9	3.6	0.0	0.0	2.6	2.9	0.1	0.2	3.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	0.0	64.6	68.0	0.0	0.0	17.0	4.3	3.1	9.9	6.0	4.8
LnGrp LOS	E	A	E	E	A	A	B	A	A	A	A	A
Approach Vol, veh/h		379			90			1955			1847	
Approach Delay, s/veh		62.8			68.0			5.5			5.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	113.5		36.7	14.9	108.4		36.7
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	8.0	83.0		49.0	8.0	83.0		49.0
Max Q Clear Time (g_c+I1), s	2.6	13.6		26.1	7.9	17.7		27.3
Green Ext Time (p_c), s	0.0	24.4		0.9	0.0	24.4		0.3

Intersection Summary			
HCM 6th Ctrl Delay			12.1
HCM 6th LOS			B

Timings
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	129	104	137	118	65	1059	119	117	949	85
Future Volume (vph)	100	129	104	137	118	65	1059	119	117	949	85
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	47.5	11.5	44.5	44.5	16.5	44.6	44.6
Total Split (s)	20.0	46.0	46.0	20.0	46.0	21.0	73.0	73.0	21.0	73.0	73.0
Total Split (%)	12.5%	28.8%	28.8%	12.5%	28.8%	13.1%	45.6%	45.6%	13.1%	45.6%	45.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.5	16.1	16.1	30.7	17.7	103.5	97.4	97.4	108.4	99.8	99.8
Actuated g/C Ratio	0.17	0.10	0.10	0.19	0.11	0.65	0.61	0.61	0.68	0.62	0.62
v/c Ratio	0.50	0.73	0.43	0.65	0.54	0.20	0.52	0.13	0.39	0.45	0.11
Control Delay	59.2	90.7	15.6	66.3	38.1	10.1	20.2	4.3	12.2	17.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.2	90.7	15.6	66.3	38.1	10.1	20.2	4.3	12.2	17.4	1.8
LOS	E	F	B	E	D	B	C	A	B	B	A
Approach Delay		57.9			48.6		18.1			15.7	
Approach LOS		E			D		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 123 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 91.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 110: Kimberly Blvd & Rock Island Road

Queues
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	105	136	109	144	242	68	1115	125	123	999	89
v/c Ratio	0.50	0.73	0.43	0.65	0.54	0.20	0.52	0.13	0.39	0.45	0.11
Control Delay	59.2	90.7	15.6	66.3	38.1	10.1	20.2	4.3	12.2	17.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.2	90.7	15.6	66.3	38.1	10.1	20.2	4.3	12.2	17.4	1.8
Queue Length 50th (ft)	91	141	0	128	64	21	337	8	39	280	0
Queue Length 95th (ft)	143	210	59	189	109	43	478	43	72	378	19
Internal Link Dist (ft)		387			3410		622			1269	
Turn Bay Length (ft)	250		250	200		280		150	240		160
Base Capacity (vph)	237	465	463	233	858	429	2153	984	374	2207	824
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.29	0.24	0.62	0.28	0.16	0.52	0.13	0.33	0.45	0.11

Intersection Summary

HCM 6th Signalized Intersection Summary
110: Kimberly Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	129	104	137	118	112	65	1059	119	117	949	85
Future Volume (veh/h)	100	129	104	137	118	112	65	1059	119	117	949	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.93		0.87	0.93		0.88	1.00		0.87	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	136	109	144	124	118	68	1115	125	123	999	89
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	416	307	347	425	334	293	1779	687	272	1838	756
Arrive On Green	0.06	0.22	0.22	0.07	0.24	0.24	0.04	0.67	0.67	0.06	0.69	0.69
Sat Flow, veh/h	1781	1870	1380	1781	1777	1395	1781	3554	1373	1781	3554	1461
Grp Volume(v), veh/h	105	136	109	144	124	118	68	1115	125	123	999	89
Grp Sat Flow(s),veh/h/ln	1781	1870	1380	1781	1777	1395	1781	1777	1373	1781	1777	1461
Q Serve(g_s), s	7.2	9.8	10.7	9.9	9.1	11.2	3.0	28.8	5.5	5.4	22.4	3.3
Cycle Q Clear(g_c), s	7.2	9.8	10.7	9.9	9.1	11.2	3.0	28.8	5.5	5.4	22.4	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	416	307	347	425	334	293	1779	687	272	1838	756
V/C Ratio(X)	0.32	0.33	0.36	0.41	0.29	0.35	0.23	0.63	0.18	0.45	0.54	0.12
Avail Cap(c_a), veh/h	379	468	345	371	444	349	401	1779	687	350	1838	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	52.2	52.5	43.4	49.8	50.6	19.5	18.2	14.3	20.8	15.5	12.6
Incr Delay (d2), s/veh	0.2	0.2	0.3	0.3	0.1	0.2	0.1	1.7	0.6	0.4	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.7	3.8	4.5	4.1	4.0	1.3	11.0	1.8	2.3	8.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	52.4	52.8	43.7	49.9	50.8	19.7	19.8	14.9	21.3	16.7	12.9
LnGrp LOS	D	D	D	D	D	D	B	B	B	C	B	B
Approach Vol, veh/h		350			386			1308			1211	
Approach Delay, s/veh		50.2			47.9			19.4			16.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	86.6	17.9	41.6	11.3	89.3	15.2	44.3
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
Max Green Setting (Gmax), s	14.5	66.5	14.0	40.0	14.5	66.5	14.0	40.0
Max Q Clear Time (g_c+I1), s	7.4	30.8	11.9	12.7	5.0	24.4	9.2	13.2
Green Ext Time (p_c), s	0.1	11.1	0.0	0.7	0.0	9.7	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	391	260	116	90
Demand Flow Rate, veh/h	399	265	119	91
Vehicles Circulating, veh/h	79	112	407	286
Vehicles Exiting, veh/h	298	414	71	91
Ped Vol Crossing Leg, #/h	0	0	1	7
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	5.8	4.9	5.3	4.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	399	265	119	91
Cap Entry Lane, veh/h	1273	1231	911	1031
Entry HV Adj Factor	0.981	0.980	0.977	0.985
Flow Entry, veh/h	391	260	116	90
Cap Entry, veh/h	1249	1206	890	1014
V/C Ratio	0.313	0.215	0.131	0.088
Control Delay, s/veh	5.8	4.9	5.3	4.3
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	0

Timings
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	161	22	183	184	24	90	125	1618	67	1820	89
Future Volume (vph)	161	22	183	184	24	90	125	1618	67	1820	89
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	40.0	40.0	12.0	40.0	12.0	40.0	40.0
Total Split (s)	21.0	43.0	43.0	21.0	43.0	43.0	23.0	76.0	20.0	73.0	73.0
Total Split (%)	13.1%	26.9%	26.9%	13.1%	26.9%	26.9%	14.4%	47.5%	12.5%	45.6%	45.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.3	8.2	8.2	23.1	8.6	8.6	15.8	101.2	10.0	95.5	95.5
Actuated g/C Ratio	0.14	0.05	0.05	0.14	0.05	0.05	0.10	0.63	0.06	0.60	0.60
v/c Ratio	0.73	0.23	0.73	0.81	0.24	0.48	0.74	0.54	0.62	0.61	0.10
Control Delay	78.8	77.1	25.6	87.4	77.2	13.6	89.1	25.2	95.4	22.6	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.8	77.1	25.6	87.4	77.2	13.6	89.1	25.2	95.4	22.6	2.1
LOS	E	E	C	F	E	B	F	C	F	C	A
Approach Delay		52.0			64.2			29.6		24.1	
Approach LOS		D			E			C		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 113 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 31.3	Intersection LOS: C
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 112: Kimberly Blvd & SR 7

Queues
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	164	22	187	188	24	92	128	1722	68	1857	91
v/c Ratio	0.73	0.23	0.73	0.81	0.24	0.48	0.74	0.54	0.62	0.61	0.10
Control Delay	78.8	77.1	25.6	87.4	77.2	13.6	89.1	25.2	95.4	22.6	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.8	77.1	25.6	87.4	77.2	13.6	89.1	25.2	95.4	22.6	2.1
Queue Length 50th (ft)	159	23	0	185	25	0	143	359	71	427	0
Queue Length 95th (ft)	227	53	82	259	56	34	214	438	124	579	20
Internal Link Dist (ft)		1738			1039			1330		793	
Turn Bay Length (ft)	175			110		110	325		330		235
Base Capacity (vph)	233	430	503	236	430	435	194	3194	146	3035	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.05	0.37	0.80	0.06	0.21	0.66	0.54	0.47	0.61	0.10

Intersection Summary

HCM 6th Signalized Intersection Summary
112: Kimberly Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	22	183	184	24	90	125	1618	70	67	1820	89
Future Volume (veh/h)	161	22	183	184	24	90	125	1618	70	67	1820	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	22	187	188	24	92	128	1651	71	68	1857	91
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	339	274	406	352	281	148	2579	111	85	2448	734
Arrive On Green	0.09	0.18	0.18	0.09	0.19	0.19	0.11	0.68	0.68	0.06	0.64	0.64
Sat Flow, veh/h	1781	1870	1509	1781	1870	1493	1781	5012	215	1781	5106	1532
Grp Volume(v), veh/h	164	22	187	188	24	92	128	1121	601	68	1857	91
Grp Sat Flow(s),veh/h/ln	1781	1870	1509	1781	1870	1493	1781	1702	1823	1781	1702	1532
Q Serve(g_s), s	11.9	1.6	18.5	13.7	1.7	8.5	11.3	29.6	29.6	6.0	40.9	3.7
Cycle Q Clear(g_c), s	11.9	1.6	18.5	13.7	1.7	8.5	11.3	29.6	29.6	6.0	40.9	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	417	339	274	406	352	281	148	1752	938	85	2448	734
V/C Ratio(X)	0.39	0.06	0.68	0.46	0.07	0.33	0.87	0.64	0.64	0.80	0.76	0.12
Avail Cap(c_a), veh/h	430	433	349	406	433	345	178	1752	938	145	2448	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	54.3	61.2	47.0	53.4	56.2	70.3	16.9	16.9	74.2	22.5	15.8
Incr Delay (d2), s/veh	0.2	0.0	2.0	0.3	0.0	0.2	23.8	1.6	3.0	6.3	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.7	7.3	6.2	0.8	3.3	6.0	10.5	11.7	2.9	15.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	54.3	63.2	47.3	53.4	56.4	94.1	18.5	19.9	80.4	24.8	16.1
LnGrp LOS	D	D	E	D	D	E	F	B	B	F	C	B
Approach Vol, veh/h		373			304			1850			2016	
Approach Delay, s/veh		55.8			50.5			24.2			26.3	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	89.3	21.0	35.0	20.3	83.7	19.9	36.1
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	13.0	69.0	15.0	37.0	16.0	66.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	8.0	31.6	15.7	20.5	13.3	42.9	13.9	10.5
Green Ext Time (p_c), s	0.0	17.7	0.0	0.4	0.0	15.7	0.0	0.2

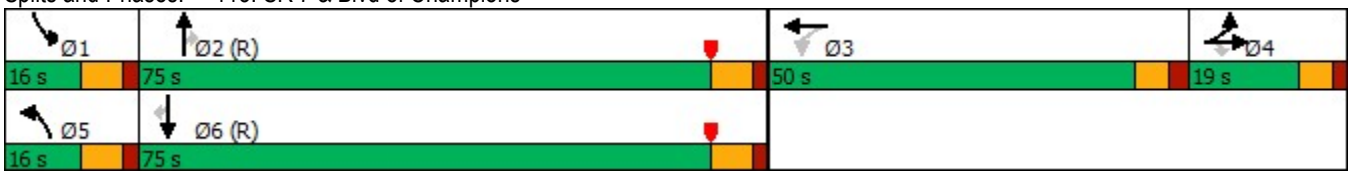
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Timings
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	170	0	292	13	6	270	1597	14	23	1900	255
Future Volume (vph)	170	0	292	13	6	270	1597	14	23	1900	255
Turn Type	Split	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3	5	2		1	6	
Permitted Phases			4	3				2			6
Detector Phase	4	4	4	3	3	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	19.0	19.0	19.0	47.5	47.5	12.0	43.0	43.0	12.0	43.0	43.0
Total Split (s)	19.0	19.0	19.0	50.0	50.0	16.0	75.0	75.0	16.0	75.0	75.0
Total Split (%)	11.9%	11.9%	11.9%	31.3%	31.3%	10.0%	46.9%	46.9%	10.0%	46.9%	46.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.5	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.2	13.2	13.2		9.8	24.4	114.1	114.1	6.4	91.3	91.3
Actuated g/C Ratio	0.08	0.08	0.08		0.06	0.15	0.71	0.71	0.04	0.57	0.57
v/c Ratio	0.63	0.28	0.28		0.38	0.54	0.46	0.01	0.34	0.68	0.27
Control Delay	80.7	1.3	1.3		90.1	69.6	10.8	0.0	85.5	14.1	0.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.7	1.3	1.3		90.1	69.6	10.8	0.0	85.5	14.1	0.7
LOS	F	A	A		F	E	B	A	F	B	A
Approach Delay		30.5			90.1		19.2			13.3	
Approach LOS		C			F		B			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 121 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 79.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 113: SR 7 & Blvd of Champions



Queues
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	177	152	152	20	281	1664	15	24	1979	266
v/c Ratio	0.63	0.28	0.28	0.38	0.54	0.46	0.01	0.34	0.68	0.27
Control Delay	80.7	1.3	1.3	90.1	69.6	10.8	0.0	85.5	14.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.7	1.3	1.3	90.1	69.6	10.8	0.0	85.5	14.1	0.7
Queue Length 50th (ft)	94	0	0	21	158	170	0	25	205	0
Queue Length 95th (ft)	133	0	0	51	210	310	m0	m42	233	m7
Internal Link Dist (ft)		446		833		1028			1330	
Turn Bay Length (ft)	170		300		300		160	160		425
Base Capacity (vph)	307	545	545	238	523	3626	1126	99	2902	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.28	0.28	0.08	0.54	0.46	0.01	0.24	0.68	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
113: SR 7 & Blvd of Champions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	0	292	13	6	0	270	1597	14	23	1900	255
Future Volume (vph)	170	0	292	13	6	0	270	1597	14	23	1900	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	0.97	0.95	0.95		1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.97	1.00	1.00	0.97
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	0.85	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1504	1504		1800		3433	5085	1534	1770	5085	1543
Flt Permitted	0.95	1.00	1.00		0.47		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1504	1504		880		3433	5085	1534	1770	5085	1543
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	177	0	304	14	6	0	281	1664	15	24	1979	266
RTOR Reduction (vph)	0	139	139	0	0	0	0	0	5	0	0	115
Lane Group Flow (vph)	177	13	13	0	20	0	281	1664	10	24	1979	151
Confl. Peds. (#/hr)	11					11	9		5	5		9
Confl. Bikes (#/hr)												4
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3					2			6
Actuated Green, G (s)	13.2	13.2	13.2		7.2		24.4	108.7	108.7	4.4	88.7	88.7
Effective Green, g (s)	13.2	13.2	13.2		7.2		24.4	108.7	108.7	4.4	88.7	88.7
Actuated g/C Ratio	0.08	0.08	0.08		0.05		0.15	0.68	0.68	0.03	0.55	0.55
Clearance Time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	2.2	2.2	2.2		2.2		1.5	3.0	3.0	1.5	3.0	3.0
Lane Grp Cap (vph)	283	124	124		39		523	3454	1042	48	2818	855
v/s Ratio Prot	c0.05	0.01					c0.08	c0.33		0.01	c0.39	
v/s Ratio Perm			0.01		c0.02				0.01			0.10
v/c Ratio	0.63	0.10	0.10		0.51		0.54	0.48	0.01	0.50	0.70	0.18
Uniform Delay, d1	71.0	67.9	67.9		74.7		62.6	12.2	8.3	76.7	26.0	17.6
Progression Factor	1.00	1.00	1.00		1.00		1.03	0.83	1.00	1.01	0.51	0.07
Incremental Delay, d2	3.3	0.2	0.2		6.1		0.5	0.4	0.0	2.4	1.2	0.4
Delay (s)	74.3	68.1	68.1		80.8		65.2	10.5	8.3	80.1	14.5	1.6
Level of Service	E	E	E		F		E	B	A	F	B	A
Approach Delay (s)		70.4			80.8			18.3			13.6	
Approach LOS		E			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

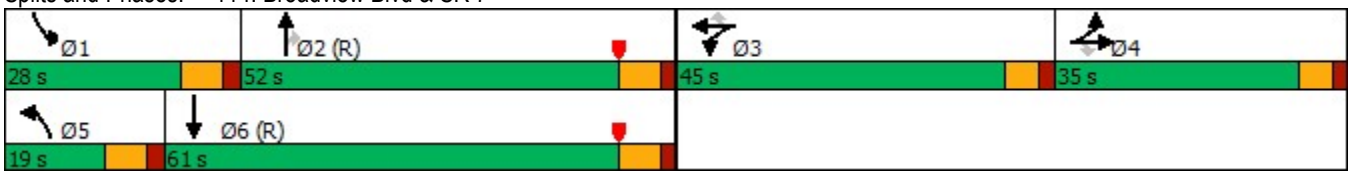
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	73	19	66	242	3	254	40	1431	248	329	1793
Future Volume (vph)	73	19	66	242	3	254	40	1431	248	329	1793
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		3	3		5	2		1	6
Permitted Phases			4			3			2		
Detector Phase	4	4	4	3	3	3	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	24.0	24.0	45.0	45.0	45.0	12.0	40.0	40.0	12.0	40.0
Total Split (s)	35.0	35.0	35.0	45.0	45.0	45.0	19.0	52.0	52.0	28.0	61.0
Total Split (%)	21.9%	21.9%	21.9%	28.1%	28.1%	28.1%	11.9%	32.5%	32.5%	17.5%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.2	8.2	8.2	17.3	17.3	17.3	8.0	87.9	87.9	20.7	103.0
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.05	0.55	0.55	0.13	0.64
v/c Ratio	0.45	0.21	0.30	0.72	0.71	0.66	0.49	0.54	0.29	0.79	0.60
Control Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.6	9.7	100.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.6	9.7	100.1	6.9
LOS	F	E	A	F	F	B	F	C	A	F	A
Approach Delay		48.3			51.4			24.8			21.0
Approach LOS		D			D			C			C

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 133 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Broadview Blvd & SR 7



Queues
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	20	70	131	129	270	43	1522	264	350	1963
v/c Ratio	0.45	0.21	0.30	0.72	0.71	0.66	0.49	0.54	0.29	0.79	0.60
Control Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.6	9.7	100.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	77.2	3.2	90.2	88.9	14.6	91.8	25.6	9.7	100.1	6.9
Queue Length 50th (ft)	41	20	0	142	140	0	45	363	52	198	94
Queue Length 95th (ft)	70	51	0	212	209	88	88	499	133	252	157
Internal Link Dist (ft)		559			661			481			1028
Turn Bay Length (ft)	160		260	270		260	270		150	290	
Base Capacity (vph)	622	337	421	409	410	584	132	2793	926	478	3259
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.06	0.17	0.32	0.31	0.46	0.33	0.54	0.29	0.73	0.60

Intersection Summary

HCM Signalized Intersection Capacity Analysis
114: Broadview Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	19	66	242	3	254	40	1431	248	329	1793	53
Future Volume (vph)	73	19	66	242	3	254	40	1431	248	329	1793	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	1863	1583	1681	1687	1562	1770	5085	1560	3433	5059	
Flt Permitted	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	1863	1583	1681	1687	1562	1770	5085	1560	3433	5059	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	78	20	70	257	3	270	43	1522	264	350	1907	56
RTOR Reduction (vph)	0	0	66	0	0	241	0	0	71	0	1	0
Lane Group Flow (vph)	78	20	4	131	129	29	43	1522	193	350	1962	0
Confl. Peds. (#/hr)	1					1	3		1	1		3
Confl. Bikes (#/hr)									3			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			
Actuated Green, G (s)	8.2	8.2	8.2	17.3	17.3	17.3	7.0	87.8	87.8	20.7	101.5	
Effective Green, g (s)	8.2	8.2	8.2	17.3	17.3	17.3	7.0	87.8	87.8	20.7	101.5	
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.04	0.55	0.55	0.13	0.63	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	175	95	81	181	182	168	77	2790	856	444	3209	
v/s Ratio Prot	c0.02	0.01		c0.08	0.08		0.02	0.30		c0.10	c0.39	
v/s Ratio Perm			0.00			0.02			0.12			
v/c Ratio	0.45	0.21	0.04	0.72	0.71	0.17	0.56	0.55	0.23	0.79	0.61	
Uniform Delay, d1	73.7	72.8	72.2	69.0	68.9	64.9	75.0	23.3	18.6	67.5	17.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	0.34	
Incremental Delay, d2	0.7	0.4	0.1	11.5	9.9	0.2	4.9	0.8	0.6	6.6	0.7	
Delay (s)	74.4	73.2	72.3	80.5	78.8	65.0	79.9	24.0	19.2	96.6	6.6	
Level of Service	E	E	E	F	E	E	E	C	B	F	A	
Approach Delay (s)		73.3			72.2			24.6			20.2	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱		↑↑↑	↑↑↑	↱
Traffic Vol, veh/h	0	55	0	1876	1919	61
Future Vol, veh/h	0	55	0	1876	1919	61
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	240
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	0	1934	1978	63

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	990	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	511	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	511	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

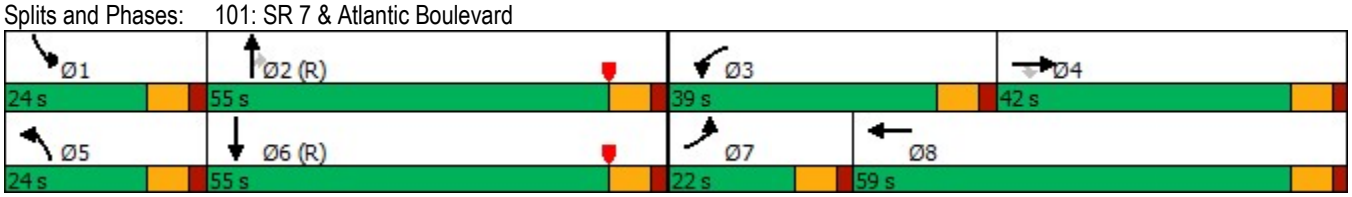
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	511	-	-
HCM Lane V/C Ratio	-	0.111	-	-
HCM Control Delay (s)	-	12.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	305	909	303	649	1537	239	1249	490	156	1245
Future Volume (vph)	305	909	303	649	1537	239	1249	490	156	1245
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	11.0	42.0	42.0	11.0	59.0	12.0	50.0	50.0	12.0	50.0
Total Split (s)	22.0	42.0	42.0	39.0	59.0	24.0	55.0	55.0	24.0	55.0
Total Split (%)	13.8%	26.3%	26.3%	24.4%	36.9%	15.0%	34.4%	34.4%	15.0%	34.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	15.0	35.2	35.2	31.8	52.0	17.0	48.9	48.9	16.1	48.0
Actuated g/C Ratio	0.09	0.22	0.22	0.20	0.32	0.11	0.31	0.31	0.10	0.30
v/c Ratio	0.97	0.83	0.62	0.97	1.06	1.30	0.82	0.68	0.89	0.99
Control Delay	113.7	67.0	23.4	91.2	90.0	216.4	50.6	16.3	113.9	75.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.7	67.0	23.4	91.2	90.0	216.4	50.6	16.3	113.9	75.8
LOS	F	E	C	F	F	F	D	B	F	E
Approach Delay		67.7			90.3		62.2			79.4
Approach LOS		E			F		E			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.30	
Intersection Signal Delay: 75.9	Intersection LOS: E
Intersection Capacity Utilization 115.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	311	928	309	662	1725	244	1274	500	159	1489
v/c Ratio	0.97	0.83	0.62	0.97	1.06	1.30	0.82	0.68	0.89	0.99
Control Delay	113.7	67.0	23.4	91.2	90.0	216.4	50.6	16.3	113.9	75.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.7	67.0	23.4	91.2	90.0	216.4	50.6	16.3	113.9	75.8
Queue Length 50th (ft)	170	343	91	358	~719	~321	489	119	166	565
Queue Length 95th (ft)	#271	400	201	#484	#815	#501	548	400	#297	#678
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	321	1120	501	686	1631	188	1552	732	188	1501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.83	0.62	0.97	1.06	1.30	0.82	0.68	0.85	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	909	303	649	1537	154	239	1249	490	156	1245	215
Future Volume (veh/h)	305	909	303	649	1537	154	239	1249	490	156	1245	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	928	309	662	1568	157	244	1274	500	159	1270	219
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1117	333	691	1528	153	189	1562	465	179	1306	225
Arrive On Green	0.09	0.22	0.22	0.20	0.32	0.32	0.14	0.41	0.41	0.13	0.40	0.40
Sat Flow, veh/h	3456	5106	1522	3456	4701	470	1781	5106	1520	1781	4352	750
Grp Volume(v), veh/h	311	928	309	662	1135	590	244	1274	500	159	993	496
Grp Sat Flow(s),veh/h/ln	1728	1702	1522	1728	1702	1767	1781	1702	1520	1781	1702	1698
Q Serve(g_s), s	14.3	27.8	31.8	30.3	52.0	52.0	17.0	35.4	49.0	14.0	45.9	45.9
Cycle Q Clear(g_c), s	14.3	27.8	31.8	30.3	52.0	52.0	17.0	35.4	49.0	14.0	45.9	45.9
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	324	1117	333	691	1106	574	189	1562	465	179	1021	509
V/C Ratio(X)	0.96	0.83	0.93	0.96	1.03	1.03	1.29	0.82	1.08	0.89	0.97	0.97
Avail Cap(c_a), veh/h	324	1117	333	691	1106	574	189	1562	465	189	1021	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.2	59.7	61.3	63.3	54.0	54.0	68.7	43.4	47.4	68.5	47.4	47.4
Incr Delay (d2), s/veh	39.0	5.3	31.2	24.1	33.8	44.8	154.7	3.4	56.6	34.1	22.3	33.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	12.6	15.2	15.7	27.4	30.2	15.7	14.8	25.0	7.9	21.7	23.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.2	65.0	92.4	87.4	87.8	98.8	223.4	46.8	104.1	102.6	69.8	81.1
LnGrp LOS	F	E	F	F	F	F	F	D	F	F	E	F
Approach Vol, veh/h		1548			2387			2018			1648	
Approach Delay, s/veh		79.7			90.4			82.4			76.3	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	56.0	39.0	42.0	24.0	55.0	22.0	59.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	17.0	48.0	32.0	35.0	17.0	48.0	15.0	52.0
Max Q Clear Time (g_c+I1), s	16.0	51.0	32.3	33.8	19.0	47.9	16.3	54.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	83.0
HCM 6th LOS	F

Notes

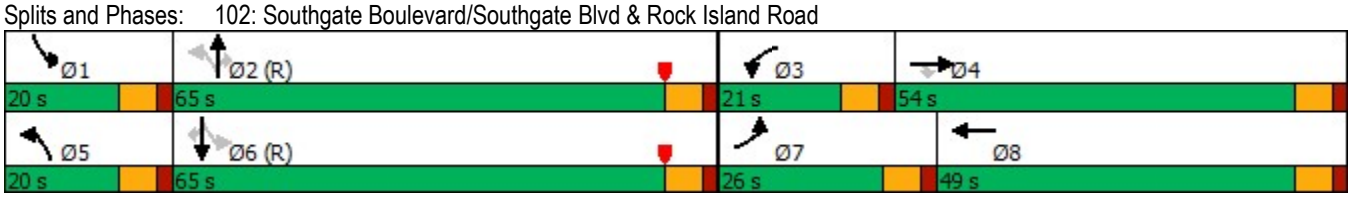
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	408	509	208	117	581	193	938	138	186	943	632
Future Volume (vph)	408	509	208	117	581	193	938	138	186	943	632
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	54.0	54.0	21.0	49.0	20.0	65.0	65.0	20.0	65.0	65.0
Total Split (%)	16.3%	33.8%	33.8%	13.1%	30.6%	12.5%	40.6%	40.6%	12.5%	40.6%	40.6%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	47.8	47.8	13.2	41.5	73.3	60.2	60.2	72.8	59.9	59.9
Actuated g/C Ratio	0.12	0.30	0.30	0.08	0.26	0.46	0.38	0.38	0.46	0.37	0.37
v/c Ratio	1.02	0.50	0.38	0.84	0.95	0.86	0.73	0.22	0.84	0.74	0.87
Control Delay	115.9	48.3	13.8	96.9	58.1	74.9	35.9	6.9	55.5	47.8	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	48.3	13.8	96.9	58.1	74.9	35.9	6.9	55.5	47.8	39.2
LOS	F	D	B	F	E	E	D	A	E	D	D
Approach Delay		66.4			62.9		38.7			45.5	
Approach LOS		E			E		D			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 80 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 51.6	Intersection LOS: D
Intersection Capacity Utilization 99.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	425	530	217	122	853	201	977	144	194	982	658
v/c Ratio	1.02	0.50	0.38	0.84	0.95	0.86	0.73	0.22	0.84	0.74	0.87
Control Delay	115.9	48.3	13.8	96.9	58.1	74.9	35.9	6.9	55.5	47.8	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	48.3	13.8	96.9	58.1	74.9	35.9	6.9	55.5	47.8	39.2
Queue Length 50th (ft)	~241	242	41	135	435	133	356	4	114	474	411
Queue Length 95th (ft)	#355	303	115	m146	m#482	#263	341	51	#237	560	#664
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1056	575	160	922	238	1330	657	239	1324	758
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.50	0.38	0.76	0.93	0.84	0.73	0.22	0.81	0.74	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	509	208	117	581	238	193	938	138	186	943	632
Future Volume (veh/h)	408	509	208	117	581	238	193	938	138	186	943	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	425	530	217	122	605	248	201	977	0	194	982	658
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1075	469	142	636	260	239	1332		279	1323	579
Arrive On Green	0.12	0.30	0.30	0.08	0.26	0.26	0.11	0.50	0.00	0.11	0.50	0.50
Sat Flow, veh/h	3456	3554	1551	1781	2442	1000	1781	3554	1585	1781	3554	1555
Grp Volume(v), veh/h	425	530	217	122	440	413	201	977	0	194	982	658
Grp Sat Flow(s),veh/h/ln	1728	1777	1551	1781	1777	1665	1781	1777	1585	1781	1777	1555
Q Serve(g_s), s	19.5	19.6	18.2	10.8	38.9	39.0	11.2	34.8	0.0	10.8	35.3	59.6
Cycle Q Clear(g_c), s	19.5	19.6	18.2	10.8	38.9	39.0	11.2	34.8	0.0	10.8	35.3	59.6
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1075	469	142	463	434	239	1332		279	1323	579
V/C Ratio(X)	1.01	0.49	0.46	0.86	0.95	0.95	0.84	0.73		0.70	0.74	1.14
Avail Cap(c_a), veh/h	421	1075	469	161	472	442	242	1332		286	1323	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	45.7	45.3	72.7	58.2	58.2	34.0	33.8	0.0	31.5	34.2	40.4
Incr Delay (d2), s/veh	46.2	0.1	0.3	28.9	28.7	30.2	17.4	2.8	0.0	5.8	3.8	80.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	8.8	7.1	6.1	21.2	20.1	5.8	14.7	0.0	5.0	15.1	34.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.4	45.9	45.5	101.6	86.8	88.4	51.3	36.6	0.0	37.3	38.0	121.2
LnGrp LOS	F	D	D	F	F	F	D	D		D	D	F
Approach Vol, veh/h		1172			975			1178			1834	
Approach Delay, s/veh		71.4			89.3			39.1			67.8	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	66.5	19.3	54.9	19.7	66.1	26.0	48.2
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	58.5	14.5	47.5	13.5	58.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	12.8	36.8	12.8	21.6	13.2	61.6	21.5	41.0
Green Ext Time (p_c), s	0.0	7.4	0.0	2.9	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	66.1
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	696	21	27	919	39	20	7	35	12	0	6
Future Vol, veh/h	8	696	21	27	919	39	20	7	35	12	0	6
Conflicting Peds, #/hr	11	0	2	2	0	11	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	725	22	28	957	41	21	7	36	13	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1009	0	0	749	0	0	1289	1819	377	1428	1810	510
Stage 1	-	-	-	-	-	-	754	754	-	1045	1045	-
Stage 2	-	-	-	-	-	-	535	1065	-	383	765	-
Critical Hdwy	4.14	-	-	4.14	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	683	-	-	856	-	-	327	186	873	282	188	779
Stage 1	-	-	-	-	-	-	567	567	-	421	421	-
Stage 2	-	-	-	-	-	-	707	412	-	823	561	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	676	-	-	854	-	-	303	168	871	242	170	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	303	168	-	242	170	-
Stage 1	-	-	-	-	-	-	559	559	-	412	386	-
Stage 2	-	-	-	-	-	-	649	378	-	768	553	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	15.2	17.2
HCM LOS			C	C

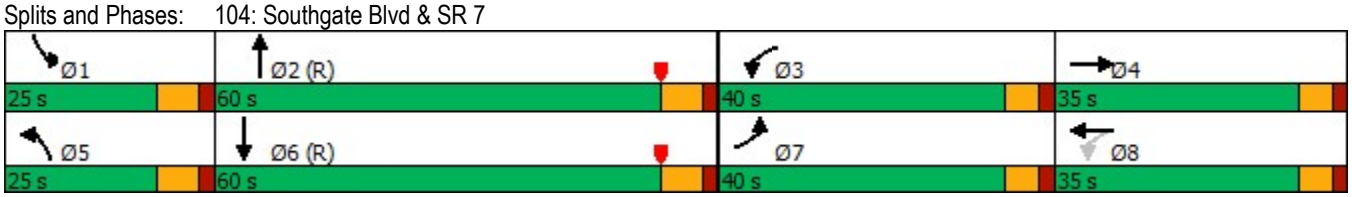
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	419	676	-	-	854	-	-	314
HCM Lane V/C Ratio	0.154	0.012	-	-	0.033	-	-	0.06
HCM Control Delay (s)	15.2	10.4	-	-	9.4	0.3	-	17.2
HCM Lane LOS	C	B	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.2

Timings
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	447	54	65	58	401	1505	90	1524
Future Volume (vph)	447	54	65	58	401	1505	90	1524
Turn Type	Prot	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases			8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	6.0	4.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	35.0	10.0	35.0	12.0	37.0	12.0	38.0
Total Split (s)	40.0	35.0	40.0	35.0	25.0	60.0	25.0	60.0
Total Split (%)	25.0%	21.9%	25.0%	21.9%	15.6%	37.5%	15.6%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.7	30.3	21.7	13.2	27.8	82.8	12.4	67.4
Actuated g/C Ratio	0.16	0.19	0.14	0.08	0.17	0.52	0.08	0.42
v/c Ratio	0.85	0.76	0.43	0.73	0.70	0.62	0.69	0.99
Control Delay	71.4	28.8	50.7	78.5	80.4	23.2	106.4	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	28.8	50.7	78.5	80.4	23.2	106.4	31.7
LOS	E	C	D	E	F	C	F	C
Approach Delay		54.5		68.4		35.0		35.0
Approach LOS		D		E		C		D

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 49 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 39.1	Intersection LOS: D
Intersection Capacity Utilization 104.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 104: Southgate Blvd & SR 7



Queues
104: Southgate Blvd & SR 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	466	307	68	119	418	1615	94	2060
v/c Ratio	0.85	0.76	0.43	0.73	0.70	0.62	0.69	0.99
Control Delay	71.4	28.8	50.7	78.5	80.4	23.2	106.4	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	28.8	50.7	78.5	80.4	23.2	106.4	31.7
Queue Length 50th (ft)	175	56	54	96	228	275	104	615
Queue Length 95th (ft)	200	m302	86	163	294	302	m102	m#984
Internal Link Dist (ft)		1738		1039		1330		2623
Turn Bay Length (ft)	125		205		235		215	
Base Capacity (vph)	729	422	427	329	596	2618	199	2082
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.73	0.16	0.36	0.70	0.62	0.47	0.99

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Southgate Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	54	241	65	58	57	401	1505	45	90	1524	453
Future Volume (veh/h)	447	54	241	65	58	57	401	1505	45	90	1524	453
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.98		0.96	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	466	56	251	68	60	59	418	1568	47	94	1588	472
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	70	315	187	117	115	389	2477	74	113	1709	498
Arrive On Green	0.15	0.24	0.24	0.04	0.14	0.14	0.15	0.65	0.65	0.08	0.58	0.58
Sat Flow, veh/h	3456	288	1292	1781	846	832	3456	5088	152	1781	3901	1138
Grp Volume(v), veh/h	466	0	307	68	0	119	418	1049	566	94	1382	678
Grp Sat Flow(s),veh/h/ln	1728	0	1580	1781	0	1678	1728	1702	1836	1781	1702	1635
Q Serve(g_s), s	21.2	0.0	29.2	5.2	0.0	10.5	18.0	29.5	29.5	8.3	58.9	61.8
Cycle Q Clear(g_c), s	21.2	0.0	29.2	5.2	0.0	10.5	18.0	29.5	29.5	8.3	58.9	61.8
Prop In Lane	1.00		0.82	1.00		0.50	1.00		0.08	1.00		0.70
Lane Grp Cap(c), veh/h	513	0	385	187	0	233	389	1657	894	113	1491	716
V/C Ratio(X)	0.91	0.00	0.80	0.36	0.00	0.51	1.08	0.63	0.63	0.83	0.93	0.95
Avail Cap(c_a), veh/h	734	0	385	488	0	304	389	1657	894	200	1491	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	0.23	0.23	0.23
Uniform Delay (d), s/veh	67.1	0.0	56.8	56.2	0.0	63.9	68.0	19.7	19.7	72.4	31.1	31.7
Incr Delay (d2), s/veh	9.3	0.0	10.3	0.4	0.0	0.6	64.2	1.6	3.0	1.4	3.2	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	0.0	12.8	2.4	0.0	4.6	11.2	10.9	12.1	3.8	22.8	23.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	0.0	67.0	56.6	0.0	64.5	132.2	21.3	22.6	73.8	34.3	39.5
LnGrp LOS	E	A	E	E	A	E	F	C	C	E	C	D
Approach Vol, veh/h		773			187			2033			2154	
Approach Delay, s/veh		72.7			61.7			44.5			37.6	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	84.9	12.9	45.0	25.0	77.1	29.7	28.2
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	53.0	34.0	29.0	18.0	53.0	34.0	29.0
Max Q Clear Time (g_c+I1), s	10.3	31.5	7.2	31.2	20.0	63.8	23.2	12.5
Green Ext Time (p_c), s	0.0	12.2	0.0	0.0	0.0	0.0	0.5	0.3

Intersection Summary	
HCM 6th Ctrl Delay	46.5
HCM 6th LOS	D

Notes

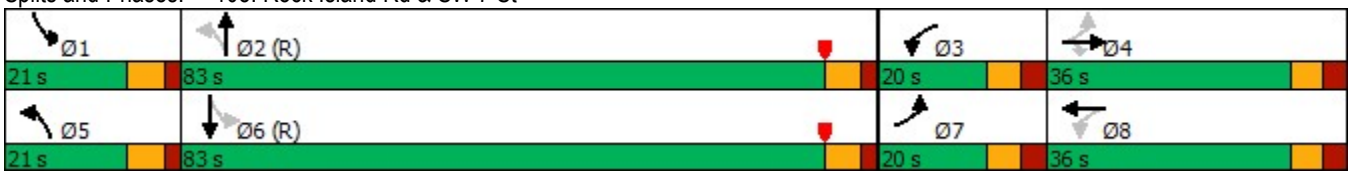
User approved pedestrian interval to be less than phase max green.

Timings
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	71	41	97	96	67	154	1142	57	1114
Future Volume (vph)	71	41	97	96	67	154	1142	57	1114
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	12.0	4.0	12.0
Minimum Split (s)	11.0	35.0	35.0	11.0	35.0	10.5	27.5	10.5	27.5
Total Split (s)	20.0	36.0	36.0	20.0	36.0	21.0	83.0	21.0	83.0
Total Split (%)	12.5%	22.5%	22.5%	12.5%	22.5%	13.1%	51.9%	13.1%	51.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	26.3	16.5	16.5	28.8	17.8	110.6	101.7	100.5	94.6
Actuated g/C Ratio	0.16	0.10	0.10	0.18	0.11	0.69	0.64	0.63	0.59
v/c Ratio	0.43	0.23	0.40	0.40	0.80	0.62	0.60	0.27	0.63
Control Delay	56.7	66.1	11.9	54.8	78.0	19.7	20.5	11.9	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	66.1	11.9	54.8	78.0	19.7	20.5	11.9	18.0
LOS	E	E	B	D	E	B	C	B	B
Approach Delay		37.8			69.4		20.4		17.7
Approach LOS		D			E		C		B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 93 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: Rock Island Rd & SW 7 St



Queues
105: Rock Island Rd & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	77	45	105	104	176	167	1336	62	1296
v/c Ratio	0.43	0.23	0.40	0.40	0.80	0.62	0.60	0.27	0.63
Control Delay	56.7	66.1	11.9	54.8	78.0	19.7	20.5	11.9	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	66.1	11.9	54.8	78.0	19.7	20.5	11.9	18.0
Queue Length 50th (ft)	67	44	0	91	143	54	427	15	215
Queue Length 95th (ft)	107	81	47	138	222	103	614	m35	348
Internal Link Dist (ft)		723			1226		764		1324
Turn Bay Length (ft)	215		215	125		195		205	
Base Capacity (vph)	214	337	377	283	335	314	2227	324	2069
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.13	0.28	0.37	0.53	0.53	0.60	0.19	0.63

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: Rock Island Rd & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	41	97	96	67	95	154	1142	87	57	1114	78
Future Volume (veh/h)	71	41	97	96	67	95	154	1142	87	57	1114	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	45	105	104	73	103	167	1241	95	62	1211	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	213	178	270	88	125	333	2108	161	298	2035	143
Arrive On Green	0.05	0.11	0.11	0.06	0.13	0.13	0.07	0.84	0.84	0.03	0.80	0.80
Sat Flow, veh/h	1781	1870	1568	1781	690	974	1781	3344	256	1781	3362	236
Grp Volume(v), veh/h	77	45	105	104	0	176	167	658	678	62	639	657
Grp Sat Flow(s),veh/h/ln	1781	1870	1568	1781	0	1664	1781	1777	1823	1781	1777	1821
Q Serve(g_s), s	6.1	3.5	10.2	8.2	0.0	16.5	5.8	18.9	19.0	2.1	21.5	21.6
Cycle Q Clear(g_c), s	6.1	3.5	10.2	8.2	0.0	16.5	5.8	18.9	19.0	2.1	21.5	21.6
Prop In Lane	1.00		1.00	1.00		0.59	1.00		0.14	1.00		0.13
Lane Grp Cap(c), veh/h	162	213	178	270	0	213	333	1120	1149	298	1075	1102
V/C Ratio(X)	0.48	0.21	0.59	0.39	0.00	0.83	0.50	0.59	0.59	0.21	0.59	0.60
Avail Cap(c_a), veh/h	219	339	284	302	0	302	406	1120	1149	416	1075	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.66	0.66	0.66
Uniform Delay (d), s/veh	59.3	64.4	67.4	57.6	0.0	68.0	12.7	6.3	6.3	12.1	8.3	8.3
Incr Delay (d2), s/veh	0.8	0.2	1.2	0.3	0.0	8.5	0.4	2.3	2.2	0.1	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.7	4.2	3.7	0.0	7.6	2.3	5.4	5.5	0.9	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	64.6	68.5	58.0	0.0	76.6	13.1	8.6	8.6	12.2	9.9	9.8
LnGrp LOS	E	E	E	E	A	E	B	A	A	B	A	A
Approach Vol, veh/h		227			280			1503			1358	
Approach Delay, s/veh		64.9			69.7			9.1			10.0	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	107.3	17.1	25.2	14.4	103.3	14.8	27.5
Change Period (Y+Rc), s	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
Max Green Setting (Gmax), s	14.5	76.5	13.0	29.0	14.5	76.5	13.0	29.0
Max Q Clear Time (g_c+I1), s	4.1	21.0	10.2	12.2	7.8	23.6	8.1	18.5
Green Ext Time (p_c), s	0.0	10.4	0.0	0.3	0.1	9.9	0.0	0.5

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

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	127	27	55	223	20	34	23	53	7	15	9
Future Vol, veh/h	15	127	27	55	223	20	34	23	53	7	15	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	148	31	64	259	23	40	27	62	8	17	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	11.2	9.1	8.6
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	9%	18%	23%
Vol Thru, %	21%	75%	75%	48%
Vol Right, %	48%	16%	7%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	169	298	31
LT Vol	34	15	55	7
Through Vol	23	127	223	15
RT Vol	53	27	20	9
Lane Flow Rate	128	197	347	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.177	0.254	0.44	0.052
Departure Headway (Hd)	4.99	4.66	4.568	5.232
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	715	766	787	679
Service Time	3.052	2.712	2.612	3.307
HCM Lane V/C Ratio	0.179	0.257	0.441	0.053
HCM Control Delay	9.1	9.3	11.2	8.6
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.6	1	2.3	0.2

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	166	22	26	289	29	32	3	20	12	4	21
Future Vol, veh/h	24	166	22	26	289	29	32	3	20	12	4	21
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	4	4	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	187	25	29	325	33	36	3	22	13	4	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	358	0	0	219	0	0	677	677	211	670	673	344
Stage 1	-	-	-	-	-	-	261	261	-	400	400	-
Stage 2	-	-	-	-	-	-	416	416	-	270	273	-
Critical Hdwy	4.12	-	-	4.12	-	-	5	5	4.5	5	5	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5	5	-	5	5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5	5	-	5	5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1201	-	-	1350	-	-	613	613	1005	618	616	898
Stage 1	-	-	-	-	-	-	929	929	-	810	810	-
Stage 2	-	-	-	-	-	-	797	797	-	921	918	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1201	-	-	1341	-	-	565	577	994	575	580	896
Mov Cap-2 Maneuver	-	-	-	-	-	-	565	577	-	575	580	-
Stage 1	-	-	-	-	-	-	899	898	-	789	788	-
Stage 2	-	-	-	-	-	-	749	775	-	870	888	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.6	10.9	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	671	1201	-	-	1341	-	-	723
HCM Lane V/C Ratio	0.092	0.022	-	-	0.022	-	-	0.058
HCM Control Delay (s)	10.9	8.1	0	-	7.7	0	-	10.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	180	23	20	309	35	55
Future Vol, veh/h	180	23	20	309	35	55
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	26	22	347	39	62

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	228	0	610	215
Stage 1	-	-	-	-	215	-
Stage 2	-	-	-	-	395	-
Critical Hdwy	-	-	4.12	-	5	4.5
Critical Hdwy Stg 1	-	-	-	-	5	-
Critical Hdwy Stg 2	-	-	-	-	5	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	1340	-	656	1002
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1340	-	640	1002
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	794	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.7
HCM LOS			A

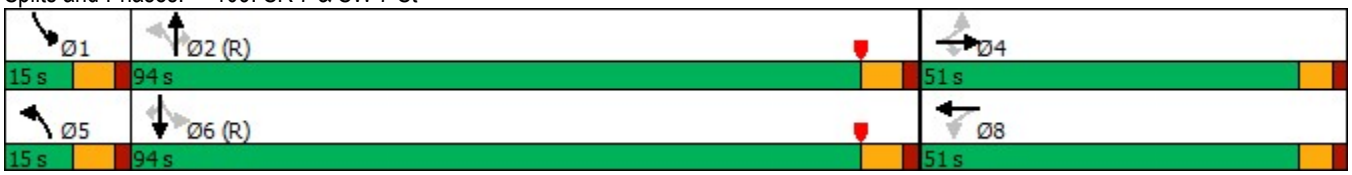
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	640	1002	-	-	1340	-
HCM Lane V/C Ratio	0.061	0.062	-	-	0.017	-
HCM Control Delay (s)	11	8.8	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-

Timings
109: SR 7 & SW 7 St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	115	18	116	31	17	225	1736	32	41	1455	133
Future Volume (vph)	115	18	116	31	17	225	1736	32	41	1455	133
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	45.0	45.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	15.0	94.0	94.0	15.0	94.0	94.0
Total Split (%)	31.9%	31.9%	31.9%	31.9%	31.9%	9.4%	58.8%	58.8%	9.4%	58.8%	58.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		20.6	20.6		20.6	126.4	116.5	116.5	105.9	100.6	100.6
Actuated g/C Ratio		0.13	0.13		0.13	0.79	0.73	0.73	0.66	0.63	0.63
v/c Ratio		0.79	0.39		0.43	0.63	0.48	0.03	0.22	0.46	0.14
Control Delay		97.4	13.4		60.0	19.7	10.6	0.0	5.0	8.0	2.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		97.4	13.4		60.0	19.7	10.6	0.0	5.0	8.0	2.5
LOS		F	B		E	B	B	A	A	A	A
Approach Delay		58.2			60.0		11.5			7.5	
Approach LOS		E			E		B			A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 76 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 109: SR 7 & SW 7 St



Queues
109: SR 7 & SW 7 St

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	118	66	230	1771	33	42	1485	136
v/c Ratio	0.79	0.39	0.43	0.63	0.48	0.03	0.22	0.46	0.14
Control Delay	97.4	13.4	60.0	19.7	10.6	0.0	5.0	8.0	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.4	13.4	60.0	19.7	10.6	0.0	5.0	8.0	2.5
Queue Length 50th (ft)	139	2	54	51	273	0	4	111	3
Queue Length 95th (ft)	208	61	101	162	376	1	m7	m143	m7
Internal Link Dist (ft)	972		833		582			1330	
Turn Bay Length (ft)		100		330		105	275		95
Base Capacity (vph)	371	520	324	364	3703	1143	225	3197	981
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.23	0.20	0.63	0.48	0.03	0.19	0.46	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
109: SR 7 & SW 7 St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	18	116	31	17	17	225	1736	32	41	1455	133
Future Volume (veh/h)	115	18	116	31	17	17	225	1736	32	41	1455	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	18	118	32	17	17	230	1771	33	42	1485	136
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	25	286	69	36	25	313	3406	1032	247	3285	1016
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.89	0.89	0.04	0.86	0.86
Sat Flow, veh/h	897	138	1577	197	201	138	1781	5106	1547	1781	5106	1579
Grp Volume(v), veh/h	135	0	118	66	0	0	230	1771	33	42	1485	136
Grp Sat Flow(s),veh/h/ln	1035	0	1577	535	0	0	1781	1702	1547	1781	1702	1579
Q Serve(g_s), s	0.0	0.0	10.6	4.5	0.0	0.0	7.5	11.6	0.4	1.3	10.9	2.2
Cycle Q Clear(g_c), s	20.9	0.0	10.6	25.4	0.0	0.0	7.5	11.6	0.4	1.3	10.9	2.2
Prop In Lane	0.87		1.00	0.48		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	0	286	131	0	0	313	3406	1032	247	3285	1016
V/C Ratio(X)	0.59	0.00	0.41	0.51	0.00	0.00	0.73	0.52	0.03	0.17	0.45	0.13
Avail Cap(c_a), veh/h	372	0	444	275	0	0	313	3406	1032	289	3285	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.16	0.16	0.16
Uniform Delay (d), s/veh	62.1	0.0	57.9	66.3	0.0	0.0	9.9	3.7	3.0	9.1	4.9	4.3
Incr Delay (d2), s/veh	0.9	0.0	0.4	1.1	0.0	0.0	7.7	0.6	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	4.3	2.7	0.0	0.0	3.4	2.9	0.2	0.5	3.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	0.0	58.3	67.4	0.0	0.0	17.5	4.2	3.1	9.1	5.0	4.3
LnGrp LOS	E	A	E	E	A	A	B	A	A	A	A	A
Approach Vol, veh/h		253			66			2034			1663	
Approach Delay, s/veh		60.8			67.4			5.7			5.0	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.2	113.7		35.1	15.0	109.9		35.1
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	8.0	87.0		45.0	8.0	87.0		45.0
Max Q Clear Time (g_c+I1), s	3.3	13.6		22.9	9.5	12.9		27.4
Green Ext Time (p_c), s	0.0	25.4		0.7	0.0	19.1		0.2

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Timings
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	109	96	79	161	195	99	1041	239	158	1039	142
Future Volume (vph)	109	96	79	161	195	99	1041	239	158	1039	142
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	47.5	11.5	44.5	44.5	16.5	44.6	44.6
Total Split (s)	20.0	46.0	46.0	20.0	46.0	16.0	70.0	70.0	24.0	78.0	78.0
Total Split (%)	12.5%	28.8%	28.8%	12.5%	28.8%	10.0%	43.8%	43.8%	15.0%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.4	17.4	17.4	32.5	19.0	98.1	90.7	90.7	109.0	96.6	96.6
Actuated g/C Ratio	0.18	0.11	0.11	0.20	0.12	0.61	0.57	0.57	0.68	0.60	0.60
v/c Ratio	0.66	0.51	0.28	0.66	0.84	0.37	0.56	0.28	0.52	0.53	0.16
Control Delay	67.1	74.7	2.3	64.2	57.2	13.8	25.4	9.6	15.4	20.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	74.7	2.3	64.2	57.2	13.8	25.4	9.6	15.4	20.8	6.1
LOS	E	E	A	E	E	B	C	A	B	C	A
Approach Delay		51.6			59.2		21.8			18.6	
Approach LOS		D			E		C			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 63 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 28.9	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 110: Kimberly Blvd & Rock Island Road

Queues
110: Kimberly Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	118	104	86	175	441	108	1132	260	172	1129	154
v/c Ratio	0.66	0.51	0.28	0.66	0.84	0.37	0.56	0.28	0.52	0.53	0.16
Control Delay	67.1	74.7	2.3	64.2	57.2	13.8	25.4	9.6	15.4	20.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	74.7	2.3	64.2	57.2	13.8	25.4	9.6	15.4	20.8	6.1
Queue Length 50th (ft)	102	104	0	157	154	36	392	53	59	352	20
Queue Length 95th (ft)	153	162	0	219	211	68	563	132	104	488	62
Internal Link Dist (ft)		387			3410		622			1269	
Turn Bay Length (ft)	250		250	200		280		150	240		160
Base Capacity (vph)	200	465	498	271	927	318	2006	941	376	2137	969
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.22	0.17	0.65	0.48	0.34	0.56	0.28	0.46	0.53	0.16

Intersection Summary

HCM 6th Signalized Intersection Summary
110: Kimberly Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	96	79	161	195	211	99	1041	239	158	1039	142
Future Volume (veh/h)	109	96	79	161	195	211	99	1041	239	158	1039	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	104	86	175	212	229	108	1132	260	172	1129	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	314	256	341	335	289	289	1886	833	291	1948	853
Arrive On Green	0.07	0.17	0.17	0.09	0.19	0.19	0.05	0.71	0.71	0.08	0.73	0.73
Sat Flow, veh/h	1781	1870	1527	1781	1777	1533	1781	3554	1570	1781	3554	1556
Grp Volume(v), veh/h	118	104	86	175	212	229	108	1132	260	172	1129	154
Grp Sat Flow(s),veh/h/ln	1781	1870	1527	1781	1777	1533	1781	1777	1570	1781	1777	1556
Q Serve(g_s), s	8.7	7.8	7.9	13.0	17.6	22.8	4.5	26.0	10.0	7.1	23.8	4.9
Cycle Q Clear(g_c), s	8.7	7.8	7.9	13.0	17.6	22.8	4.5	26.0	10.0	7.1	23.8	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	314	256	341	335	289	289	1886	833	291	1948	853
V/C Ratio(X)	0.57	0.33	0.34	0.51	0.63	0.79	0.37	0.60	0.31	0.59	0.58	0.18
Avail Cap(c_a), veh/h	244	468	382	341	444	383	323	1886	833	383	1948	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	58.7	58.7	49.4	59.8	61.9	17.3	14.9	12.5	18.4	13.0	10.5
Incr Delay (d2), s/veh	0.9	0.2	0.3	0.6	0.7	5.8	0.3	1.4	1.0	0.7	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	3.8	3.1	5.9	8.1	9.4	1.8	9.4	3.5	2.9	8.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	58.9	59.0	50.0	60.5	67.7	17.6	16.3	13.5	19.1	14.3	10.9
LnGrp LOS	D	E	E	D	E	E	B	B	B	B	B	B
Approach Vol, veh/h		308			616			1500			1455	
Approach Delay, s/veh		56.5			60.2			15.9			14.5	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	91.4	20.0	32.8	12.9	94.2	16.7	36.2
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
Max Green Setting (Gmax), s	17.5	63.5	14.0	40.0	9.5	71.5	14.0	40.0
Max Q Clear Time (g_c+I1), s	9.1	28.0	15.0	9.9	6.5	25.8	10.7	24.8
Green Ext Time (p_c), s	0.1	12.0	0.0	0.5	0.0	12.0	0.0	1.6

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

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	461	483	290	83
Demand Flow Rate, veh/h	471	492	295	86
Vehicles Circulating, veh/h	73	279	387	622
Vehicles Exiting, veh/h	634	403	157	149
Ped Vol Crossing Leg, #/h	0	5	1	11
Ped Cap Adj	1.000	0.999	1.000	0.998
Approach Delay, s/veh	6.4	9.1	7.4	6.3
Approach LOS	A	A	A	A

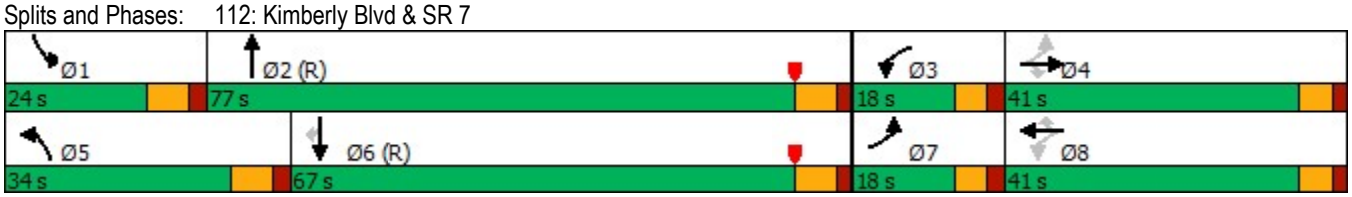
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	471	492	295	86
Cap Entry Lane, veh/h	1281	1038	930	732
Entry HV Adj Factor	0.980	0.981	0.982	0.970
Flow Entry, veh/h	461	483	290	83
Cap Entry, veh/h	1255	1018	913	709
V/C Ratio	0.368	0.474	0.317	0.118
Control Delay, s/veh	6.4	9.1	7.4	6.3
LOS	A	A	A	A
95th %tile Queue, veh	2	3	1	0

Timings
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	63	229	132	56	56	286	1857	83	1387	158
Future Volume (vph)	151	63	229	132	56	56	286	1857	83	1387	158
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	40.0	40.0	12.0	40.0	12.0	40.0	40.0
Total Split (s)	18.0	41.0	41.0	18.0	41.0	41.0	34.0	77.0	24.0	67.0	67.0
Total Split (%)	11.3%	25.6%	25.6%	11.3%	25.6%	25.6%	21.3%	48.1%	15.0%	41.9%	41.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.4	10.7	10.7	21.9	10.4	10.4	34.8	100.2	11.7	77.0	77.0
Actuated g/C Ratio	0.14	0.07	0.07	0.14	0.06	0.06	0.22	0.63	0.07	0.48	0.48
v/c Ratio	0.73	0.53	0.73	0.65	0.48	0.23	0.78	0.68	0.67	0.59	0.21
Control Delay	80.4	86.9	21.4	73.5	84.1	2.1	74.2	17.6	95.8	32.2	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.4	86.9	21.4	73.5	84.1	2.1	74.2	17.6	95.8	32.2	5.0
LOS	F	F	C	E	F	A	E	B	F	C	A
Approach Delay		50.8			59.6			24.6		32.8	
Approach LOS		D			E			C		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 142 (89%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 112: Kimberly Blvd & SR 7



Queues
112: Kimberly Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	157	66	239	138	58	58	298	2120	86	1445	165
v/c Ratio	0.73	0.53	0.73	0.65	0.48	0.23	0.78	0.68	0.67	0.59	0.21
Control Delay	80.4	86.9	21.4	73.5	84.1	2.1	74.2	17.6	95.8	32.2	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.4	86.9	21.4	73.5	84.1	2.1	74.2	17.6	95.8	32.2	5.0
Queue Length 50th (ft)	151	68	0	131	60	0	316	255	89	394	4
Queue Length 95th (ft)	221	119	90	195	107	0	399	377	147	500	52
Internal Link Dist (ft)		1738			1039			1330		793	
Turn Bay Length (ft)	175			110		110	325		330		235
Base Capacity (vph)	217	407	526	219	407	457	384	3138	188	2448	792
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.16	0.45	0.63	0.14	0.13	0.78	0.68	0.46	0.59	0.21

Intersection Summary

HCM 6th Signalized Intersection Summary
112: Kimberly Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	63	229	132	56	56	286	1857	179	83	1387	158
Future Volume (veh/h)	151	63	229	132	56	56	286	1857	179	83	1387	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	66	239	138	58	58	298	1934	186	86	1445	165
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	357	286	346	355	288	301	2425	231	105	2061	611
Arrive On Green	0.08	0.19	0.19	0.07	0.19	0.19	0.22	0.68	0.68	0.08	0.54	0.54
Sat Flow, veh/h	1781	1870	1498	1781	1870	1517	1781	4721	450	1781	5106	1514
Grp Volume(v), veh/h	157	66	239	138	58	58	298	1390	730	86	1445	165
Grp Sat Flow(s),veh/h/ln	1781	1870	1498	1781	1870	1517	1781	1702	1767	1781	1702	1514
Q Serve(g_s), s	11.4	4.7	24.6	9.9	4.1	5.2	26.7	45.3	46.5	7.6	33.6	9.4
Cycle Q Clear(g_c), s	11.4	4.7	24.6	9.9	4.1	5.2	26.7	45.3	46.5	7.6	33.6	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	381	357	286	346	355	288	301	1748	908	105	2061	611
V/C Ratio(X)	0.41	0.18	0.84	0.40	0.16	0.20	0.99	0.80	0.80	0.82	0.70	0.27
Avail Cap(c_a), veh/h	381	409	328	347	409	332	301	1748	908	189	2061	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	54.3	62.3	47.0	54.2	54.6	61.9	19.5	19.7	72.9	29.9	24.3
Incr Delay (d2), s/veh	0.3	0.1	13.6	0.3	0.1	0.1	40.4	2.6	5.2	5.8	2.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	2.3	10.5	4.5	2.0	2.0	15.1	16.2	17.9	3.6	13.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	54.4	75.9	47.3	54.2	54.7	102.3	22.2	24.9	78.7	31.9	25.4
LnGrp LOS	D	D	E	D	D	D	F	C	C	E	C	C
Approach Vol, veh/h		462			254			2418			1696	
Approach Delay, s/veh		63.2			50.6			32.9			33.6	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	89.2	17.9	36.5	34.0	71.6	18.0	36.4
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	70.0	12.0	35.0	27.0	60.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	9.6	48.5	11.9	26.6	28.7	35.6	13.4	7.2
Green Ext Time (p_c), s	0.0	16.1	0.0	0.5	0.0	12.8	0.0	0.3

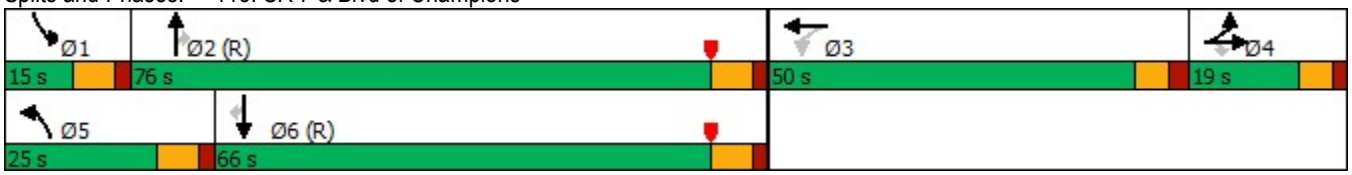
Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Timings
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	314	0	268	8	3	267	1969	11	43	1510	157
Future Volume (vph)	314	0	268	8	3	267	1969	11	43	1510	157
Turn Type	Split	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3	5	2		1	6	
Permitted Phases			4	3				2			6
Detector Phase	4	4	4	3	3	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	19.0	19.0	19.0	47.5	47.5	12.0	43.0	43.0	12.0	43.0	43.0
Total Split (s)	19.0	19.0	19.0	50.0	50.0	25.0	76.0	76.0	15.0	66.0	66.0
Total Split (%)	11.9%	11.9%	11.9%	31.3%	31.3%	15.6%	47.5%	47.5%	9.4%	41.3%	41.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.5	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.2	28.2	28.2		7.7	17.8	99.3	99.3	8.4	87.5	87.5
Actuated g/C Ratio	0.18	0.18	0.18		0.05	0.11	0.62	0.62	0.05	0.55	0.55
v/c Ratio	0.58	0.22	0.22		0.17	0.78	0.69	0.01	0.52	0.60	0.19
Control Delay	65.3	0.7	0.7		72.9	91.8	17.1	0.0	89.2	14.7	0.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.3	0.7	0.7		72.9	91.8	17.1	0.0	89.2	14.7	0.6
LOS	E	A	A		E	F	B	A	F	B	A
Approach Delay		35.5			72.9		25.9			15.3	
Approach LOS		D			E		C			B	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 153 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 113: SR 7 & Blvd of Champions



Queues
113: SR 7 & Blvd of Champions

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	349	149	149	13	297	2188	12	48	1678	174
v/c Ratio	0.58	0.22	0.22	0.17	0.78	0.69	0.01	0.52	0.60	0.19
Control Delay	65.3	0.7	0.7	72.9	91.8	17.1	0.0	89.2	14.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.3	0.7	0.7	72.9	91.8	17.1	0.0	89.2	14.7	0.6
Queue Length 50th (ft)	177	0	0	12	144	608	0	52	168	1
Queue Length 95th (ft)	232	0	0	37	187	863	m0	m92	211	5
Internal Link Dist (ft)		446		833		1028			1330	
Turn Bay Length (ft)	170		300		300		160	160		425
Base Capacity (vph)	604	683	683	435	412	3157	994	101	2781	924
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.22	0.22	0.03	0.72	0.69	0.01	0.48	0.60	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
113: SR 7 & Blvd of Champions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	0	268	8	3	1	267	1969	11	43	1510	157
Future Volume (vph)	314	0	268	8	3	1	267	1969	11	43	1510	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	0.97	0.95	0.95		1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.97	1.00	1.00	0.98
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	0.85	0.85		0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1504	1504		1780		3433	5085	1533	1770	5085	1548
Flt Permitted	0.95	1.00	1.00		0.87		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1504	1504		1598		3433	5085	1533	1770	5085	1548
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	349	0	298	9	3	1	297	2188	12	48	1678	174
RTOR Reduction (vph)	0	123	123	0	1	0	0	0	5	0	0	83
Lane Group Flow (vph)	349	26	26	0	12	0	297	2188	7	48	1678	91
Confl. Peds. (#/hr)	2					2	6		5	5		6
Confl. Bikes (#/hr)									1			6
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3					2			6
Actuated Green, G (s)	28.2	28.2	28.2		3.9		17.8	94.0	94.0	7.4	83.6	83.6
Effective Green, g (s)	28.2	28.2	28.2		3.9		17.8	94.0	94.0	7.4	83.6	83.6
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.11	0.59	0.59	0.05	0.52	0.52
Clearance Time (s)	6.0	6.0	6.0		6.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	2.2	2.2	2.2		2.2		1.5	3.0	3.0	1.5	3.0	3.0
Lane Grp Cap (vph)	605	265	265		38		381	2987	900	81	2656	808
v/s Ratio Prot	c0.10	0.02					c0.09	c0.43		0.03	0.33	
v/s Ratio Perm			0.02		c0.01				0.00			0.06
v/c Ratio	0.58	0.10	0.10		0.32		0.78	0.73	0.01	0.59	0.63	0.11
Uniform Delay, d1	60.4	55.3	55.3		76.7		69.2	23.9	13.7	74.8	27.2	19.4
Progression Factor	1.00	1.00	1.00		1.00		1.16	0.72	1.00	0.99	0.53	0.08
Incremental Delay, d2	0.9	0.1	0.1		2.4		7.5	1.4	0.0	6.4	1.0	0.2
Delay (s)	61.4	55.3	55.3		79.2		87.5	18.5	13.7	80.6	15.4	1.9
Level of Service	E	E	E		E		F	B	B	F	B	A
Approach Delay (s)		58.6			79.2			26.7			15.8	
Approach LOS		E			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

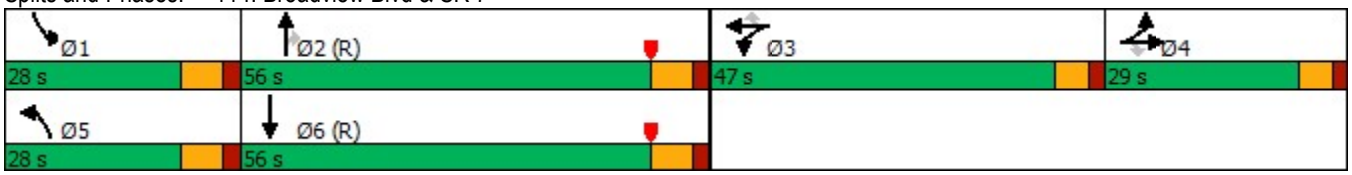
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	86	23	50	61	0	170	82	1939	76	261	1428
Future Volume (vph)	86	23	50	61	0	170	82	1939	76	261	1428
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		3	3		5	2		1	6
Permitted Phases			4			3			2		
Detector Phase	4	4	4	3	3	3	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	24.0	24.0	47.0	47.0	47.0	12.0	40.0	40.0	12.0	40.0
Total Split (s)	29.0	29.0	29.0	47.0	47.0	47.0	28.0	56.0	56.0	28.0	56.0
Total Split (%)	18.1%	18.1%	18.1%	29.4%	29.4%	29.4%	17.5%	35.0%	35.0%	17.5%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.7	8.7	8.7	8.5	8.5	8.5	11.8	99.6	99.6	17.3	105.1
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.62	0.62	0.11	0.66
v/c Ratio	0.49	0.24	0.27	0.36	0.37	0.71	0.67	0.65	0.08	0.75	0.50
Control Delay	82.2	77.3	3.4	83.0	83.6	24.7	95.8	21.5	1.3	50.6	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.2	77.3	3.4	83.0	83.6	24.7	95.8	21.5	1.3	50.6	32.7
LOS	F	E	A	F	F	C	F	C	A	D	C
Approach Delay		56.6			40.2			23.7			35.3
Approach LOS		E			D			C			D

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 30.7	Intersection LOS: C
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Broadview Blvd & SR 7



Queues
114: Broadview Blvd & SR 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	91	24	53	32	33	181	87	2063	81	278	1646
v/c Ratio	0.49	0.24	0.27	0.36	0.37	0.71	0.67	0.65	0.08	0.75	0.50
Control Delay	82.2	77.3	3.4	83.0	83.6	24.7	95.8	21.5	1.3	50.6	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.2	77.3	3.4	83.0	83.6	24.7	95.8	21.5	1.3	50.6	32.7
Queue Length 50th (ft)	48	25	0	34	35	0	90	473	0	148	466
Queue Length 95th (ft)	79	57	0	72	74	79	149	647	13	177	596
Internal Link Dist (ft)		559			661			481			1028
Turn Bay Length (ft)	160		260	270		260	270		150	290	
Base Capacity (vph)	493	267	326	430	430	540	232	3164	1011	454	3294
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.16	0.07	0.08	0.34	0.38	0.65	0.08	0.61	0.50

Intersection Summary

HCM Signalized Intersection Capacity Analysis
114: Broadview Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	23	50	61	0	170	82	1939	76	261	1428	119
Future Volume (vph)	86	23	50	61	0	170	82	1939	76	261	1428	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	1863	1583	1681	1681	1583	1770	5085	1560	3433	5015	
Flt Permitted	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	1863	1583	1681	1681	1583	1770	5085	1560	3433	5015	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	91	24	53	65	0	181	87	2063	81	278	1519	127
RTOR Reduction (vph)	0	0	50	0	0	171	0	0	31	0	3	0
Lane Group Flow (vph)	91	24	3	32	33	10	87	2063	50	278	1643	0
Confl. Peds. (#/hr)							3		1	1		3
Confl. Bikes (#/hr)									3			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			
Actuated Green, G (s)	8.7	8.7	8.7	8.5	8.5	8.5	11.8	99.5	99.5	17.3	105.0	
Effective Green, g (s)	8.7	8.7	8.7	8.5	8.5	8.5	11.8	99.5	99.5	17.3	105.0	
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.62	0.62	0.11	0.66	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	186	101	86	89	89	84	130	3162	970	371	3291	
v/s Ratio Prot	c0.03	0.01		0.02	c0.02		0.05	c0.41		c0.08	c0.33	
v/s Ratio Perm			0.00			0.01			0.03			
v/c Ratio	0.49	0.24	0.03	0.36	0.37	0.11	0.67	0.65	0.05	0.75	0.50	
Uniform Delay, d1	73.5	72.5	71.7	73.1	73.2	72.2	72.2	19.2	11.8	69.2	14.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.57	2.15	
Incremental Delay, d2	0.7	0.4	0.1	0.9	1.0	0.2	9.7	1.1	0.1	6.1	0.5	
Delay (s)	74.2	72.9	71.7	74.0	74.1	72.4	81.9	20.3	11.9	45.5	30.8	
Level of Service	E	E	E	E	E	E	F	C	B	D	C	
Approach Delay (s)		73.3			72.8			22.4			32.9	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↱		↑↑↑	↑↑↑	↱
Traffic Vol, veh/h	0	78	0	2012	1574	54
Future Vol, veh/h	0	78	0	2012	1574	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	240
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	79	0	2032	1590	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	795	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	608	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	608	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	608	-	-
HCM Lane V/C Ratio	-	0.13	-	-
HCM Control Delay (s)	-	11.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

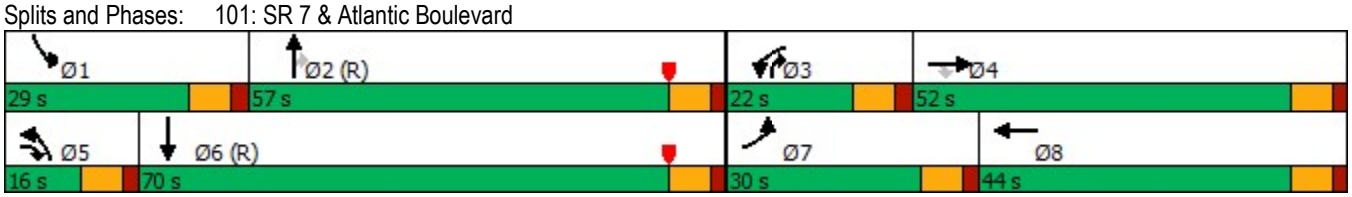
Future (2026) Total SYNCHRO Output – *Optimized*

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	384	1424	233	366	703	90	1527	632	275	1351
Future Volume (vph)	384	1424	233	366	703	90	1527	632	275	1351
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	5	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	5.0	4.0	6.0	5.0	8.0	4.0	5.0	8.0
Minimum Split (s)	11.0	47.0	12.0	11.0	43.0	12.0	50.0	11.0	12.0	50.0
Total Split (s)	30.0	52.0	16.0	22.0	44.0	16.0	57.0	22.0	29.0	70.0
Total Split (%)	18.8%	32.5%	10.0%	13.8%	27.5%	10.0%	35.6%	13.8%	18.1%	43.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	21.0	45.0	54.0	15.0	39.0	9.0	50.0	65.0	22.0	63.0
Actuated g/C Ratio	0.13	0.28	0.34	0.09	0.24	0.06	0.31	0.41	0.14	0.39
v/c Ratio	0.87	1.02	0.40	1.16	0.69	0.93	0.98	0.88	1.16	0.77
Control Delay	87.8	83.9	18.6	162.0	57.4	130.6	52.7	32.4	164.4	45.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.8	83.9	18.6	162.0	57.4	130.6	52.7	32.4	164.4	45.1
LOS	F	F	B	F	E	F	D	C	F	D
Approach Delay		77.1			89.5		50.1			63.7
Approach LOS		E			F		D			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 115 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 67.5	Intersection LOS: E
Intersection Capacity Utilization 115.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	392	1453	238	373	843	92	1558	645	281	1525
v/c Ratio	0.87	1.02	0.40	1.16	0.69	0.93	0.98	0.88	1.16	0.77
Control Delay	87.8	83.9	18.6	162.0	57.4	130.6	52.7	32.4	164.4	45.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.8	83.9	18.6	162.0	57.4	130.6	52.7	32.4	164.4	45.1
Queue Length 50th (ft)	208	~585	81	~237	293	93	562	433	~345	503
Queue Length 95th (ft)	268	#682	155	#347	347	m#136	m#685	m#712	#540	563
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	493	1430	601	321	1222	99	1589	731	243	1978
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	1.02	0.40	1.16	0.69	0.93	0.98	0.88	1.16	0.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	384	1424	233	366	703	123	90	1527	632	275	1351	143
Future Volume (veh/h)	384	1424	233	366	703	123	90	1527	632	275	1351	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	1453	238	373	717	126	92	1558	645	281	1379	146
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	434	1436	526	324	1085	188	100	1596	632	245	1842	195
Arrive On Green	0.13	0.28	0.28	0.09	0.25	0.25	0.07	0.42	0.42	0.18	0.52	0.52
Sat Flow, veh/h	3456	5106	1555	3456	4351	755	1781	5106	1546	1781	4677	495
Grp Volume(v), veh/h	392	1453	238	373	559	284	92	1558	645	281	1004	521
Grp Sat Flow(s),veh/h/ln	1728	1702	1555	1728	1702	1702	1781	1702	1546	1781	1702	1768
Q Serve(g_s), s	17.9	45.0	19.2	15.0	23.6	24.1	8.2	48.0	50.0	22.0	37.0	37.0
Cycle Q Clear(g_c), s	17.9	45.0	19.2	15.0	23.6	24.1	8.2	48.0	50.0	22.0	37.0	37.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	434	1436	526	324	849	424	100	1596	632	245	1340	696
V/C Ratio(X)	0.90	1.01	0.45	1.15	0.66	0.67	0.92	0.98	1.02	1.15	0.75	0.75
Avail Cap(c_a), veh/h	497	1436	526	324	849	424	100	1596	632	245	1340	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	57.5	41.5	72.5	53.9	54.1	73.6	46.2	41.6	65.4	31.9	31.9
Incr Delay (d2), s/veh	17.0	26.7	0.5	97.6	1.7	3.7	37.4	10.4	29.3	103.1	3.9	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	22.9	7.5	11.1	10.4	10.8	4.7	20.9	30.7	16.7	15.0	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.0	84.2	41.9	170.1	55.7	57.8	111.0	56.6	70.9	168.5	35.8	39.2
LnGrp LOS	F	F	D	F	E	E	F	E	F	F	D	D
Approach Vol, veh/h		2083			1216			2295			1806	
Approach Delay, s/veh		79.7			91.3			62.8			57.4	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	57.0	22.0	52.0	16.0	70.0	27.1	46.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	22.0	50.0	15.0	45.0	9.0	63.0	23.0	37.0
Max Q Clear Time (g_c+I1), s	24.0	52.0	17.0	47.0	10.2	39.0	19.9	26.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	12.2	0.2	3.6

Intersection Summary	
HCM 6th Ctrl Delay	70.9
HCM 6th LOS	E

Notes

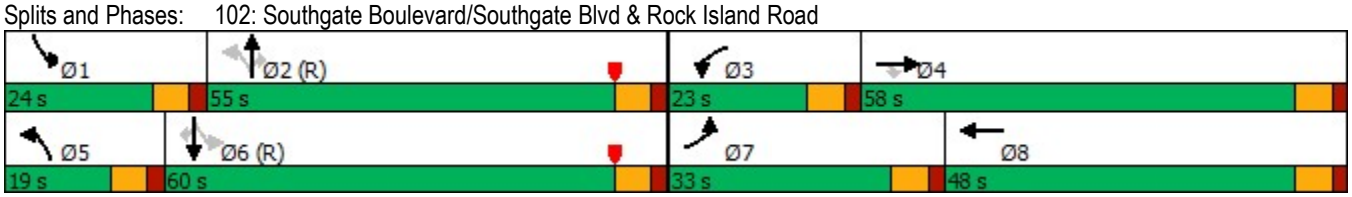
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	490	788	193	77	534	171	998	180	227	872	508
Future Volume (vph)	490	788	193	77	534	171	998	180	227	872	508
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	33.0	58.0	58.0	23.0	48.0	19.0	55.0	55.0	24.0	60.0	60.0
Total Split (%)	20.6%	36.3%	36.3%	14.4%	30.0%	11.9%	34.4%	34.4%	15.0%	37.5%	37.5%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.8	55.4	55.4	11.2	40.8	61.3	49.3	49.3	72.7	55.4	55.4
Actuated g/C Ratio	0.16	0.35	0.35	0.07	0.26	0.38	0.31	0.31	0.45	0.35	0.35
v/c Ratio	0.93	0.68	0.33	0.66	0.96	0.83	0.97	0.32	0.97	0.75	0.72
Control Delay	90.7	48.3	18.6	94.0	54.3	65.5	88.5	29.3	96.0	51.3	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	48.3	18.6	94.0	54.3	65.5	88.5	29.3	96.0	51.3	23.6
LOS	F	D	B	F	D	E	F	C	F	D	C
Approach Delay		58.5			57.7		77.7			48.8	
Approach LOS		E			E		E			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 60 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 60.3	Intersection LOS: E
Intersection Capacity Utilization 103.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	516	829	203	81	864	180	1051	189	239	918	535
v/c Ratio	0.93	0.68	0.33	0.66	0.96	0.83	0.97	0.32	0.97	0.75	0.72
Control Delay	90.7	48.3	18.6	94.0	54.3	65.5	88.5	29.3	96.0	51.3	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	48.3	18.6	94.0	54.3	65.5	88.5	29.3	96.0	51.3	23.6
Queue Length 50th (ft)	277	384	65	70	418	160	614	78	~205	455	206
Queue Length 95th (ft)	#379	484	143	m100	m#515	m#279	#746	m161	#397	540	361
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	568	1224	610	182	914	223	1089	589	246	1225	748
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.68	0.33	0.45	0.95	0.81	0.97	0.32	0.97	0.75	0.72

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	788	193	77	534	287	171	998	180	227	872	508
Future Volume (veh/h)	490	788	193	77	534	287	171	998	180	227	872	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	516	829	203	81	562	302	180	1051	0	239	918	535
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	555	1293	567	100	579	311	229	1095		251	1206	535
Arrive On Green	0.16	0.36	0.36	0.06	0.26	0.26	0.10	0.41	0.00	0.15	0.45	0.45
Sat Flow, veh/h	3456	3554	1558	1781	2231	1197	1781	3554	1585	1781	3554	1577
Grp Volume(v), veh/h	516	829	203	81	447	417	180	1051	0	239	918	535
Grp Sat Flow(s),veh/h/ln	1728	1777	1558	1781	1777	1652	1781	1777	1585	1781	1777	1577
Q Serve(g_s), s	23.6	31.0	15.3	7.2	39.9	40.0	11.1	46.0	0.0	16.2	34.5	54.3
Cycle Q Clear(g_c), s	23.6	31.0	15.3	7.2	39.9	40.0	11.1	46.0	0.0	16.2	34.5	54.3
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	555	1293	567	100	461	428	229	1095		251	1206	535
V/C Ratio(X)	0.93	0.64	0.36	0.81	0.97	0.97	0.78	0.96		0.95	0.76	1.00
Avail Cap(c_a), veh/h	572	1293	567	184	461	428	229	1095		251	1206	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.3	42.2	37.2	74.7	58.7	58.7	37.5	46.2	0.0	44.1	38.5	43.9
Incr Delay (d2), s/veh	21.2	0.8	0.1	5.8	34.2	36.0	10.9	15.0	0.0	43.4	4.6	38.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	13.9	5.9	3.5	22.3	21.0	5.4	21.7	0.0	12.4	15.1	25.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.4	43.1	37.4	80.5	92.8	94.7	48.4	61.2	0.0	87.5	43.0	82.7
LnGrp LOS	F	D	D	F	F	F	D	E		F	D	F
Approach Vol, veh/h		1548			945			1231			1692	
Approach Delay, s/veh		57.1			92.6			59.3			61.8	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	55.8	15.5	64.7	19.0	60.8	32.2	48.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	48.5	16.5	51.5	12.5	53.5	26.5	41.5
Max Q Clear Time (g_c+I1), s	18.2	48.0	9.2	33.0	13.1	56.3	25.6	42.0
Green Ext Time (p_c), s	0.0	0.3	0.0	4.3	0.0	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	65.3
HCM 6th LOS	E

Notes

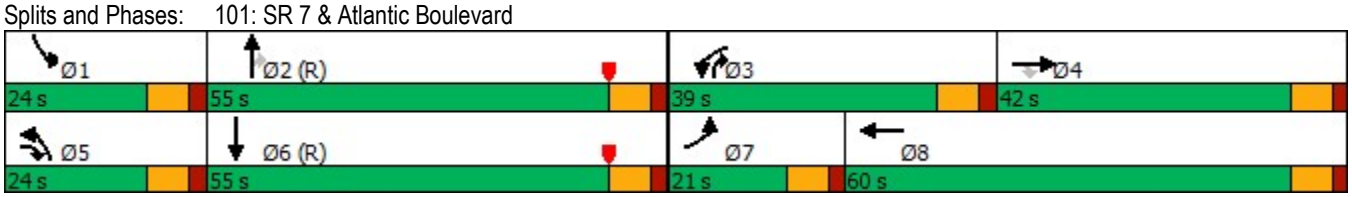
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	305	909	303	649	1537	239	1249	490	156	1245
Future Volume (vph)	305	909	303	649	1537	239	1249	490	156	1245
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	5	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	4.0	6.0	5.0	4.0	6.0	5.0	8.0	4.0	5.0	8.0
Minimum Split (s)	11.0	42.0	12.0	11.0	59.0	12.0	50.0	11.0	12.0	50.0
Total Split (s)	21.0	42.0	24.0	39.0	60.0	24.0	55.0	39.0	24.0	55.0
Total Split (%)	13.1%	26.3%	15.0%	24.4%	37.5%	15.0%	34.4%	24.4%	15.0%	34.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	14.0	35.2	52.2	31.8	53.0	17.0	48.9	80.6	16.1	48.0
Actuated g/C Ratio	0.09	0.22	0.33	0.20	0.33	0.11	0.31	0.50	0.10	0.30
v/c Ratio	1.04	0.83	0.53	0.97	1.04	1.30	0.82	0.61	0.89	0.99
Control Delay	130.3	67.0	26.1	91.2	83.6	216.4	50.6	19.2	113.9	75.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	130.3	67.0	26.1	91.2	83.6	216.4	50.6	19.2	113.9	75.8
LOS	F	E	C	F	F	F	D	B	F	E
Approach Delay		71.5			85.7		62.9			79.4
Approach LOS		E			F		E			E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 114 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.30	
Intersection Signal Delay: 75.4	Intersection LOS: E
Intersection Capacity Utilization 115.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Atlantic Boulevard



Queues
101: SR 7 & Atlantic Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	311	928	309	662	1725	244	1274	500	159	1489
v/c Ratio	1.04	0.83	0.53	0.97	1.04	1.30	0.82	0.61	0.89	0.99
Control Delay	130.3	67.0	26.1	91.2	83.6	216.4	50.6	19.2	113.9	75.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	130.3	67.0	26.1	91.2	83.6	216.4	50.6	19.2	113.9	75.8
Queue Length 50th (ft)	~179	343	146	358	~707	~321	489	224	166	565
Queue Length 95th (ft)	#283	400	239	#484	#802	#501	548	473	#297	#678
Internal Link Dist (ft)		2560			1156		2623			1036
Turn Bay Length (ft)	280		330	525		400		270	395	
Base Capacity (vph)	300	1120	588	686	1662	188	1552	817	188	1501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.83	0.53	0.97	1.04	1.30	0.82	0.61	0.85	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: SR 7 & Atlantic Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	909	303	649	1537	154	239	1249	490	156	1245	215
Future Volume (veh/h)	305	909	303	649	1537	154	239	1249	490	156	1245	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	928	309	662	1568	157	244	1274	500	159	1270	219
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	1117	501	691	1557	156	189	1562	782	179	1306	225
Arrive On Green	0.09	0.22	0.22	0.20	0.33	0.33	0.14	0.41	0.41	0.13	0.40	0.40
Sat Flow, veh/h	3456	5106	1522	3456	4701	470	1781	5106	1520	1781	4352	750
Grp Volume(v), veh/h	311	928	309	662	1135	590	244	1274	500	159	993	496
Grp Sat Flow(s),veh/h/ln	1728	1702	1522	1728	1702	1767	1781	1702	1520	1781	1702	1698
Q Serve(g_s), s	14.0	27.8	27.5	30.3	53.0	53.0	17.0	35.4	39.5	14.0	45.9	45.9
Cycle Q Clear(g_c), s	14.0	27.8	27.5	30.3	53.0	53.0	17.0	35.4	39.5	14.0	45.9	45.9
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	302	1117	501	691	1128	585	189	1562	782	179	1021	509
V/C Ratio(X)	1.03	0.83	0.62	0.96	1.01	1.01	1.29	0.82	0.64	0.89	0.97	0.97
Avail Cap(c_a), veh/h	302	1117	501	691	1128	585	189	1562	782	189	1021	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	59.7	45.7	63.3	53.5	53.5	68.7	43.4	25.0	68.5	47.4	47.4
Incr Delay (d2), s/veh	59.3	5.3	2.0	24.1	28.4	39.2	154.7	3.4	2.8	34.1	22.3	33.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	12.6	10.8	15.7	27.1	29.9	15.7	14.8	13.9	7.9	21.7	23.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	132.3	65.0	47.8	87.4	81.9	92.7	223.4	46.8	27.8	102.6	69.8	81.1
LnGrp LOS	F	E	D	F	F	F	F	D	C	F	E	F
Approach Vol, veh/h		1548			2387			2018			1648	
Approach Delay, s/veh		75.1			86.1			63.5			76.3	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	56.0	39.0	42.0	24.0	55.0	21.0	60.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	17.0	48.0	32.0	35.0	17.0	48.0	14.0	53.0
Max Q Clear Time (g_c+I1), s	16.0	41.5	32.3	29.8	19.0	47.9	16.0	55.0
Green Ext Time (p_c), s	0.0	4.9	0.0	2.9	0.0	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	75.7
HCM 6th LOS	E

Notes

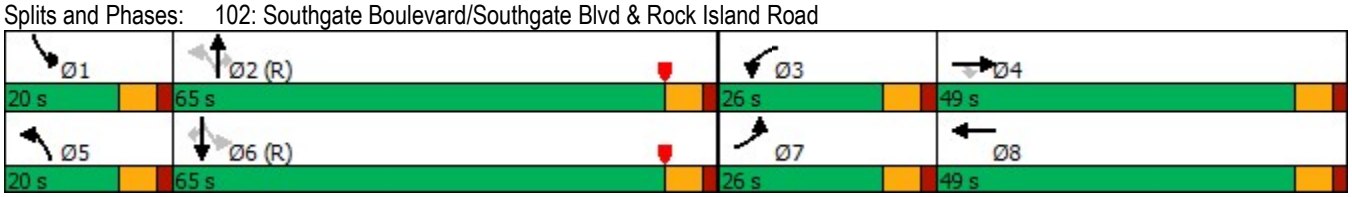
User approved pedestrian interval to be less than phase max green.

Timings
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	408	509	208	117	581	193	938	138	186	943	632
Future Volume (vph)	408	509	208	117	581	193	938	138	186	943	632
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	4.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	11.5	36.5	36.5	11.5	47.5	10.5	44.5	44.5	10.5	44.5	44.5
Total Split (s)	26.0	49.0	49.0	26.0	49.0	20.0	65.0	65.0	20.0	65.0	65.0
Total Split (%)	16.3%	30.6%	30.6%	16.3%	30.6%	12.5%	40.6%	40.6%	12.5%	40.6%	40.6%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.5	46.4	46.4	14.6	41.5	73.2	60.2	60.2	72.8	59.9	59.9
Actuated g/C Ratio	0.12	0.29	0.29	0.09	0.26	0.46	0.38	0.38	0.46	0.37	0.37
v/c Ratio	1.02	0.52	0.39	0.76	0.95	0.86	0.73	0.22	0.84	0.74	0.83
Control Delay	115.9	50.1	15.8	84.4	57.9	75.1	35.9	6.9	55.5	47.8	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	50.1	15.8	84.4	57.9	75.1	35.9	6.9	55.5	47.8	32.0
LOS	F	D	B	F	E	E	D	A	E	D	C
Approach Delay		67.6			61.2		38.7			43.0	
Approach LOS		E			E		D			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 80 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 50.7	Intersection LOS: D
Intersection Capacity Utilization 99.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 102: Southgate Boulevard/Southgate Blvd & Rock Island Road



Queues
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	425	530	217	122	853	201	977	144	194	982	658
v/c Ratio	1.02	0.52	0.39	0.76	0.95	0.86	0.73	0.22	0.84	0.74	0.83
Control Delay	115.9	50.1	15.8	84.4	57.9	75.1	35.9	6.9	55.5	47.8	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	50.1	15.8	84.4	57.9	75.1	35.9	6.9	55.5	47.8	32.0
Queue Length 50th (ft)	~241	243	46	134	434	133	356	4	114	474	345
Queue Length 95th (ft)	#355	317	128	m132	m#482	#263	341	51	#237	560	547
Internal Link Dist (ft)		387			3410		1324			1269	
Turn Bay Length (ft)	315		140	315		350			180		190
Base Capacity (vph)	418	1025	558	215	922	238	1330	657	239	1325	791
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.52	0.39	0.57	0.93	0.84	0.73	0.22	0.81	0.74	0.83

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
102: Southgate Boulevard/Southgate Blvd & Rock Island Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	509	208	117	581	238	193	938	138	186	943	632
Future Volume (veh/h)	408	509	208	117	581	238	193	938	138	186	943	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	425	530	217	122	605	248	201	977	0	194	982	658
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1074	469	143	636	260	239	1332		279	1323	579
Arrive On Green	0.12	0.30	0.30	0.08	0.26	0.26	0.11	0.50	0.00	0.11	0.50	0.50
Sat Flow, veh/h	3456	3554	1551	1781	2442	1000	1781	3554	1585	1781	3554	1555
Grp Volume(v), veh/h	425	530	217	122	440	413	201	977	0	194	982	658
Grp Sat Flow(s),veh/h/ln	1728	1777	1551	1781	1777	1665	1781	1777	1585	1781	1777	1555
Q Serve(g_s), s	19.5	19.6	18.2	10.8	38.9	39.0	11.2	34.8	0.0	10.8	35.3	59.6
Cycle Q Clear(g_c), s	19.5	19.6	18.2	10.8	38.9	39.0	11.2	34.8	0.0	10.8	35.3	59.6
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1074	469	143	463	434	239	1332		279	1323	579
V/C Ratio(X)	1.01	0.49	0.46	0.86	0.95	0.95	0.84	0.73		0.70	0.74	1.14
Avail Cap(c_a), veh/h	421	1074	469	217	472	442	242	1332		286	1323	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	45.8	45.3	72.7	58.2	58.2	34.0	33.8	0.0	31.5	34.2	40.4
Incr Delay (d2), s/veh	46.2	0.1	0.3	12.2	28.7	30.2	17.4	2.8	0.0	5.8	3.8	80.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	8.8	7.1	5.5	21.2	20.1	5.8	14.7	0.0	5.0	15.1	34.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.4	45.9	45.5	84.9	86.8	88.4	51.3	36.6	0.0	37.3	38.0	121.2
LnGrp LOS	F	D	D	F	F	F	D	D		D	D	F
Approach Vol, veh/h		1172			975			1178			1834	
Approach Delay, s/veh		71.4			87.2			39.1			67.8	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	66.5	19.3	54.9	19.7	66.1	26.0	48.2
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	58.5	19.5	42.5	13.5	58.5	19.5	42.5
Max Q Clear Time (g_c+I1), s	12.8	36.8	12.8	21.6	13.2	61.6	21.5	41.0
Green Ext Time (p_c), s	0.0	7.4	0.0	2.8	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	65.7
HCM 6th LOS	E

Notes

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