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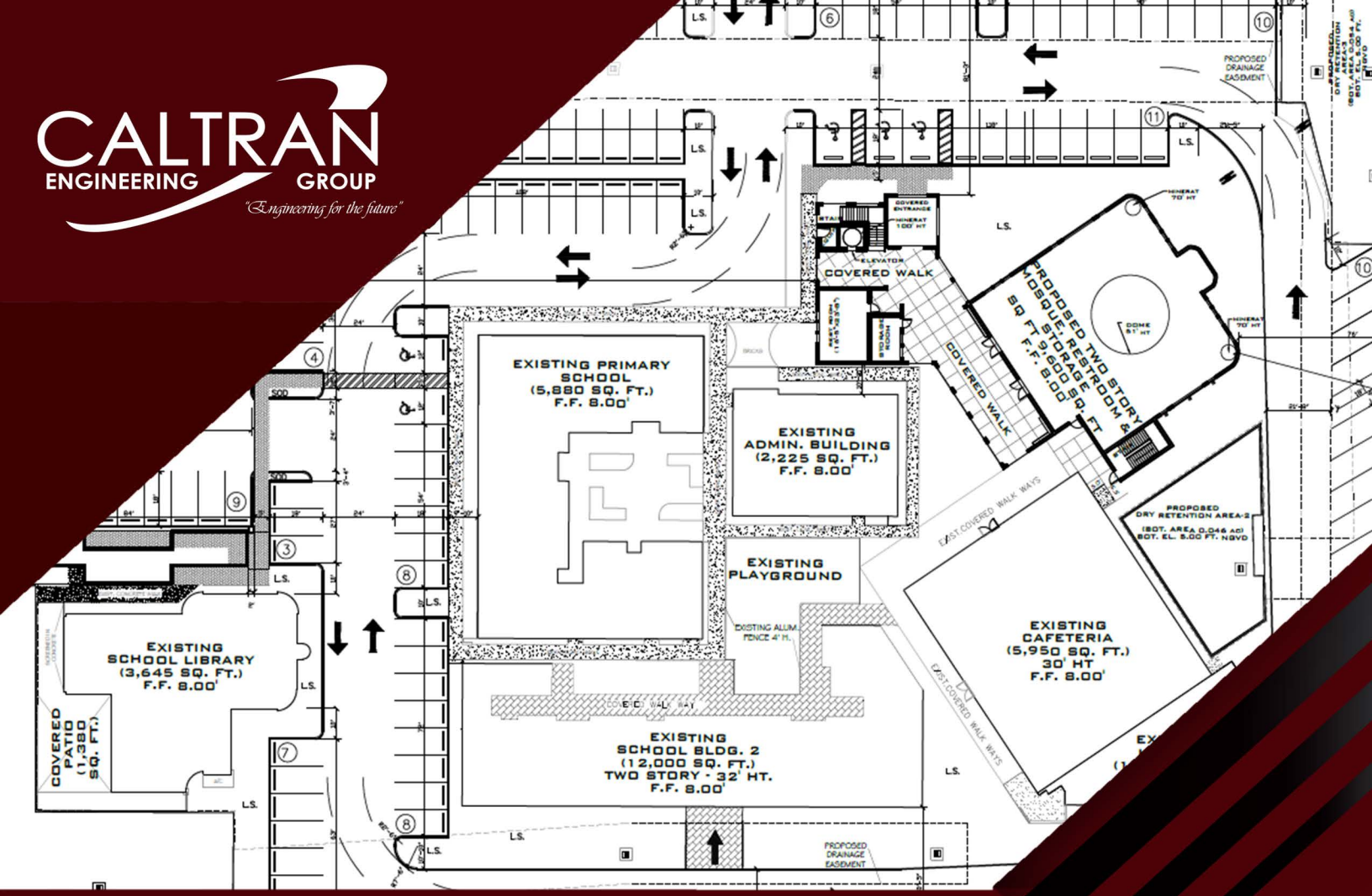


NUR-UL-ISLAM of South Florida

Traffic Impact Study

10600 SW 59th Street Cooper City, FL 33328

Prepared by:

Caltran Engineering Group, Inc.
790 NW 107 Avenue, Suite 200
Miami, FL 33172
Phone: 786-456-7700
Fax: 786-513-0711

Nur-Ul-Islam – Traffic Review
Response Memorandum

September 2022

City of Cooper City
Planning and Zoning Department
9090 SW 50 Place
Cooper City, FL 33328

Department	TRAFFIC
Comment:	15. Please ensure that the handicap parking spaces are oriented appropriately on all plan sheets per the handicap accessible parking space details and criteria. This comment applies to all ADA spaces. The standard parking space dimensions should be a minimum of 9' wide x 18' long per Section 25-5 of the Code of Ordinances. The handicap parking space dimensions should have a minimum width of 12' per Section 25-5 of the Code of Ordinances. This comment is still pending.
Response:	Site plan was modified and handicap parking spaces are oriented appropriately now.
Comment:	20. Please update all references to Hiatus Avenue to be Hiatus Road. Please provide a proportionate fair share calculation for the turn lane extensions required to achieve the 95th percentile vehicle queues in the Scenario 3 buildout condition. This should be based on the Queue Analysis summarized in Tables 20 and 21. The turn lane storage lengths will need to be extended to achieve the maximum 95th percentile vehicle queue stacking. Please provide the proportionate fair share calculations for the southbound left turn lane at Stirling Road and SW 106th Avenue intersection. Please ensure that the future southbound left turn lane extension at the Stirling Road and SW 106th Avenue will work with the northbound left turn lane at the SW 106th Avenue and SW 59th Street intersection. Please provide the proportionate fair share calculations for the northbound left/right turn lane extensions at the Griffin Road and SW 106th Avenue intersection. Please note that the Kingfisher Reserve and Chabad of SW Broward development projects. TCG's 07/29/22 Response: This item is still pending. A condition of approval will be prepared related to the required off-site traffic mitigation improvements and submitted as part of the staff report of findings for the required public hearings. Please note that the proportionate fair share calculations will utilize the previously prepared opinion of probable costs for the Stirling Road and SW 106th Avenue and Griffin Road and SW 106th Avenue off-site traffic mitigation improvements (prepared by KHA dated 10/17/19).
Response:	Agree, a fair share participation for off-site improvements is expected as part of this project.
Comment:	21. Please update the traffic impact study narrative to reference the additional traffic data collection and traffic analysis at Stirling Road and Palm Avenue signalized intersection. Please update all relevant Figures to depict the necessary count locations and volumes per scenario.
Response:	Traffic Report have been updated to include the additional traffic data collection and traffic analysis at Stirling Road and Palm Avenue signalized intersection.

Comment:	22. Please update the traffic impact study narrative to reference the additional offsite traffic mitigation improvements at the Stirling Road and SW 106th Avenue and Griffin Road and SW 106th Avenue intersections. This should be added to the Executive Summary and Summary of Findings and Recommendations.
Response:	The Traffic Report have been updated to include the additional offsite traffic mitigation improvements at the Stirling Road and Southwest 106th Avenue and Griffin Road and Southwest 106th Avenue intersections in the Executive Summary and Summary of Findings and Recommendations.
Comment:	23. Please update the School Traffic Operations Plan to include a planned arrival drop off and dismissal pick-up plan that directs parents to utilize SW 110th Avenue and SW 59th Street as ingress into the Nur Islam development. The proposed northbound left turn lane on SW 106th Avenue at SW 59th Street is limited due to the turn lane extension for the southbound left turn lane on SW 106th Avenue at Stirling Road. There is room for extended vehicle stacking off-site on SW 59th Street coming from the west. A post development field vehicle queuing study will be required of the applicant after the increased enrollment has been implemented. If there are queuing issues observed after the increased enrollment, an eastbound right turn lane on SW 59th Street at the Nur Islam driveway may need to be constructed/installed. A condition of approval will be developed requiring this post development field vehicle queuing study.
Response:	Executive Summary and Summary of Findings and Recommendations were updated to recommend a new traffic operation plan (TOP) aim to assign extra vehicular traffic to the intersection of Southwest 110th Avenue at Southwest 59th Street and then approach the school westbound though Southwest 59th Street.

DATE: September 13, 2022

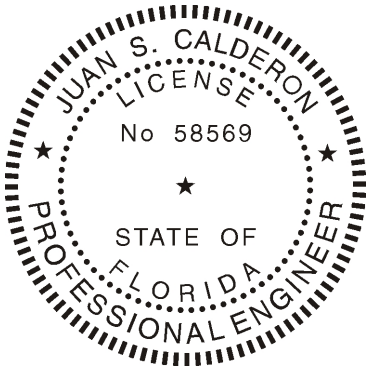
FROM: Juan S. Calderon, P.E., PTOE, Project Manager

TO: Salah Elroweny, AIA, CGC, LEED AP.
Innovative Group Inc.
480 S. Cypress Road #100
Pompano Beach, FL 33060

SUBJECT: NUR-UL-ISLAM of South Florida – Traffic Impact Study

Engineer's Certification

I, Juan S. Calderon, certify that I currently hold an active Professional Engineer's License in the State of Florida and I am competent through education and experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. I further certify that this report was prepared by me, or under my responsible charge, as required by Chapter 61G15-18 F.A.C. and that all statements, conclusions and recommendations made herein are true and correct to the best of my knowledge and ability.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Juan S Calderon
2022.09.14 11:33:45 -04'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CALTRAN ENGINEERING GROUP
790 NW 107 AVENUE, Suite 200
MIAMI, FL 33172
CERTIFICATE OF AUTHORIZATION 29379
JUAN S. CALDERON, P.E. NO. 58569

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1.0 Executive Summary

CALTRAN Engineering Group, Inc. (CALTRAN) was retained by NUR-UL-ISLAM Academy of South Florida to assess the traffic impact with regards to the proposed expansion of the School and Mosque located at 10600 Southwest 59th Street Cooper City, Florida 33328-6421. The School and Mosque occupy an existing gross site of 174,514 S.F. (4.0 acres) and is currently zoned as an Institutional and Educational District (I-1). As part of this project, the Mosque is expected to be expanded from *5,950 S.F. to 7,685 S.F.* and the student body population will be increased from *425 students to 560 students*.

As part of the Traffic Impact Analysis, CALTRAN has prepared the following tasks:

- Assessment of the impact area, roadways, intersections and pedestrian facilities.
- Review of proposed site plan and committed developments around the area.
- Traffic Data collection;
  - 24-hour Volume Counts at 5 critical segments.
  - 6-hour Turning Movement Counts (TMCs) at 7 critical intersections.
  - 2-hour AM and 2-hour PM queue accumulation along drop off / pick up lane(s).
  - 2-hour parking accumulation.
- Evaluate potential Traffic Growth including committed developments.
- Perform Trip Generation and Trip Distribution analysis.
- Provide a micro-simulation of existing and future conditions for the AM, Mid-Day and PM peak periods.
- Evaluate queues and parking analysis for staff, faculty, students and parents.
- Determine additional traffic improvements and recommendations to mitigate impacts.

Based on the analysis, the site could generate the following maximum additional trips:

- For the AM peak period (7:30 AM to 8:30 AM), a maximum of 117 additional trips are expected to be generated onto the adjacent roadway.

- For the PM peak period (2:00 PM to 3:00 PM), a maximum of 41 additional trips are expected to be generated onto the adjacent roadway.

Under HCM 6th edition methodologies, the studied intersections are projectfed to experience nominal additional delays after applying the growth factor as well as the forecasted trips generated by the proposed developments. It is concluded that most of the intersections are not expected to reach over-saturated conditions per the development build-out conditions.

As part of the analysis, an exclusive northbound left and eastbound right turn lane at the intersection of Southwest 106th Avenue and Southwest 59th Street is recommended as off-site improvements to enhance capacity and safety.

A parking analysis was performed for the site. For Future Build-out condition is to provide a total of 150 parking spaces. Based on off-street parking requirements per Cooper City Ordinance Section 25-4, the site will provide an excess of 73 parking spaces per Mosque requirements and

an excess of 100 spaces per the private school requirements. It can be concluded that both the school and mosque will provide adequate parking supply to meet city ordinance.

A queue analysis was performed for the development build-out conditions to assess the storage capacity of drop off/pick up trips. Based on the analysis, 19 vehicles will be waiting to be serviced for 5% of the time. The proposed available storage capacity of 750 feet length for the drop-off/pick up lane as per the site plan is adequate to handle queued vehicles internally within the site.

A concurrency analysis pursuant to the Concurrency Management System was performed on the roadways adjacent to the site development. Based on the analysis, both Stirling Road and Southwest 106th Avenue will maintain an acceptable Level of Service with minimal impacts to the major arterials upon future buildout conditions.

As a result, the following off-site improvements mitigation measures are recommended:

- Signal timing optimization is recommended as a mitigation measure at the intersection of Stirling Road & Hiatus Road.
- Implementation of an eastbound left turn lane for Southwest 59th Street at Southwest 106th Avenue.
- Implementation of a northbound left turn lane at Southwest 59th Street with Southwest 106th Avenue. This improvement is constrained by the lengthening of the existing southbound left-turn lane at the intersection of Southwest 106th Avenue and Stirling Road as proposed for the development of Kingfisher Reserve and Chabad Southwest Broward. A revision of the transition zone for the proposed southbound left turn at the intersection of Stirling Road and Southwest 106th Avenue is also recommended. Currently a 135 feet transition zone is proposed for the aforementioned turn lane, as the length of the transition zone will be limiting the implementation of the proposed northbound left turn lane of Southwest 106th Avenue and Southwest 59th Street. Thus, a back-to-back left turn condition could be implemented along Southwest 106th Avenue between Stirling Road and Southwest 59th Street if a 50-foot taper is considered.
- Lengthening of the existing southbound left-turn lane at the intersection of Southwest 106th Avenue and Stirling Road, this improvement is associated to the developments of Kingfisher Reserve and Chabad Southwest Broward and Nur Ul Islam will have a fair share participation.
- Lengthening of the existing northbound left-turn lane at the intersection of Southwest 106th Avenue and Griffin Road, this improvement is associated to the developments of Kingfisher Reserve and Chabad Southwest Broward and Nur Ul Islam will have a fair share participation.

The school should coordinate the implementation of a new traffic operation plan (TOP) aim to assign extra vehicular traffic to the intersection of Southwest 106th Avenue at Southwest 59th Street and then approach the school westbound thought Southwest 59th Street.

In summary and based on this traffic impact study, the proposed expansion of NUR-UR-Islam will not have an adverse impact on the surrounding roadway network and/or affect other traffic generators in the area upon implementation of the recommended off-site improvements.

2.0 Methodology

This traffic study includes an assessment of the existing and future traffic demands proposed by the re-development of the NUR-UL Islam Academy including nearby committed developments, field observations, data collection, safety analysis, and traffic mitigation measures. This report follows the methodologies adopted by the Institute of Transportation Engineers (ITE), Cooper City Guidelines and Broward County Public Works Department standards. Traffic operations were analyzed using the capacity analysis methodology published in the Highway Capacity Manual (HCM) through Synchro 11 analysis software.

Table 1 below provides a summary of the development's operational hours for a typical weekday including Friday Mosque operations. Based on the Islamic religion, Mosque standard operations on Friday include a 15-minute mandatory religious prayer following a non-mandatory service. Currently, the Mosque holds its mandatory prayer between 1:55 PM to 2:10 PM

Table 1: NUR-UL-Islam Operational Hours

Land Use	Days of Operation	Start	End
School	Monday – Thursday	7:30 AM	3:00 PM
	Friday	7:30 AM	12:00 PM
Worship	Friday	12:30 PM	2:30 PM

Three scenarios were analyzed as part of the traffic impact analysis. The three scenarios are;

Scenario 1 - *Existing Conditions:* Current traffic evaluation for a base condition establishment during a typical day during peak hours of operations. The following reflects the peak hours of operations:

- From 7:00 AM to 9:00 AM; in regards to the school arrival hours (Friday),
- From 11:30 AM to 1:30 PM; in regards to the Mosque arrival and school dismissal (Friday),
- From 2:00 PM to 4:00 PM; in regards to the Mosque dismissal hours (Friday).

Scenario 2 - *Future Conditions / Background Traffic Growth and Committed Developments:* A growth rate was factored into the *Scenario 1*. Growth Factor (GF) was obtained for the number of

years until the proposed re-development build-out condition (2023). Included into *scenario 2* are committed developments anticipated to affect the network.

Scenario 3 - *Future Build-Out:* Based on the results obtained in the *Scenario 2*, addition of the AM, Mid-day and PM peak hour trips generated under the 11th Edition of The ITE Trip Generation Handbook, through the Online Traffic Impact Study Software (OTISS), are applied to the roadway network. Arterial and intersection analysis was performed consistent with latest HCM methodologies.

For each of the three scenarios, A Synchro 11 traffic simulation was evaluated in order to identify areas of potential deficiencies. A Level of Service (LOS) analysis is provided to assess the existing, future and Build-out scenarios for each of the seven (7) intersections/driveways in concern.

As part of the review process, the parking demand generated by the proposed expansion was fully analyzed under the 4th Edition ITE Parking Generation Manual and Broward County Code of Ordinances.

3.0 Introduction

Due to the Islamic population growth of South Florida, NUR-UL Islam Academy and Mosque has become an imperative education and worship center. It is well-known that on Friday, mid-day worship session poses the most significant vehicular demands for mobility and parking demands under the Islamic worship tradition. This study intents to demonstrate that the proposed improvements as part of the re-development planned for the School and Mosque expansion will not have adverse traffic impacts throughout the roadway network for present and future traffic conditions in-order to continue developing a healthy environment around the site and nearby neighborhoods.

NUR-UL Islam of South Florida is located at 10600 Southwest 59th Street, Cooper City, Florida 33328-6421, under folio No. 5041-31-21-0010 within Broward County. Architectural Plans of the proposed re-development can be found in **Appendix A**.

The previously utilized Mosque building located at the southwest corner of the development has successfully undergone its conversion as the new school library building. Thus, the Multi-purpose Hall/Cafeteria that is being utilized as current worship area, with a total floor space of 5,950 S.F. not including the kitchen. Upon build-out, the new Mosque will provide a total defined floor space of 7,685 S.F. for worship area (not including restrooms and storage area)**.**

In summary, the Mosque is expected to be expanded from *5,950 S.F. to 7,685 S.F.* and the student population, upon school expansion, will be increased from *425 students to 560 students*. A project location map illustrating the site area along with the impacted study intersections and data collection sites is provided in on the following page as **Figure 1**.

Figure 1: Project Location Map

4.0 Existing Geometric Conditions

A detailed field review was conducted to determine the existing intersection geometry, traffic control devices, signal phasing, pedestrian facilities and other factors which may affect intersection or roadway segment capacity. The following is a detailed description of roadway characteristics in the study area:

4.1. Roadway Segments

Stirling Road is a two-way, divided east-west Urban Minor Arterial under jurisdiction of Cooper City (Active-Off System FDOT Section ID 86000002). Stirling Road has a 45-mph posted speed limit. Typical section consists of a 4-lane (2 lanes per direction) road at 24 feet of pavement width and a 12-foot lawn shoulder followed by a 5-foot sidewalk for each side. The median is composed of an 18-foot curbed with lawn section.

Southwest 59th Street is a local road which runs east-west as a two-way undivided roadway with a single lane per direction and under jurisdiction of the Town of Davie. Typical section of the segment consists of 22-foot pavement width and lawn shoulders on both sides of the road.

Southwest 106th Avenue is a two-way composite roadway with a single lane per direction running north-south along the east side of the NUR-UL-ISLAM of South Florida parcel and under jurisdiction of the City of Cooper City. Typical section consists of 22-foot pavement width, lawn and sidewalk along the east side and a guard rail along the west side of the road. This segment currently serves as a local collector with occasional driveway connections to the east-side and connections to local roads on the west side.

Southwest 110th Avenue is a two-way composite local road with a single lane per direction running north-south and under jurisdiction of the City of Cooper City. Existing typical section consists of 16 foot of pavement width, lawn along the east side and a fence with vegetation along the west side.

4.2. Intersections

The following is a detailed description of the characteristics of the intersections adjacent to the Nur-Ul-Islam development in the study area.

Stirling Road at Southwest 106th Avenue is a four-legged signalized intersection under the asset ID 3446 by the Broward County Signal Division. This intersection provides a semi-actuated Time of Day Plan (TOD) which the eastbound and westbound phases operate with a lead protected-permissive left-turn phase while a permissive phase for the northbound and southbound left turn movements operation. Southwest 106th Avenue, northbound and southbound approaches consist of one separate lane for through movements and exclusive right and left turn lanes. Along Stirling Road, the eastbound/westbound approaches are composed of two through lanes, and exclusive left and right turn lanes. Sidewalks are provided along all four legs and crosswalks are provided across the east and south legs.

Southwest 106th Avenue at Southwest 59th Street is currently a two-way (four-legged) un-signalized intersection. The eastbound and westbound approaches are stop-controlled allowing for free flow in the northbound, southbound directions. No auxiliary lanes are present at the intersection.

Southwest 110th Avenue at Southwest 59th Street is a two-way (three-legged) un-signalized intersection. The westbound approach operates as a stop-controlled approach allowing for free flow in the northbound, southbound directions. No auxiliary lanes are present at the intersection.

5.0 Traffic Data Collection

Consistent with Broward County standard methodologies, traffic data was collected on the typical weekdays of Thursday April 8, 2021 (school active) and Friday April 9, 2021 pertaining to the critical worship day per Islamic tradition. Traffic data collection efforts include seven (7) intersections 6-hour Turning Movement Counts (TMC) and three (3) 24-hour bi-directional machine counts along concerned roadway segments. Raw data collection can be found in **Appendix B**.

Analysis of the Thursday vs. Friday data collection for each peak hour resulted in Friday providing similar to more traffic and site demand volumes. Therefore, Friday traffic data collection was analyzed in place of Thursday to retain consistency.

5.1. 24-Hour Bi-directional Volumes

24-hour bi-directional machine volume counts were collected along Stirling Road, Southwest 106th Avenue and Southwest 59th Street. Counts are summarized in **Table 2**:

Table 2: Current Traffic Volumes

Location	Date Collected	Peak Hour	Hour	NB/EB Volume	SB/WB Volume	Peak Hour Total	24-Hr Total
(A) SW 59 Street W of 106 ST	Thursday 4/8/21	AM	7:30	55	34	89	601
		PM	1:15	40	38	78	
	Friday 4/9/21	AM	7:30	41	45	86	844
		PM	1:30	128	107	235	
(B) SW 106 Avenue S of SW 59 ST	Thursday 4/8/21	AM	7:45	210	164	374	4,383
		PM	5:15*	193	230	423	
	Friday 4/9/21	AM	7:30	199	166	365	4,296
		PM	2:00	134	220	354	
(C) Stirling Road W of SW 106 ST	Thursday 4/8/21	AM	7:30	855	761	1,616	23,068
		PM	5:15*	987	1,112	2,099	
	Friday 4/9/21	AM	7:45	959	733	1,692	22,956
		PM	5:00*	247	1,078	1,953	

Note: Raw data, no conversion factors were applied.

5.2. Peak Hour Turning Movement Counts (TMC)

Data collection for the Peak Hours Turning Movement Counts (TMC) were performed on Friday April 9, 2021. Peak turning movement traffic counts were collected at the following intersections:

1. Southwest 59th Street & NUR-UL Islam Driveway.
2. Southwest 59th Street & Southwest 106th Avenue.
3. Stirling Road & Southwest 106th Avenue.
4. Stirling Road & 110th Avenue.
5. Stirling Road & Hiatus Road.
6. Griffin Road & 106th Avenue
7. Stirling Road & Palm Avenue

As per standard methodology, raw TMCs were adjusted for Peak Hour Factor (PHF) given by the overall intersection performance. In addition, a FDOT Peak Season Conversion Factor (PSCF) of 1.45 based on FDOT Traffic Online (FTO) category 8630 was applied to the raw TMCs. **Appendix B** provides the Raw Data counts.

6.0 Scenario 1 – Existing Conditions

The traffic data analysis concluded that Friday school arrival time generate similar trips in comparison to Thursday AM arrival times. Therefore, traffic operational analysis was performed for the Friday throughout to retain consistency.

For the existing Mid-day peak traffic demands for the school dismissal and Mosque arrival operational times, the following observations were concluded;

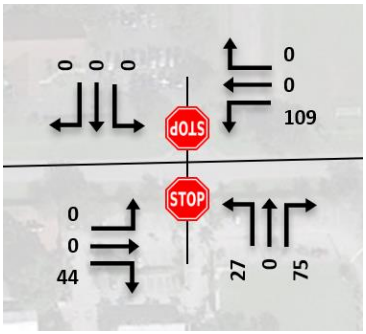
- The school departure time from 11:30 AM to 12:30 PM is non-concurrent to the Mosque arrival time which occur between 1:00 PM to 2:00 PM

- Mosque peak dismissal hour occurs between 2:15 PM to 2:45 PM; the data shows a substantial number of trips from 2:15 PM to 2:45 PM a 30-minute peak interval within the peak hour.

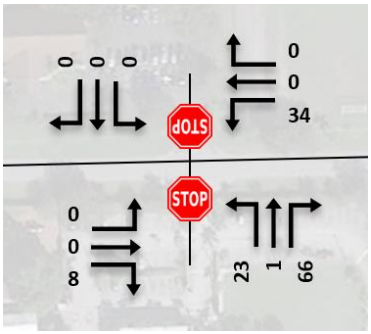
Trips entering and exiting the development were analyzed from the TMCs to complement the ITE trip generation projections. Based on TMCs at the NUR-UL-Islam driveway, the following counts were observed as shown in **Table 3** and **Figure 2**.

Table 3: NUR-UL-Islam Observed Peak Hour Trips

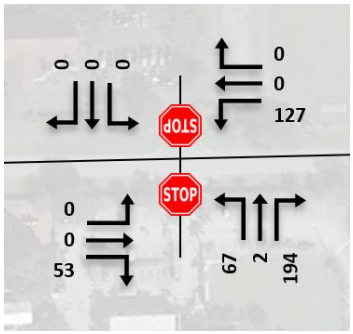
Facility	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour		
	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total
Existing	153	102	255	42	90	132	180	263	443



Friday Existing AM
School arrival Peak Hour
(7:30 AM to 8:30 AM)



Friday Existing Mid-Day
School Dismissal Peak Hour
(11:30 AM to 12:30 PM)



Friday Existing PM
Mosque dismissal Peak Hour
(2:15 PM to 3:15 PM)

Figure 2: Existing Friday NUR-UL-Islam Driveway Trips

Existing turning movement counts are illustrated in **Figures 3, 4 and 5**.

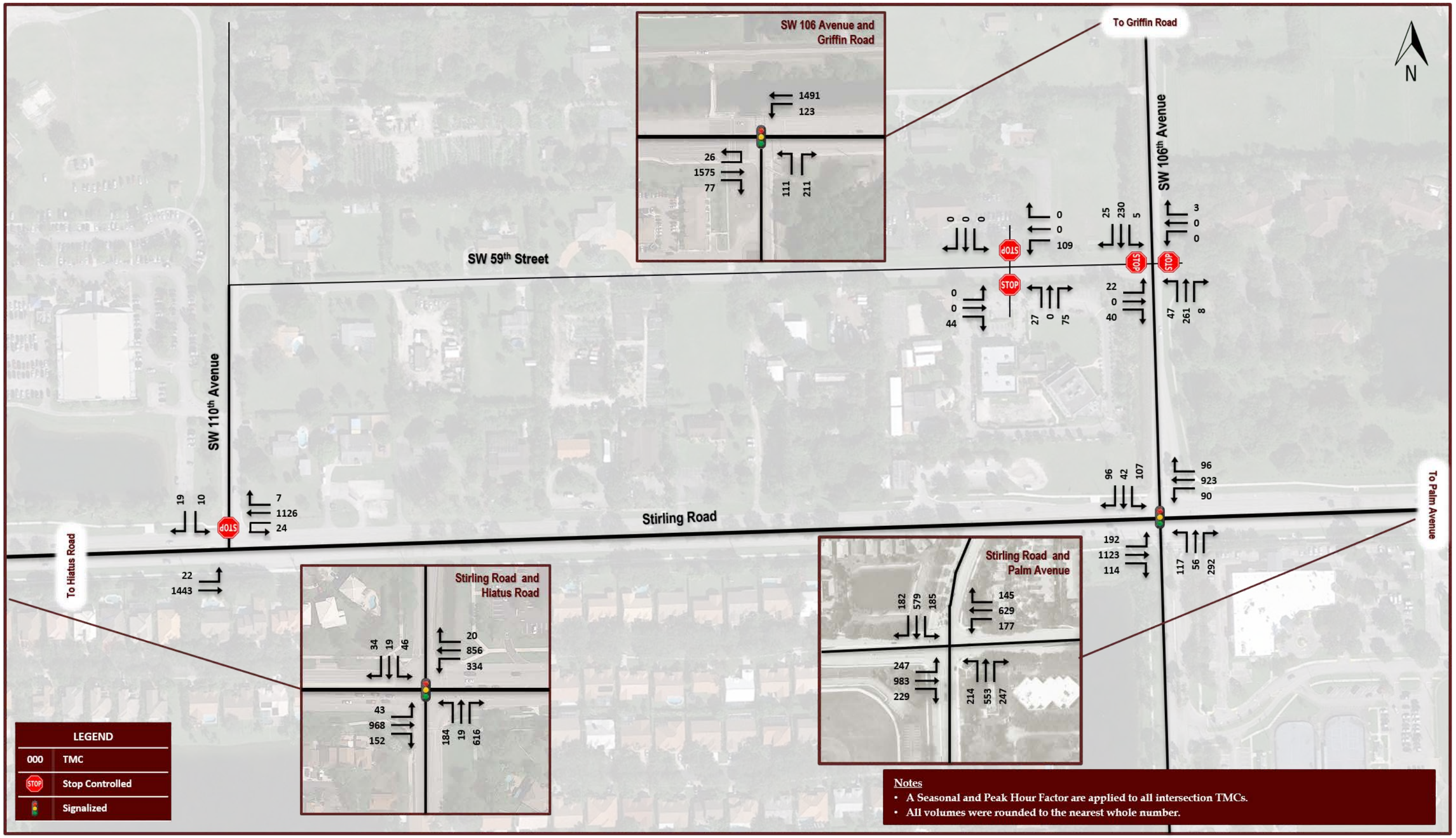


Figure 3: Scenario 1 – Existing Condition (Friday 7:00 AM to 9:00 AM) AM Peak Hour Traffic

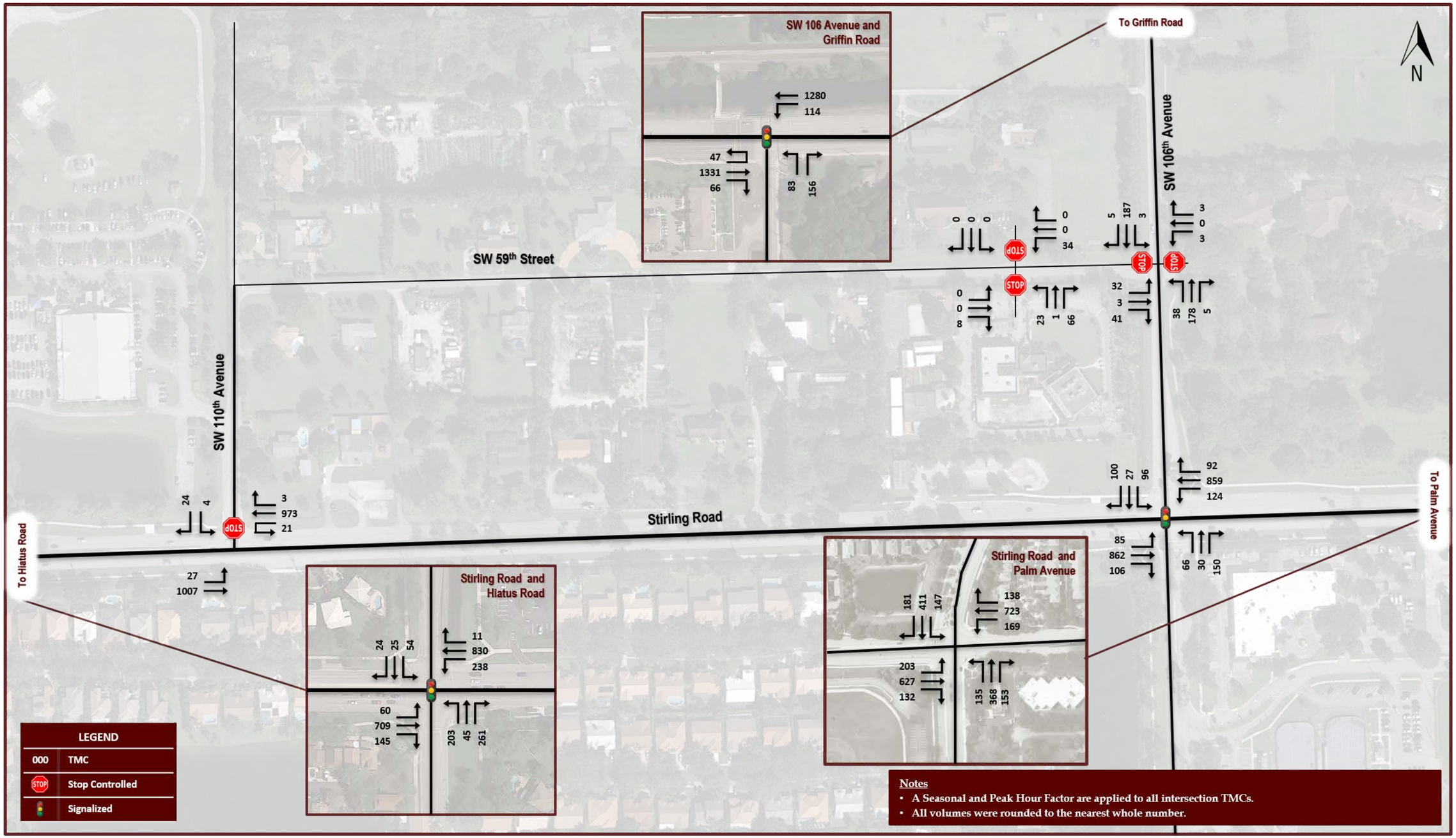


Figure 4: Scenario 1 – Existing Condition (Friday 11:30 AM to 12:30 PM) Mid-Day Peak Hour Traffic

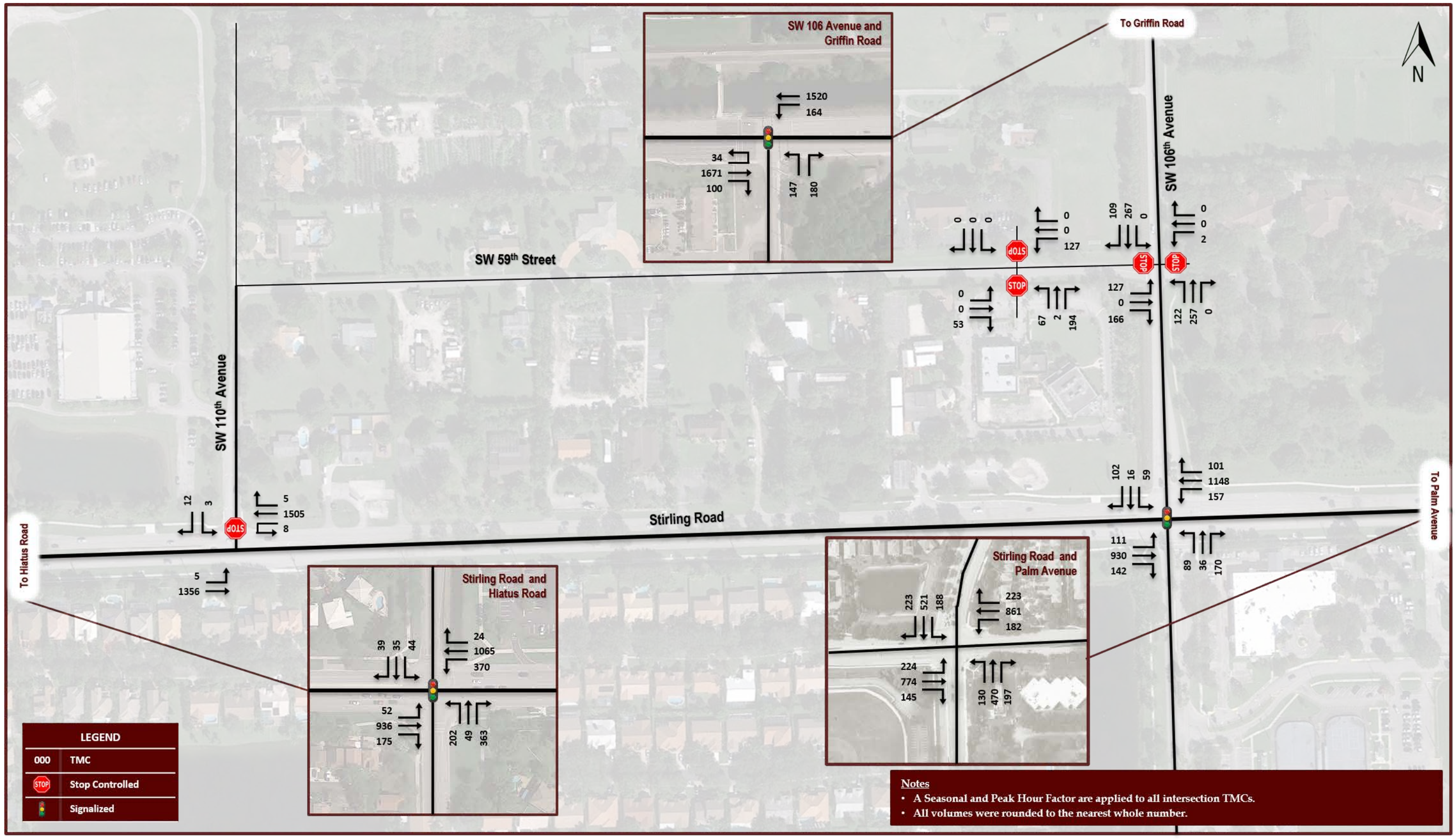


Figure 5: Scenario 1 – Existing Condition (Friday 1:00 PM to 4:00 PM) PM Peak Hour Traffic

7.0 Scenario 2 – Future Conditions, Before-Build:

A growth rate is factored into the *Scenario 1*. Growth Factor (GF) was obtained for the number of years until the proposed re-development build-out condition (2023). Included into *scenario 2* are committed developments anticipated to affect the network

7.1. Growth Analysis

Future traffic forecasts were developed for the years until expected NUR-UL-Islam of South Florida build-out by 2023. Within the project vicinity, Stirling Road is considered as the main arterial; Therefore, future growth rates were based on the most conservative volumes obtained through the FDOT Historical Trend Analysis and the South-East Regional Planning Modal version 8 (SERPM 8.0).

7.2. Historical Traffic Data

Based on the FDOT Florida Traffic Online (FTO), two (2) Traffic Monitoring Sites (TMS) were identified within the project area for growth analysis. Station 869091 was identified as the closest station to the project affected roadway network along with station 860115 to support the growth analysis. **Table 4** summarizes the historical AADT (Annual Average Daily Traffic). **Figure 6** shows the traffic monitoring site locations.

Table 4: FDOT Historical Traffic Volumes

FDOT Historical AADT Data						
Traffic Station	Location	Year AADT				
		2015	2016	2017	2018	2019
86-9091	Stirling Road., West of Palm Avenue.	28,000*	29,000	30,000*	30,000*	30,000*
86-0115	Griffin Road, East of Nob Hill Road (Palm Ave)	32,500	35,000	37,500	32,000	37,500

Notes:

- For Station 86-9091, AADT* counts were estimated for 2015, 2017,2018, and 2019.

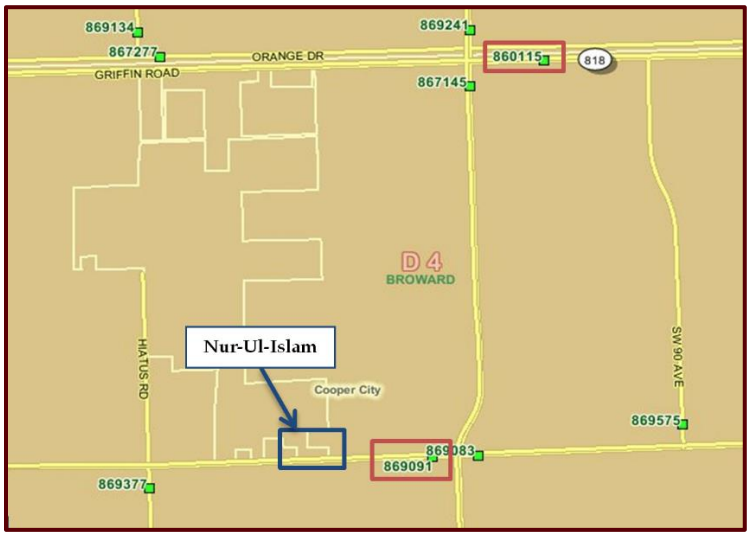


Figure 6: Traffic Monitoring Site Locations

7.3. Modeling Data

As per the South Florida Regional Traffic Analysis SERPM Model, highest AADT's variations in traffic between 2015 and 2045 were obtained. AADT volumes within the project limits are presented in **Table 5**. Reference to the regional modal can be seen in **Appendix C**.

Table 5: SERPM Projected Model Volumes

Source	Segment	Year	AADT
Model Volume	Stirling Road	2015	14,773
		2045	18,998
	Griffin Road	2015	22,809
		2045	32,086

7.4. Traffic Growth Analysis

Based on the FDOT Monitoring Sites, 2020 AADT's, and SERPM Model volumes; forecasted traffic volumes for the Opening-Year (2023) were obtained after analyzing and computing the appropriate and applicable forecast methodology. Forecast methodologies include the following:

- Regression analysis of 5 years of most recent historical AADTs from FDOT counts sites.
- Growth between the validation years 2015 and 2045 SERPM roadway volumes.

AADT volumes on FDOT's Traffic Monitoring Sites were studied for a historical annual growth rate by applying the three regression analyses (Linear, Exponential, and Decaying growth). FDOT-Traffic Trends Analysis Tool V2.0 was used for this analysis. A similar regression analysis

was performed under the SERPM 2015-2045 AADT Data. Trend analysis calculations are presented in **Table 6**.

Table 6: Projected Modal Growth Volumes

Analysis	Location	Distribution	Model Growth Rate	Trend R-square
FDOT Historical Trend Calculation	Stirling Road (86-9091)	Linear	1.76%	78.13%
		Exponential	1.72%	77.92%
		Decaying	1.90%	91.88%
	Griffin (86-0115)	Linear	2.09%	17.69%
		Exponential	1.96%	16.87%
		Decaying	2.19%	21.34%
SERPM 7.0 Model Calculation	Stirling Road (86-9091)	Linear	0.96%	100.00%
		Exponential	0.83%	100.00%
		Decaying	0.87%	100.00%
	Griffin (86-0115)	Linear	1.51%	100.00%
		Exponential	1.25%	100.00%
		Decaying	1.28%	100.00%

Note: R- Squared is a statistical measure of how well a regression line approximates real data points. This percentage is a descriptive measure between zero and one, indicating how good one term is at predicting another. Since there are only two inputs for this analysis (2015 and 2045), the R-Squared for the three statistical distributions is 100%. As the Decaying Exponential method for Stirling Road presents the higher Trend R-squared, an average growth rate between SERPM model and FDOT Historical Trend was calculated: (1.90%+0.87%)/2 = 1.38%

Based on the annual growth rates obtained and the physical traffic analysis zone characteristics, it was determined a Compounded Annual Historic Growth Rate of *1.38%* can be applied conservatively to account for traffic growth within the study area. Based on a conservative 2-year period till build-out condition (2021 to 2023), growth rate will be translated into a Growth Factor, as follows:

Growth Factor = $(1 + 0.0138)^{2} = 1.028$

Growth Factor to be applied to the Future no-build out Condition (*Scenario 2*) respectively.

7.5. Committed Developments

As per Cooper City information, adjacent additional committed trips that will be part of the future network includes the following proposed developments: Chabad Southwest Broward and Kingfisher Reserve. Committed trip generation for Chabad Southwest Broward and Kingfisher Reserve developments were obtained from their respective approved Traffic Impact Studies.

- Chabad Southwest Broward is a proposed redevelopment of an existing campus that previously served as High Point Rehabilitation Center. The first phase of this project will re-use of the existing buildings on the campus and will add an 1,800-square-foot mikveh. The second phase of the project will add a 9,300-square-foot sanctuary. This proposed redevelopment is located on the east side of 106th Avenue approximately 320 feet north of Stirling Road in Cooper City, Florida.
- Kingfisher Reserve is a residential development composed of 39 single family homes and proposed to be located on the east side of Southwest 106th Avenue approximately 900 feet north of Stirling Road in Cooper City, Florida.

Table 7: Committed Developments Trip Generation

Land Use	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Chabad Southwest Phase One (Net Trips)	33	26	59	27	31	58
Chabad Southwest Phase Two (Net Trips)	37	31	68	36	33	69
Kingfisher Reserve	8	24	32	25	15	40

Future no-built condition (Scenario 2) turning movement volumes are illustrated in **Figures 7 through 9.** Figures illustrating the trip distributions of committed developments can be found in **Appendix D.**

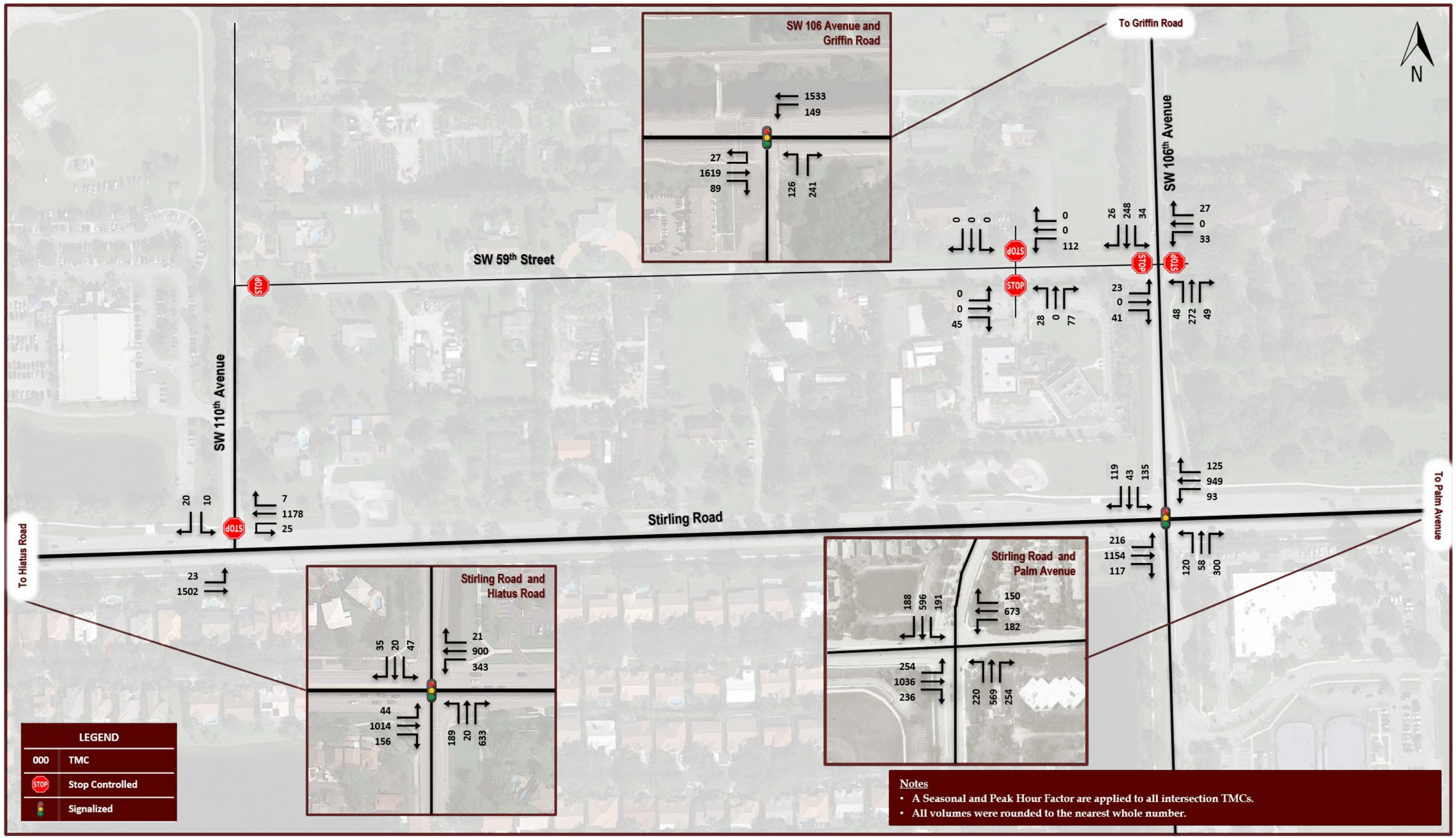


Figure 7: Scenario 2 – Future Conditions No-Build (Friday 7:00 AM to 9:00 AM) AM Peak Hour Traffic

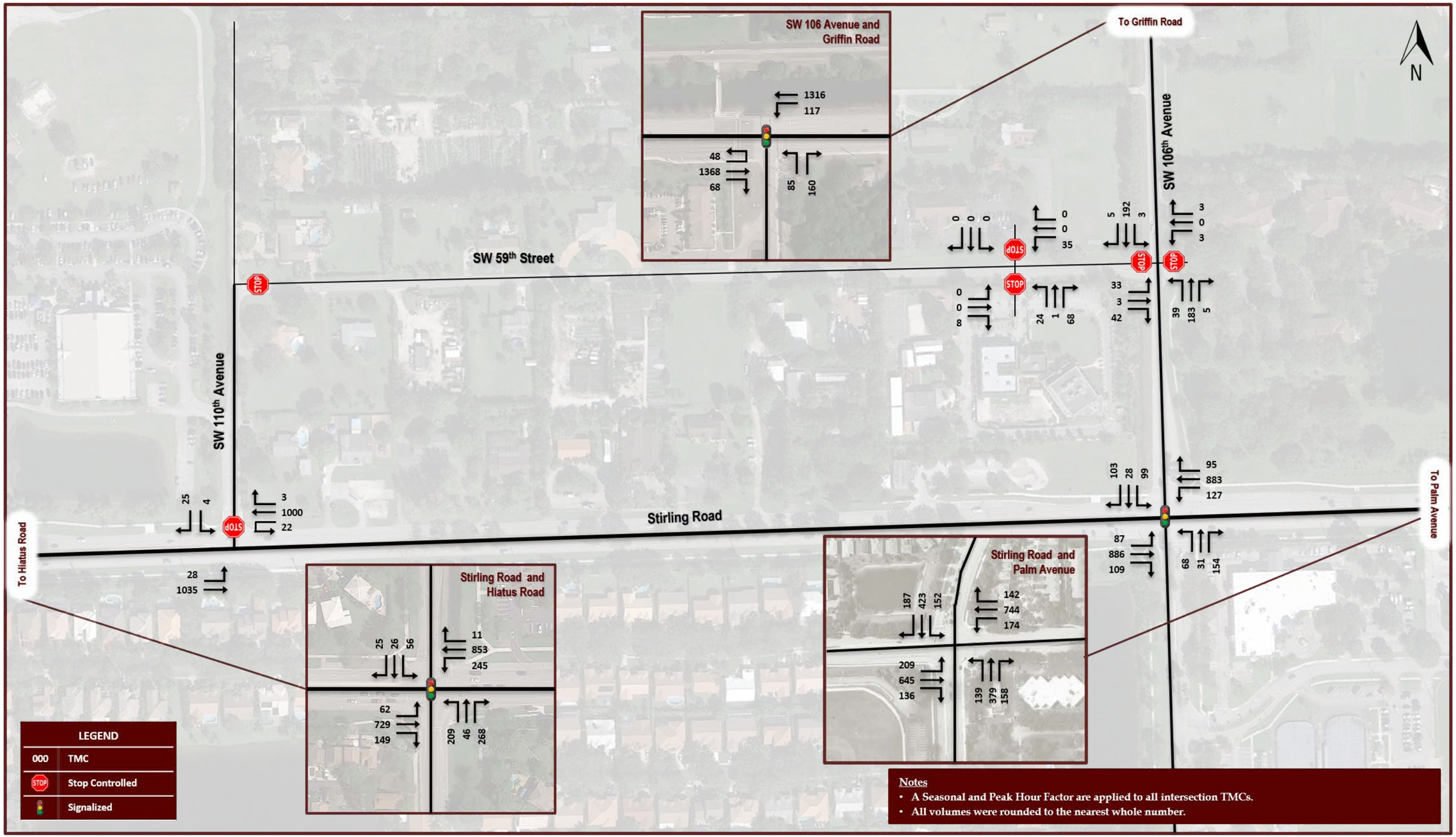


Figure 8: Scenario 2 – Future Conditions No-Build (Friday 11:30 AM to 12:30 PM) Mid-Day Peak Hour Traffic

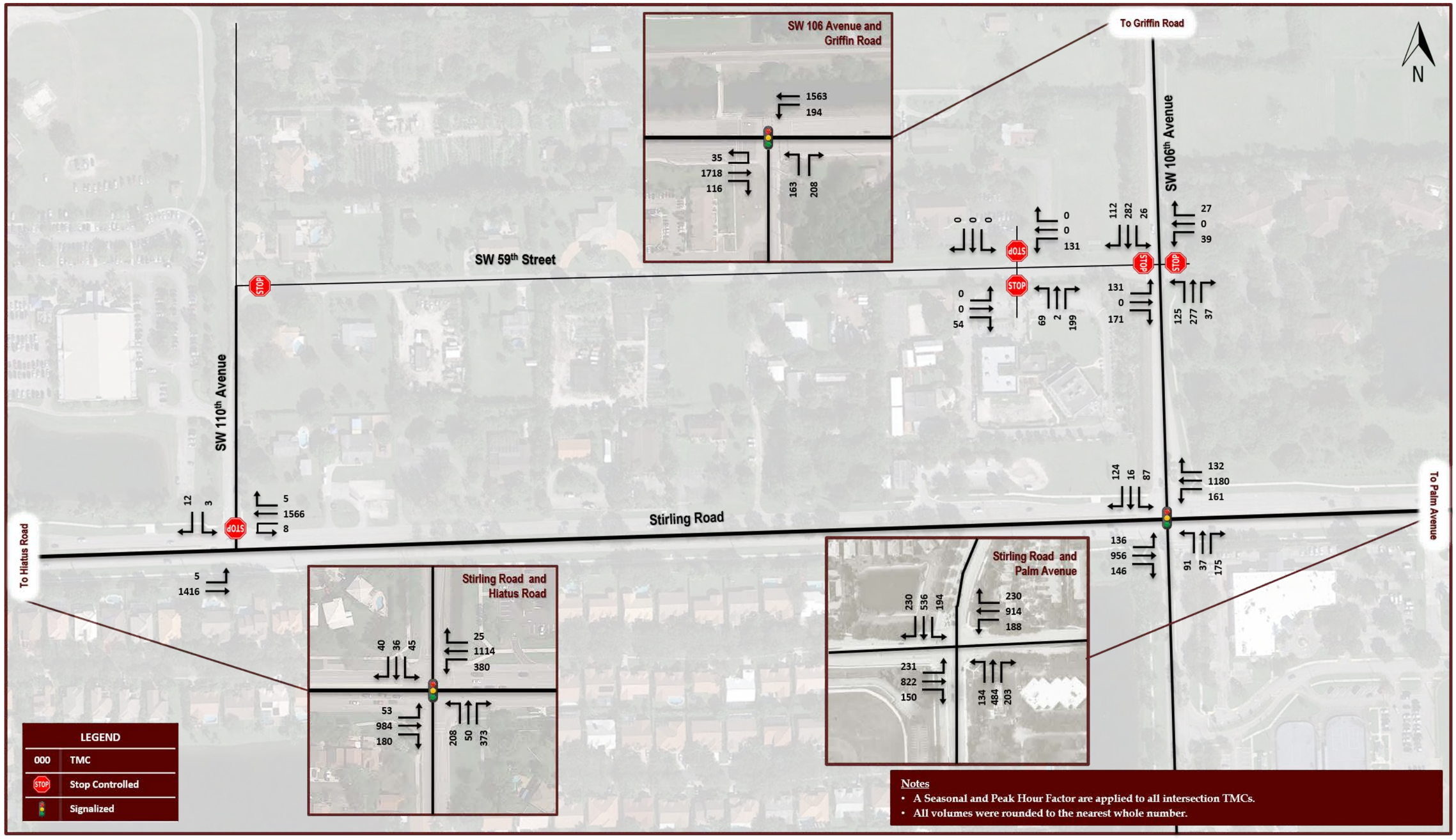


Figure 9: Scenario 2 – Future Conditions No-Build (Friday 1:00 PM to 4:00 PM) PM Peak Hour Traffic

8.0 Scenario 3 – Future Build-Out Conditions:

Based on the results obtained in the *Scenario 2*, addition of the AM, Mid-day and PM peak hour trips generated under the 11th Edition of The ITE Trip Generation Handbook, through the Online Traffic Impact Study Software (OTISS), are applied to the roadway network.

As mentioned, the proposed site is to be re-developed to include an expansion of the school and Mosque which are expected to generated additional traffic demands.

8.1. NUR-UL-Islam of South Florida ITE Trip Generation

Trip generation analysis was performed using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* through the OTISS (Online Traffic Study Software). Trip generation for the proposed re-development was based on the expansion and renovations to be made through the NUR-UL-ISLAM of South Florida Site Plans. OTISS results are summarized in **Table 8**. Reports can be found in **Appendix D**.

Table 8: NUR-UL-ISLAM of South Florida ITE Trip Generation

Category	Land Use	Code	Units	Weekday AM Peak Hour Generator				Weekday PM Peak Hour Generator			
				In:Out %	In	Out	Total	In:Out %	In	Out	Total
Existing	Private School (K12)	532	425 Students	63:37	219	129	348	42:58	110	153	263
	Mosque	562	5,950 S.F.	67:33	38	19	57	43:57	60	80	140
	Total			63:37	257	148	405	42:58	170	233	403
Build	Private School (K12)	532	560 Students	63:37	283	166	449	42:58	134	185	319
	Mosque	562	7,690 S.F.	67:33	49	24	73	43:57	78	103	181
	Total			63:37	332	190	522	42:58	212	288	500
	Total Additional (Net) Trips to Roadway			64:36	75	42	117	43:57	42	55	97

Notes: ITE Trip Generation volumes shown are based on the AM and PM Peak Hour Generator for the school and the AM and PM Friday Peak Hour Generator for the Mosque.

In order to select the appropriate Analysis methodology OTISS validates the following criteria:
Best Fit When:

- A regression equation is provided.
- Independent variable is within range of data
- Either the data plot has at least 20 points or R2 >= 0.75, equation falls in with the data cluster in plot and the standard deviation > 110% of the weighted.

Average:

- At least three data points.
- Independent variable in within range of data.
- Standard deviation <= 110% of average rate

R2 < 0.75 or no equation is provided. Weighted average falls within data cluster in plot.

8.2. Trip Distribution and Assignment

Trip distribution is a function of the origin and destination of the site users and the available adjacent roadway system. Trip distribution for the additional build-out future trips being generated and assigned in accordance with the existing TMC and approach proportions as observed at each intersection.

Summary of the total trip distribution and assignment for the network entering and exiting the site is provided in **Figures 10, 11 and 12**.

Figures 13, 14 and 15 show Scenario 3 – Buildout conditions for the overall network.

Figure 10: Scenario 3 -Build-out Trip Assignment

Figure 11: Scenario 3 -Build-out Trip Assignment (School)

Figure 12: Scenario 3 -Build-out Trip Assignment (Mosque)

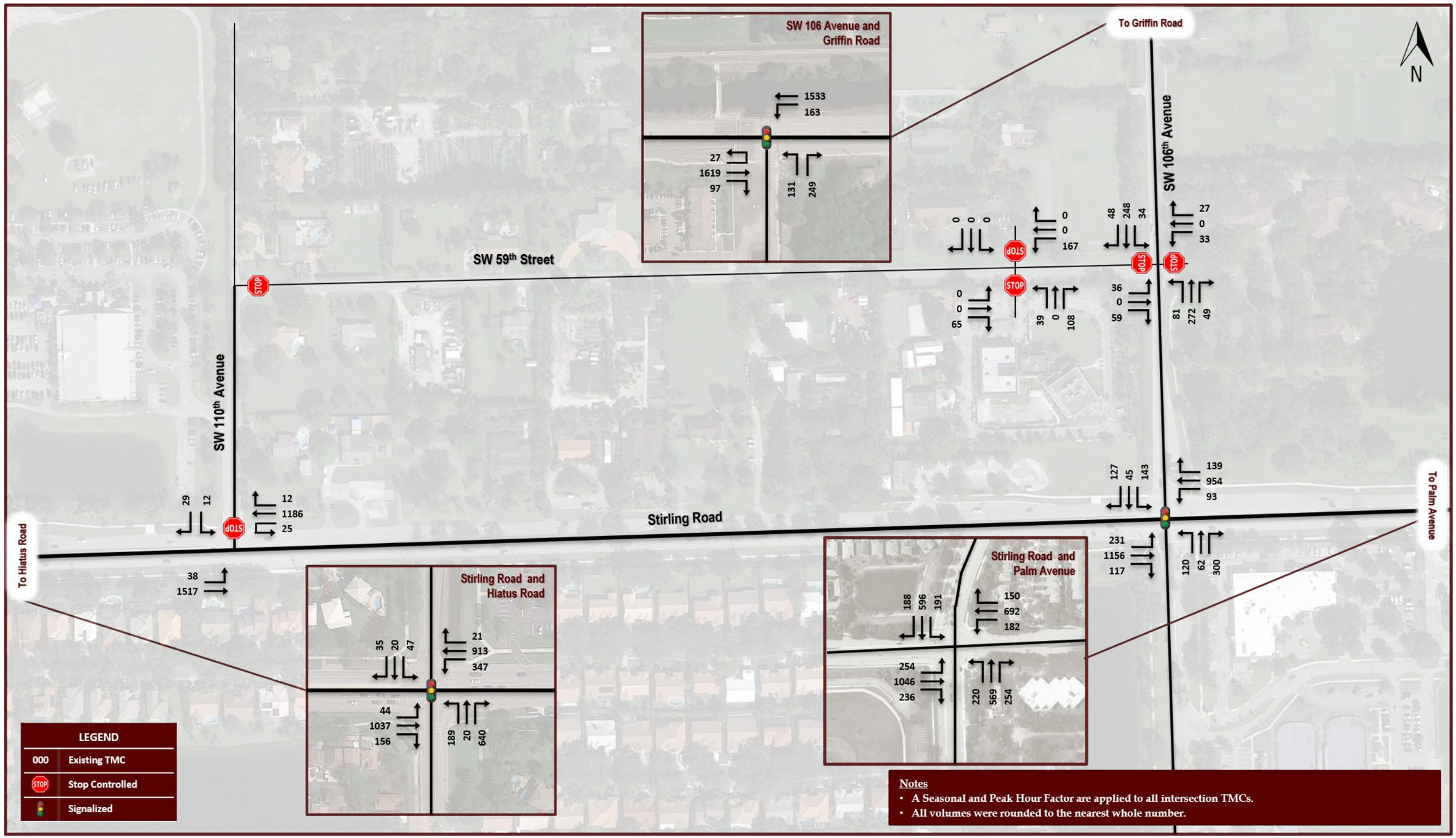


Figure 13: Scenario 3 – Build-out Condition (Friday 7:00 AM to 9:00 AM) AM Peak Hour Traffic

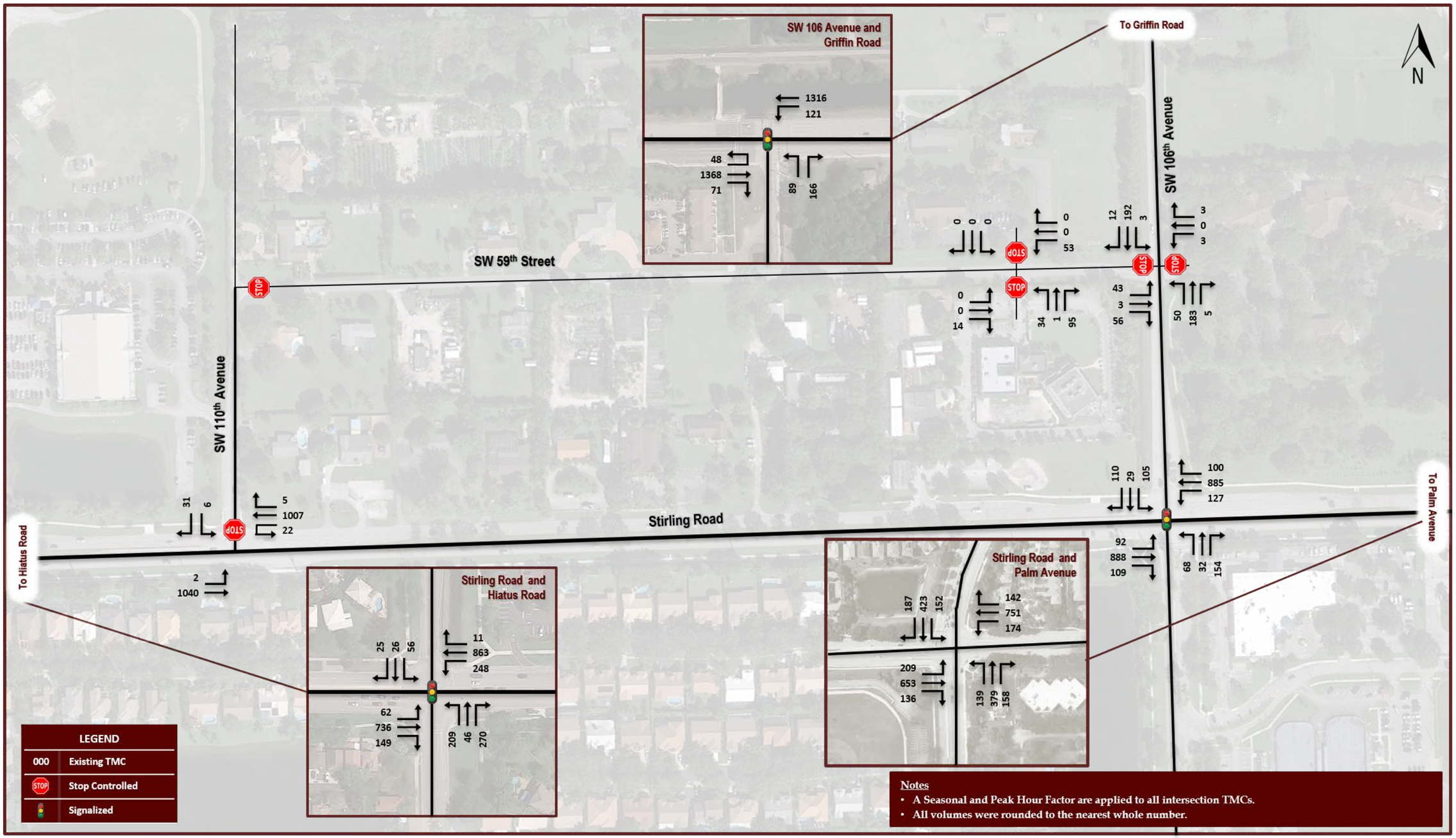


Figure 14: Scenario 3 – Build-out Condition (Friday 11:30 AM to 12:30 PM) Mid-Day Peak Hour Traffic

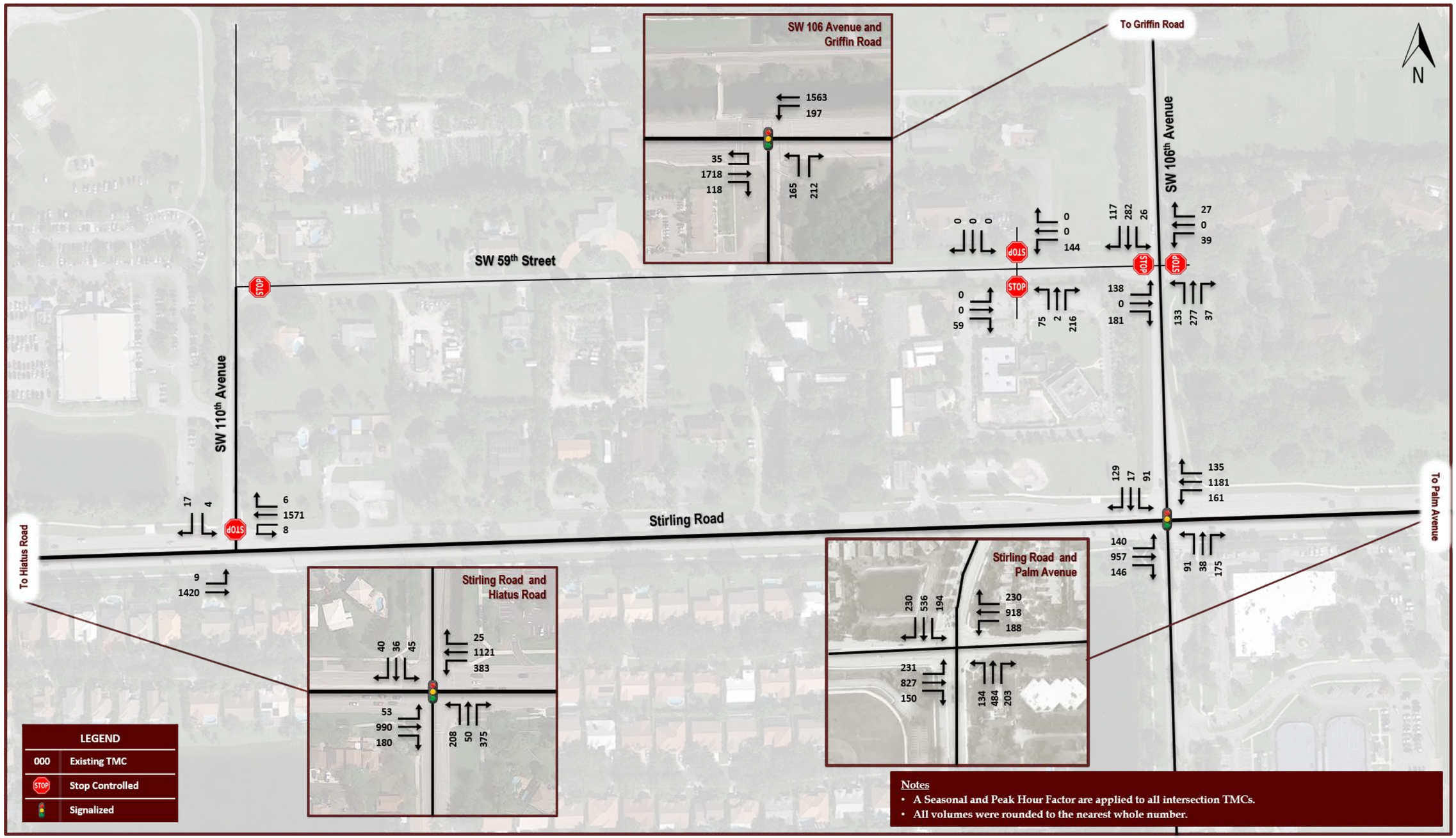


Figure 15: Scenario 3 – Build-out Condition (Friday 1:00 PM to 4:00 PM) PM Peak Hour Traffic

9.0 Level of Service Analysis

This traffic analysis utilizes Synchro 11.0, which applies methodologies outlined in the Highway Capacity Manual, 6th Edition. LOS Analysis for signalized / un-signalized intersections are based on the amount of control delay which is a measurement in seconds per vehicle that act as an indicator of lost time, fuel consumption, frustration and driver's discomfort at the signalized intersections.

The level of services for signalized intersections is a scale from "A" to "F" in accordance with control delay thresholds that range from less than 10 seconds to greater than 80 seconds of delay per vehicle. Details of the LOS results and Operational analysis (TOD Schedule) are documented in **Appendix E**.

In order to perform this analysis, cycle lengths and clearance intervals used in the analysis are consistent with the current Broward County signal control sections and signal operating plans for the study intersection in conjunction with physical and operational characteristics observed during peak hours.

Scenario 1 - Existing Conditions, Scenario 2 – Future Condition and Scenario 3 – Build-out Conditions were analyzed for the following intersections during the AM, Mid-day and PM peak hours of operations.

1. Southwest 59th Street & NUR-UL Islam Driveway.
2. Southwest 59th Street & Southwest 106th Avenue.
3. Stirling Road & Southwest 106th Avenue.
4. Stirling Road & 110th Avenue.
5. Stirling Road & Hiatus Road.
6. Griffin Road & 106th Avenue.
7. Stirling Road & Palm Avenue.

The level of service analysis shows that most of the overall intersections' operational performance are expected to experience slightly an increase of delays after applying the growth rate factors, as well as, the forecasted trips generated by the proposed development. However, it was concluded that most intersections' operational performance will be able to maintain acceptable level of services or similar traffic conditions to those observed in Scenario 2-Future No Build-Out Conditions during the highest peak hour of traffic demand.

Due to high demand of northbound right turn vehicles, the intersection of Stirling Road & Hiatus Road presents a level of service F in existing conditions (scenario 1) during the AM Peak hour and is expected to present a level of service F in scenarios 2 and 3 as well. It is expected that the trips generated by the proposed redevelopment of Nur-Ul-Islam will have a nominal effect on the northbound right turn movement as only 1.0% of the total forecasted future volume of the aforementioned movement are generated by the proposed re-development.

Nevertheless, signal timing optimization is recommended as a mitigation measure at the intersection of Stirling Road & Hiatus Road. Section 9.1 provides signal timing optimization analysis.

As part of the analysis, an exclusive northbound left and eastbound right turn lane at the intersection of Southwest 106th Avenue and Southwest 59th Street is recommended to improve capacity and safety. The aforementioned exclusive turn lanes at the intersection of Southwest 106th Avenue and Southwest 59th Street were included in the analysis of Future Build-Out Conditions (Scenario 3).

Current signal timings are provided in **Appendix E**.

Table 9, 10 and 11 shows the existing and future LOS and delay for the identified intersections per each scenario.

Table 9: Roadway Network LOS Analysis, AM Peak

Location	Approach	Friday AM Peak Hour (7:00 AM – 9:00 AM)					
		Scenario 1 Existing		Scenario 2 Future		Scenario 3 Build-Out	
		LOS	Delay	LOS	Delay	LOS	Delay
Southwest 59th Street & NUR-UL Islam Driveway.	EB	-	-	-	-	-	-
	WB	A	7.5	A	7.5	A	7.6
	NB	A	0	A	0	A	0
	SB	A	0	A	0	A	0
	Overall	A	3.2	A	3.2	A	3.3
Southwest 59th Street & Southwest 106th Avenue.	EB	B	12.0	B	13.4	B	14.2
	WB	A	9.7	C	15.5	C	17.4
	NB	-	-	-	-	-	-
	SB	-	-	-	-	-	-
	Overall	A	1.9	A	3.0	A	3.7
Stirling Road & Southwest 106th Avenue.	EB	B	15.4	B	16.3	B	16.6
	WB	B	15.9	B	16.4	B	16.5
	NB	E	64.9	E	65.4	E	65.3
	SB	D	52.0	D	53.4	D	54.1
	Overall	C	25.4	C	26.4	C	26.7
Stirling Road & 110th Avenue.	EB	-	-	-	-	-	-
	WB	-	-	-	-	-	-
	NB	-	-	-	-	-	-
	SB	E	44.4	F	51.2	F	53.2
	Overall	A	0.9	A	1.0	A	1.2
Stirling Road & Hiatus Road.	EB	B	18.1	B	18.4	B	18.6
	WB	C	22.6	C	28.0	C	30.6
	NB	F	318.2	F	334.1	F	341.4
	SB	D	50.5	D	50.6	D	50.6
	Overall	F	95.4	F	100.6	F	103.0
Griffin Road & 106th Avenue	EB	B	14.5	B	15.8	B	15.9
	WB	B	11.7	B	11.8	B	12.1
	NB	C	24.5	C	25.8	C	25.8
	SB	-	-	-	-	-	-
	Overall	B	14.2	B	15.0	B	15.2
Stirling Road & Palm Avenue	EB	D	40.3	D	41.5	D	41.8
	WB	D	35.6	D	36.3	D	36.6
	NB	D	54.3	D	54.9	D	54.9
	SB	D	53.5	D	54.0	D	54.0
	Overall	D	45.4	D	46.1	D	46.2

Table 10: Roadway Network LOS Analysis, Mid-Day Peak

Location	Approach	Friday Mid-Day Peak Hour (11:30 AM – 12:30 PM)					
		Scenario 1 Existing		Scenario 2 Future		Scenario 3 Build-Out	
		LOS	Delay	LOS	Delay	LOS	Delay
Southwest 59th Street & NUR-UL Islam Driveway.	EB	-	-	-	-	-	-
	WB	A	7.3	A	7.3	A	7.3
	NB	A	0	A	0	A	0
	SB	A	0	A	0	A	0
	Overall	A	1.9	A	1.9	A	1.9
Southwest 59th Street & Southwest 106th Avenue.	EB	B	11.4	B	11.5	B	11.4
	WB	B	11.1	B	11.2	B	11.5
	NB	-	-	-	-	-	-
	SB	-	-	-	-	-	-
	Overall	A	2.5	A	2.5	A	3.0
Stirling Road & Southwest 106th Avenue.	EB	A	8.0	A	8.2	A	8.6
	WB	A	7.6	A	7.8	A	8.2
	NB	E	62.9	E	62.8	E	61.2
	SB	E	58.9	E	59.0	E	59.0
	Overall	B	17.4	B	17.6	B	17.9
Stirling Road & 110th Avenue.	EB	-	-	-	-	-	-
	WB	-	-	-	-	-	-
	NB	-	-	-	-	-	-
	SB	C	17.2	C	17.7	C	19.3
	Overall	A	0.6	A	0.6	A	0.7
Stirling Road & Hiatus Road.	EB	B	13.5	B	14.0	B	14.0
	WB	A	8.4	A	8.8	A	8.9
	NB	E	69.3	E	70.1	E	70.6
	SB	D	53.5	D	53.3	D	53.3
	Overall	C	23.9	C	24.4	C	24.4
Griffin Road & 106th Avenue	EB	B	11.4	B	11.6	B	13.3
	WB	B	10.0	B	10.1	B	11.6
	NB	C	25.7	C	25.5	C	23.7
	SB	-	-	-	-	-	-
	Overall	B	11.9	B	12.0	B	13.3
Stirling Road & Palm Avenue	EB	C	34.6	C	34.9	D	35.0
	WB	D	36.1	D	36.4	D	36.5
	NB	D	49.0	D	49.2	D	49.2
	SB	D	50.1	D	50.4	D	50.4
	Overall	D	41.2	D	41.5	D	41.5

Table 11: Roadway Network LOS Analysis, PM Peak

Location	Approach	Friday PM Peak Hour (1:00 PM – 4:00 PM)					
		Scenario 1 Existing		Scenario 2 Future		Scenario 3 Build-Out	
		LOS	Delay	LOS	Delay	LOS	Delay
Southwest 59th Street & NUR-UL Islam Driveway.	EB	-	-	-	-	-	-
	WB	A	7.5	A	7.5	A	7.6
	NB	A	0	A	0	A	0
	SB	A	0	A	0	A	0
	Overall	A	2.2	A	2.2	A	2.2
Southwest 59th Street & Southwest 106th Avenue.	EB	D	32.7	F	60.2	D	30.8
	WB	D	25.5	D	29.5	D	30.9
	NB	-	-	-	-	-	-
	SB	-	-	-	-	-	-
	Overall	B	10.1	B	17.4	B	10.5
Stirling Road & Southwest 106th Avenue.	EB	A	9.6	A	10.0	B	10.0
	WB	A	10.0	B	10.6	B	10.6
	NB	E	61.8	E	61.9	E	61.9
	SB	E	56.7	E	58.5	E	58.9
	Overall	B	17.5	B	18.5	B	18.7
Stirling Road & 110th Avenue.	EB	-	-	-	-	-	-
	WB	-	-	-	-	-	-
	NB	-	-	-	-	-	-
	SB	E	36.0	E	40.5	F	50.7
	Overall	A	0.2	A	0.3	A	0.4
Stirling Road & Hiatus Road.	EB	B	17.8	B	18.2	B	18.3
	WB	C	27.0	C	32.4	C	33.6
	NB	F	90.7	F	95.6	F	96.6
	SB	D	51.0	D	51.1	D	51.1
	Overall	D	36.3	D	39.5	D	40.2
Griffin Road & 106th Avenue	EB	B	16.7	B	17.5	B	17.6
	WB	B	12.4	B	13.7	B	13.9
	NB	C	26.1	C	26.3	C	26.3
	SB	-	-	-	-	-	-
	Overall	B	15.6	B	16.7	B	16.8
Stirling Road & Palm Avenue	EB	D	37.1	D	38.0	D	38.1
	WB	D	38.7	D	39.9	D	39.8
	NB	D	52.0	D	52.4	D	52.4
	SB	D	52.9	D	53.4	D	53.4
	Overall	D	44.0	D	44.7	D	44.7

9.1. Mitigation Measures

As a mitigation measure, signal re-timing in coordination with Broward County Traffic Engineering division is recommended at the intersection of Stirling Road & Hiatus Road. **Table 12** shows the operational analysis, which indicates that upon adjustments to the signal timing, the aforementioned intersection level of service will improve significantly with a reduction of vehicular delays.

LOS results and Operational analysis (Proposed Timings) are also documented in **Appendix E**.

Table 12: Vehicular Delay Mitigation Analysis

Location	Approach	Before Traffic Mitigation				After Proposed Traffic Mitigation			
		AM		PM		AM		PM	
		Scenario 3		Scenario 3		Scenario 3		Scenario 3	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Stirling Road & Hiatus Road	EB	B	18.6	B	18.3	C	21.7	C	21.2
	WB	C	30.6	C	33.6	D	38.6	C	34.0
	NB	F	341.4	F	96.6	F	264.8	E	78.0
	SB	D	50.6	D	51.1	D	46.6	D	48.2
	Overall	F	103.0	D	40.2	F	88.2	D	38.0

10.0 Parking Analysis

A parking analysis was performed to assess the parking demand in reference to existing and proposed future (build-out) conditions. This section will provide an analysis of existing parking demands per field data collection, anticipated parking demand growth and provide recommendations as needed to improve parking management for the School and Mosque.

NUR-UL-Islam of South Florida currently provides 81 off-street parking spaces within the site, 62 of which are paved with markings and 19 grass parking spaces (approved by the city codes) along the eastern side of the property.

Upon build-out conditions the development is planned to provide a total of 150 parking spaces within the site, of which 5 will be designated handicap stalls. The proposed site plan showcasing the parking slots is again referred in **Appendix A**. Additionally, raw data collection for parking demands along with a complete analysis for the existing and future parking loads are provided in **Appendix F**.

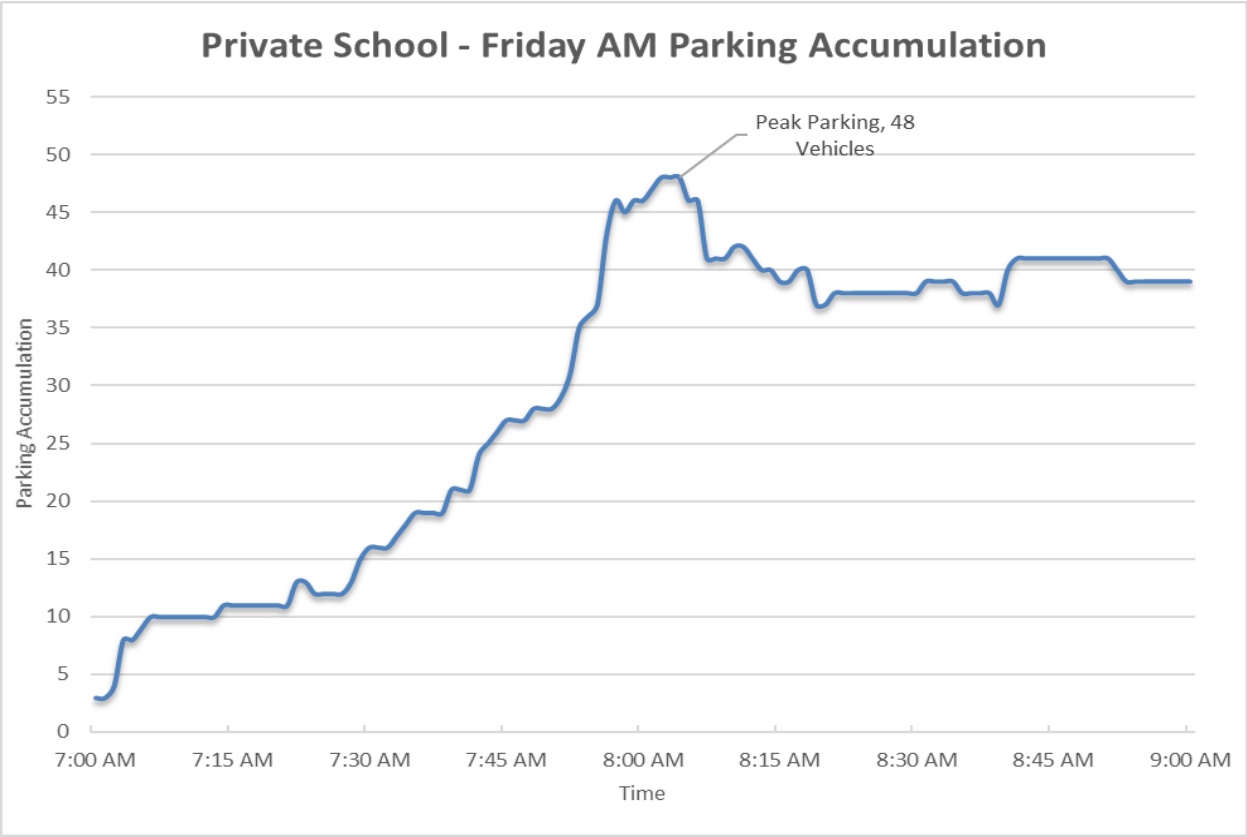
10.1. Parking Accumulation and Data Collection

A parking accumulation was performed on Thursday and Friday April 8th and 9th, 2021 during the highest peak periods for the school and mosque. As is the case with the TMCs, highest parking period for the school and mosque occurs on Friday in contrast to Thursday. Thus, the parking analysis will focus on Friday demand in order to reflect the most conservative results. The following summarizes the parking accumulation findings;

- Peak parking hour of operation for the school occurs on Friday between 7:45 to 8:45 AM, with a peak accumulation of 48 vehicles parked at 8:03 AM.

- Peak parking hour of operation for the Mosque occurs on Friday from 1:30 to 2:30 PM, with a peak accumulation of 136 vehicles parked at 2:14 PM.

Parking accumulation for the school and mosque peak demand are presented in **Figure 16**.



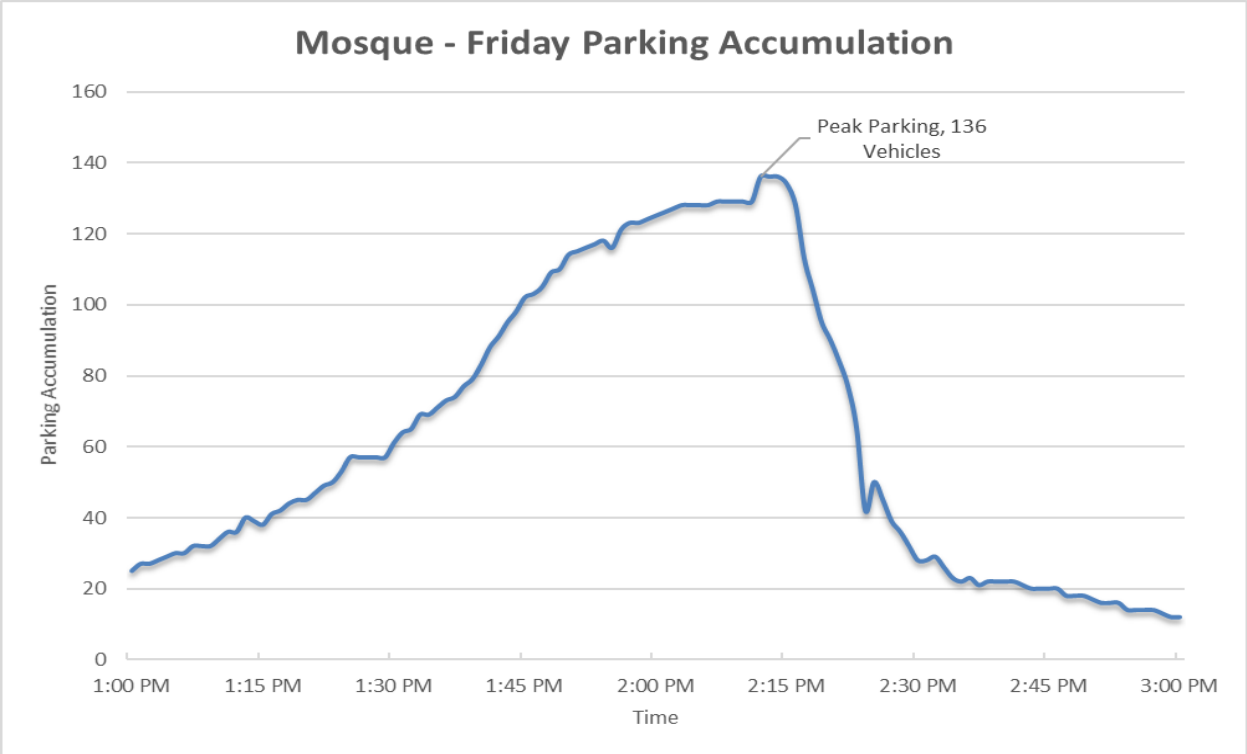


Figure 16: Parking Accumulation - School and Mosque, Friday Peak Hour

10.2. Build-out Parking Code Compliance

Parking compliance was evaluated per Copper City Code or Ordinance. The proposed development upon build-out will be comprised of a new 7,685 S.F. Mosque, as well as, a new 14,055 S.F. private school building both of which are non-concurrent in usage. Based on Cooper City Ordinance, **Table 13** provides the parking regulations required by the city;

Table 13: Cooper City Code of Ordinance, Parking Requirements Section 25-4

Land Use	Ordinance Requirement
School, Secondary; College or University	One parking space for each classroom plus one parking space for each ten (10) students or half of the additional parking spaces for rooms used for public assembly as otherwise required by this section, whichever may be greater.
Community assembly	One parking space for each four (4) fixed seats, plus one parking space for each hundred (100) square feet of gross floor area without fixed seats. Parking areas which are not used more than three (3) times per week may be grassed for parking areas and parking lanes, but not for general access roads or circulation roads, provided the grasses are planted on soil prepared and maintained according to the City's specifications.

Based on city requirements; the new school building will accommodate an additional 135 students (560 Students – 425 existing) and provide 5 additional classrooms to the already approved existing development. In total, based on the existing approved (31 spaces), requirement of 1 parking space per classroom (5 spaces) and 1 space for each 10 students (14 spaces), the total parking required on site for the private school is 50 spaces.

The new Mosque will provide 7,685 S.F. of worship area which does not provide any fixed seating. Thus, based on the requirement of 1 parking space per 100 S.F. of gross floor area, the Mosque will require 77 spaces (rounded up) per city requirements.

The build-out conditions site plans to provide 150 total parking spaces. Thus, the site will provide an excess of 73 parking spaces per Mosque requirements and an excess of 100 spaces per the private school requirements. Based on the analysis, it can be concluded that both the school and mosque will provide adequate parking supply to meet city ordinance.

11.0 Queue Analysis

In order to evaluate the stacking length accumulation under the existing and future traffic conditions for the school, data collection (Stop and Delay) was performed on Friday April 9th, 2021 during the highest queue demand periods for the school. Based on the data collection, the highest queue demand occurs on Friday A.M. period. Thus, the queue analysis focus on Friday A.M. peak demand in order to retain the most conservative results. Respective queueing demand is provided in **Table 14**:

Table 14: NUR-UL-Islam Peak Hour Traffic Queuing Demand

Facility	A.M. Peak Hour	P.M. Peak Hour
Existing Entry Trips	153	180
Future Entry Trips	232	203

During a typical school day operation for NUR-UL-Islam follows parents waiting in-queue in order to proceed with the drop-off/pick-up operation. Based on **field visits**, the maximum observed queue was 14 vehicles out of a total 153 vehicles observed that entered the facility in the peak hour. The average service rate observed by the faculty and staff is 80.0 seconds per vehicle (48 veh/hr) for analysis purposes; it was observed that around 5% of the parents use the parking spaces to drop-off /pick-up students, while the 95% of parents are wait in-queue in order to proceed with the drop-off/pick-up operation. Four (4) Pick-up and Drop-off stations within the development will be available at the eastern part of the proposed development.

In order to determine the stacking length accumulation under the future traffic conditions and the student processing rates during drop off/pick up highest demand a queuing analysis was performed encompassing the ITE Transportation and Land Use development article for drive-in facilities as reference provided in **Appendix G**.

To obtain the queue storage required for probability of a queue exceeding a length (of M), below formula should be used:

$$M = \left[\frac{\ln\left(P(x > M)\right) - \ln Q_M}{\ln \rho}\right] - 1$$

At which:

- $\rho = Coefficient\ of\ utilization = \frac{q}{NQ}$
- Q_M = Is a statistic which is a function of the utilization rate and the number of service Channel. It can be calculated using the Table (8-11) provided in **Appendix G**.
- N = number of parallel service positions
- q = mean average arrival rate of vehicles into the system (vehicles/hour)
- Q = mean average service rate per service position (vehicle / hour / position)

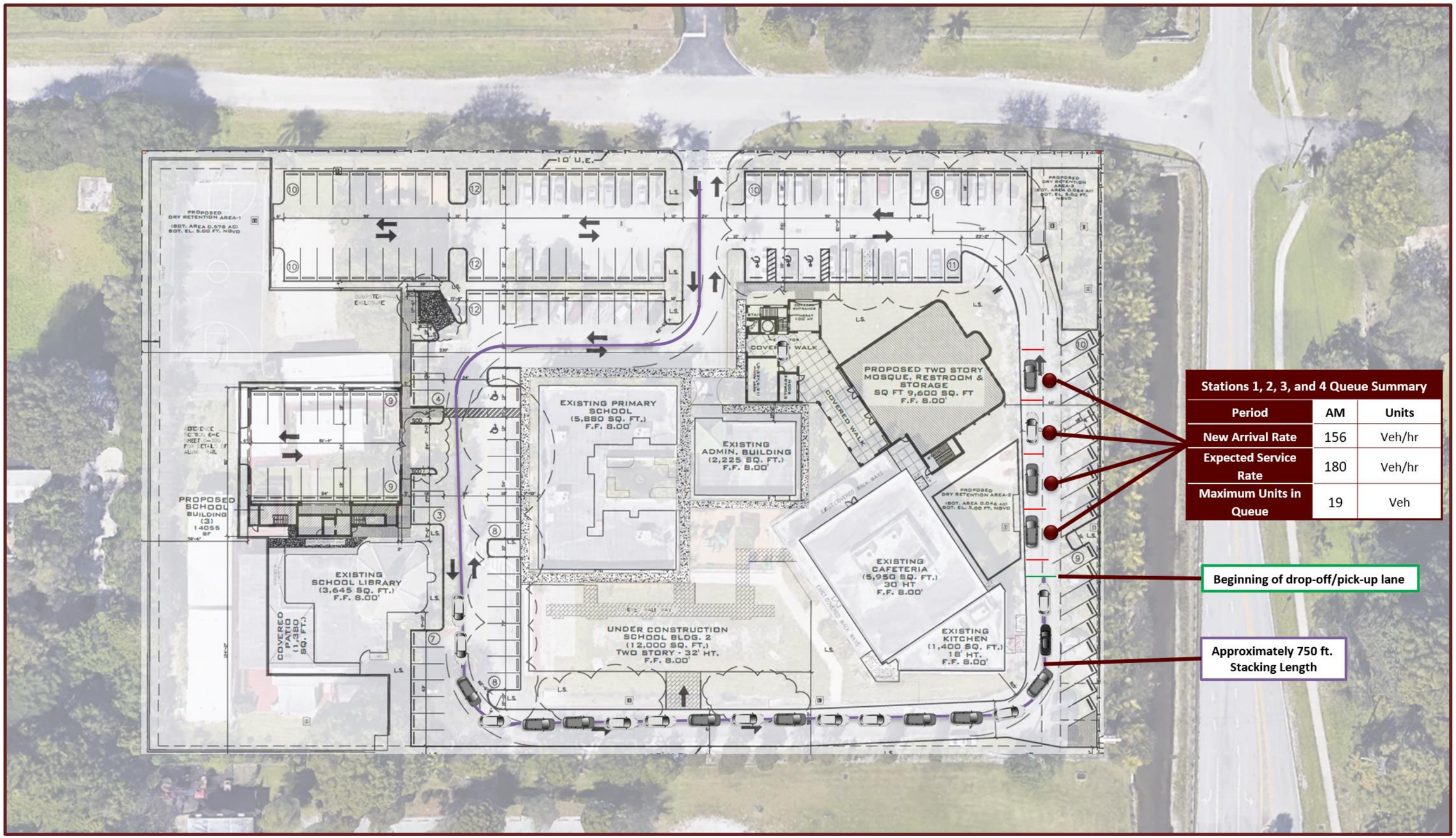
The relationship between existing /future volumes and queues are noted in **Table 15** along with a display of the results anticipated in **Figure 22**.

Table 15: Queue Data Analysis

Peak Hour Arrival Time	7:30 AM – 8:30AM
Existing Entry Trips	153
Anticipated Future Entry Trips	232
Build-out Condition – School Staff Parking On-site	63
Students parking On-site	5
Anticipated number of parents using Parking lot to drop-off students (5%)	9
Anticipated number of parents using the designated drop-off stations	156

Anticipated number of parents using the designated drop-off stations	Period	Average Service Time per station	Pick-up and Drop-off Stations	95th Percentile Vehicles in queuing	Minimum Required Storage Distance	Proposed drop-off/pick-up lane distance
156	**AM Future Conditions**	**80 seconds**	4	18.57 ≈ 19	19 * 25 = 475’	750’

Based on the above calculation, a maximum 19 vehicles will be waiting to be served for 95th percentile of the time. Thus, the proposed storage available capacity of 750 feet length for the drop-off/pick up lane as per the site plan will be adequate space to handle the demand of vehicles queuing in the school staking lane.



Stations 1, 2, 3, and 4 Queue Summary		
Period	AM	Units
New Arrival Rate	156	Veh/hr
Expected Service Rate	180	Veh/hr
Maximum Units in Queue	19	Veh

Beginning of drop-off/pick-up lane

Approximately 750 ft. Stacking Length

Figure 17: School Drop-off/Pick-up Stations and On-Site Stacking Area

12.0 Concurrency Analysis

Pursuant to the Concurrency Management System, the study area traffic count station on the roadway adjacent to the development has to be operating at an acceptable level of service during the peak hour period of the proposed development. Available capacity and acceptable level of service needs to be maintained for the adjacent traffic station and the study area of influence meet the traffic concurrency standards.

The maximum service volumes have been obtained from the Florida Department of Transportation 2020 Generalized Peak Hour Two-Way Volume for Florida's Urbanized Areas Quality Level of Service Handbook. As per the Florida Department of Transportation 2020 Quality/Level of Service Generalized Service Volume Table 4 (Peak Hour Tow-Way Volumes), capacity analysis for each network concerned segment was performed for the AM, Mid-Day, and the PM peak periods, for existing and proposed operation conditions. An acceptable level of service for the segment should meet the LOS D thresholds.

Appendix H provides FDOT LOS generalized tables as well as count stations analyzed. **Tables 16 through 17** provide a summary of concurrency analysis.

Table 16: Stirling Road Concurrency Analysis

Peak Hour	Roadway	Development Peak Hour	Peak Hour Traffic	Segment Capacity (LOS D)	Peak Hour Trips Comm.	Peak Hour Trips Nur-Ul-Islam	LOS (Q/LOS)
A.M.	Existing	7:45 A.M.	2,453	3,222			C
	Future	7:45 A.M.	2,688	3,222	90	76	C
Mid-Day	Existing	1:00 P.M.	2,100	3,222			C
	Future	1:00 P.M.	2,196	3,222	-	37	C
P.M.	Existing	5:00 P.M.	2,832	3,222			C
	Future	5:00 P.M.	3,033	3,222	95	27	C

Peak Hour Traffic shown reflects FDOT Station 86-9091; PSCF= 1.45, GF = 1.028, No State Signalized Roadways - 10% reduction. Q/LOS is based on Peak Hour Traffic volume vs. Table 4: State Signalized Arterials Class I (4 Lanes divided).

Table 17: Southwest 106th Avenue Concurrency Analysis

Peak Hour	Roadway	Development Peak Hour	Peak Hour Traffic	Segment Capacity (LOS D)	Peak Hour Trips Comm.	Peak Hour Trips Nur-Ul-Islam	LOS (Q/LOS)
A.M.	Existing	7:30 A.M.	530	1,197			C
	Future	7:30 A.M.	774	1,197	143	86	D
Mid- Day	Existing	1:00 P.M.	415	1,197			C
	Future	1:00 P.M.	469	1,197	-	42	C
P.M.	Existing	4:30 P.M.	541	1,197			C
	Future	4:30 P.M.	734	1,197	148	30	D

Peak Hour Traffic shown reflects Count Station 99-4051; PSCF= 1.45, GF = 1.028, No State Signalized Roadways - 10% reduction. Q/LOS is based on Peak Hour Traffic volume vs. Table 4: State Signalized Arterials Class II (2 Lanes Undivided).

Based on the analysis, both Stirling Road and Southwest 106th Avenue will maintain an acceptable Level of Service with minimal impacts to the major arterials upon future buildout conditions.

13.0 Turn Lane Analysis

An operational analysis was performed to consider capacity and safety improvement requirements. The following standard are as given by Broward County Code of Ordinances under Section 5-195, Turning Lanes;

6) Turning lanes.

a. *Left turn lane requirements immediately adjacent to the development.* A left turn lane with two hundred (200) feet of storage with fifty (50) feet of transition shall be provided at each driveway that meets the minimum spacing requirements of Section 5-195(b)(4), when the speed limit equals or exceeds thirty-five (35) miles per hour or if the ADT of the driveway is one thousand (1,000) vehicles or more or the average peak hour inbound left turn volume is twenty-five (25) vehicles or more.

b. *Right turn lane requirements immediately adjacent to the development.* A right turn lane with a minimum of one hundred fifty (150) feet of storage and fifty (50) feet of transition shall be provided at each driveway when the speed limit on the driveway equals or exceeds thirty-five (35) MPH or if the development will generate one hundred (100) or more inbound right turn movements during the peak hour.

c. *Intersection improvements immediately adjacent to the development.* At intersections which abut the development, the following improvement shall be provided:

    1. A right turn lane shall be provided if the street's speed limit equals or exceeds thirty-five (35) MPH or if the development will generate one hundred (100) or more right turns from the driveway onto the side street during the peak hours.

    2. A left turn lane shall be provided if the street's speed limit equals or exceeds thirty-five (35) MPH or if the development will generate twenty-five (25) or more left turns during the peak hour.

d. Required storage and transition lengths may be modified where conditions warrant and are acceptable to the Broward County Highway Construction and Engineering and Traffic Engineering Divisions. When storage and transition lengths are so modified, the minimum distances set forth in Section 5-195(b)(11)c)3), Table B, may be correspondingly adjusted if appropriate.

e. In carrying out the intent of Section 5-195(b)(8)a)1)c., required storage and transition lengths may be modified in order to coordinate the implementation of bus bay and driveway spacing requirements.

As part of the analysis, an exclusive northbound left and eastbound right turn lane at the intersection of Southwest 106th Avenue and Southwest 59th Street are recommended to improve capacity and safety. The aforementioned intersection is expected to present 133 northbound left turn movements and 182 eastbound right turn movements during the PM peak hour of the build out condition scenario 3 which will exceed the required thresholds for the implementation of exclusive turn lanes.

Table 18: Turn Lane Evaluation

Intersection	Approach	Vehicular Volume (Scenario 3)	Volume required for Implementation of Turn Lanes	Meet the Thresholds
Southwest 106th Avenue and Southwest 59th Street	NBL	133	25	Yes
	EBR	181	100	Yes

*Note: Analysis was conducted for PM peak hour, since this hour of day presents the highest traffic volume.

As a result, it is necessary to provide turn lanes at the above-mentioned intersection of Southwest 106th Avenue and Southwest 59th Street. The proposed recommended storage for the exclusive turn lanes at the above-mentioned intersection are presented in **Table 19.**

Table 19: Queue Analysis at Unsignalized Intersection

Intersection	Period	Movement	95% Queue (ft.)	Recommended minimum Bay Distance
Southwest 106th Avenue and Southwest 59th Street	**AM Future Conditions**	**NBL**	**56'**	**60' + 50'(Taper) = 110'**
Southwest 106th Avenue and Southwest 59th Street	**PM Future Conditions**	**EBR**	**91'**	**100' + 50'(Taper) = 150'**

At the intersection of Nur-Ul-Islam driveway and Southwest 59th Street, the westbound and eastbound movements present minimal through volumes. Vehicle conflicts generated by eastbound through and westbound left turn vehicular movements are expected to be nominal. As a result, an exclusive westbound left turn lane is not recommended at Nur-Ul-Islam driveway.

In addition, the proposed development' driveway is not anticipated to require exclusive eastbound right turn lane as the right turn volumes entering the site are less 80 vehicles per hour.

Moreover, as per City request, turn lanes storage capacity was evaluated at key intersections affected by the trips generated by the proposed expansion of the School and Mosque. **Table 20** shows the recommended bay distance at the studied intersections.

Table 20: Queue Analysis at Signalized Intersections (scenario 3)

Intersection	Period	Movement	95% Queue (ft.)	Approximately Existing Turn Lane Storage Length	Satisfy Demand (Yes/No)
Stirling Road and Hiatus Road	PM Future Conditions	WBL	405'	320'	No, the existing storage length does not satisfy future demands
Stirling Road and Hiatus Road	AM Future Conditions	NBR	384'	340'	No, the existing storage length does not satisfy future demands
Stirling Road and SW 110th Avenue	AM Future Conditions	EBL	41'	230'	Yes, the existing storage length satisfy future demands
Stirling Road and SW 106th Avenue	AM Future Conditions	SBL	186'	140'	No, the existing storage length does not satisfy future demands
Stirling Road and SW 106th Avenue	PM Future Conditions	SBR	69'	120'	Yes, the existing storage length satisfy future demands
Stirling Road and SW 106th Avenue	AM Future Conditions	EBL	286'	240'	No, the existing storage length does not satisfy future demands
Stirling Road and SW 106th Avenue	AM Future Conditions	WBR	102'	230'	Yes, the existing Storage length satisfy future demands
Griffin Road and SW 106th Avenue	PM Future Conditions	NBL	122'	90'	No, the existing storage length does not satisfy future demands
Griffin Road and SW 106th Avenue	PM Future Conditions	WBL	148'	330'	Yes, the existing Storage length satisfy future demands
Griffin Road and SW 106th Avenue	PM Future Conditions	EBR	117'	170'	Yes, the existing Storage length satisfy future demands

An additional queue analysis was performed for those movements where the existing turn lane storage capacity is not expected to satisfy future queue demands. This additional queue analysis was based on comparing Future Conditions No-Build (scenario 2) and future condition built (scenario 3) to determinate the impact of the proposed development on the aforementioned affected movements.

Table 21 provides queue analysis results for Scenarios 2 and 3 for those concerned movements.

Table 21: Scenarios 2 & 3 Queue Analysis Results

Intersection	Period	Movement	95% Queue (ft.) Scenario 2	95% Queue (ft.) Scenario 3	Percentage Change
Stirling Road and Hiatus Road	**PM Future Conditions**	**WBL**	**382'**	**405'**	**6.0%**
Stirling Road and Hiatus Road	**AM Future Conditions**	**NBR**	**367'**	**384'**	**4.6%**
Stirling Road and SW 106th Avenue	**AM Future Conditions**	**SBL**	**175'**	**186'**	**6.3%**
Stirling Road and SW 106th Avenue	**AM Future Conditions**	**EBL**	**274'**	**286'**	**4.8%**
Griffin Road and SW 106th Avenue	**PM Future Conditions**	**NBL**	**116'**	**122'**	**5.2%**

As shown in **table 21**, queue simulations results provided very similar results for both Scenarios 2 and 3. As noted, the impact of the trip generation on the concerned movements will be in less of 6.3% of storage length needed having future no build condition (Scenario 2) as a referenced.

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14.0 Summary of Findings and Recommendations

CALTRAN Engineering Group, Inc. (CALTRAN) was retained by NUR-UL-ISLAM Academy of South Florida located at 10600 Southwest 59th Street Cooper City, Florida 33328-6421 to assess the traffic impact with regards to the proposed expansion of the School and Mosque. The Mosque is expected to expand from *5,950 S.F. to 7,685 S.F.* and the student population, upon school expansion, will be increased from *425 students to 560 students*.

Traffic data was collected on the typical weekdays of Thursday April 8, 2021 and Friday April 9, 2021 pertaining to the critical worship day per Islamic tradition. Analysis of Thursday vs. Friday data collection for the AM peak hour resulted in Friday providing similar traffic volumes and site demand. Therefore, Friday private school arrival (7 – 9 AM) and Mosque dismissal volumes (2 – 4 PM) were analyzed in place of Thursday to retain consistency.

This study analyzed the traffic impact of the proposed expansion based on existing conditions and expected future build-out conditions of the site. For the proposed NUR-UL-Islam development, trip generation analysis contemplated the most conservative scenario based on the existing driveway counts and anticipated ITE growth rates. The trip generation analysis was performed under the following Land Uses; 532 Private School (K-12), and 562 Mosque.

Based on the analysis, the site could generate the following maximum additional trips:

- For the AM peak period (7:30 AM to 8:30 AM), a maximum of 117 additional trips are expected to be generated onto the adjacent roadway.

- For the PM peak period (2:00 PM to 3:00 PM), a maximum of 41 additional trips are expected to be generated onto the adjacent roadway.

Under HCM 6th edition methodologies, the studied intersections are projected to experience nominal additional delays after applying the growth factor as well as the forecasted trips generated by the proposed developments. It is concluded that most of the intersections are not expected to reach over-saturated conditions per the development build-out conditions.

As part of the analysis, an exclusive northbound left and eastbound right turn lane at the intersection of Southwest 106th Avenue and Southwest 59th Street is recommended as off-site improvements to enhance capacity and safety.

A parking analysis was performed for the site. For Future Build-out condition is to provide a total of 150 parking spaces. Based on off-street parking requirements per Cooper City Ordinance Section 25-4, the site will provide an excess of 73 parking spaces per Mosque requirements and an excess of 100 spaces per the private school requirements. It can be concluded that both the school and mosque will provide adequate parking supply to meet city ordinance.

A queue analysis was performed for the development build-out conditions to assess the storage capacity of drop off/pick up trips. Based on the analysis, 19 vehicles will be waiting to be serviced

for 5% of the time. The proposed available storage capacity of 750 feet length for the drop-off/pick up lane as per the site plan is adequate to handle queued vehicles internally within the site.

A concurrency analysis pursuant to the Concurrency Management System was performed on the roadways adjacent to the site development. Based on the analysis, both Stirling Road and Southwest 106th Avenue will maintain an acceptable Level of Service with minimal impacts to the major arterials upon future buildout conditions.

As a result, the following off-site improvements mitigation measures are recommended:

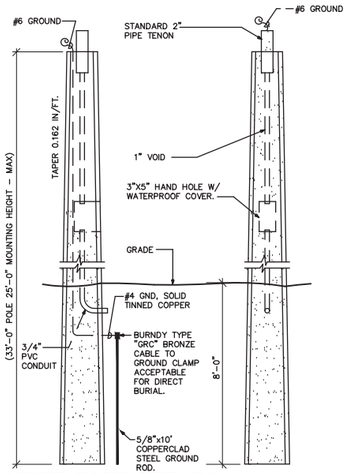
- Signal timing optimization is recommended as a mitigation measure at the intersection of Stirling Road & Hiatus Road.
- Implementation of an eastbound left turn lane for Southwest 59th Street at Southwest 106th Avenue.
- Implementation of a northbound left turn lane at Southwest 59th Street with Southwest 106th Avenue. This improvement is constrained by the lengthening of the existing southbound left-turn lane at the intersection of Southwest 106th Avenue and Stirling Road as proposed for the development of Kingfisher Reserve and Chabad Southwest Broward. A revision of the transition zone for the proposed southbound left turn at the intersection of Stirling Road and Southwest 106th Avenue is also recommended. Currently a 135 feet transition zone is proposed for the aforementioned turn lane, as the length of the transition zone will be limiting the implementation of the proposed northbound left turn lane of Southwest 106th Avenue and Southwest 59th Street. Thus, a back-to-back left turn condition could be implemented along Southwest 106th Avenue between Stirling Road and Southwest 59th Street if a 50-foot taper is considered.
- Lengthening of the existing southbound left-turn lane at the intersection of Southwest 106th Avenue and Stirling Road, this improvement is associated to the developments of Kingfisher Reserve and Chabad Southwest Broward and Nur Ul Islam will have a fair share participation.
- Lengthening of the existing northbound left-turn lane at the intersection of Southwest 106th Avenue and Griffin Road, this improvement is associated to the developments of Kingfisher Reserve and Chabad Southwest Broward and Nur Ul Islam will have a fair share participation.

The school should coordinate the implementation of a new traffic operation plan (TOP) aim to assign extra vehicular traffic to the intersection of Southwest 110th Avenue at Southwest 59th Street and then approach the school westbound though Southwest 59th Street. Traffic Operations can be found in **Appendix J.**

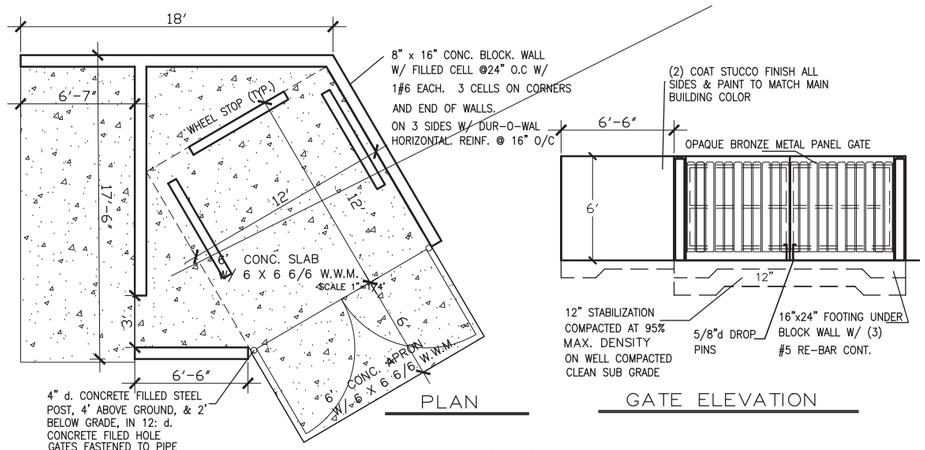
In summary and based on this traffic impact study, the proposed expansion of NUR-UR-Islam will not have an adverse impact on the surrounding roadway network and/or affect other traffic generators in the area upon implementation of the recommended off-site improvements.

Appendix A:

Architectural Plan



LIGHT POLE DETAILS



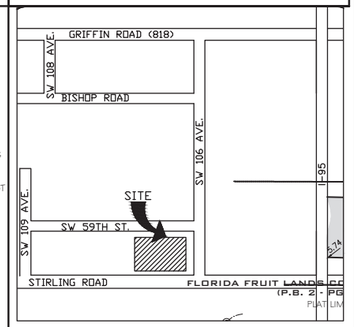
DUMPSTER DETAILS

LEGAL DESCRIPTION

PARCEL A, NURI-AL-ISLAM, ACCORSING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 149, AT PAGE 28, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.
TOGETHER WITH:
THE SOUTH 143.5 FEET OF THE EAST 75 FEET OF TRACT 39, AND THE NORTH 190.5 FEET OF THE EAST 75 FEET OF TRACT 40 (AS MEASURED FROM THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 31), FLORIDA FRUIT LANDS COMPANY'S SUBDIVISION No. 1 OF SECTION 31, TOWNSHIP 50 SOUTH, RANGE 41 EAST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 2, AT PAGE 17, OF THE PUBLIC RECORDS OF DADE COUNTY, FLORIDA; LESS: THE EAST 15 FEET THEREOF.
SAID LANDS LYING AND SITUATE IN BROWARD COUNTY, FLORIDA.
SUBJECT TO EXISTING EASEMENTS, RIGHTS-OF-WAY, COVENANTS, RESERVATIONS AND RESTRICTIONS OF RECORD, IF ANY.

LOCATION MAP

N.T.S.



SITE DATA

SITE DATA	SQ. FT.	ACRE	% OF LAND
GROSS SITE AREA	182,864	4.20	100%
EXISTING ZONING		COUNTY (I-1)	
EXISTING & PROPOSED LAND USE		SCHOOL & A PLACE OF WORSHIP	

SITE DATA	SQ. FT.	% OF LAND
EXISTING SQUARE FOOTAGE GROUND COVERED BY PRIMARY SCHOOL BUILDING	5880.0	3.2%
EXISTING SQUARE FOOTAGE GROUND COVERED BY PRIMARY SCHOOL BUILDING COVERED WALKS	954.0	0.5%
EXISTING SQUARE FOOTAGE GROUND COVERED BY ADMIN BUILDING	2,225.0	1.2%
EXISTING SQUARE FOOTAGE GROUND COVERED BY CAFETERIA	5,950.0	3.3%
EXISTING SQUARE FOOTAGE GROUND COVERED BY KITCHEN	1,400.0	0.8%
EXISTING SQUARE FOOTAGE GROUND COVERED BY CAFETERIA COVERED WALKS	1,665.0	0.9%
EXISTING SQUARE FOOTAGE GROUND COVERED BY SCHOOL LIBRARY	3,645.0	2.0%
EXISTING SQUARE FOOTAGE GROUND COVERED BY SCHOOL LIBRARY COVERED PATIO	1,380.0	0.8%
EXISTING SQUARE FOOTAGE GROUND COVERED BY SCHOOL BUILDING 2	5,340.0	2.9%
EXISTING SQUARE FOOTAGE GROUND COVERED BY SCHOOL BUILDING 2 COVERED WALKS	1,400.0	0.8%
PROPOSED SQUARE FOOTAGE GROUND COVERED BY MOSQUE & COVERED WALKS	7,922.0	4.3%
PROPOSED SQUARE FOOTAGE GROUND COVERED BY SCHOOL BUILDING 3	1,115.0	0.6%
TOTAL SQUARE FOOTAGE GROUND COVERED BY BUILDINGS & COVERD WALKS (Allowed 35% Max.)	**38,876.0**	**21.3%**
TOTAL SQUARE FOOTAGE of SIDEWALKS & SLABS	**6,542.0**	**3.6%**
TOTAL PAVED PARKING AND DRIVEWAYS	**55,182.0**	**30.2%**
TOTAL LANDSCAPE AREA	**82,264.0**	**45.0%**
TOTAL AREA	**182,864.0**	**100.0%**
PERVOUS	82,264.0	45.0%
IMPERVOUS	100,600.0	55.0%
TOTAL	**182,864.0**	**100.0%**

SET BACKS	MIN.(FT.)	PROVIDED
FRONT YARD (NORTH)	50'	81.25'
REAR (SOUTH)	50'	50.42'
SIDE (EAST)	25'	76'
SIDE (WEST)	25'	58.5'

BUILDING AREA DATA	EXISTING	PROPOSED	TOTAL	STUDENTS CAPACITY
EXISTING SQUARE FOOTAGE PRIMARY SCHOOL BUILDING	5880.0		5880.0	125
EXISTING SQUARE FOOTAGE GROUND COVERED BY PRIMARY SCHOOL BUILDING COVERED WALKS **	954.0		954.0	
EXISTING SQUARE FOOTAGE ADMIN BUILDING	2,225.0		2225.0	
EXISTING SQUARE FOOTAGE CAFETERIA	5,950.0		5950.0	
EXISTING SQUARE FOOTAGE KITCHEN	1,400.0		1400.0	
EXISTING SQUARE FOOTAGE GROUND COVERED BY CAFETERIA COVERED WALKS **	1,665.0		1665.0	
EXISTING SQUARE FOOTAGE SCHOOL LIBRARY	3645.0		3645.0	
EXISTING SQUARE FOOTAGE GROUND COVERED BY SCHOOL LIBRARY COVERED PATIO **	1,380.0		1380.0	
EXISTING SQUARE FOOTAGE SCHOOL BUILDING 2	12,000.0		12000.0	300
EXISTING SQUARE FOOTAGE GROUND COVERED BY SCHOOL BUILDING 2 COVERED WALKS **	1,400.0		1400.0	
PROPOSED SQUARE FOOTAGE MOSQUE		11927	11927	
PROPOSED SQUARE FOOTAGE SCHOOL BUILDING 3		14055	14055	135
TOTAL BUILDING AREA(SQ. FT.)	**36499.0**	**25982**	**62481.0**	**560**

** EXISTING COVERED WALKS & PATIO

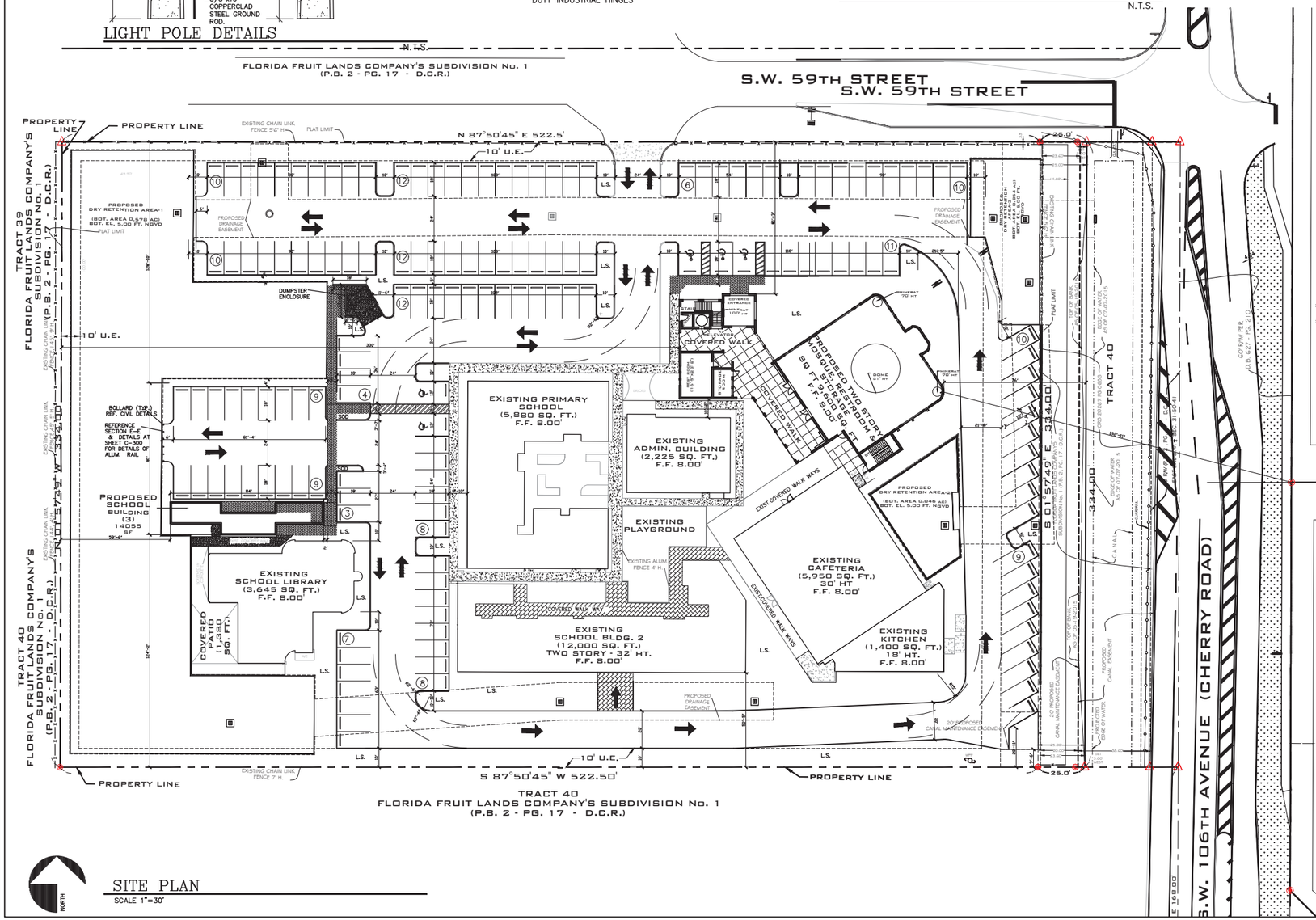
BUILDING HEIGHT	MAX.(FT.)	PROVIDED (FT.)
PROPOSED MOSQUE **	20'	25' BLDG.-51'DOME-70.&100 TOWERS
PROPOSED MIDDLE SCHOOL BUILDING 3	40'	35'

** A VARIANCE APPLICATION WILL BE SUBMITTED FOR THE DOME AND THE MINARETS

STUDENTS CAPACITY	Existing	Proposed
Elementary School	250	325
Middle School	75	135
High School	100	100
Total	425	560

PARKING CALCULATIONS	Previously approved SPA 2-15			Proposed Site Plan			
Area Data	Area Sq. Ft.	Parking Required Weekday	Parking Required Weekend	Area Sq. Ft.	Calculation	Parking Required Weekday	Parking Required Weekend
School Library(3,645 Sq Ft) and Patio(1,380Sq Ft)	5,025	1	0	5,025		1	0
Administration Building	2,225	8	0	2,225		8	0
School Building (1)	5,880	5	0	5,880		5	0
School Building (2)	12,000	21	0	12,000		21	0
Cafeteria / Multi-Purpose hall(5,950 Sq Ft) and Kitchen (1,400 sq ft)	7,350	5	60	7,350		5	60
Propose Mosque	4,500	30	0	7,685	7685SQ FT gross assembly area /100	**77**	**77**
Propose Middle School Building (3)	-	0	0	14,055	135 Pup /10 plus 5 classrooms	**19**	**0**
Total Parking Required		**70**	**60**			**136**	**137**
Total Parking Provided (Paved)		62	62			145	145
Total Parking Provided (Grass Parking)		14	14			0	0
Total H.C. Parking Provided (Paved)		3	3			5	5
Total Parking Required		**79**	**79**			**150**	**150**

Note #1 The Mosque peak use on Friday afternoon from 1:30 PM to 2:30 PM
Note #2 School hours of operations are 7.30 am to 3pm Monday to Thursday and 7 to 12 pm on Friday.



SITE PLAN
SCALE 1"=30'

NOTES

1. ALL REQUIRED OFFSITE ROAD WORK IMPROVEMENTS & SITE IMPROVEMENTS WILL BE COMPLETED PRIOR TO SUBMITTING FOR A TEMP OR FINAL C/O

Innovative Group Inc.
Architecture Planning Interior Design
AA 0003558 IB0001293
480 S. CYPRESS RD. SUITE#100
POMPANO BEACH, FL 33060
TEL.954-785-1314 FAX 954-785-1315
Saleh H. Elrawady, AIA. AR 0017516

PROJECT:
NUI SITE PLAN AMENDMENT
10600 S.W. 59th STREET COOPER CITY, FLORIDA 33328

OWNER:
NURI-AL-ISLAM OF SOUTH FLORIDA, INC.

Revisions:	Date
REV. #1 AS PER	0/0/20

IG No: 20106
Design: SE
Drawn by: JM
Checked: SE
Date: 10/13/2021

SCALE 1"=20'

SHEET
SP-1

08/05/2022 P&Z 4

Appendix B:

Traffic Data Collection

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8630 WEST-W OF US441

MOCF: 0.91

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.95	1.04
* 2	01/05/2020 - 01/11/2020	0.90	0.99
* 3	01/12/2020 - 01/18/2020	0.85	0.93
* 4	01/19/2020 - 01/25/2020	0.84	0.92
* 5	01/26/2020 - 02/01/2020	0.83	0.91
* 6	02/02/2020 - 02/08/2020	0.83	0.91
* 7	02/09/2020 - 02/15/2020	0.82	0.90
* 8	02/16/2020 - 02/22/2020	0.86	0.95
* 9	02/23/2020 - 02/29/2020	0.89	0.98
*10	03/01/2020 - 03/07/2020	0.93	1.02
*11	03/08/2020 - 03/14/2020	0.97	1.07
*12	03/15/2020 - 03/21/2020	1.01	1.11
*13	03/22/2020 - 03/28/2020	1.11	1.22
14	03/29/2020 - 04/04/2020	1.22	1.34
15	04/05/2020 - 04/11/2020	1.32	1.45
16	04/12/2020 - 04/18/2020	1.42	1.56
17	04/19/2020 - 04/25/2020	1.36	1.49
18	04/26/2020 - 05/02/2020	1.29	1.42
19	05/03/2020 - 05/09/2020	1.23	1.35
20	05/10/2020 - 05/16/2020	1.16	1.27
21	05/17/2020 - 05/23/2020	1.14	1.25
22	05/24/2020 - 05/30/2020	1.11	1.22
23	05/31/2020 - 06/06/2020	1.08	1.19
24	06/07/2020 - 06/13/2020	1.05	1.15
25	06/14/2020 - 06/20/2020	1.02	1.12
26	06/21/2020 - 06/27/2020	1.03	1.13
27	06/28/2020 - 07/04/2020	1.04	1.14
28	07/05/2020 - 07/11/2020	1.04	1.14
29	07/12/2020 - 07/18/2020	1.05	1.15
30	07/19/2020 - 07/25/2020	1.05	1.15
31	07/26/2020 - 08/01/2020	1.04	1.14
32	08/02/2020 - 08/08/2020	1.04	1.14
33	08/09/2020 - 08/15/2020	1.03	1.13
34	08/16/2020 - 08/22/2020	1.03	1.13
35	08/23/2020 - 08/29/2020	1.02	1.12
36	08/30/2020 - 09/05/2020	1.02	1.12
37	09/06/2020 - 09/12/2020	1.01	1.11
38	09/13/2020 - 09/19/2020	1.01	1.11
39	09/20/2020 - 09/26/2020	1.00	1.10
40	09/27/2020 - 10/03/2020	0.99	1.09
41	10/04/2020 - 10/10/2020	0.98	1.08
42	10/11/2020 - 10/17/2020	0.97	1.07
43	10/18/2020 - 10/24/2020	0.97	1.07
44	10/25/2020 - 10/31/2020	0.97	1.07
45	11/01/2020 - 11/07/2020	0.97	1.07
46	11/08/2020 - 11/14/2020	0.98	1.08
47	11/15/2020 - 11/21/2020	0.98	1.08
48	11/22/2020 - 11/28/2020	0.97	1.07
49	11/29/2020 - 12/05/2020	0.97	1.07
50	12/06/2020 - 12/12/2020	0.96	1.05
51	12/13/2020 - 12/19/2020	0.95	1.04
52	12/20/2020 - 12/26/2020	0.90	0.99
53	12/27/2020 - 12/31/2020	0.85	0.93

* PEAK SEASON

County: 99
Station: 4053
Description: SW 59TH ST WEST OF SW 106TH AV
Start Date: 04/09/2021
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	0	1	0	1	2	0	2	1	0	3	5
0100	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	1	0	0	1	1
0300	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	1	0	1	0	0	0	0	0	1
0500	0	1	0	2	3	0	0	0	0	0	3
0600	1	1	18	2	22	12	7	3	4	26	48
0700	3	6	2	4	15	11	9	8	20	48	63
0800	22	13	3	5	43	10	7	3	3	23	66
0900	4	2	1	6	13	3	1	3	5	12	25
1000	1	3	6	10	20	4	5	5	6	20	40
1100	4	7	11	15	37	3	21	8	6	38	75
1200	9	13	4	3	29	4	8	8	11	31	60
1300	2	1	2	1	6	10	29	49	39	127	133
1400	3	122	15	10	150	13	6	3	0	22	172
1500	6	2	2	2	12	3	1	3	1	8	20
1600	5	2	6	6	19	2	4	3	1	10	29
1700	4	4	4	1	13	2	4	4	0	10	23
1800	0	3	3	0	6	0	0	1	1	2	8
1900	3	0	1	1	5	2	1	6	3	12	17
2000	8	2	2	0	12	0	1	3	1	5	17
2100	5	7	4	2	18	12	3	0	3	18	36
2200	0	1	0	0	1	0	1	0	0	1	2
2300	0	0	0	0	0	0	0	0	0	0	0
24-Hour Totals:					427					417	844

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	800	43	700	48	730	86
P.M.	1415	153	1315	130	1330	235
Daily	1415	153	1315	130	1330	235

Generated by SPS 5.0.48P

County: 99
Station: 4053
Description: SW 59TH ST WEST OF SW 106TH AV
Start Date: 04/08/2021
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0
0400	0	1	0	1	2	0	0	0	0	0	2
0500	0	0	0	1	1	0	0	0	2	2	3
0600	2	1	19	1	23	11	9	2	4	26	49
0700	3	7	7	9	26	1	6	7	6	20	46
0800	15	24	7	1	47	13	8	3	5	29	76
0900	3	2	3	9	17	2	1	1	1	5	22
1000	3	2	3	2	10	2	1	5	3	11	21
1100	6	6	5	6	23	6	1	3	4	14	37
1200	7	0	7	8	22	3	2	8	3	16	38
1300	4	4	5	10	23	6	11	7	13	37	60
1400	21	10	9	2	42	7	3	3	2	15	57
1500	6	3	7	2	18	0	2	1	0	3	21
1600	5	3	2	2	12	2	9	8	12	31	43
1700	2	4	6	4	16	12	6	2	1	21	37
1800	1	4	3	4	12	2	1	0	2	5	17
1900	0	1	0	3	4	1	1	7	3	12	16
2000	5	3	0	3	11	1	1	0	0	2	13
2100	0	0	15	6	21	18	2	0	0	20	41
2200	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	1	1	0	0	0	1	1	2
24-Hour Totals:					331					270	601

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	730	55	730	34	730	89
P.M.	1345	50	1615	41	1315	78
Daily	730	55	1615	41	730	89

Generated by SPS 5.0.48P

County: 99
Station: 4051
Description: SW 106TH AV SOUTH OF SW 59TH ST
Start Date: 04/09/2021
Start Time: 0000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	4	1	4	3	12	3	3	1	0	7	19
0100	1	2	0	0	3	1	1	0	4	6	9
0200	0	3	1	0	4	1	1	1	0	3	7
0300	0	0	0	2	2	1	2	0	0	3	5
0400	1	1	1	0	3	0	0	1	3	4	7
0500	0	3	2	5	10	1	4	2	0	7	17
0600	12	11	12	17	52	7	7	20	13	47	99
0700	36	23	27	58	144	16	34	34	41	125	269
0800	60	54	26	33	173	50	41	30	25	146	319
0900	26	40	25	27	118	35	23	27	23	108	226
1000	31	22	28	32	113	17	21	23	33	94	207
1100	30	38	27	40	135	32	38	29	37	136	271
1200	35	30	27	47	139	42	35	28	18	123	262
1300	45	41	40	53	179	27	26	33	21	107	286
1400	41	37	32	24	134	34	93	51	42	220	354
1500	53	42	35	32	162	31	34	34	26	125	287
1600	38	42	49	39	168	44	34	42	57	177	345
1700	42	49	41	50	182	51	44	35	32	162	344
1800	40	43	36	32	151	52	41	31	34	158	309
1900	32	35	27	26	120	37	31	20	26	114	234
2000	16	17	25	31	89	26	17	20	20	83	172
2100	29	10	9	10	58	20	21	17	10	68	126
2200	10	13	8	4	35	13	9	8	5	35	70
2300	12	3	8	9	32	7	6	4	3	20	52
24-Hour Totals:					2218					2078	4296

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	730	199	730	166	730	365
P.M.	1700	182	1400	220	1630	373
Daily	730	199	1400	220	1630	373

Generated by SPS 5.0.48P

County: 99
Station: 4051
Description: SW 106TH AV SOUTH OF SW 59TH ST
Start Date: 04/08/2021
Start Time: 0000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	4	2	1	2	9	1	1	0	4	6	15
0100	1	1	1	0	3	0	1	1	1	3	6
0200	1	1	1	0	3	1	1	0	0	2	5
0300	1	4	0	1	6	1	2	1	1	5	11
0400	0	0	2	4	6	1	0	0	0	1	7
0500	5	4	2	8	19	2	2	3	3	10	29
0600	15	10	19	34	78	5	3	20	8	36	114
0700	30	33	31	64	158	22	35	38	35	130	288
0800	58	52	36	41	187	37	55	37	45	174	361
0900	39	29	23	37	128	36	19	22	26	103	231
1000	26	37	44	18	125	25	27	20	21	93	218
1100	29	24	27	47	127	20	31	33	34	118	245
1200	45	45	43	36	169	46	36	31	35	148	317
1300	40	43	44	49	176	38	29	31	41	139	315
1400	48	35	38	37	158	47	35	32	29	143	301
1500	29	46	31	35	141	25	39	46	35	145	286
1600	43	34	36	48	161	50	33	52	41	176	337
1700	34	40	46	51	171	55	60	61	64	240	411
1800	56	46	37	38	177	45	26	33	30	134	311
1900	23	25	27	26	101	19	35	23	22	99	200
2000	28	25	21	19	93	25	23	20	15	83	176
2100	22	11	17	8	58	19	11	15	12	57	115
2200	4	11	7	6	28	3	5	3	5	16	44
2300	2	5	4	7	18	7	5	3	7	22	40
24-Hour Totals:					2300					2083	4383

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	745	210	800	174	745	374
P.M.	1730	199	1700	240	1715	423
Daily	745	210	1700	240	1715	423

Generated by SPS 5.0.48P

County: 99
Station: 4052
Description: STERLING RD WEST OF SW 106TH AV
Start Date: 04/09/2021
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	13	12	9	10	44	22	21	25	12	80	124
0100	11	4	4	10	29	12	19	9	9	49	78
0200	7	3	4	2	16	10	12	13	4	39	55
0300	4	3	3	3	13	11	3	5	8	27	40
0400	4	6	11	10	31	8	9	10	15	42	73
0500	6	16	18	25	65	13	18	27	34	92	157
0600	47	40	60	85	232	32	50	74	79	235	467
0700	110	127	173	281	691	92	125	179	205	601	1292
0800	261	194	223	224	902	173	185	170	195	723	1625
0900	172	145	140	159	616	171	145	157	159	632	1248
1000	147	119	147	141	554	133	150	165	158	606	1160
1100	135	167	161	155	618	162	169	133	158	622	1240
1200	185	160	142	153	640	165	194	165	160	684	1324
1300	142	141	186	203	672	206	199	186	185	776	1448
1400	197	190	162	179	728	177	199	194	219	789	1517
1500	175	228	209	240	852	225	205	236	253	919	1771
1600	204	204	208	209	825	250	224	275	262	1011	1836
1700	221	192	215	247	875	271	275	242	290	1078	1953
1800	193	193	195	167	748	226	239	175	177	817	1565
1900	181	175	129	133	618	195	177	136	147	655	1273
2000	114	116	92	116	438	158	137	127	133	555	993
2100	105	76	77	91	349	139	115	89	98	441	790
2200	84	55	50	49	238	112	93	76	61	342	580
2300	59	44	36	33	172	53	39	38	45	175	347
24-Hour Totals:					10966					11990	22956

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	745	959	730	742	745	1692
P.M.	1515	881	1630	1083	1700	1953
Daily	745	959	1630	1083	1700	1953

Generated by SPS 5.0.48P

County: 99
Station: 4052
Description: STERLING RD WEST OF SW 106TH AV
Start Date: 04/08/2021
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	17	7	10	6	40	20	7	17	15	59	99
0100	15	7	2	4	28	10	11	6	15	42	70
0200	3	5	7	2	17	5	5	7	7	24	41
0300	3	4	1	6	14	9	7	5	7	28	42
0400	2	4	16	14	36	7	12	13	12	44	80
0500	7	13	22	28	70	8	18	25	43	94	164
0600	45	63	69	92	269	40	39	82	88	249	518
0700	118	134	165	239	656	86	121	228	172	607	1263
0800	234	217	211	206	868	190	171	160	222	743	1611
0900	188	149	151	139	627	179	150	131	147	607	1234
1000	160	157	138	141	596	148	137	150	157	592	1188
1100	134	140	153	185	612	156	187	181	187	711	1323
1200	203	218	178	191	790	201	197	174	169	741	1531
1300	178	185	185	183	731	187	172	194	202	755	1486
1400	166	174	184	198	722	200	208	199	205	812	1534
1500	191	191	207	200	789	234	238	214	229	915	1704
1600	202	206	222	186	816	219	229	236	248	932	1748
1700	225	230	268	258	981	248	283	260	311	1102	2083
1800	231	212	204	157	804	258	216	216	193	883	1687
1900	166	152	159	149	626	160	200	163	136	659	1285
2000	132	104	102	95	433	173	163	149	135	620	1053
2100	72	78	70	68	288	115	114	88	81	398	686
2200	53	47	53	28	181	85	64	54	42	245	426
2300	27	18	21	19	85	32	48	26	21	127	212
24-Hour Totals:					11079					11989	23068

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	745	901	730	761	730	1616
P.M.	1715	987	1715	1112	1715	2099
Daily	1715	987	1715	1112	1715	2099

Generated by SPS 5.0.48P

10600 (Nur Islam Driveway) at SW 59th Street
Friday

File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 1

Groups Printed- Vehicle - Trucks

	Southbound					Nur Islam Driveway Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	2	3	0	6	0	0	6	0	0	0	0	0	9
07:15 AM	0	0	0	0	0	0	1	0	1	2	0	7	0	0	7	0	0	0	2	2	11
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	7	0	0	7	0	0	0	4	4	12
07:45 AM	0	0	0	0	0	0	1	0	1	2	0	19	0	0	19	0	0	0	9	9	30
Total	0	0	0	0	0	0	3	0	5	8	0	39	0	0	39	0	0	0	15	15	62
08:00 AM	0	0	0	0	0	0	9	0	19	28	0	12	0	0	12	0	0	0	4	4	44
08:15 AM	0	0	0	0	0	0	1	0	9	10	0	6	0	0	6	0	0	0	1	1	17
08:30 AM	0	0	0	0	0	0	0	0	2	2	0	2	0	0	2	0	0	0	2	2	6
08:45 AM	0	0	0	0	0	0	0	0	3	3	0	3	0	0	3	0	0	0	0	0	6
Total	0	0	0	0	0	0	10	0	33	43	0	23	0	0	23	0	0	0	7	7	73
*** BREAK ***																					
11:30 AM	0	0	0	0	0	0	6	0	10	16	0	5	0	0	5	0	0	0	2	2	23
11:45 AM	0	0	0	0	0	0	1	0	12	13	0	3	0	0	3	0	0	0	0	0	16
Total	0	0	0	0	0	0	7	0	22	29	0	8	0	0	8	0	0	0	2	2	39
12:00 PM	0	0	0	0	0	0	2	0	5	7	0	3	0	0	3	0	0	0	1	1	11
12:15 PM	0	0	0	0	0	0	3	1	7	11	0	6	0	0	6	0	0	0	1	1	18
12:30 PM	0	0	0	0	0	0	0	0	1	1	0	6	0	0	6	0	0	0	0	0	7
12:45 PM	0	0	0	0	0	0	0	0	1	1	0	10	0	0	10	0	0	0	0	0	11
Total	0	0	0	0	0	0	5	1	14	20	0	25	0	0	25	0	0	0	2	2	47
01:00 PM	0	0	0	0	0	0	1	0	0	1	0	7	0	0	7	0	0	0	3	3	11
01:15 PM	0	0	0	0	0	0	1	0	2	3	0	20	0	0	20	0	0	0	4	4	27
01:30 PM	0	0	0	0	0	0	1	0	0	1	0	19	0	0	19	0	0	0	7	7	27
01:45 PM	0	0	0	0	0	0	0	0	2	2	0	11	0	0	11	0	0	0	7	7	20
Total	0	0	0	0	0	0	3	0	4	7	0	57	0	0	57	0	0	0	21	21	85
02:00 PM	0	0	0	0	0	0	0	0	3	3	0	5	0	0	5	0	0	0	1	1	9
02:15 PM	0	0	0	0	0	0	19	1	53	73	0	3	0	0	3	0	0	0	1	1	77
02:30 PM	0	0	0	0	0	0	5	1	15	21	0	1	0	0	1	0	0	0	3	3	25
02:45 PM	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	24	2	75	101	0	9	0	0	9	0	0	0	5	5	115

10600 (Nur Islam Driveway) at SW 59th Street
Friday

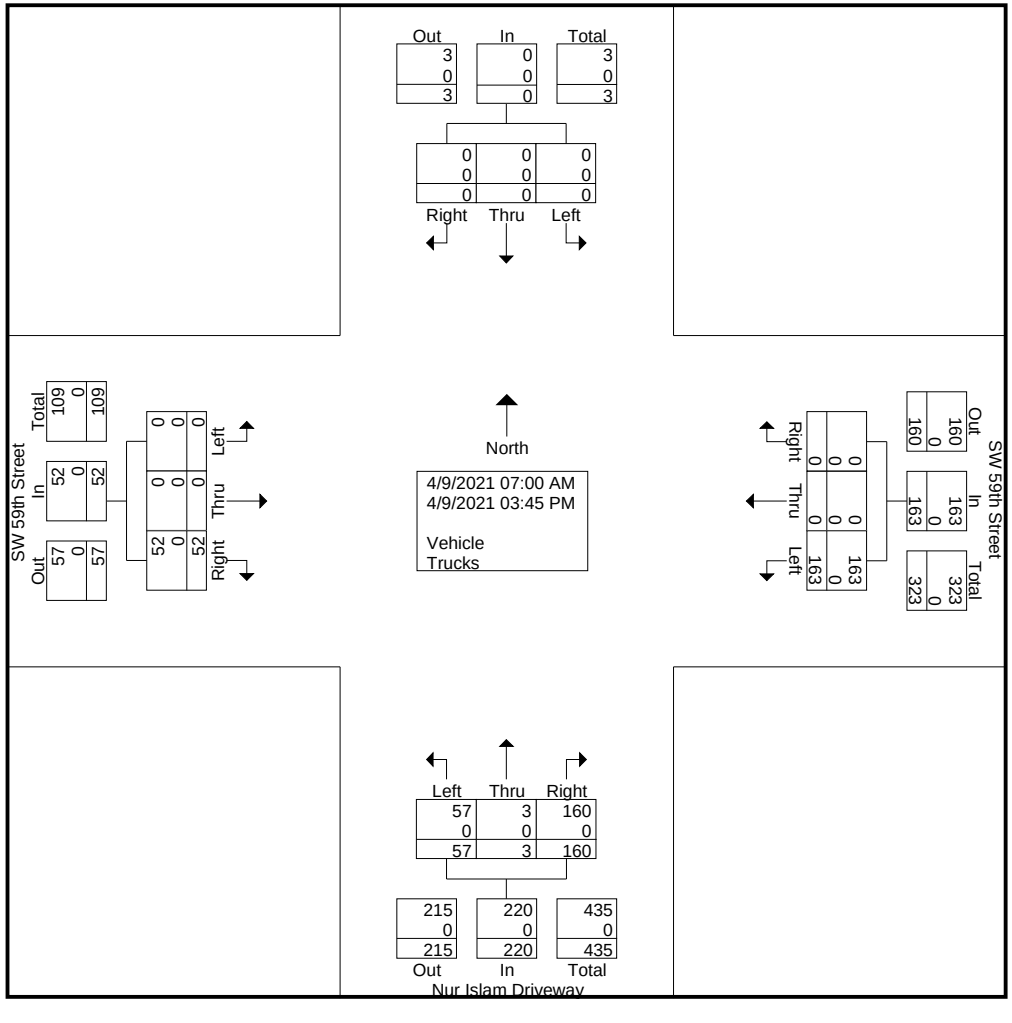
File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 2

Groups Printed- Vehicle - Trucks

	Southbound					Nur Islam Driveway Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	5	0	6	11	0	2	0	0	2	0	0	0	0	0	13
03:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																					
Total	0	0	0	0	0	0	5	0	7	12	0	2	0	0	2	0	0	0	0	0	14
Grand Total	0	0	0	0	0	0	57	3	160	220	0	163	0	0	163	0	0	0	52	52	435
Apprch %	0	0	0	0		0	25.9	1.4	72.7		0	100	0	0		0	0	0	100		
Total %	0	0	0	0	0	0	13.1	0.7	36.8	50.6	0	37.5	0	0	37.5	0	0	0	12	12	
Vehicle	0	0	0	0	0	0	57	3	160	220	0	163	0	0	163	0	0	0	52	52	435
% Vehicle	0	0	0	0	0	0	100	100	100	100	0	100	0	0	100	0	0	0	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10600 (Nur Islam Driveway) at SW 59th Street
Friday

File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 3



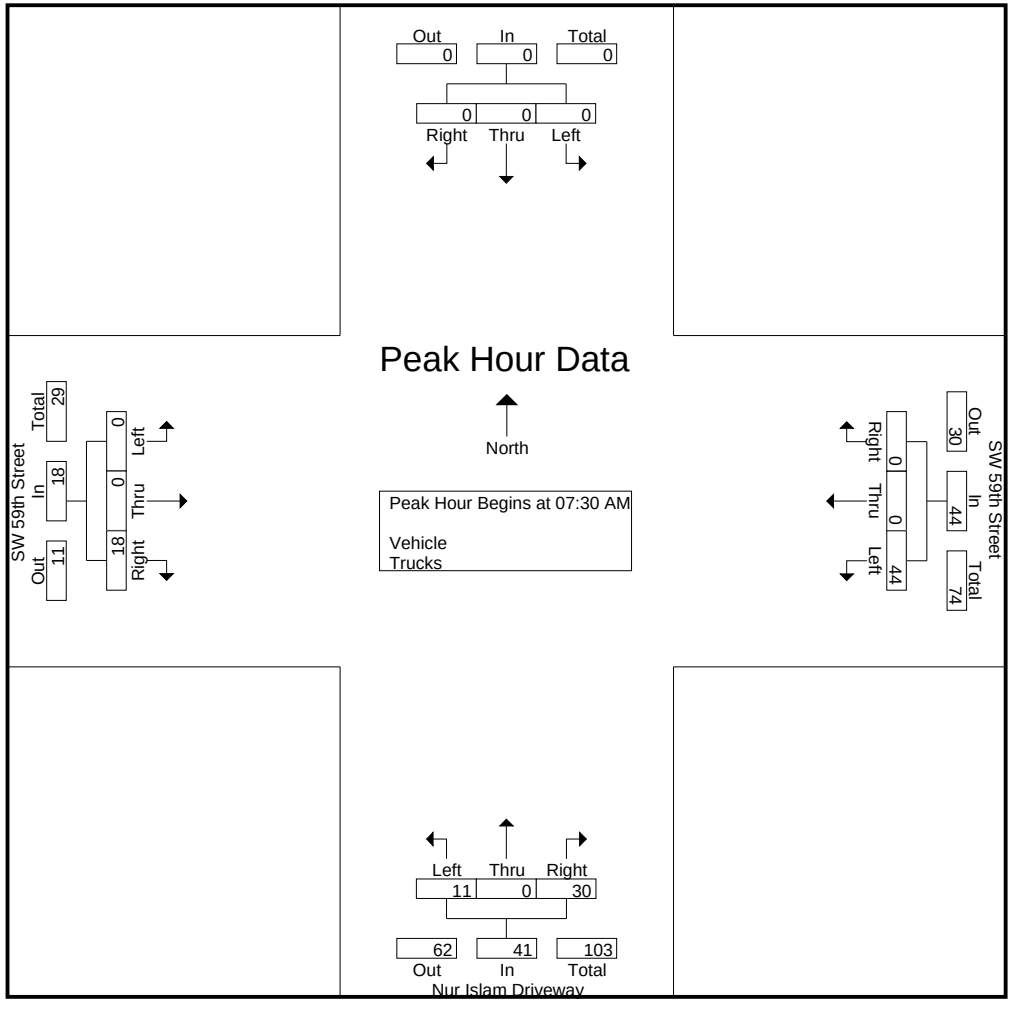
10600 (Nur Islam Driveway) at SW 59th Street
Friday

File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 4

	Southbound					Nur Islam Driveway Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	7	0	0	7	0	0	0	4	4	12
07:45 AM	0	0	0	0	0	0	1	0	1	2	0	**19**	0	0	**19**	0	0	0	**9**	**9**	30
08:00 AM	0	0	0	0	0	0	**9**	0	**19**	**28**	0	12	0	0	12	0	0	0	4	4	**44**
08:15 AM	0	0	0	0	0	0	1	0	9	10	0	6	0	0	6	0	0	0	1	1	17
Total Volume	0	0	0	0	0	0	11	0	30	41	0	44	0	0	44	0	0	0	18	18	103
% App. Total	0	0	0	0		0	26.8	0	73.2		0	100	0	0		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.306	.000	.395	.366	.000	.579	.000	.000	.579	.000	.000	.000	.500	.500	.585

10600 (Nur Islam Driveway) at SW 59th Street
Friday

File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 5



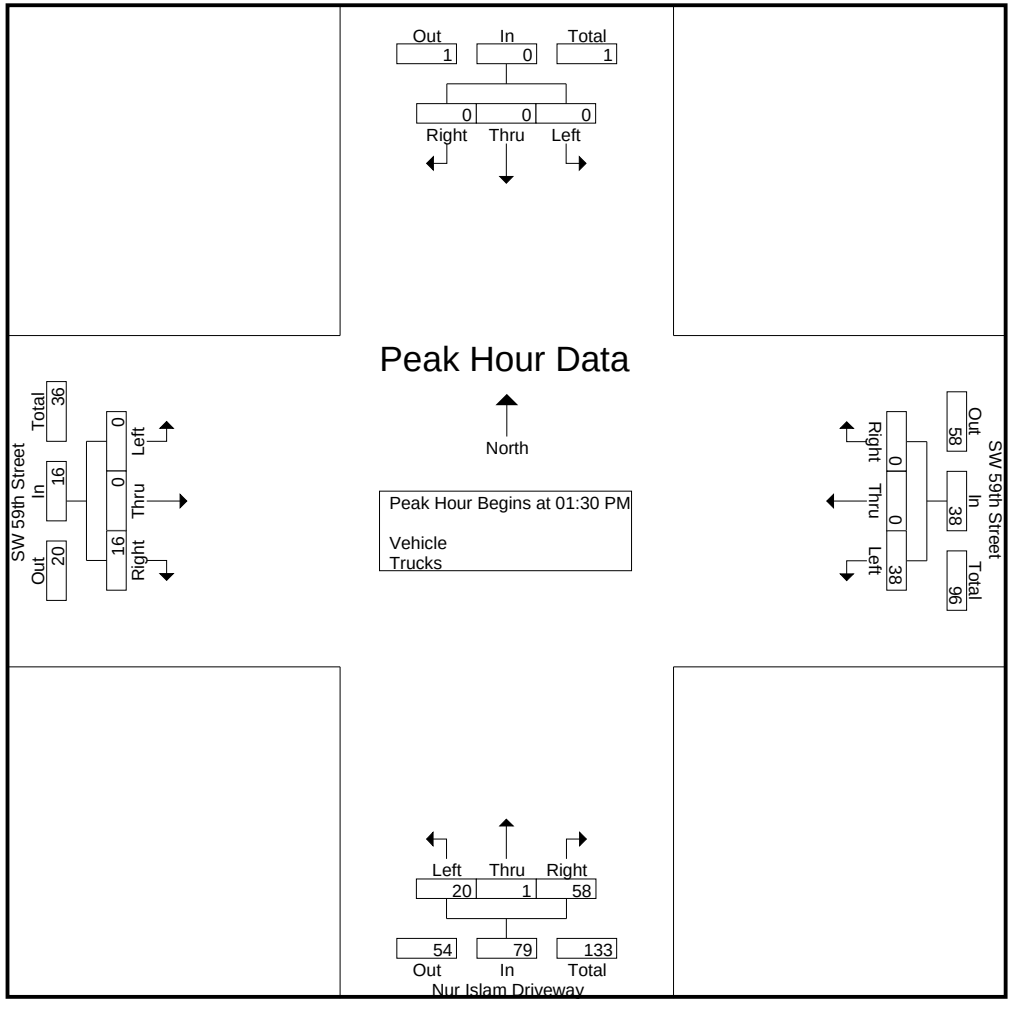
10600 (Nur Islam Driveway) at SW 59th Street
Friday

File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 6

	Southbound					Nur Islam Driveway Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	0	0	0	0	0	0	1	0	0	1	0	**19**	0	0	**19**	0	0	0	**7**	**7**	27
01:45 PM	0	0	0	0	0	0	0	0	2	2	0	11	0	0	11	0	0	0	7	7	20
02:00 PM	0	0	0	0	0	0	0	0	3	3	0	5	0	0	5	0	0	0	1	1	9
02:15 PM	0	0	0	0	0	0	**19**	**1**	**53**	**73**	0	3	0	0	3	0	0	0	1	1	**77**
Total Volume	0	0	0	0	0	0	20	1	58	79	0	38	0	0	38	0	0	0	16	16	133
% App. Total	0	0	0	0		0	25.3	1.3	73.4		0	100	0	0		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.263	.250	.274	.271	.000	.500	.000	.000	.500	.000	.000	.000	.571	.571	.432

10600 (Nur Islam Driveway) at SW 59th Street
Friday

File Name : 10600 (Nur Islam Driveway) SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 7



SW 106th Avenue at SW 59th Street
Friday

File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 1

Groups Printed- Vehicle - Trucks

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	17	1	20	0	10	29	0	39	0	0	0	0	0	0	3	0	0	3	62
07:15 AM	0	1	29	4	34	0	5	20	2	27	0	0	0	0	0	0	1	0	4	5	66
07:30 AM	0	3	34	3	40	0	6	23	0	29	0	0	0	0	0	0	1	0	1	2	71
07:45 AM	0	0	39	6	45	1	13	41	2	57	0	0	0	0	0	0	2	0	1	3	105
Total	0	6	119	14	139	1	34	113	4	152	0	0	0	0	0	0	7	0	6	13	304
08:00 AM	0	0	34	5	39	0	4	43	3	50	0	0	0	0	0	0	7	0	15	22	111
08:15 AM	0	0	30	1	31	0	5	49	0	54	0	0	0	2	2	0	3	0	7	10	97
08:30 AM	0	0	25	1	26	0	2	23	0	25	0	1	0	0	1	0	1	0	1	2	54
08:45 AM	0	0	19	0	19	0	3	32	1	36	0	1	0	0	1	0	1	2	3	6	62
Total	0	0	108	7	115	0	14	147	4	165	0	2	0	2	4	0	12	2	26	40	324
*** BREAK ***																					
11:30 AM	0	0	24	1	25	0	7	20	0	27	0	0	0	0	0	0	6	0	5	11	63
11:45 AM	0	1	29	0	30	0	6	35	0	41	0	0	0	1	1	0	7	0	7	14	86
Total	0	1	53	1	55	0	13	55	0	68	0	0	0	1	1	0	13	0	12	25	149
12:00 PM	0	0	33	2	35	0	2	29	2	33	0	1	0	0	1	0	3	0	5	8	77
12:15 PM	0	1	25	0	26	0	8	22	1	31	0	1	0	1	2	0	3	2	7	12	71
12:30 PM	0	0	22	1	23	0	6	19	0	25	0	1	0	1	2	0	1	1	2	4	54
12:45 PM	0	0	19	5	24	0	7	40	1	48	0	1	0	0	1	0	3	0	0	3	76
Total	0	1	99	8	108	0	23	110	4	137	0	4	0	2	6	0	10	3	14	27	278
01:00 PM	0	0	23	4	27	0	6	39	0	45	0	0	0	0	0	0	1	0	2	3	75
01:15 PM	0	0	25	11	36	0	16	24	0	40	0	0	0	0	0	0	1	0	0	1	77
01:30 PM	0	0	30	22	52	0	25	15	0	40	0	1	0	0	1	0	1	0	0	1	94
01:45 PM	0	0	23	20	43	0	15	36	0	51	0	0	0	0	0	0	1	0	0	1	95
Total	0	0	101	57	158	0	62	114	0	176	0	1	0	0	1	0	4	0	2	6	341
02:00 PM	0	0	29	3	32	0	8	32	0	40	0	0	0	0	0	0	1	0	2	3	75
02:15 PM	0	0	31	1	32	0	4	26	0	30	0	0	0	0	0	0	51	0	68	119	181
02:30 PM	0	1	36	2	39	0	0	28	1	29	0	1	0	1	2	0	4	0	10	14	84
02:45 PM	0	1	37	0	38	0	0	24	0	24	0	0	0	0	0	0	6	0	4	10	72
Total	0	2	133	6	141	0	12	110	1	123	0	1	0	1	2	0	62	0	84	146	412

SW 106th Avenue at SW 59th Street
Friday

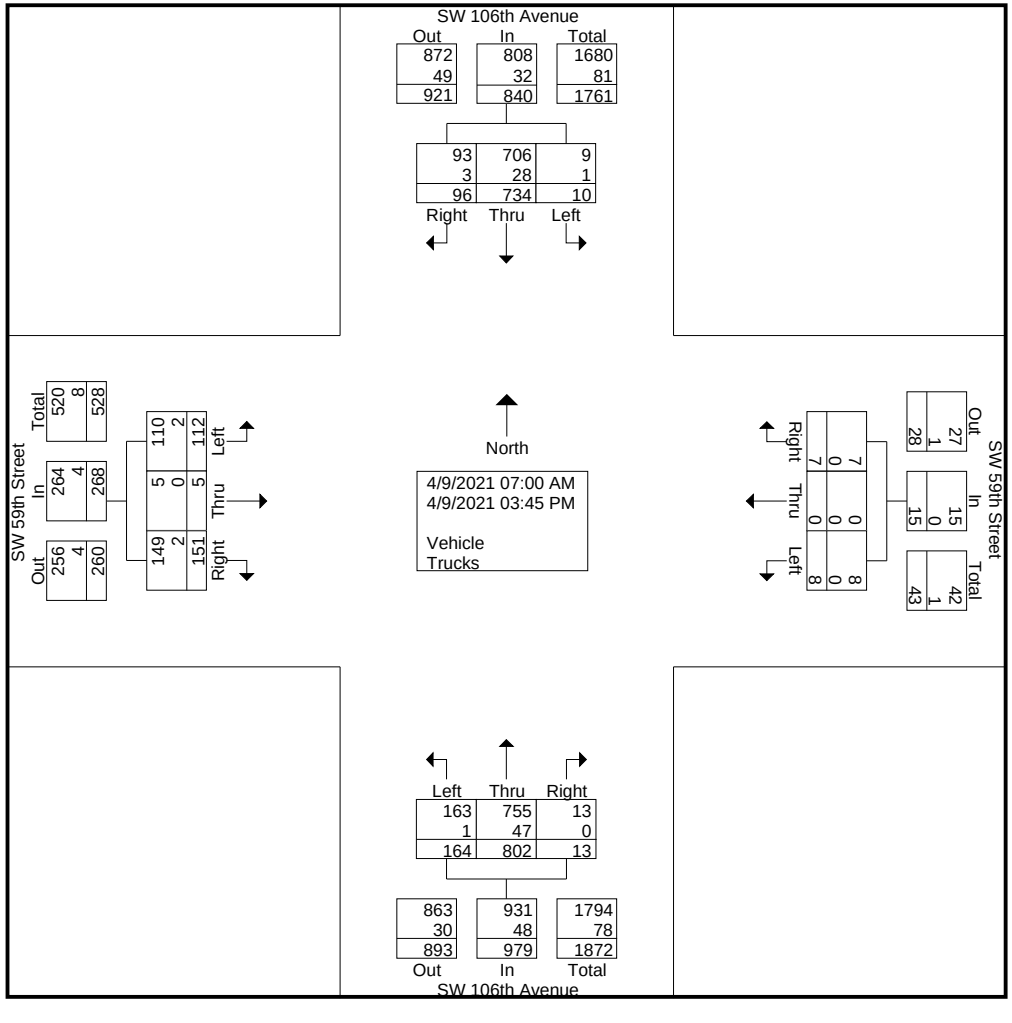
File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 2

Groups Printed- Vehicle - Trucks

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	30	1	31	0	2	51	0	53	0	0	0	1	1	0	1	0	4	5	90
03:15 PM	0	0	36	1	37	0	1	37	0	38	0	0	0	0	0	0	0	0	2	2	77
03:30 PM	0	0	31	1	32	0	1	35	0	36	0	0	0	0	0	0	2	0	0	2	70
03:45 PM	0	0	24	0	24	0	1	30	0	31	0	0	0	0	0	0	1	0	1	2	57
Total	0	0	121	3	124	0	5	153	0	158	0	0	0	1	1	0	4	0	7	11	294
Grand Total	0	10	734	96	840	1	163	802	13	979	0	8	0	7	15	0	112	5	151	268	2102
Apprch %	0	1.2	87.4	11.4		0.1	16.6	81.9	1.3		0	53.3	0	46.7		0	41.8	1.9	56.3		
Total %	0	0.5	34.9	4.6	40	0	7.8	38.2	0.6	46.6	0	0.4	0	0.3	0.7	0	5.3	0.2	7.2	12.7	
Vehicle	0	9	706	93	808	1	162	755	13	931	0	8	0	7	15	0	110	5	149	264	2018
% Vehicle	0	90	96.2	96.9	96.2	100	99.4	94.1	100	95.1	0	100	0	100	100	0	98.2	100	98.7	98.5	96
Trucks	0	1	28	3	32	0	1	47	0	48	0	0	0	0	0	0	2	0	2	4	84
% Trucks	0	10	3.8	3.1	3.8	0	0.6	5.9	0	4.9	0	0	0	0	0	0	1.8	0	1.3	1.5	4

SW 106th Avenue at SW 59th Street
Friday

File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 3



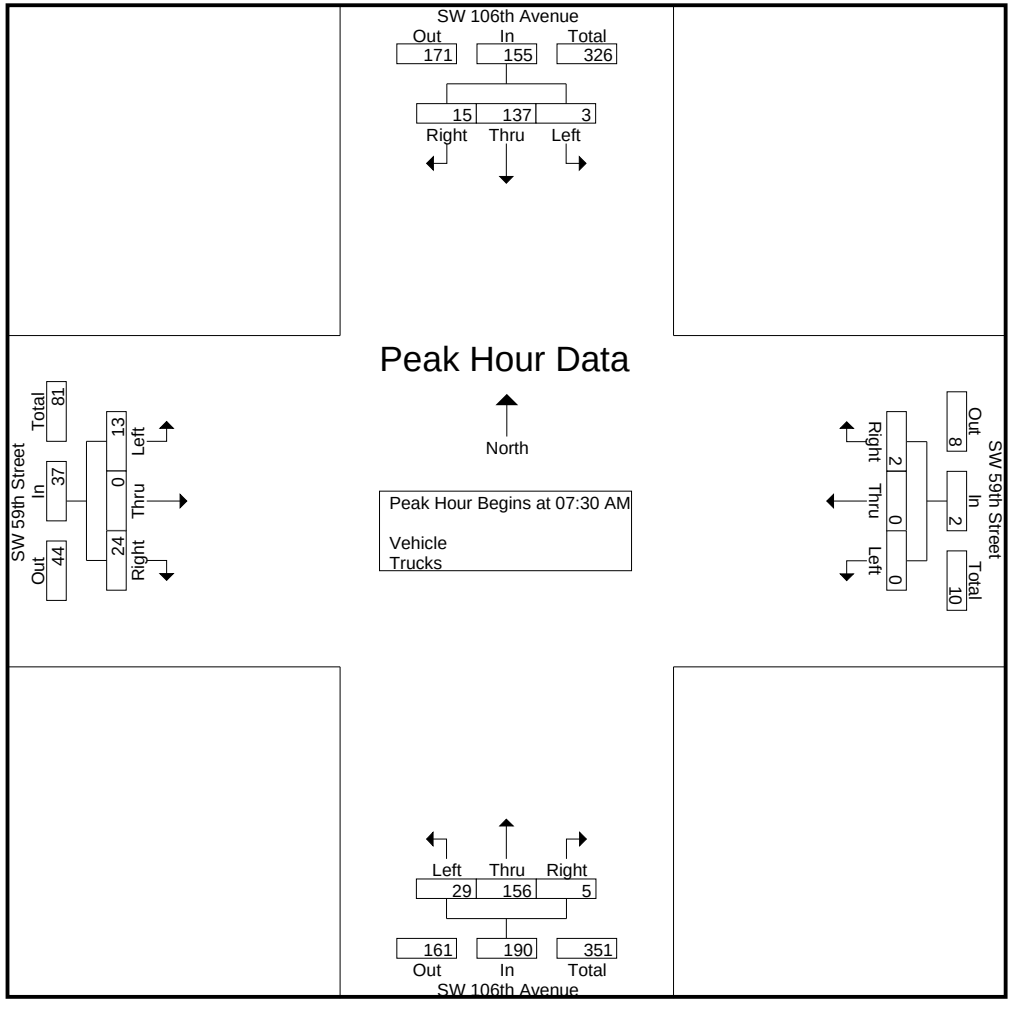
SW 106th Avenue at SW 59th Street
Friday

File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 4

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	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	**3**	34	3	40	0	6	23	0	29	0	0	0	0	0	0	1	0	1	2	71
07:45 AM	0	0	**39**	**6**	**45**	**1**	**13**	41	2	**57**	0	0	0	0	0	0	2	0	1	3	105
08:00 AM	0	0	34	5	39	0	4	43	**3**	50	0	0	0	0	0	0	**7**	0	**15**	**22**	**111**
08:15 AM	0	0	30	1	31	0	5	**49**	0	54	0	0	0	**2**	**2**	0	3	0	7	10	97
Total Volume	0	3	137	15	155	1	28	156	5	190	0	0	0	2	2	0	13	0	24	37	384
% App. Total	0	1.9	88.4	9.7		0.5	14.7	82.1	2.6		0	0	0	100		0	35.1	0	64.9		
PHF	.000	.250	.878	.625	.861	.250	.538	.796	.417	.833	.000	.000	.000	.250	.250	.000	.464	.000	.400	.420	.865

SW 106th Avenue at SW 59th Street
Friday

File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 5



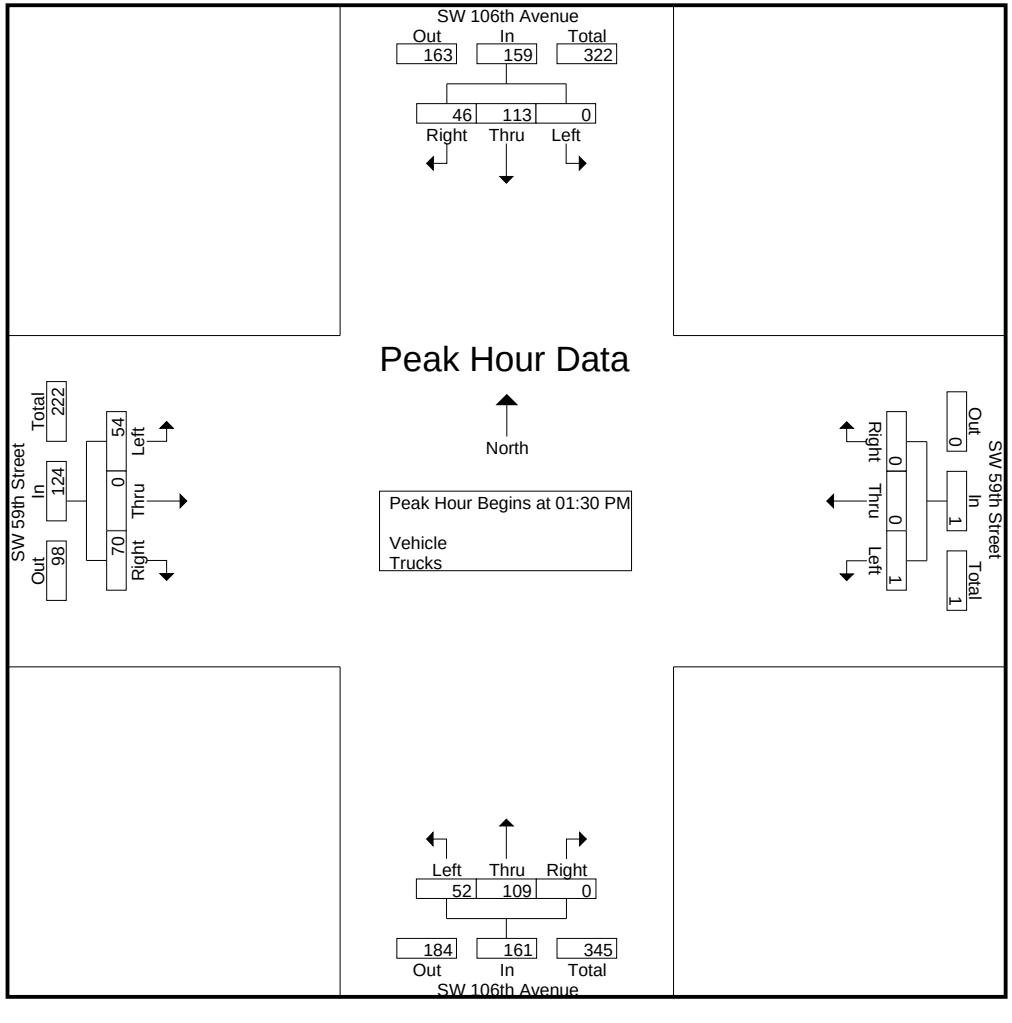
SW 106th Avenue at SW 59th Street
Friday

File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 6

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					SW 59th Street Westbound					SW 59th Street Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	0	0	30	**22**	**52**	0	**25**	15	0	40	0	**1**	0	0	**1**	0	1	0	0	1	94
01:45 PM	0	0	23	20	43	0	15	**36**	0	**51**	0	0	0	0	0	0	1	0	0	1	95
02:00 PM	0	0	29	3	32	0	8	32	0	40	0	0	0	0	0	0	1	0	2	3	75
02:15 PM	0	0	**31**	1	32	0	4	26	0	30	0	0	0	0	0	0	**51**	0	**68**	**119**	**181**
Total Volume	0	0	113	46	159	0	52	109	0	161	0	1	0	0	1	0	54	0	70	124	445
% App. Total	0	0	71.1	28.9		0	32.3	67.7	0		0	100	0	0		0	43.5	0	56.5		
PHF	.000	.000	.911	.523	.764	.000	.520	.757	.000	.789	.000	.250	.000	.000	.250	.000	.265	.000	.257	.261	.615

SW 106th Avenue at SW 59th Street
Friday

File Name : SW 106th Ave at SW 59th St (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 7



Stirling Rd at SW 106th Avenue
Friday

File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 1

Groups Printed- Vehicle - Trucks

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	0	11	15	0	4	7	28	39	0	6	72	19	97	1	13	86	5	105	256
07:15 AM	0	15	3	15	33	0	7	4	33	44	0	5	100	13	118	0	7	94	5	106	301
07:30 AM	0	13	2	16	31	0	6	10	35	51	0	9	141	10	160	2	6	132	10	150	392
07:45 AM	0	14	7	17	38	0	14	7	47	68	0	8	177	22	207	0	33	186	28	247	560
Total	0	46	12	59	117	0	31	28	143	202	0	28	490	64	582	3	59	498	48	608	1509
08:00 AM	0	19	8	19	46	0	18	5	51	74	0	21	128	14	163	8	35	192	15	250	533
08:15 AM	0	20	7	15	42	0	26	14	39	79	0	11	138	20	169	7	18	151	11	187	477
08:30 AM	0	14	4	9	27	0	15	9	45	69	0	16	133	4	153	6	13	172	17	208	457
08:45 AM	0	7	7	8	22	0	18	10	55	83	0	26	166	8	200	4	16	177	26	223	528
Total	0	60	26	51	137	0	77	38	190	305	0	74	565	46	685	25	82	692	69	868	1995
*** BREAK ***																					
11:30 AM	0	14	0	14	28	0	7	3	23	33	0	13	107	14	134	2	13	137	21	173	368
11:45 AM	0	18	6	11	35	0	10	4	25	39	0	29	148	20	197	0	13	133	9	155	426
Total	0	32	6	25	63	0	17	7	48	72	0	42	255	34	331	2	26	270	30	328	794
12:00 PM	0	17	6	22	45	0	14	8	32	54	3	15	136	10	164	2	15	147	21	185	448
12:15 PM	0	13	5	18	36	0	12	4	17	33	0	23	165	15	203	1	9	141	17	168	440
12:30 PM	0	11	4	10	25	0	13	5	29	47	0	21	153	9	183	0	12	119	15	146	401
12:45 PM	0	5	3	8	16	0	7	7	26	40	1	22	149	18	190	0	19	118	14	151	397
Total	0	46	18	58	122	0	46	24	104	174	4	81	603	52	740	3	55	525	67	650	1686
01:00 PM	0	10	2	13	25	0	15	9	19	43	0	12	166	18	196	0	14	110	10	134	398
01:15 PM	0	8	1	15	24	0	14	4	15	33	0	21	153	18	192	0	16	116	11	143	392
01:30 PM	0	3	1	26	30	0	4	3	12	19	0	12	140	18	170	3	16	138	19	176	395
01:45 PM	0	2	0	17	19	0	12	5	13	30	0	15	161	24	200	0	20	142	26	188	437
Total	0	23	4	71	98	0	45	21	59	125	0	60	620	78	758	3	66	506	66	641	1622
02:00 PM	0	7	5	19	31	0	19	5	20	44	1	20	139	20	180	1	12	145	26	184	439
02:15 PM	0	48	8	27	83	0	4	1	19	24	1	11	167	10	189	2	22	123	19	166	462
02:30 PM	0	24	11	20	55	0	13	4	22	39	0	21	146	9	176	0	16	130	18	164	434
02:45 PM	0	15	6	18	39	0	15	2	32	49	0	31	177	9	217	2	10	148	26	186	491
Total	0	94	30	84	208	0	51	12	93	156	2	83	629	48	762	5	60	546	89	700	1826

Stirling Rd at SW 106th Avenue
Friday

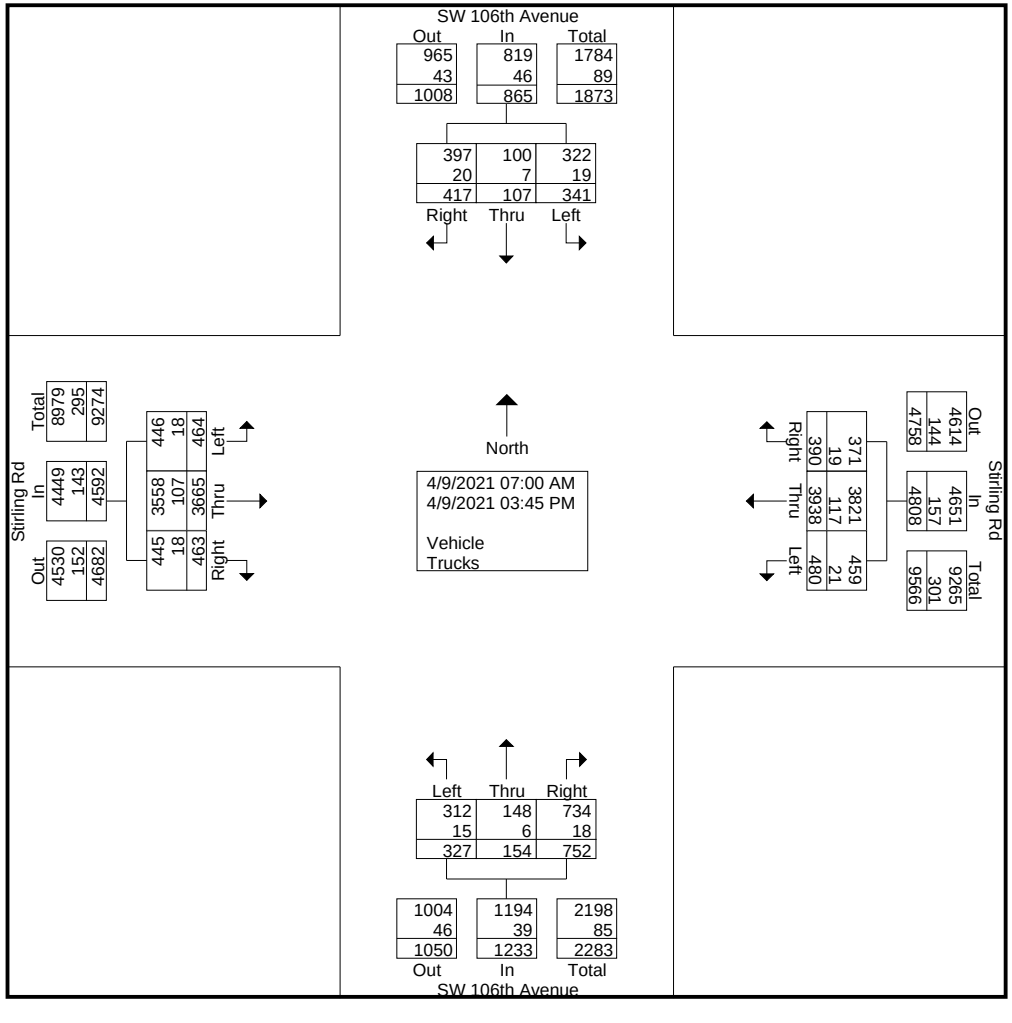
File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 2

Groups Printed- Vehicle - Trucks

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	9	3	16	28	0	15	10	28	53	1	25	185	31	242	3	17	135	23	178	501
03:15 PM	0	15	1	15	31	0	18	8	28	54	0	20	167	12	199	3	18	189	23	233	517
03:30 PM	0	9	6	22	37	0	18	4	34	56	1	34	202	14	251	1	14	140	22	177	521
03:45 PM	0	7	1	16	24	0	9	2	25	36	0	25	222	11	258	3	16	164	26	209	527
Total	0	40	11	69	120	0	60	24	115	199	2	104	776	68	950	10	65	628	94	797	2066
Grand Total	0	341	107	417	865	0	327	154	752	1233	8	472	3938	390	4808	51	413	3665	463	4592	11498
Apprch %	0	39.4	12.4	48.2		0	26.5	12.5	61		0.2	9.8	81.9	8.1		1.1	9	79.8	10.1		
Total %	0	3	0.9	3.6	7.5	0	2.8	1.3	6.5	10.7	0.1	4.1	34.2	3.4	41.8	0.4	3.6	31.9	4	39.9	
Vehicle	0	322	100	397	819	0	312	148	734	1194	8	451	3821	371	4651	51	395	3558	445	4449	11113
% Vehicle	0	94.4	93.5	95.2	94.7	0	95.4	96.1	97.6	96.8	100	95.6	97	95.1	96.7	100	95.6	97.1	96.1	96.9	96.7
Trucks	0	19	7	20	46	0	15	6	18	39	0	21	117	19	157	0	18	107	18	143	385
% Trucks	0	5.6	6.5	4.8	5.3	0	4.6	3.9	2.4	3.2	0	4.4	3	4.9	3.3	0	4.4	2.9	3.9	3.1	3.3

Stirling Rd at SW 106th Avenue
Friday

File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 3



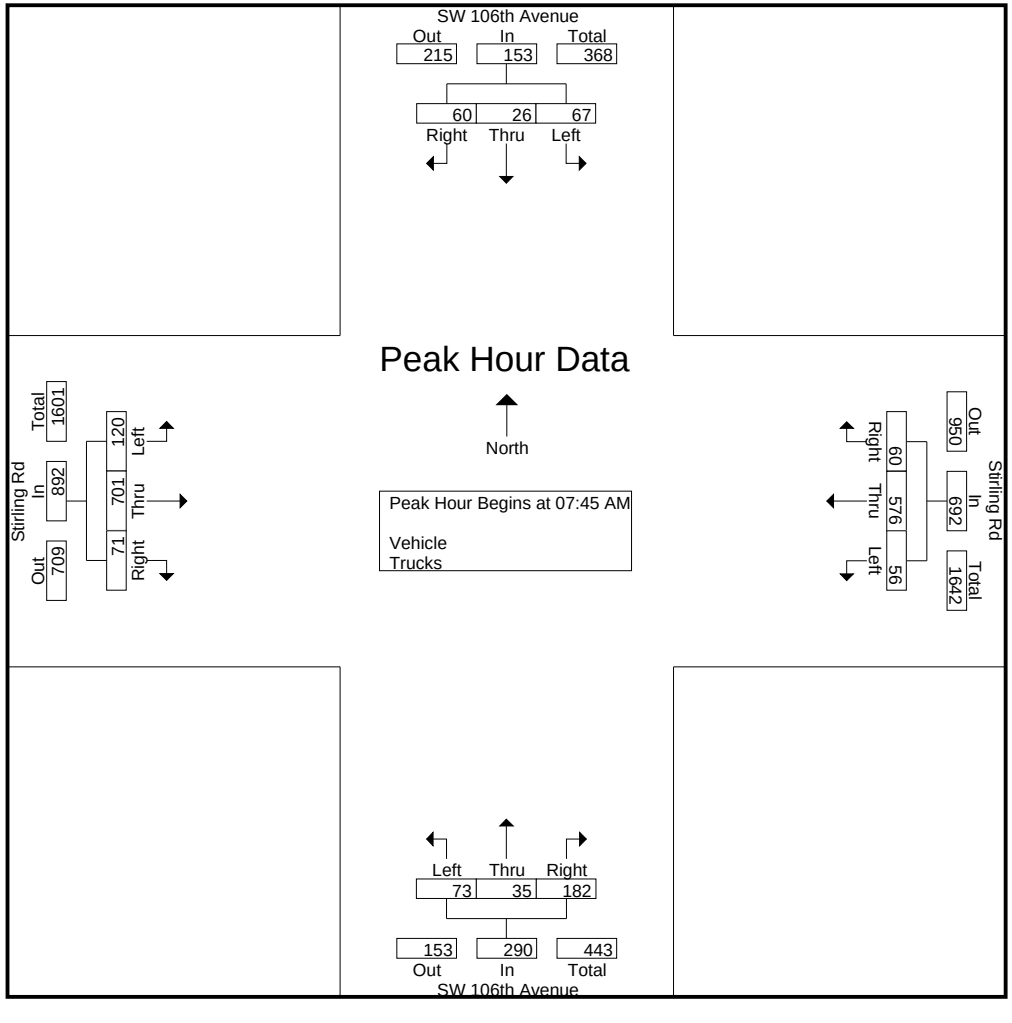
Stirling Rd at SW 106th Avenue
Friday

File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 4

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	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 07:45 AM																					
07:45 AM	0	14	7	17	38	0	14	7	47	68	0	8	**177**	**22**	**207**	0	33	186	**28**	247	**560**
08:00 AM	0	19	**8**	**19**	**46**	0	18	5	**51**	74	0	**21**	128	14	163	**8**	**35**	**192**	15	**250**	533
08:15 AM	0	**20**	7	15	42	0	**26**	**14**	39	**79**	0	11	138	20	169	7	18	151	11	187	477
08:30 AM	0	14	4	9	27	0	15	9	45	69	0	16	133	4	153	6	13	172	17	208	457
Total Volume	0	67	26	60	153	0	73	35	182	290	0	56	576	60	692	21	99	701	71	892	2027
% App. Total	0	43.8	17	39.2		0	25.2	12.1	62.8		0	8.1	83.2	8.7		2.4	11.1	78.6	8		
PHF	.000	.838	.813	.789	.832	.000	.702	.625	.892	.918	.000	.667	.814	.682	.836	.656	.707	.913	.634	.892	.905

Stirling Rd at SW 106th Avenue
Friday

File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 5



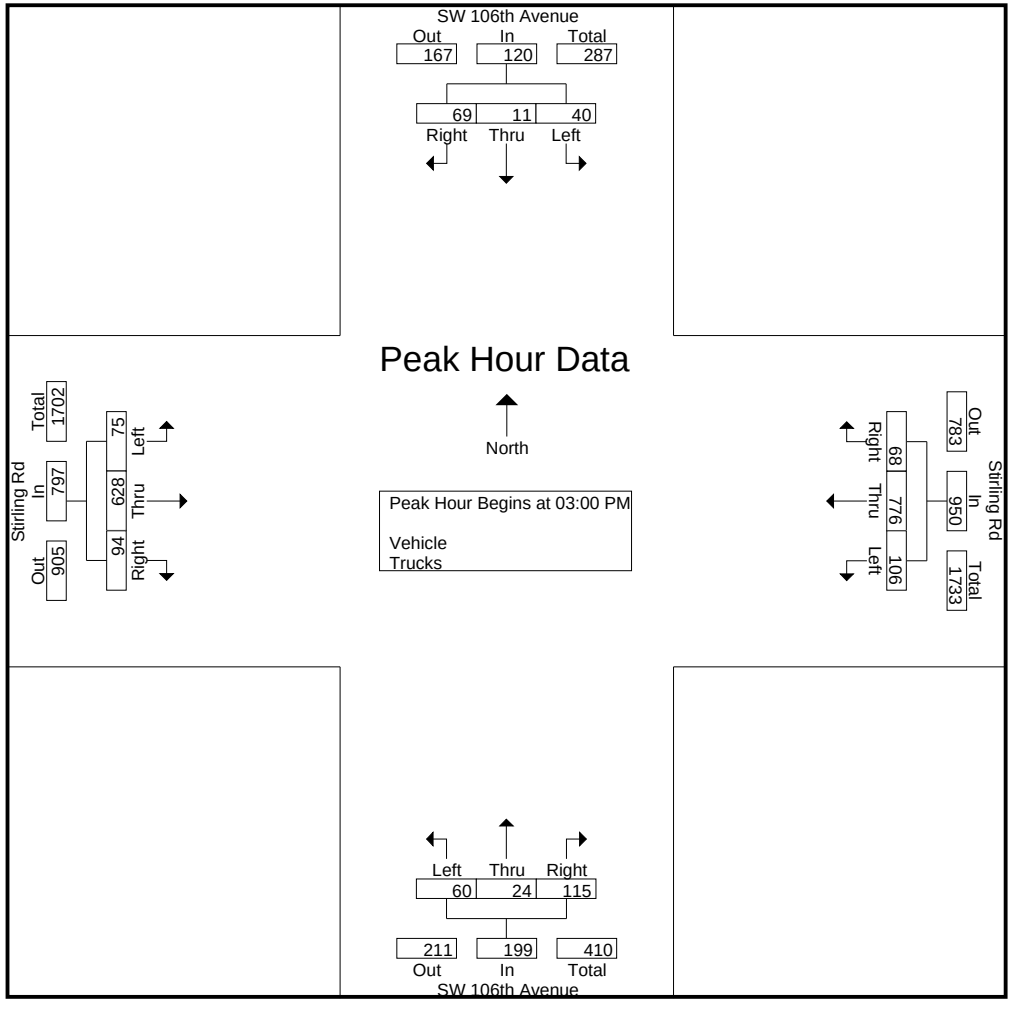
Stirling Rd at SW 106th Avenue
Friday

File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 6

	SW 106th Avenue Southbound					SW 106th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	9	3	16	28	0	15	**10**	28	53	**1**	25	185	**31**	242	**3**	17	135	23	178	501
03:15 PM	0	**15**	1	15	31	0	**18**	8	28	54	0	20	167	12	199	3	**18**	**189**	23	**233**	517
03:30 PM	0	9	**6**	**22**	**37**	0	18	4	**34**	**56**	1	**34**	202	14	251	1	14	140	22	177	521
03:45 PM	0	7	1	16	24	0	9	2	25	36	0	25	**222**	11	**258**	3	16	164	**26**	209	**527**
Total Volume	0	40	11	69	120	0	60	24	115	199	2	104	776	68	950	10	65	628	94	797	2066
% App. Total	0	33.3	9.2	57.5		0	30.2	12.1	57.8		0.2	10.9	81.7	7.2		1.3	8.2	78.8	11.8		
PHF	.000	.667	.458	.784	.811	.000	.833	.600	.846	.888	.500	.765	.874	.548	.921	.833	.903	.831	.904	.855	.980

Stirling Rd at SW 106th Avenue
Friday

File Name : Stirling Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 7



Stirling Rd at SW 110th Avenue
Friday

File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 1

Groups Printed- Vehicle - Trucks

	SW 110th Avenue Southbound					SW 110th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	2	0	0	0	0	0	0	0	89	0	89	1	2	100	0	103	194
07:15 AM	0	1	0	7	8	0	0	0	0	0	2	0	106	0	108	0	3	116	0	119	235
07:30 AM	0	2	0	1	3	0	0	0	0	0	1	0	180	0	181	0	3	161	0	164	348
07:45 AM	0	1	0	2	3	0	0	0	0	0	0	0	192	1	193	0	5	256	0	261	457
Total	0	5	0	11	16	0	0	0	0	0	3	0	567	1	571	1	13	633	0	647	1234
08:00 AM	0	1	0	9	10	0	0	0	0	0	7	0	158	1	166	1	3	253	0	257	433
08:15 AM	0	3	0	1	4	0	0	0	0	0	4	0	187	1	192	0	3	172	0	175	371
08:30 AM	0	1	0	0	1	0	0	0	0	0	4	0	166	1	171	0	2	220	0	222	394
08:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	175	3	183	0	0	206	0	206	389
Total	0	5	0	10	15	0	0	0	0	0	20	0	686	6	712	1	8	851	0	860	1587
*** BREAK ***																					
11:30 AM	0	0	0	6	6	0	0	0	0	0	3	0	141	1	145	1	3	164	0	168	319
11:45 AM	0	0	0	2	2	0	0	0	0	0	2	0	159	0	161	2	2	151	0	155	318
Total	0	0	0	8	8	0	0	0	0	0	5	0	300	1	306	3	5	315	0	323	637
12:00 PM	0	2	0	4	6	0	0	0	0	0	5	0	154	0	159	2	3	185	0	190	355
12:15 PM	0	1	0	4	5	0	0	0	0	0	4	0	181	1	186	2	3	158	0	163	354
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	169	0	169	1	1	135	0	137	307
12:45 PM	0	3	0	0	3	0	0	0	0	0	0	0	166	0	166	0	0	142	0	142	311
Total	0	7	0	8	15	0	0	0	0	0	9	0	670	1	680	5	7	620	0	632	1327
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	187	0	187	1	3	128	0	132	319
01:15 PM	0	0	0	1	1	0	0	0	0	0	1	0	187	0	188	0	4	130	0	134	323
01:30 PM	0	0	0	1	1	0	0	0	0	0	1	0	172	0	173	1	16	170	0	187	361
01:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	174	0	175	1	14	183	0	198	373
Total	0	0	0	2	2	0	0	0	0	0	3	0	720	0	723	3	37	611	0	651	1376
02:00 PM	0	3	0	1	4	0	0	0	0	0	1	0	163	0	164	1	2	189	0	192	360
02:15 PM	0	3	0	27	30	0	0	0	0	0	0	0	196	0	196	2	2	168	0	172	398
02:30 PM	0	3	0	9	12	0	0	0	0	0	1	0	192	0	193	2	3	148	0	153	358
02:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	226	0	227	1	0	170	0	171	398
Total	0	9	0	37	46	0	0	0	0	0	3	0	777	0	780	6	7	675	0	688	1514

Stirling Rd at SW 110th Avenue
Friday

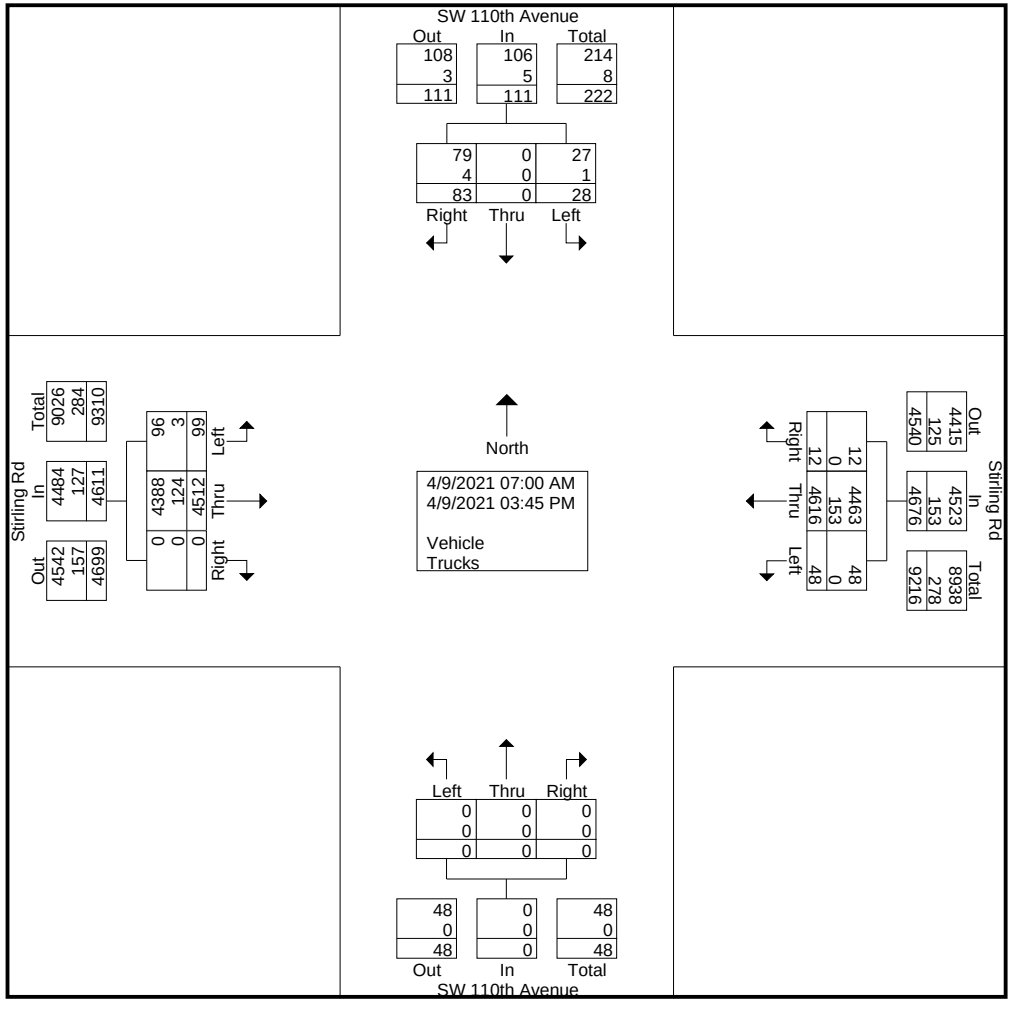
File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 2

Groups Printed- Vehicle - Trucks

	SW 110th Avenue Southbound					SW 110th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	1	0	5	6	0	0	0	0	0	2	0	207	0	209	0	0	164	0	164	379
03:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	194	0	195	1	0	214	0	215	410
03:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	238	1	239	2	0	193	0	195	435
03:45 PM	0	1	0	1	2	0	0	0	0	0	2	0	257	2	261	0	0	236	0	236	499
Total	0	2	0	7	9	0	0	0	0	0	5	0	896	3	904	3	0	807	0	810	1723
Grand Total	0	28	0	83	111	0	0	0	0	0	48	0	4616	12	4676	22	77	4512	0	4611	9398
Apprch %	0	25.2	0	74.8		0	0	0	0		1	0	98.7	0.3		0.5	1.7	97.9	0		
Total %	0	0.3	0	0.9	1.2	0	0	0	0	0	0.5	0	49.1	0.1	49.8	0.2	0.8	48	0	49.1	
Vehicle	0	27	0	79	106	0	0	0	0	0	48	0	4463	12	4523	22	74	4388	0	4484	9113
% Vehicle	0	96.4	0	95.2	95.5	0	0	0	0	0	100	0	96.7	100	96.7	100	96.1	97.3	0	97.2	97
Trucks	0	1	0	4	5	0	0	0	0	0	0	0	153	0	153	0	3	124	0	127	285
% Trucks	0	3.6	0	4.8	4.5	0	0	0	0	0	0	0	3.3	0	3.3	0	3.9	2.7	0	2.8	3

Stirling Rd at SW 110th Avenue
Friday

File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 3



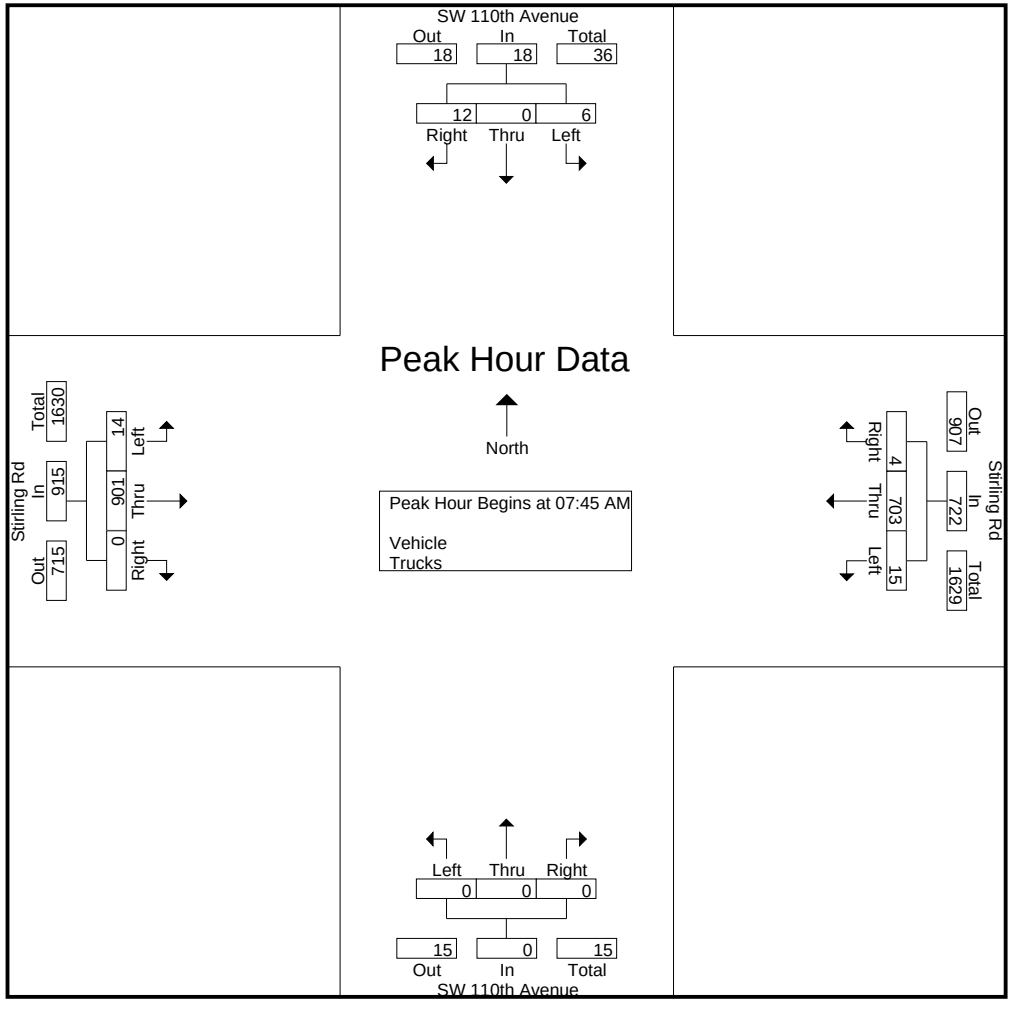
Stirling Rd at SW 110th Avenue
Friday

File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 4

	SW 110th Avenue Southbound					SW 110th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	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 07:45 AM																					
07:45 AM	0	1	0	2	3	0	0	0	0	0	0	0	**192**	**1**	**193**	0	**5**	**256**	0	**261**	**457**
08:00 AM	0	1	0	**9**	**10**	0	0	0	0	0	**7**	0	158	1	166	**1**	3	253	0	257	433
08:15 AM	0	**3**	0	1	4	0	0	0	0	0	4	0	187	1	192	0	3	172	0	175	371
08:30 AM	0	1	0	0	1	0	0	0	0	0	4	0	166	1	171	0	2	220	0	222	394
Total Volume	0	6	0	12	18	0	0	0	0	0	15	0	703	4	722	1	13	901	0	915	1655
% App. Total	0	33.3	0	66.7		0	0	0	0		2.1	0	97.4	0.6		0.1	1.4	98.5	0		
PHF	.000	.500	.000	.333	.450	.000	.000	.000	.000	.000	.536	.000	.915	1.00	.935	.250	.650	.880	.000	.876	.905

Stirling Rd at SW 110th Avenue
Friday

File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 5



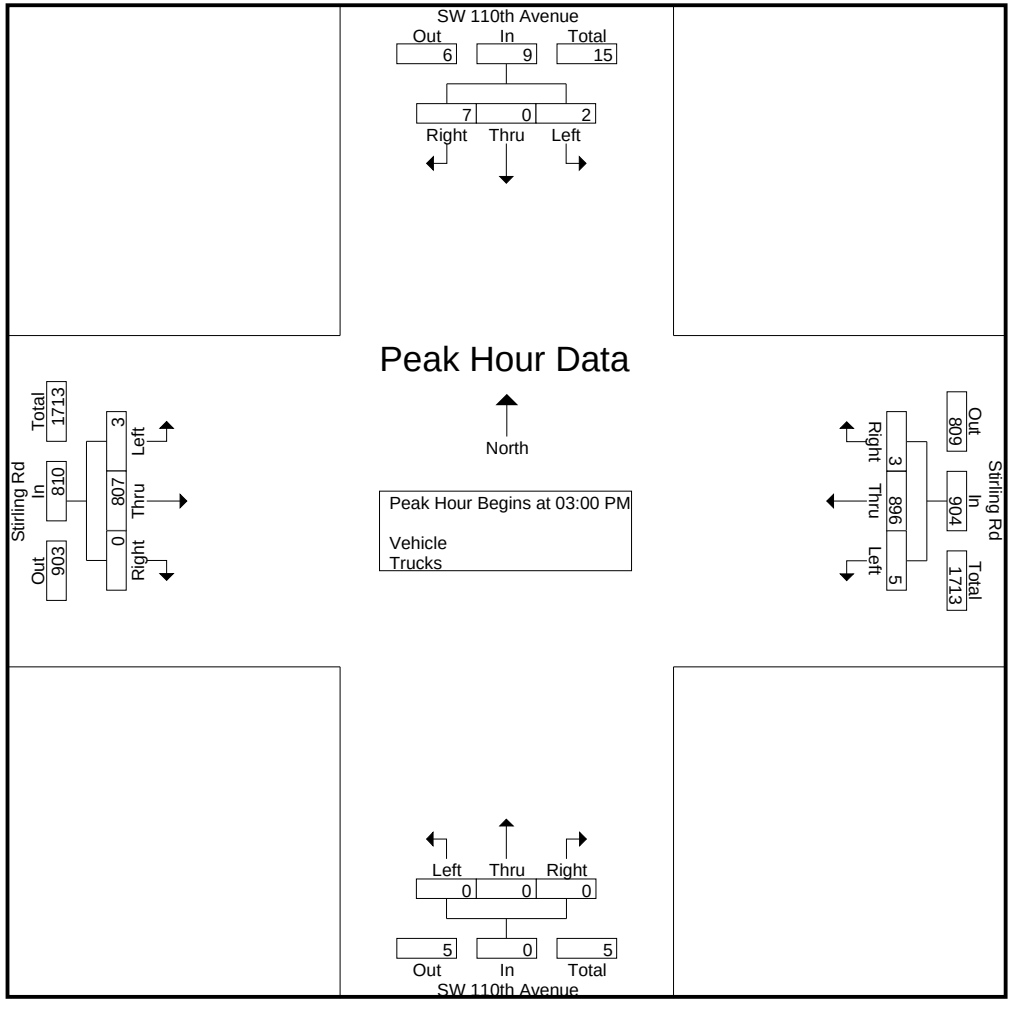
Stirling Rd at SW 110th Avenue
Friday

File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 6

	SW 110th Avenue Southbound					SW 110th Avenue Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	**1**	0	**5**	**6**	0	0	0	0	0	**2**	0	207	0	209	0	0	164	0	164	379
03:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	194	0	195	1	0	214	0	215	410
03:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	238	1	239	**2**	0	193	0	195	435
03:45 PM	0	1	0	1	2	0	0	0	0	0	2	0	**257**	**2**	**261**	0	0	**236**	0	**236**	**499**
Total Volume	0	2	0	7	9	0	0	0	0	0	5	0	896	3	904	3	0	807	0	810	1723
% App. Total	0	22.2	0	77.8		0	0	0	0		0.6	0	99.1	0.3		0.4	0	99.6	0		
PHF	.000	.500	.000	.350	.375	.000	.000	.000	.000	.000	.625	.000	.872	.375	.866	.375	.000	.855	.000	.858	.863

Stirling Rd at SW 110th Avenue
Friday

File Name : Stirling Rd at SW 110th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 7



Stirling Rd at Hiatus Rd
Friday

File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 1

Groups Printed- Vehicle - Trucks

	Hiatus Rd Southbound					Hiatus Rd Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	1	2	7	0	8	0	30	38	1	21	64	1	87	0	1	78	13	92	224
07:15 AM	0	2	0	2	4	0	8	0	35	43	1	35	87	1	124	0	0	92	22	114	285
07:30 AM	0	5	2	2	9	0	22	2	66	90	1	54	126	2	183	1	6	103	18	128	410
07:45 AM	0	5	2	6	13	0	36	1	126	163	0	53	148	4	205	1	7	149	30	187	568
Total	0	16	5	12	33	0	74	3	257	334	3	163	425	8	599	2	14	422	83	521	1487
08:00 AM	0	6	2	5	13	0	37	3	111	151	1	47	108	1	157	0	7	149	24	180	501
08:15 AM	0	1	3	5	9	0	16	1	60	77	2	52	131	2	187	2	5	123	20	150	423
08:30 AM	0	15	4	4	23	0	18	6	61	85	3	36	110	5	154	0	3	141	14	158	420
08:45 AM	0	5	2	3	10	0	18	5	74	97	1	48	133	3	185	0	10	145	21	176	468
Total	0	27	11	17	55	0	89	15	306	410	7	183	482	11	683	2	25	558	79	664	1812
*** BREAK ***																					
11:30 AM	0	11	2	4	17	0	34	8	33	75	1	19	120	1	141	1	9	122	21	153	386
11:45 AM	0	6	5	7	18	0	38	5	40	83	2	40	118	1	161	1	15	104	11	131	393
Total	0	17	7	11	35	0	72	13	73	158	3	59	238	2	302	2	24	226	32	284	779
12:00 PM	0	12	4	0	16	0	21	6	45	72	3	32	131	2	168	1	1	116	24	142	398
12:15 PM	0	5	5	4	14	0	34	9	45	88	0	51	149	3	203	0	9	101	34	144	449
12:30 PM	0	11	3	14	28	0	26	4	52	82	3	38	127	4	172	0	8	82	19	109	391
12:45 PM	0	7	2	8	17	0	22	7	53	82	2	42	102	5	151	1	7	96	25	129	379
Total	0	35	14	26	75	0	103	26	195	324	8	163	509	14	694	2	25	395	102	524	1617
01:00 PM	0	1	3	3	7	0	19	3	48	70	4	47	142	9	202	0	5	95	24	124	403
01:15 PM	0	8	3	7	18	0	30	3	40	73	6	50	142	2	200	2	6	93	19	120	411
01:30 PM	0	12	3	9	24	0	35	11	72	118	0	63	110	2	175	0	6	108	33	147	464
01:45 PM	0	9	3	6	18	0	22	3	81	106	3	46	111	4	164	0	1	105	33	139	427
Total	0	30	12	25	67	0	106	20	241	367	13	206	505	17	741	2	18	401	109	530	1705
02:00 PM	0	9	1	7	17	0	31	8	84	123	0	40	116	2	158	0	5	91	26	122	420
02:15 PM	0	3	6	12	21	0	28	6	69	103	2	58	152	3	215	0	7	113	26	146	485
02:30 PM	0	12	2	5	19	0	33	6	49	88	1	64	131	1	197	0	6	105	31	142	446
02:45 PM	0	9	5	5	19	0	27	8	44	79	3	51	168	2	224	0	9	119	15	143	465
Total	0	33	14	29	76	0	119	28	246	393	6	213	567	8	794	0	27	428	98	553	1816

Stirling Rd at Hiatus Rd
Friday

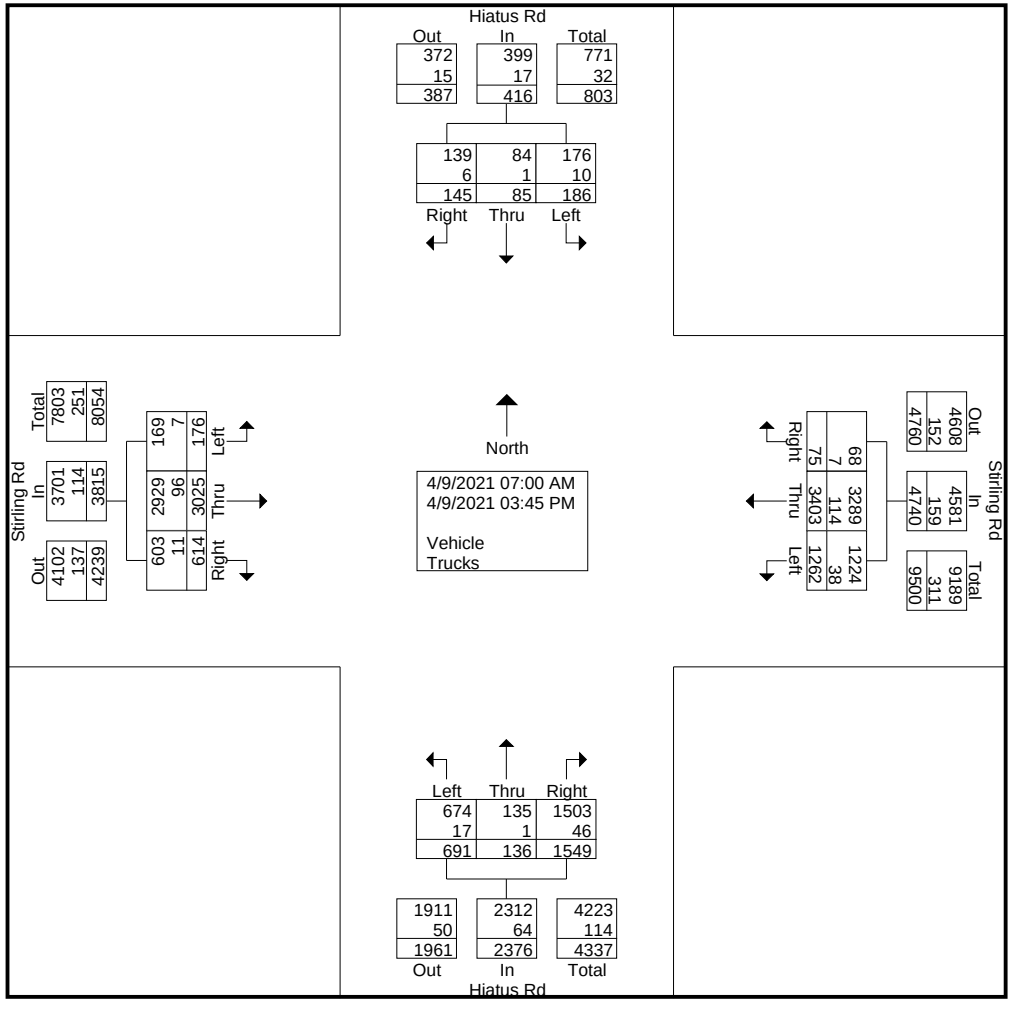
File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 2

Groups Printed- Vehicle - Trucks

	Hiatus Rd Southbound					Hiatus Rd Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	6	6	4	16	0	28	6	63	97	1	49	178	2	230	1	9	107	31	148	491
03:15 PM	0	4	3	6	13	0	38	8	65	111	3	54	156	1	214	1	5	161	44	211	549
03:30 PM	0	11	6	9	26	0	41	12	50	103	1	60	144	8	213	1	8	149	13	171	513
03:45 PM	0	7	7	6	20	0	21	5	53	79	5	62	199	4	270	1	7	178	23	209	578
Total	0	28	22	25	75	0	128	31	231	390	10	225	677	15	927	4	29	595	111	739	2131
Grand Total	0	186	85	145	416	0	691	136	1549	2376	50	1212	3403	75	4740	14	162	3025	614	3815	11347
Apprch %	0	44.7	20.4	34.9		0	29.1	5.7	65.2		1.1	25.6	71.8	1.6		0.4	4.2	79.3	16.1		
Total %	0	1.6	0.7	1.3	3.7	0	6.1	1.2	13.7	20.9	0.4	10.7	30	0.7	41.8	0.1	1.4	26.7	5.4	33.6	
Vehicle	0	176	84	139	399	0	674	135	1503	2312	50	1174	3289	68	4581	14	155	2929	603	3701	10993
% Vehicle	0	94.6	98.8	95.9	95.9	0	97.5	99.3	97	97.3	100	96.9	96.7	90.7	96.6	100	95.7	96.8	98.2	97	96.9
Trucks	0	10	1	6	17	0	17	1	46	64	0	38	114	7	159	0	7	96	11	114	354
% Trucks	0	5.4	1.2	4.1	4.1	0	2.5	0.7	3	2.7	0	3.1	3.3	9.3	3.4	0	4.3	3.2	1.8	3	3.1

Stirling Rd at Hiatus Rd
Friday

File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 3



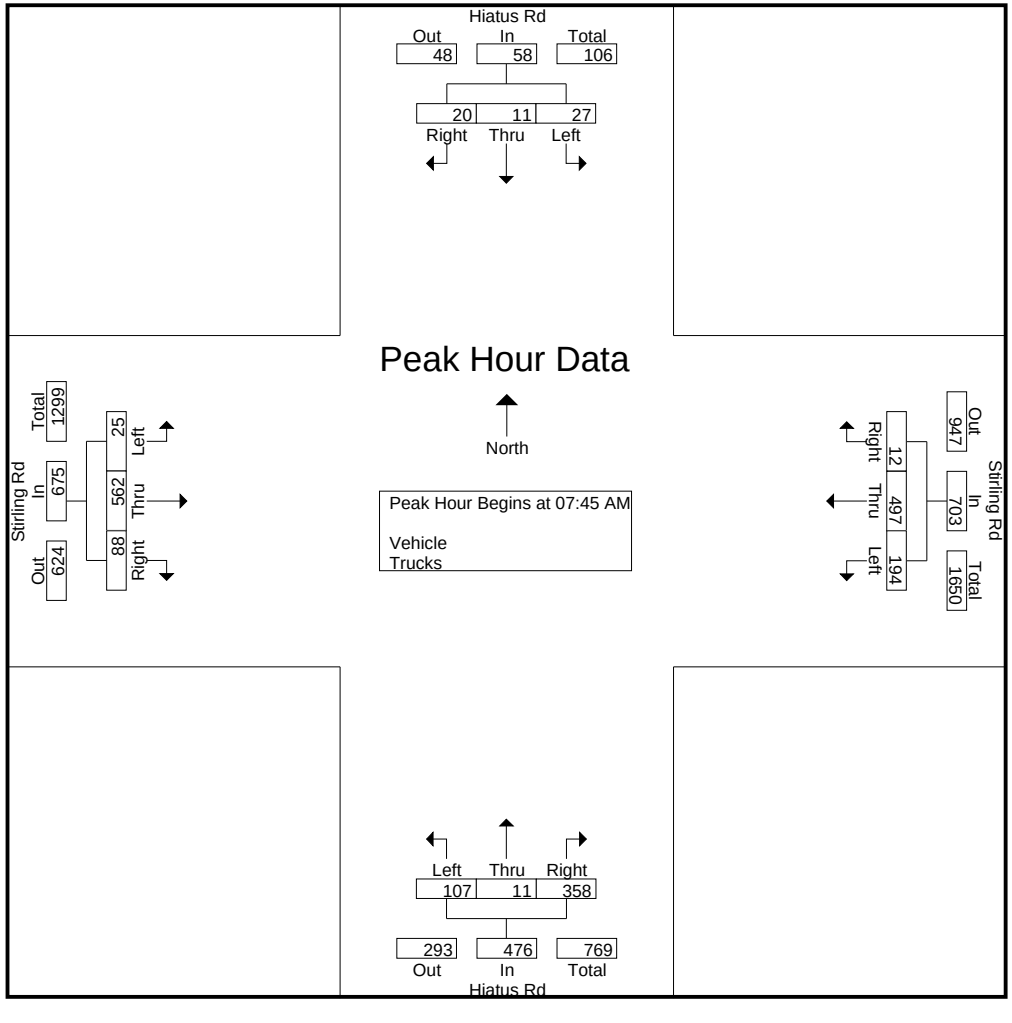
Stirling Rd at Hiatus Rd
Friday

File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 4

	Hiatus Rd Southbound					Hiatus Rd Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	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 07:45 AM																					
07:45 AM	0	5	2	**6**	13	0	36	1	**126**	**163**	0	**53**	**148**	4	**205**	1	**7**	**149**	**30**	**187**	**568**
08:00 AM	0	6	2	5	13	0	**37**	3	111	151	1	47	108	1	157	0	7	149	24	180	501
08:15 AM	0	1	3	5	9	0	16	1	60	77	2	52	131	2	187	**2**	5	123	20	150	423
08:30 AM	0	**15**	**4**	4	**23**	0	18	**6**	61	85	**3**	36	110	**5**	154	0	3	141	14	158	420
Total Volume	0	27	11	20	58	0	107	11	358	476	6	188	497	12	703	3	22	562	88	675	1912
% App. Total	0	46.6	19	34.5		0	22.5	2.3	75.2		0.9	26.7	70.7	1.7		0.4	3.3	83.3	13		
PHF	.000	.450	.688	.833	.630	.000	.723	.458	.710	.730	.500	.887	.840	.600	.857	.375	.786	.943	.733	.902	.842

Stirling Rd at Hiatus Rd
Friday

File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 5



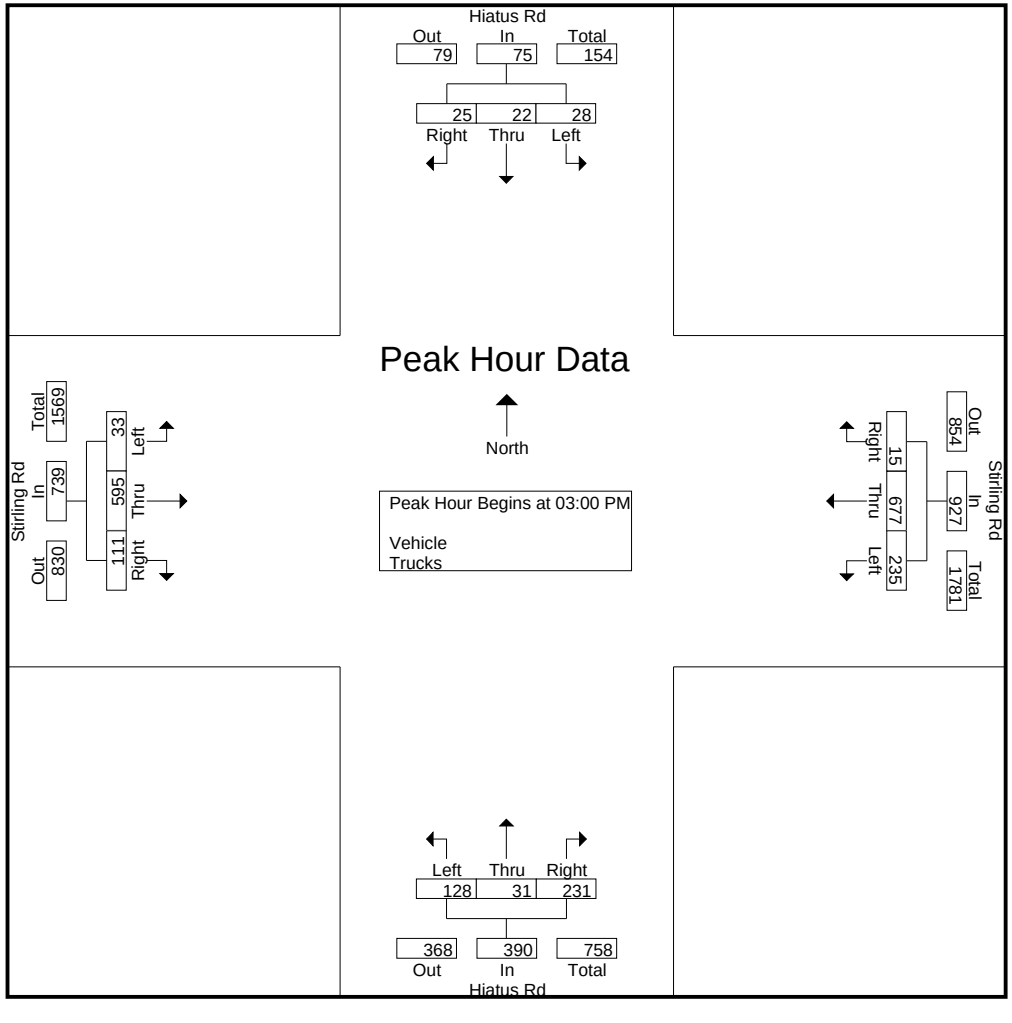
Stirling Rd at Hiatus Rd
Friday

File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 6

	Hiatus Rd Southbound					Hiatus Rd Northbound					Stirling Rd Westbound					Stirling Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	6	6	4	16	0	28	6	63	97	1	49	178	2	230	**1**	**9**	107	31	148	491
03:15 PM	0	4	3	6	13	0	38	8	**65**	**111**	3	54	156	1	214	1	5	161	**44**	**211**	549
03:30 PM	0	**11**	6	**9**	**26**	0	**41**	**12**	50	103	1	60	144	**8**	213	1	8	149	13	171	513
03:45 PM	0	7	**7**	6	20	0	21	5	53	79	**5**	**62**	**199**	4	**270**	1	7	**178**	23	209	**578**
Total Volume	0	28	22	25	75	0	128	31	231	390	10	225	677	15	927	4	29	595	111	739	2131
% App. Total	0	37.3	29.3	33.3		0	32.8	7.9	59.2		1.1	24.3	73	1.6		0.5	3.9	80.5	15		
PHF	.000	.636	.786	.694	.721	.000	.780	.646	.888	.878	.500	.907	.851	.469	.858	1.00	.806	.836	.631	.876	.922

Stirling Rd at Hiatus Rd
Friday

File Name : Stirling Rd at Hiatus Rd (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 7



Griffin Rd at SW 106th Avenue
Friday

File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 1

Groups Printed- Vehicle - Trucks

	Southbound					SW 106th Avenue Northbound					Griffin Rd Westbound					Griffin Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	15	0	36	51	0	11	135	0	146	2	0	123	5	130	327
07:15 AM	0	0	0	0	0	0	20	0	15	35	0	13	195	0	208	3	0	185	10	198	441
07:30 AM	0	0	0	0	0	0	21	0	30	51	0	5	214	0	219	4	0	193	9	206	476
07:45 AM	0	0	0	0	0	0	22	0	20	42	0	23	261	0	284	7	0	278	8	293	619
Total	0	0	0	0	0	0	78	0	101	179	0	52	805	0	857	16	0	779	32	827	1863
08:00 AM	0	0	0	0	0	0	14	0	42	56	0	20	254	0	274	2	0	247	13	262	592
08:15 AM	0	0	0	0	0	0	24	0	43	67	0	16	253	0	269	2	0	268	17	287	623
08:30 AM	0	0	0	0	0	0	14	0	36	50	1	22	225	0	248	6	0	256	13	275	573
08:45 AM	0	0	0	0	0	0	15	0	32	47	0	21	227	0	248	6	0	262	10	278	573
Total	0	0	0	0	0	0	67	0	153	220	1	79	959	0	1039	16	0	1033	53	1102	2361
*** BREAK ***																					
11:30 AM	0	0	0	0	0	0	17	0	18	35	0	11	217	0	228	8	0	218	10	236	499
11:45 AM	0	0	0	0	0	0	15	0	32	47	2	20	183	0	205	7	0	201	8	216	468
Total	0	0	0	0	0	0	32	0	50	82	2	31	400	0	433	15	0	419	18	452	967
12:00 PM	0	0	0	0	0	0	11	0	26	37	0	16	208	0	224	8	0	191	12	211	472
12:15 PM	0	0	0	0	0	0	10	0	24	34	0	24	211	0	235	7	0	242	12	261	530
12:30 PM	0	0	0	0	0	0	13	0	18	31	1	20	190	0	211	7	0	274	6	287	529
12:45 PM	0	0	0	0	0	0	16	0	21	37	2	20	207	0	229	7	0	327	11	345	611
Total	0	0	0	0	0	0	50	0	89	139	3	80	816	0	899	29	0	1034	41	1104	2142
01:00 PM	0	0	0	0	0	0	15	0	32	47	0	15	257	0	272	10	0	255	9	274	593
01:15 PM	0	0	0	0	0	0	8	0	21	29	0	26	203	0	229	3	0	269	12	284	542
01:30 PM	0	0	0	0	0	0	16	0	14	30	1	35	242	0	278	8	0	208	24	240	548
01:45 PM	0	0	0	0	0	0	19	0	21	40	0	43	271	0	314	4	0	285	15	304	658
Total	0	0	0	0	0	0	58	0	88	146	1	119	973	0	1093	25	0	1017	60	1102	2341
02:00 PM	0	0	0	0	0	0	19	0	34	53	0	14	224	0	238	9	0	286	18	313	604
02:15 PM	0	0	0	0	0	0	31	0	38	69	0	19	251	0	270	4	0	263	25	292	631
02:30 PM	0	0	0	0	0	0	27	0	24	51	1	30	242	0	273	5	0	253	7	265	589
02:45 PM	0	0	0	0	0	0	17	0	17	34	1	24	272	0	297	5	0	280	14	299	630
Total	0	0	0	0	0	0	94	0	113	207	2	87	989	0	1078	23	0	1082	64	1169	2454

Griffin Rd at SW 106th Avenue
Friday

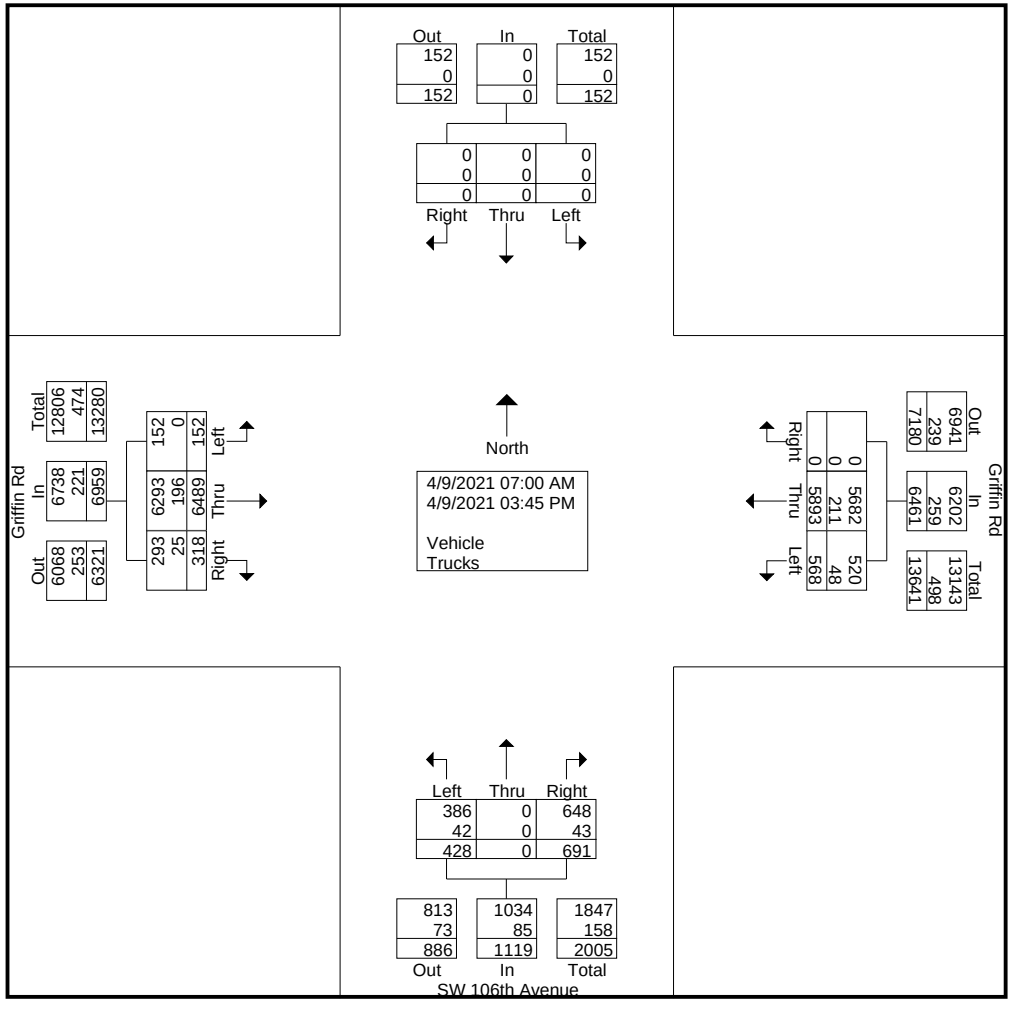
File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 2

Groups Printed- Vehicle - Trucks

	Southbound					SW 106th Avenue Northbound					Griffin Rd Westbound					Griffin Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	12	0	17	29	0	29	183	0	212	9	0	246	17	272	513
03:15 PM	0	0	0	0	0	0	19	0	28	47	1	29	238	0	268	5	0	292	5	302	617
03:30 PM	0	0	0	0	0	0	3	0	22	25	0	28	268	0	296	7	0	297	14	318	639
03:45 PM	0	0	0	0	0	0	15	0	30	45	0	24	262	0	286	7	0	290	14	311	642
Total	0	0	0	0	0	0	49	0	97	146	1	110	951	0	1062	28	0	1125	50	1203	2411
Grand Total	0	0	0	0	0	0	428	0	691	1119	10	558	5893	0	6461	152	0	6489	318	6959	14539
Apprch %	0	0	0	0		0	38.2	0	61.8		0.2	8.6	91.2	0		2.2	0	93.2	4.6		
Total %	0	0	0	0	0	0	2.9	0	4.8	7.7	0.1	3.8	40.5	0	44.4	1	0	44.6	2.2	47.9	
Vehicle	0	0	0	0	0	0	386	0	648	1034	10	510	5682	0	6202	152	0	6293	293	6738	13974
% Vehicle	0	0	0	0	0	0	90.2	0	93.8	92.4	100	91.4	96.4	0	96	100	0	97	92.1	96.8	96.1
Trucks	0	0	0	0	0	0	42	0	43	85	0	48	211	0	259	0	0	196	25	221	565
% Trucks	0	0	0	0	0	0	9.8	0	6.2	7.6	0	8.6	3.6	0	4	0	0	3	7.9	3.2	3.9

Griffin Rd at SW 106th Avenue
Friday

File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 3



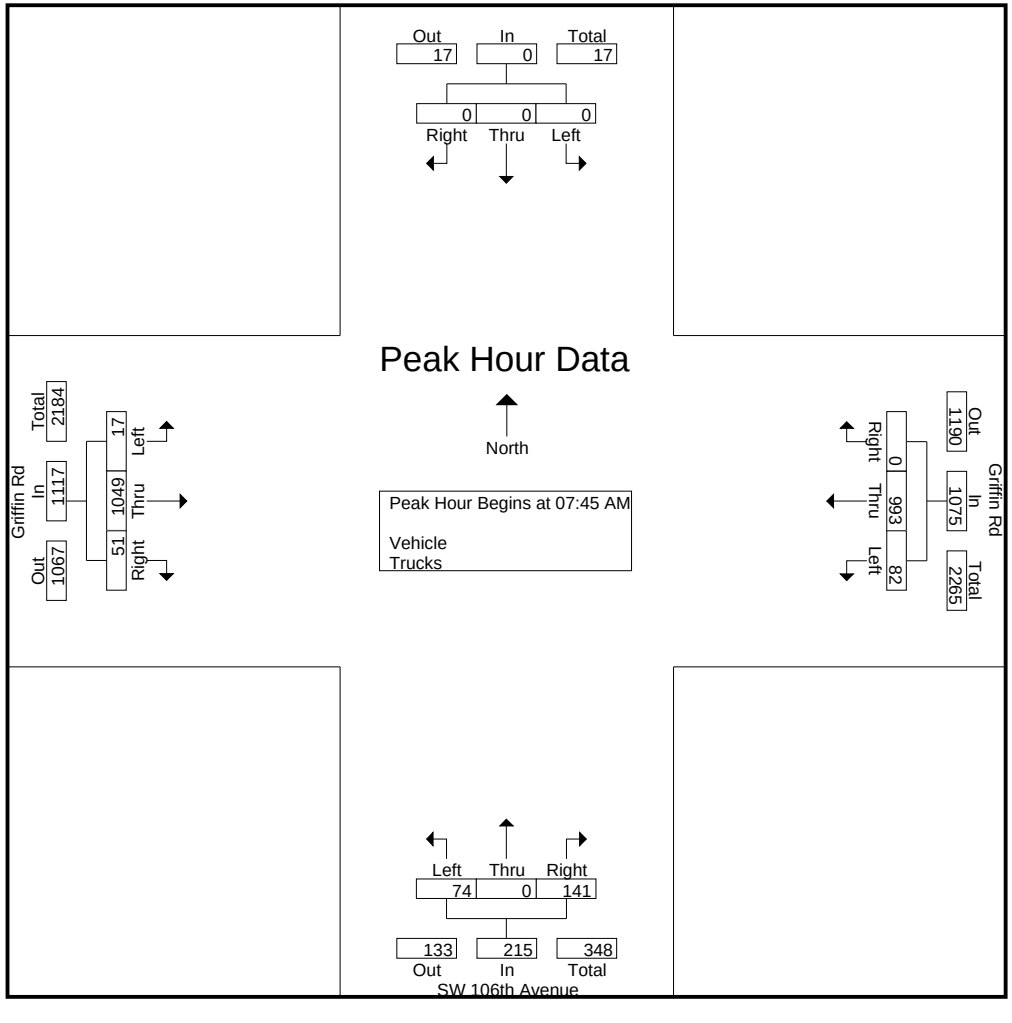
Griffin Rd at SW 106th Avenue
Friday

File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 4

	Southbound					SW 106th Avenue Northbound					Griffin Rd Westbound					Griffin Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	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 07:45 AM																					
07:45 AM	0	0	0	0	0	0	22	0	20	42	0	**23**	**261**	0	**284**	**7**	0	**278**	8	**293**	619
08:00 AM	0	0	0	0	0	0	14	0	42	56	0	20	254	0	274	2	0	247	13	262	592
08:15 AM	0	0	0	0	0	0	**24**	0	**43**	**67**	0	16	253	0	269	2	0	268	**17**	287	**623**
08:30 AM	0	0	0	0	0	0	14	0	36	50	**1**	22	225	0	248	6	0	256	13	275	573
Total Volume	0	0	0	0	0	0	74	0	141	215	1	81	993	0	1075	17	0	1049	51	1117	2407
% App. Total	0	0	0	0		0	34.4	0	65.6		0.1	7.5	92.4	0		1.5	0	93.9	4.6		
PHF	.000	.000	.000	.000	.000	.000	.771	.000	.820	.802	.250	.880	.951	.000	.946	.607	.000	.943	.750	.953	.966

Griffin Rd at SW 106th Avenue
Friday

File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 5



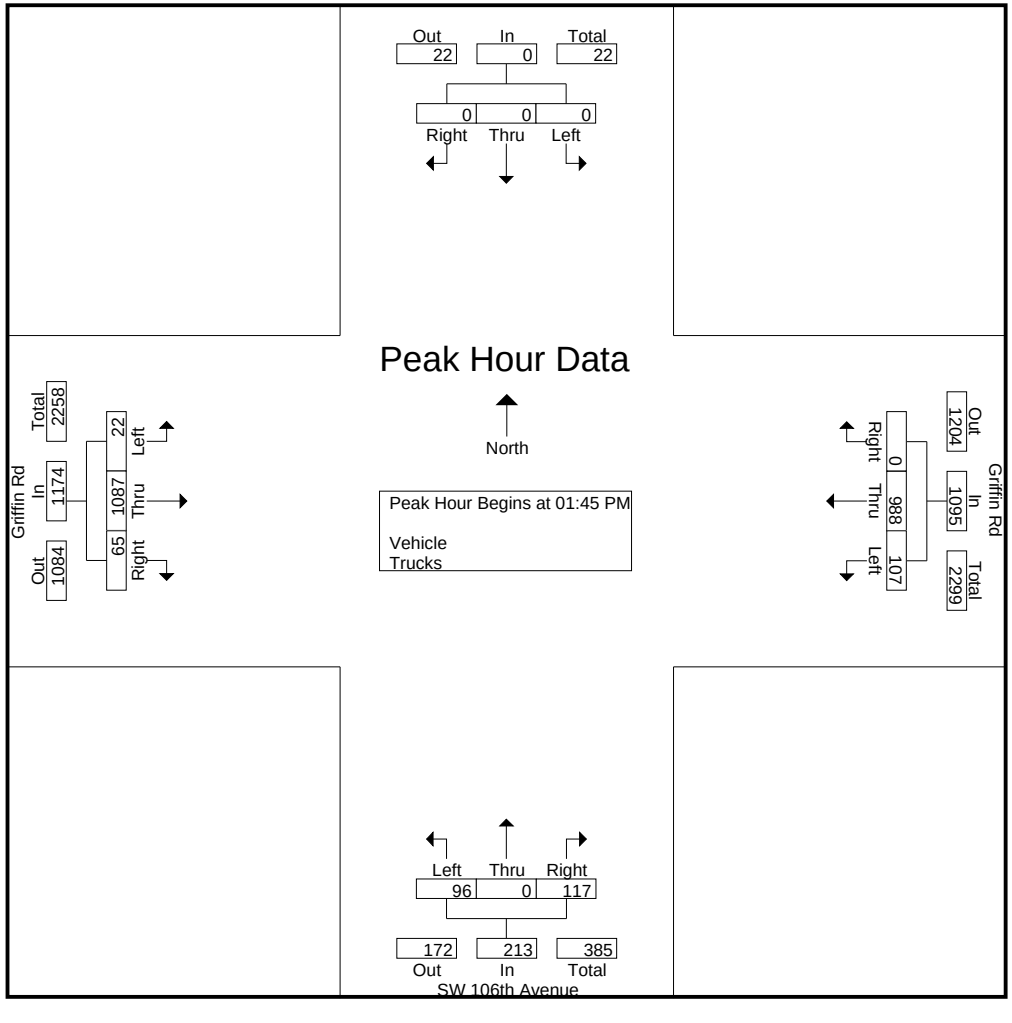
Griffin Rd at SW 106th Avenue
Friday

File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 6

	Southbound					SW 106th Avenue Northbound					Griffin Rd Westbound					Griffin Rd Eastbound					
Start Time	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	U-Turns	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:45 PM																					
01:45 PM	0	0	0	0	0	0	19	0	21	40	0	**43**	**271**	0	**314**	4	0	285	15	304	**658**
02:00 PM	0	0	0	0	0	0	19	0	34	53	0	14	224	0	238	**9**	0	**286**	18	**313**	604
02:15 PM	0	0	0	0	0	0	**31**	0	**38**	**69**	0	19	251	0	270	4	0	263	**25**	292	631
02:30 PM	0	0	0	0	0	0	27	0	24	51	**1**	30	242	0	273	5	0	253	7	265	589
Total Volume	0	0	0	0	0	0	96	0	117	213	1	106	988	0	1095	22	0	1087	65	1174	2482
% App. Total	0	0	0	0		0	45.1	0	54.9		0.1	9.7	90.2	0		1.9	0	92.6	5.5		
PHF	.000	.000	.000	.000	.000	.000	.774	.000	.770	.772	.250	.616	.911	.000	.872	.611	.000	.950	.650	.938	.943

Griffin Rd at SW 106th Avenue
Friday

File Name : Griffin Rd at SW 106th Ave (Fri)
Site Code : 00000000
Start Date : 4/9/2021
Page No : 7



Appendix C:

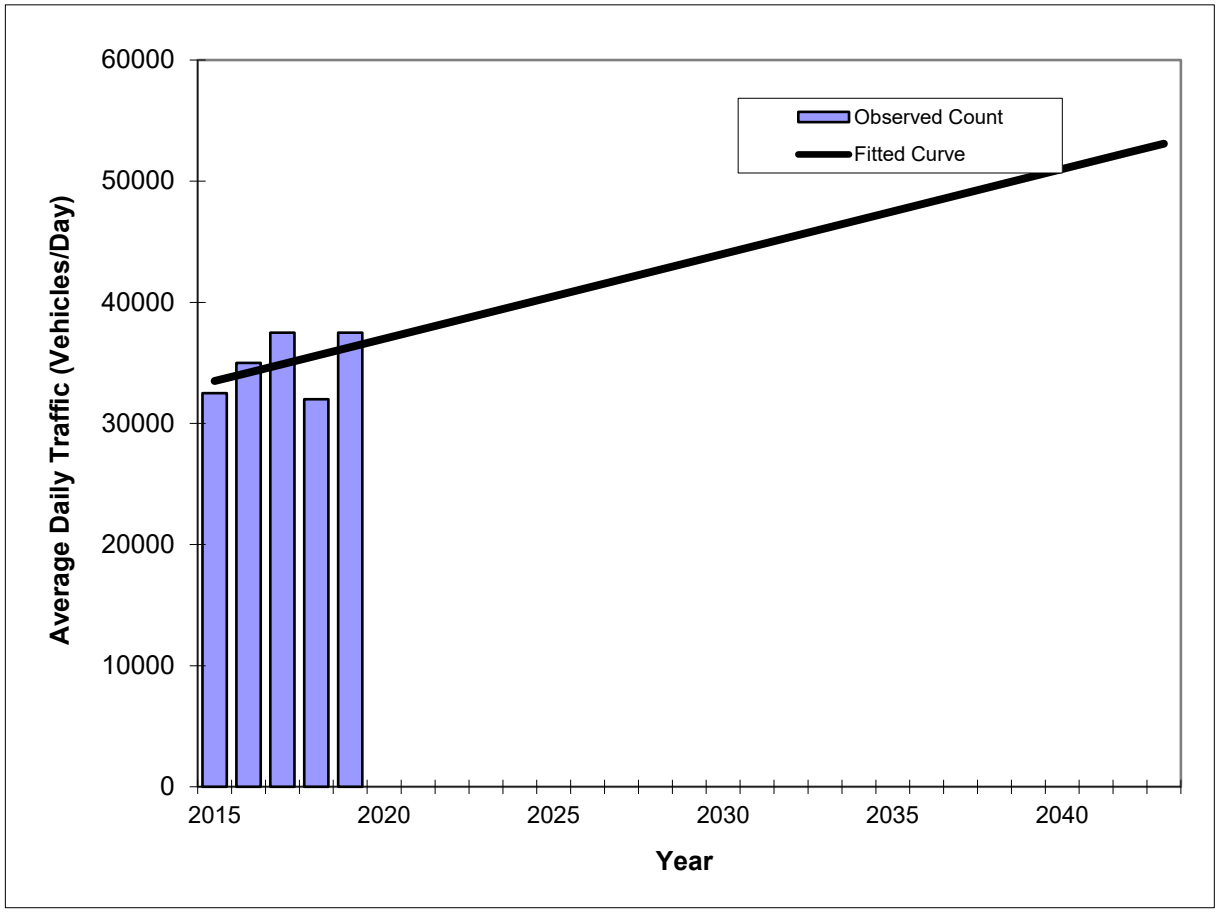
Growth Analysis

Traffic Trends - V03.a

GRIFFIN ROAD --

FIN#	1234
Location	1

County:	Broward (86)
Station #:	0115
Highway:	GRIFFIN ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	32500	33500
2016	35000	34200
2017	37500	34900
2018	32000	35600
2019	37500	36300
2023 Opening Year Trend		
2023	N/A	39100
2033 Mid-Year Trend		
2033	N/A	46100
2043 Design Year Trend		
2043	N/A	53100
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	700
Trend R-squared:	17.69%
Trend Annual Historic Growth Rate:	2.09%
Trend Growth Rate (2019 to Design Year):	1.93%
Printed:	8-Jun-21

Straight Line Growth Option

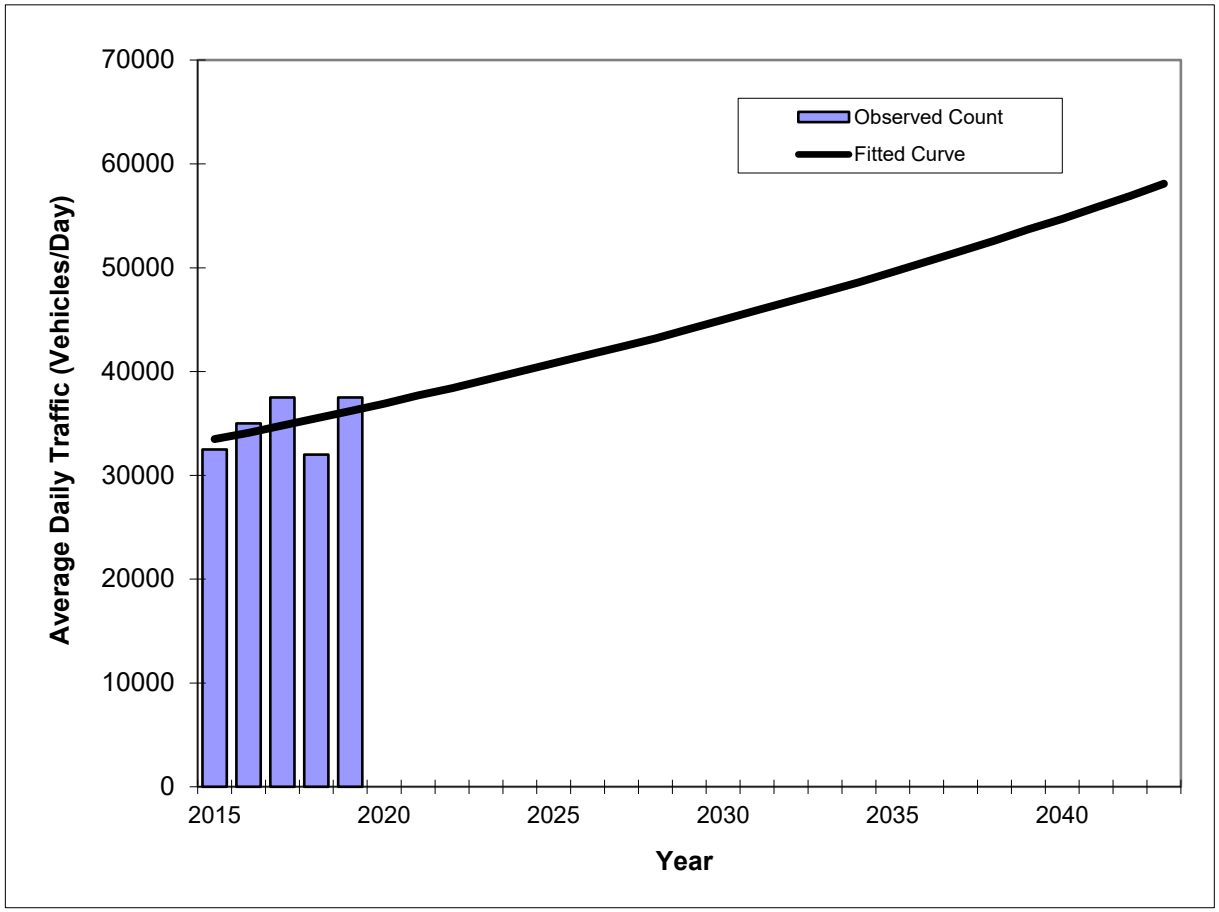
*Axle-Adjusted

Traffic Trends - V03.a

GRIFFIN ROAD --

FIN#	1234
Location	1

County:	Broward (86)
Station #:	0115
Highway:	GRIFFIN ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	32500	33500
2016	35000	34100
2017	37500	34800
2018	32000	35500
2019	37500	36200
2023 Opening Year Trend		
2023	N/A	39200
2033 Mid-Year Trend		
2033	N/A	47700
2043 Design Year Trend		
2043	N/A	58100
TRANPLAN Forecasts/Trends		

Trend R-squared:	16.87%
Compounded Annual Historic Growth Rate:	1.96%
Compounded Growth Rate (2019 to Design Year):	1.99%
Printed:	8-Jun-21

Exponential Growth Option

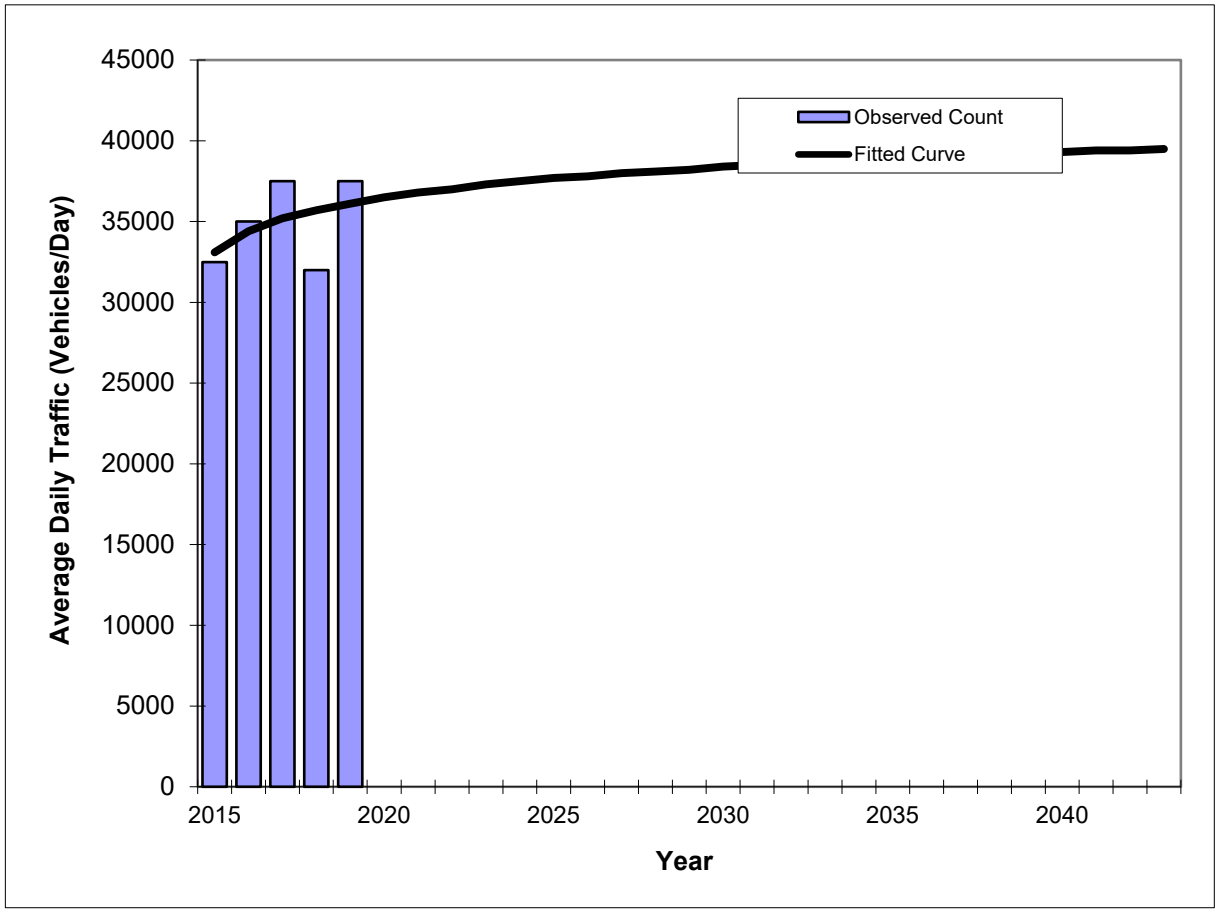
*Axle-Adjusted

Traffic Trends - V03.a

GRIFFIN ROAD --

FIN#	1234
Location	1

County:	Broward (86)
Station #:	0115
Highway:	GRIFFIN ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	32500	33100
2016	35000	34400
2017	37500	35200
2018	32000	35700
2019	37500	36100
2023 Opening Year Trend		
2023	N/A	37300
2033 Mid-Year Trend		
2033	N/A	38700
2043 Design Year Trend		
2043	N/A	39500
TRANPLAN Forecasts/Trends		

Trend R-squared:	21.34%
Compounded Annual Historic Growth Rate:	2.19%
Compounded Growth Rate (2019 to Design Year):	0.38%
Printed:	8-Jun-21

Decaying Exponential Growth Option

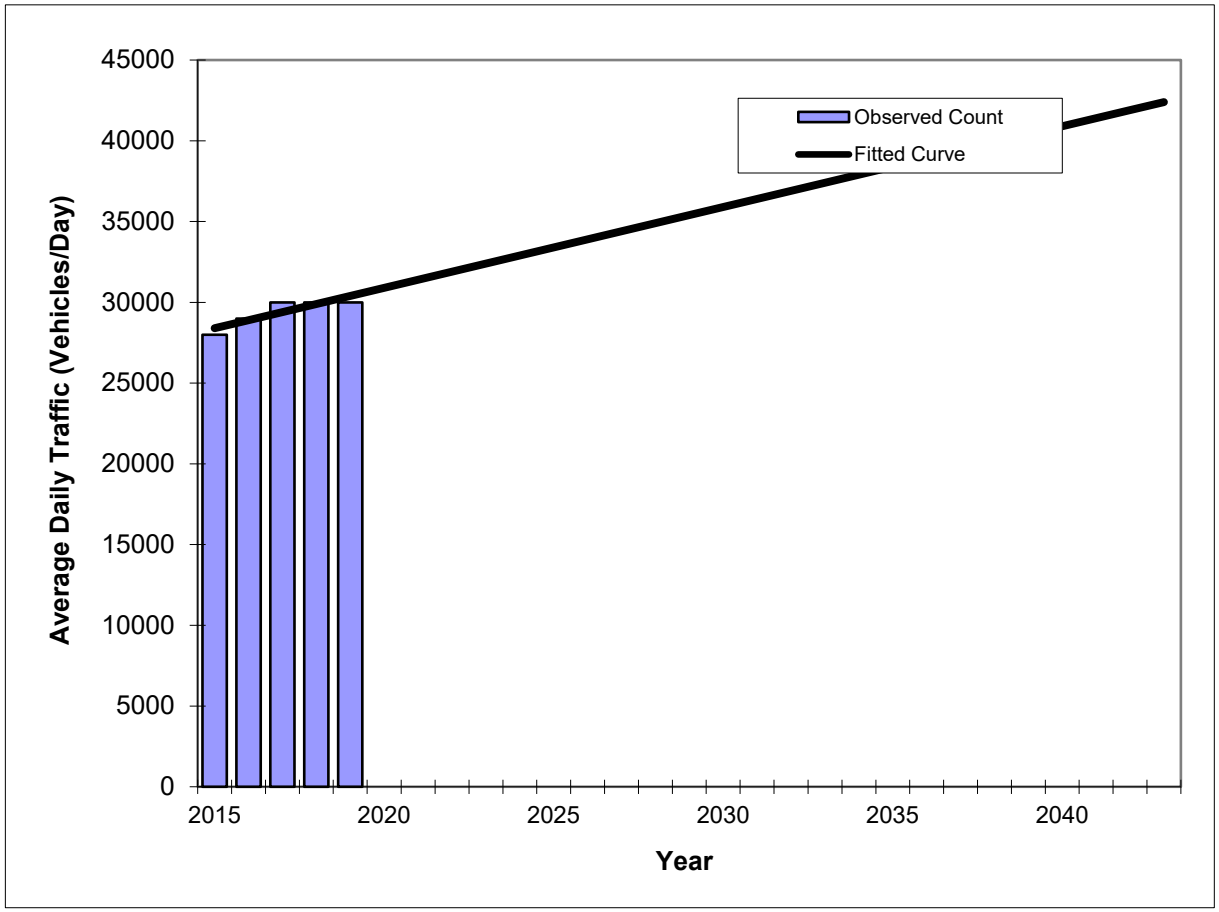
*Axle-Adjusted

Traffic Trends - V03.a

STIRLING RD. --

FIN#	1234
Location	1

County:	Broward (86)
Station #:	9091
Highway:	STIRLING RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2015	28000	28400
2016	29000	28900
2017	30000	29400
2018	30000	29900
2019	30000	30400
2023 Opening Year Trend		
2023	N/A	32400
2033 Mid-Year Trend		
2033	N/A	37400
2043 Design Year Trend		
2043	N/A	42400
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	500
Trend R-squared:	78.13%
Trend Annual Historic Growth Rate:	1.76%
Trend Growth Rate (2019 to Design Year):	1.64%
Printed:	8-Jun-21

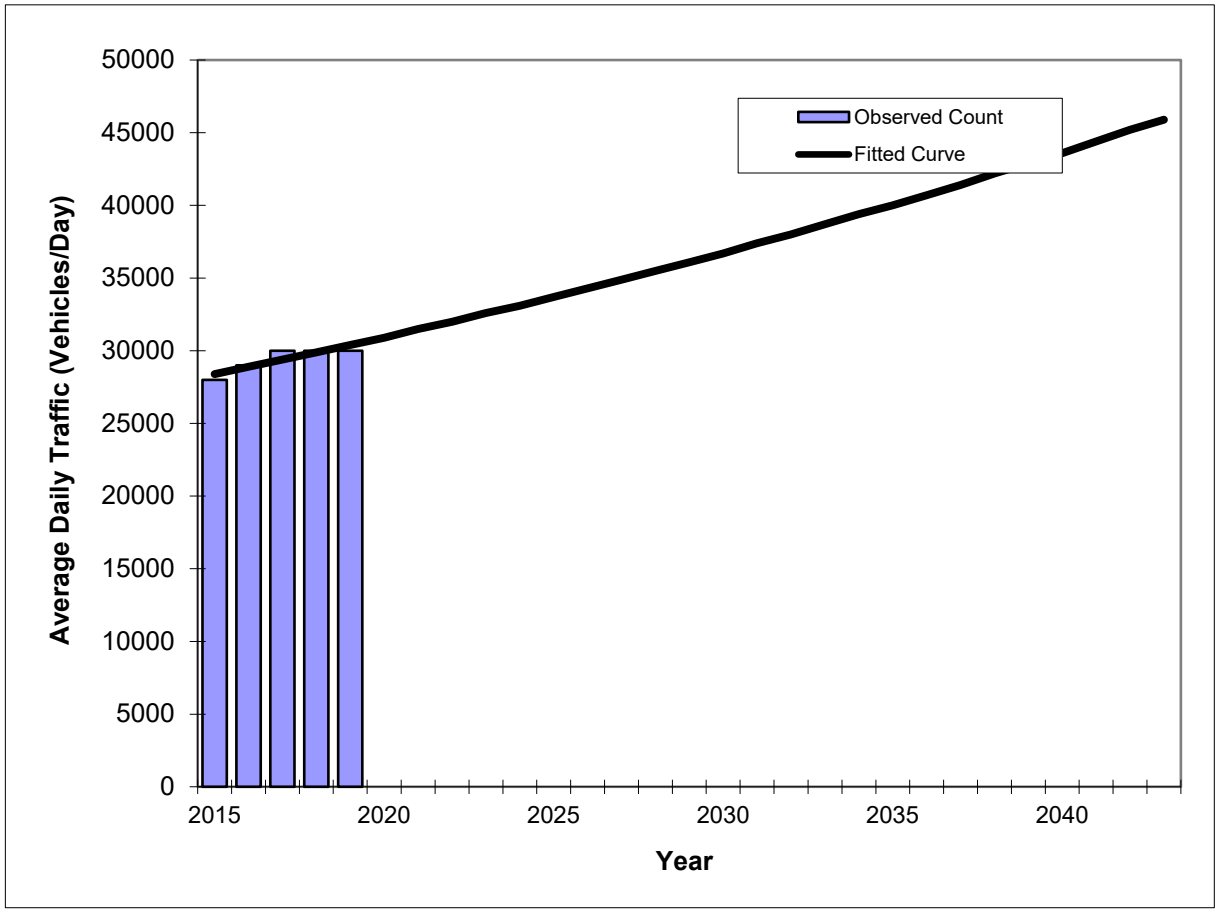
Straight Line Growth Option

Traffic Trends - V03.a

STIRLING RD. --

FIN#	1234
Location	1

County:	Broward (86)
Station #:	9091
Highway:	STIRLING RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2015	28000	28400
2016	29000	28900
2017	30000	29400
2018	30000	29900
2019	30000	30400
2023 Opening Year Trend		
2023	N/A	32600
2033 Mid-Year Trend		
2033	N/A	38700
2043 Design Year Trend		
2043	N/A	45900
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	77.92%
Compounded Annual Historic Growth Rate:	1.72%
Compounded Growth Rate (2019 to Design Year):	1.73%
Printed:	8-Jun-21

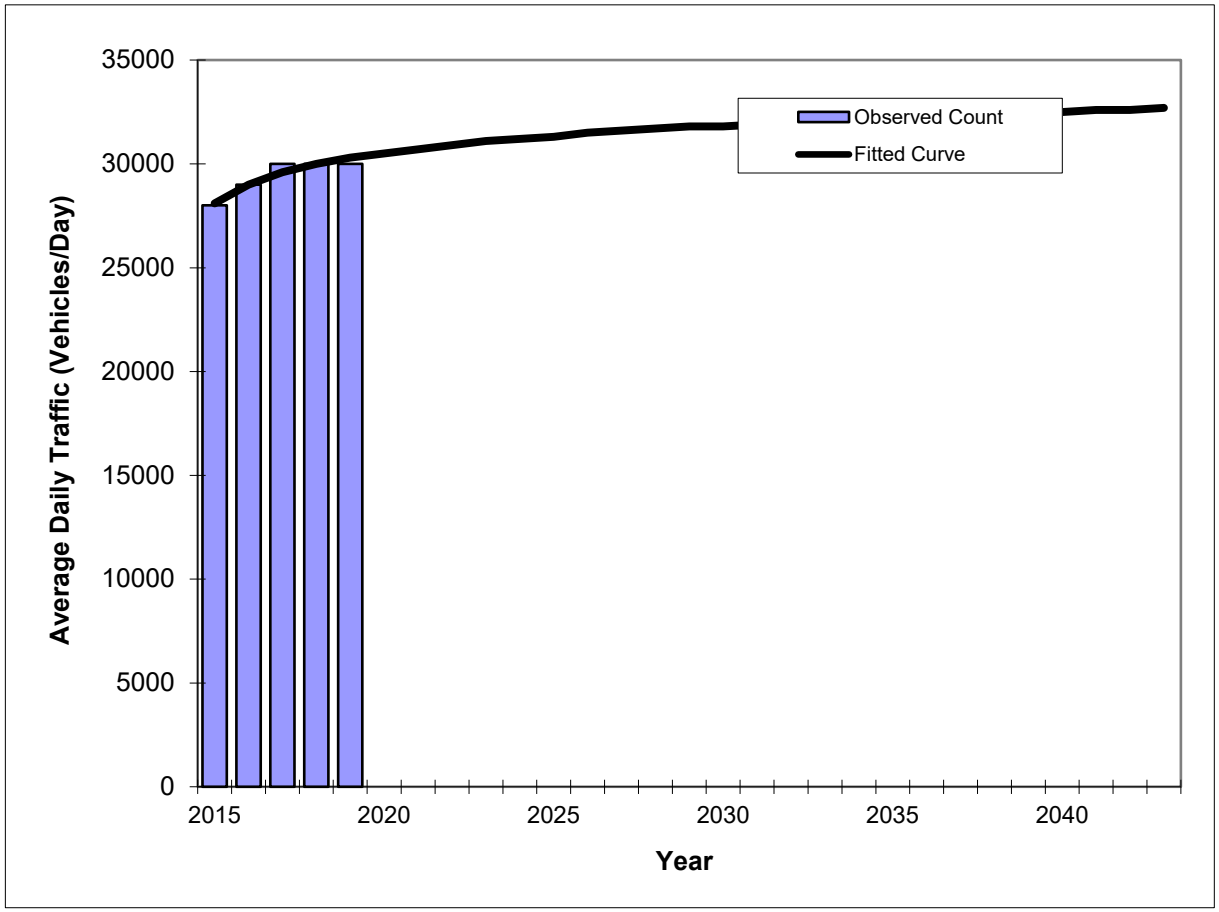
Exponential Growth Option

Traffic Trends - V03.a

STIRLING RD. --

FIN#	1234
Location	1

County:	Broward (86)
Station #:	9091
Highway:	STIRLING RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2015	28000	28100
2016	29000	29000
2017	30000	29600
2018	30000	30000
2019	30000	30300
2023 Opening Year Trend		
2023	N/A	31100
2033 Mid-Year Trend		
2033	N/A	32100
2043 Design Year Trend		
2043	N/A	32700
TRANPLAN Forecasts/Trends		

Trend R-squared:	91.88%
Compounded Annual Historic Growth Rate:	1.90%
Compounded Growth Rate (2019 to Design Year):	0.32%
Printed:	8-Jun-21

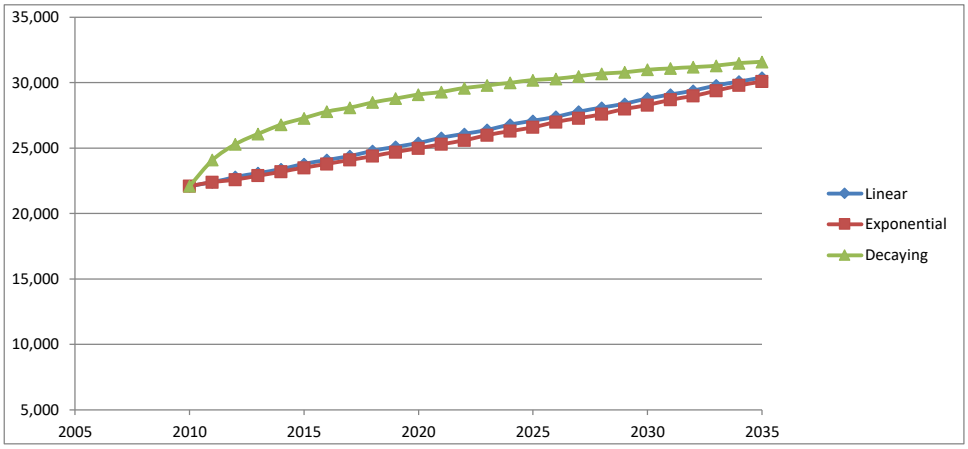
Decaying Exponential Growth Option

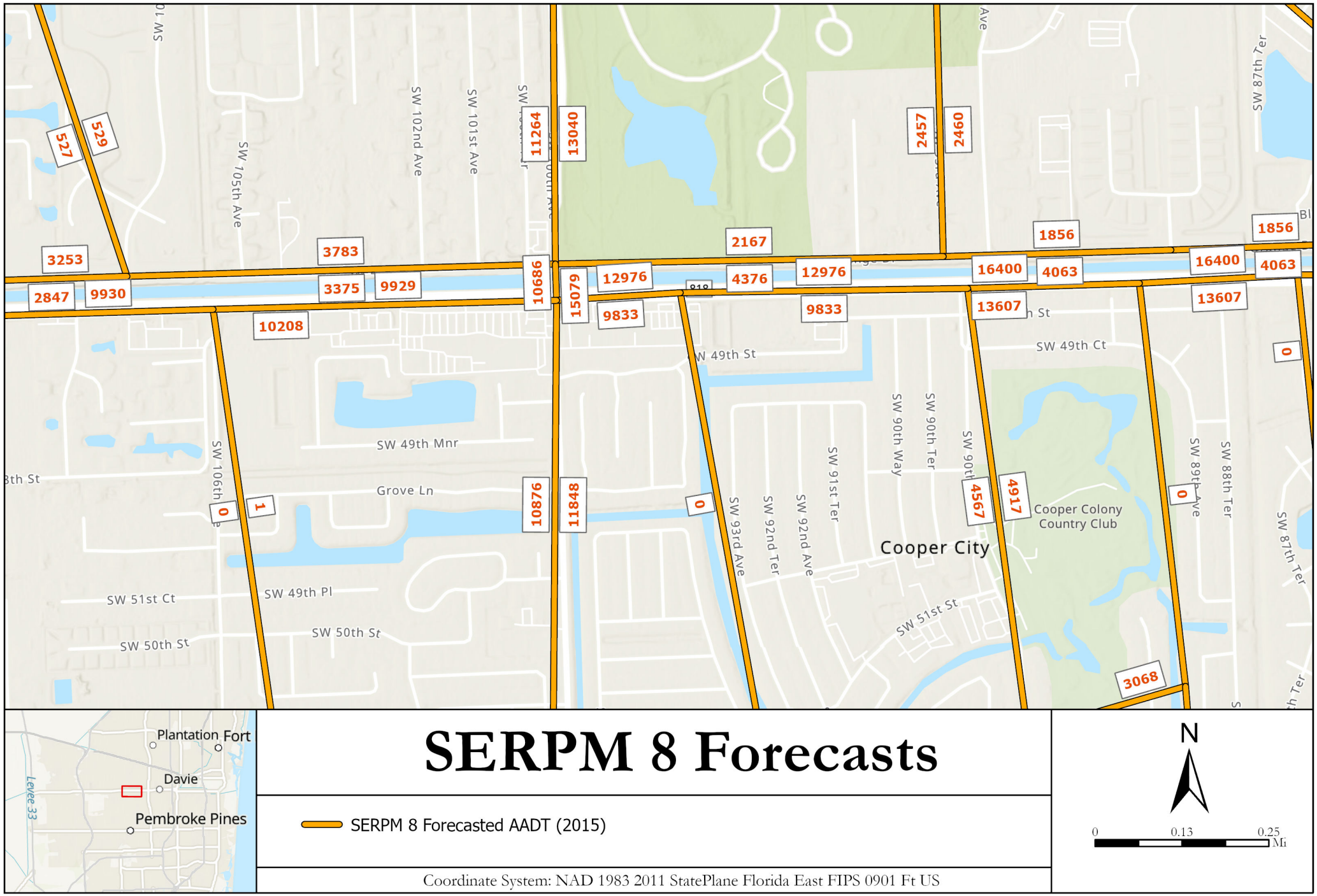
*Axle-Adjusted

Model Growth Trend Calculation

	Base Year	Future Year	Linear	Exponential	Decay Exponential
Year	2010	2040	1.51%	1.25%	1.28%
2010	22,086	32,086	22,100	22,100	22,100
2011			22,400	22,400	24,100
2012			22,800	22,600	25,300
2013			23,100	22,900	26,100
2014			23,400	23,200	26,800
2015			23,800	23,500	27,300
2016			24,100	23,800	27,800
2017			24,400	24,100	28,100
2018	Opening Year		24,800	24,400	28,500
2019			25,100	24,700	28,800
2020			25,400	25,000	29,100
2021			25,800	25,300	29,300
2022			26,100	25,600	29,600
2023			26,400	26,000	29,800
2024			26,800	26,300	30,000
2025			27,100	26,600	30,200
2026			27,400	27,000	30,300
2027			27,800	27,300	30,500
2028	Mid-Design Year		28,100	27,600	30,700
2029			28,400	28,000	30,800
2030			28,800	28,300	31,000
2031			29,100	28,700	31,100
2032			29,400	29,000	31,200
2033			29,800	29,400	31,300
2034			30,100	29,800	31,500
2035			30,400	30,100	31,600
2036			30,800	30,500	31,700
2037			31,100	30,900	31,800
2038	Design Year		31,400	31,300	31,900
2039			31,800	31,700	32,000
2040	32,086		32,100	32,100	32,100

30	27	Slope		Intercept		
Year	ln(year)	2912.0668		22086		
1	0.0000	Exponential				
2	0.6931	1.24%				
3	1.0986	Linear				
4	1.3863	1.51%				
5	1.6094					
6	1.7918					
7	1.9459					
8	2.0794					
9	2.1972					
10	2.3026					
11	2.3979					
12	2.4849					
13	2.5649					
14	2.6391					
15	2.7081					
16	2.7726					
17	2.8332					
18	2.8904					
19	2.9444					
20	2.9957					
21	3.0445					
22	3.0910					
23	3.1355					
24	3.1781					
25	3.2189					
26	3.2581					
27	3.2958					
28	3.3322					
29	3.3673					
30	3.4012					
31	3.4340					





SERPM 8 Forecasts

SERPM 8 Forecasted AADT (2015)

Coordinate System: NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

N

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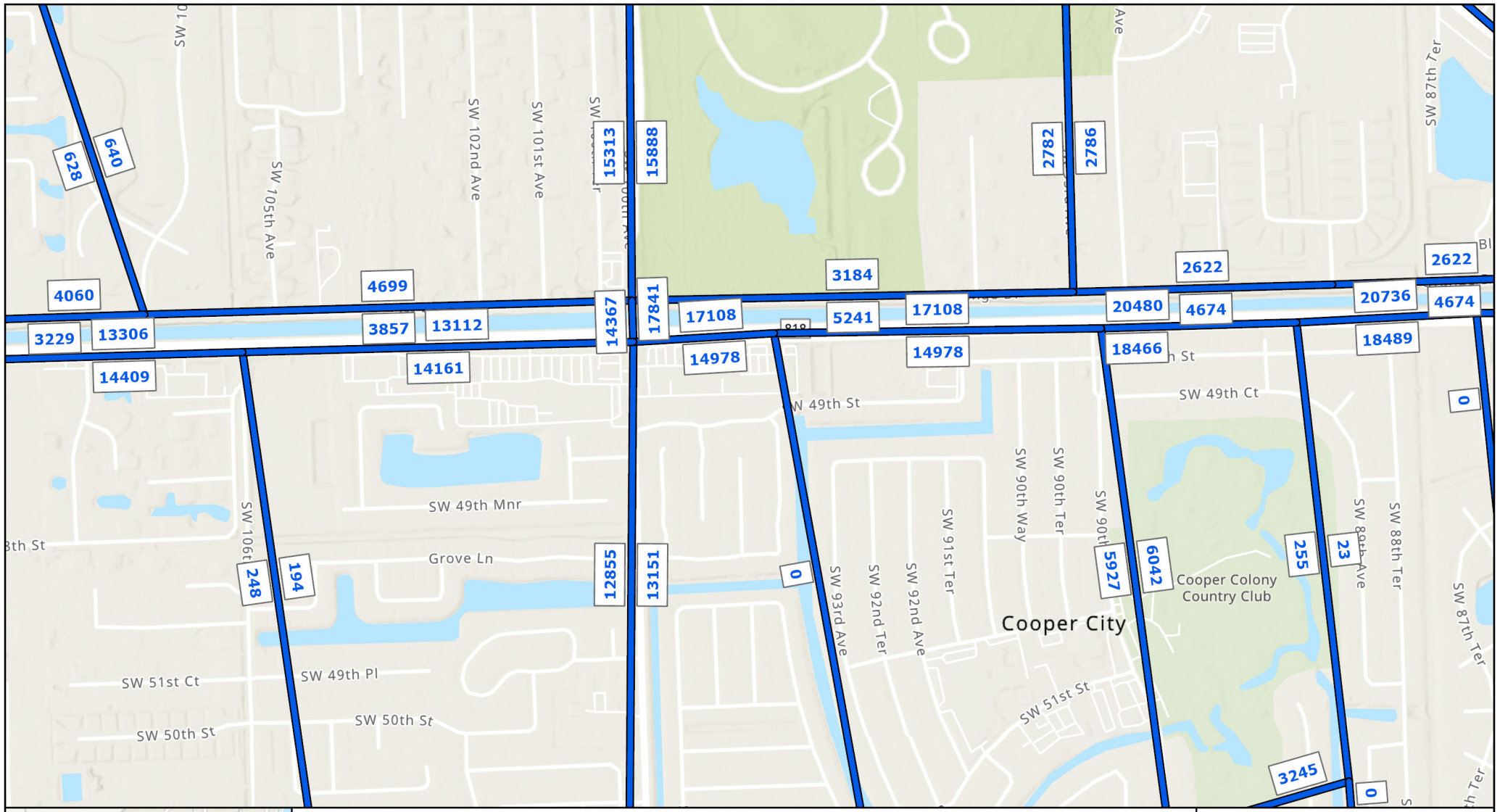


SERPM 8 Forecasts

SERPM 8 Forecasted AADT (2045)

Coordinate System: NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

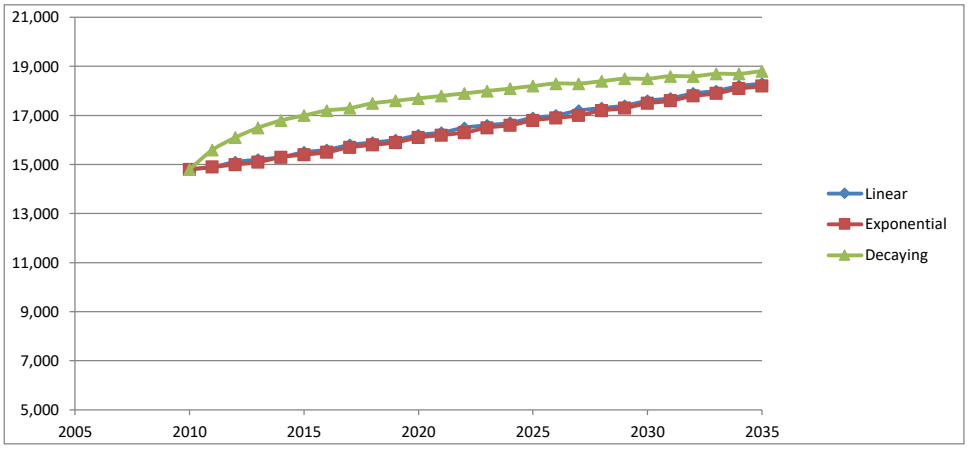
N

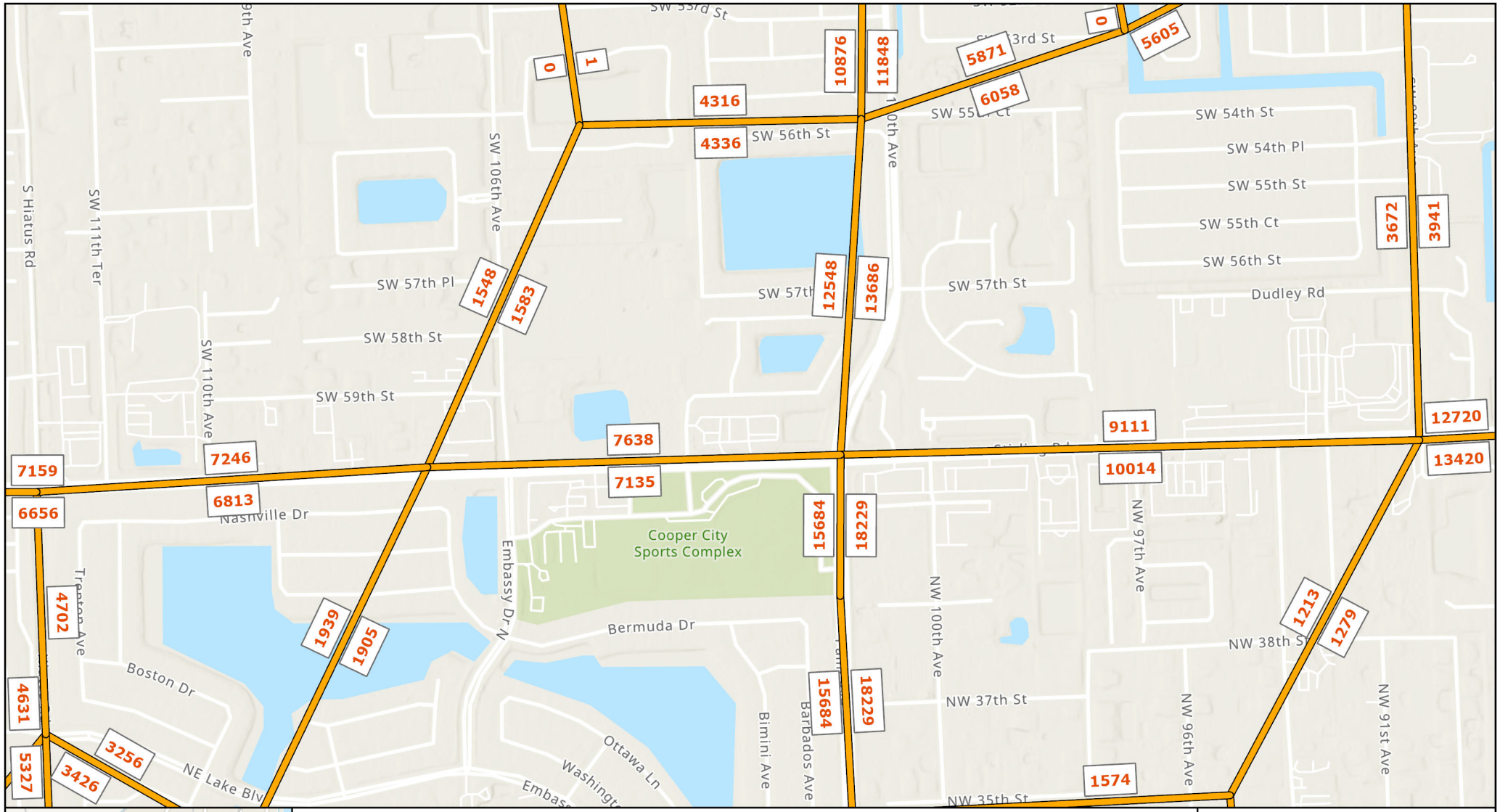
0 0.13 0.25 Mi

Model Growth Trend Calculation

	Base Year	Future Year	Linear	Exponential	Decay Exponential
Year	2010	2040	0.96%	0.83%	0.87%
2010	14,773	18,998	14,800	14,800	14,800
2011			14,900	14,900	15,600
2012			15,100	15,000	16,100
2013			15,200	15,100	16,500
2014			15,300	15,300	16,800
2015			15,500	15,400	17,000
2016			15,600	15,500	17,200
2017			15,800	15,700	17,300
2018	Opening Year		15,900	15,800	17,500
2019			16,000	15,900	17,600
2020			16,200	16,100	17,700
2021			16,300	16,200	17,800
2022			16,500	16,300	17,900
2023			16,600	16,500	18,000
2024			16,700	16,600	18,100
2025			16,900	16,800	18,200
2026			17,000	16,900	18,300
2027			17,200	17,000	18,300
2028	Mid-Design Year		17,300	17,200	18,400
2029			17,400	17,300	18,500
2030			17,600	17,500	18,500
2031			17,700	17,600	18,600
2032			17,900	17,800	18,600
2033			18,000	17,900	18,700
2034			18,200	18,100	18,700
2035			18,300	18,200	18,800
2036			18,400	18,400	18,800
2037			18,600	18,500	18,900
2038	Design Year		18,700	18,700	18,900
2039			18,900	18,800	19,000
2040	18,998		19,000	19,000	19,000

30	27	Slope		Intercept			
Year	ln(year)	1230.3482		14773			
1	0.0000	Exponential					
2	0.6931	0.84%					
3	1.0986	Linear					
4	1.3863	0.95%					
5	1.6094						
6	1.7918						
7	1.9459						
8	2.0794						
9	2.1972						
10	2.3026						
11	2.3979						
12	2.4849						
13	2.5649						
14	2.6391						
15	2.7081						
16	2.7726						
17	2.8332						
18	2.8904						
19	2.9444						
20	2.9957						
21	3.0445						
22	3.0910						
23	3.1355						
24	3.1781						
25	3.2189						
26	3.2581						
27	3.2958						
28	3.3322						
29	3.3673						
30	3.4012						
31	3.4340						





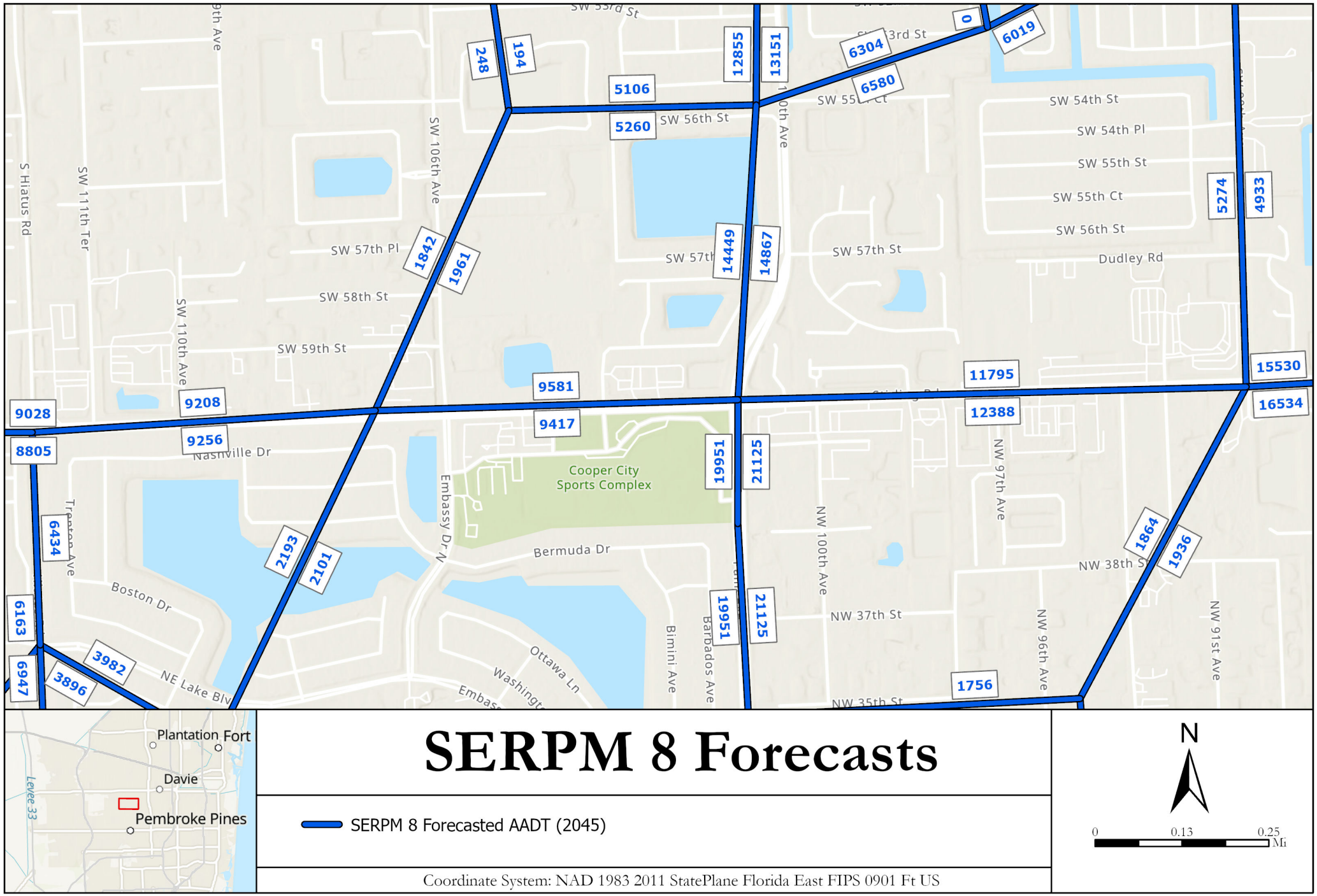
SERPM 8 Forecasts

SERPM 8 Forecasted AADT (2015)

Coordinate System: NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

N

0 0.13 0.25 Mi



SERPM 8 Forecasts

SERPM 8 Forecasted AADT (2045)

Coordinate System: NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

N

0 0.13 0.25 Mi

Appendix D:

OTISS Trip Generation and committed developments

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
532 - Private School (K-12)	General Urban/Suburban	Students	425	Weekday, AM Peak Hour of Generator	Best Fit (LIN)	219	129	348
Data Source: Trip Generation Manual, 11th Ed					T = 0.76(X) + 24.37	63%	37%	
562 - Mosque	General Urban/Suburban	1000 Sq. Ft. GFA	5.95	Friday, AM Peak Hour of Generator	Average	38	19	57
Data Source: Trip Generation Manual, 11th Ed					9.54	67%	33%	

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
532 - Private School (K-12)	General Urban/Suburban	Students	425	Weekday, PM Peak Hour of Generator	Best Fit (LIN)	110	153	263
Data Source: Trip Generation Manual, 11th Ed					T = 0.41(X) + 88.78	42%	58%	
562 - Mosque	General Urban/Suburban	1000 Sq. Ft. GFA	5.95	Friday, PM Peak Hour of Generator	Average	60	80	140
Data Source: Trip Generation Manual, 11th Ed					23.55	43%	57%	

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
532 - Private School (K-12)	General	Students	560	Weekday, AM Peak Hour of	Best Fit (LIN)	283	166	449
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	T = 0.76(X) + 24.37	63%	37%	
562 - Mosque	General	1000 Sq. Ft. GFA	7.69	Friday, AM Peak Hour of	Average	49	24	73
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	9.54	67%	33%	

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
532 - Private School (K-12)	General	Students	560	Weekday, PM Peak Hour of	Best Fit (LIN)	134	185	319
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	T = 0.41(X) + 88.78	42%	58%	
562 - Mosque	General	1000 Sq. Ft. GFA	7.69	Friday, PM Peak Hour of	Average	78	103	181
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	23.55	43%	57%	

Project Information	
Project Name:	Nur-Ul-Islam - Proposed Condition
No:	
Date:	5/26/2021
City:	
State/Province:	
Zip/Postal Code:	
Country:	USA
Client Name:	
Analyst's Name:	
Edition:	Trip Gen Manual, 10th Ed + Supplement

Land Use	Size	AM Peak Hour of Generator			PM Peak Hour of Generator		
		Entry	Exit	Total	Entry	Exit	Total
536 - Private School (K-12) (General Urban/Suburban)	600 Students	296	190	486	146	202	348
Reduction		0	0		0	0	
Internal		0	0		0	0	
Pass-by		0	0		0	0	
Non-pass-by		296	190	486	146	202	348
562 - Mosque (General Urban/Suburban)	7.69 1000 Sq. Ft. GFA	49	24	73	0	0	141
Reduction		0	0		0	0	
Internal		0	0		0	0	
Pass-by		0	0		0	0	
Non-pass-by		49	24	73	0	0	141
Total		345	214	559	146	202	489
Total Reduction		0	0		0	0	
Total Internal		0	0		0	0	
Total Pass-by		0	0		0	0	
Total Non-pass-by		345	214	559	146	202	489

Table 5
Phase One Daily Trip Generation
Chabad Southwest Broward Community Campus

Land Use	ITE Code	Intensity		Trip Generation Rate[1]	Total Trips			Internal Trips				External Trips			Pass-by Trip Reduction[2]		New Trips		
					In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Existing Use																			
Nursing Home	620	62	beds	T=3.06(X) (50/50)	95	95	190	0	0	0	0.00%	95	95	190	0	0.00%	95	95	190
Proposed Use																			
Daycare	565	72	students	T=3.56(X)+47.23 (50/50)	152	152	304	0	0	0	0.00%	152	152	304	0	0.00%	152	152	304
Boarding School	N/A	1	staff	T=4(X) (50/50)	2	2	4	0	0	0	0.00%	2	2	4	0	0.00%	2	2	4
Synagogue (Church)	560	2,000	s.f.	T=6.95(X) (50/50)	7	7	14	0	0	0	0.00%	7	7	14	0	0.00%	7	7	14
Small Office Building	712	4,127	s.f.	T=16.19(X) (50/50)	33	34	67	0	0	0	0.00%	33	34	67	0	0.00%	33	34	67
Sub-Total					**194**	**195**	**389**	**0**	**0**	**0**	**0**	**194**	**195**	**389**	**0**	**0**	**194**	**195**	**389**
Net Difference					**99**	**100**	**199**	**0**	**0**	**0**		**99**	**100**	**199**			**99**	**100**	**199**

[1] Trip generation data obtained from the Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 6
Phase One AM Peak Hour Trip Generation
Chabad Southwest Broward Community Campus

Land Use	ITE Code	Intensity		Trip Generation Rate[1]	Total Trips			Internal Trips				External Trips			Pass-by Trip Reduction[2]		New Trips		
					In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Existing Use																			
Nursing Home	620	62	beds	T=0.17(X) (72/28)	8	3	11	0	0	0	0.00%	8	3	11	0	0.00%	8	3	11
Proposed Use																			
Daycare	565	72	students	T=0.66(X)+8.42 (53/47)	30	26	56	0	0	0	0.00%	30	26	56	0	0.00%	30	26	56
Boarding School	N/A	1	staff	T=1(X) (50/50)	1	0	1	0	0	0	0.00%	1	0	1	0	0.00%	1	0	1
Synagogue	561	2,000	s.f.	T=2.41(X) (63/37)	3	2	5	0	0	0	0.00%	3	2	5	0	0.00%	3	2	5
Small Office Building	712	4,127	s.f.	T=1.92(X) (83/17)	7	1	8	0	0	0	0.00%	7	1	8	0	0.00%	7	1	8
Sub-Total					**41**	**29**	**70**	**0**	**0**	**0**	**0**	**41**	**29**	**70**	**0**	**0**	**41**	**29**	**70**
Net Difference					**33**	**26**	**59**	**0**	**0**	**0**		**33**	**26**	**59**			**33**	**26**	**59**

[1] Trip generation data obtained from the Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 7
Phase One PM Peak Hour Trip Generation
Chabad Southwest Broward Community Campus

Land Use	ITE Code	Intensity		Trip Generation Rate[1]	Total Trips			Internal Trips				External Trips			Pass-by Trip Reduction[2]		New Trips		
					In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Existing Use																			
Nursing Home	620	62	beds	T=0.22(X) (33/67)	5	9	14	0	0	0	0.00%	5	9	14	0	0.00%	5	9	14
Proposed Use																			
Daycare	565	72	students	Ln(T)=0.87Ln(X)+0.29 (47/53)	26	29	55	0	0	0	0.00%	26	29	55	0	0.00%	26	29	55
Boarding School	N/A	1	staff	T=1(X) (50/50)	0	1	1	0	0	0	0.00%	0	1	1	0	0.00%	0	1	1
Synagogue	561	2,000	s.f.	T=2.92(X) (57/43)	3	3	6	0	0	0	0.00%	3	3	6	0	0.00%	3	3	6
Small Office Building	712	4,127	s.f.	T=2.45(X) (32/68)	3	7	10	0	0	0	0.00%	3	7	10	0	0.00%	3	7	10
Sub-Total					**32**	**40**	**72**	**0**	**0**	**0**	**0**	**32**	**40**	**72**	**0**	**0**	**32**	**40**	**72**
Net Difference					**27**	**31**	**58**	**0**	**0**	**0**		**27**	**31**	**58**			**27**	**31**	**58**

[1] Trip generation data obtained from the Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 8
Phase Two Daily Trip Generation
Chabad Southwest Broward Community Campus

Land Use	ITE Code	Intensity		Trip Generation Rate[1]	Total Trips			Internal Trips				External Trips			Pass-by Trip Reduction[2]		New Trips		
					In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Existing Use																			
Nursing Home	620	62	beds	T=3.06(X) (50/50)	95	95	190	0	0	0	0.00%	95	95	190	0	0.00%	95	95	190
Proposed Use																			
Daycare	565	72	students	T=3.56(X)+47.23 (50/50)	152	152	304	0	0	0	0.00%	152	152	304	0	0.00%	152	152	304
Boarding School	N/A	1	staff	T=4(X) (50/50)	2	2	4	0	0	0	0.00%	2	2	4	0	0.00%	2	2	4
Synagogue (Church)	560	9,300	s.f.	T=6.95(X) (50/50)	32	33	65	0	0	0	0.00%	32	33	65	0	0.00%	32	33	65
Sub-Total					**186**	**187**	**373**	**0**	**0**	**0**	**0**	**186**	**187**	**373**	**0**	**0**	**186**	**187**	**373**
Net Difference					**91**	**92**	**183**	**0**	**0**	**0**		**91**	**92**	**183**			**91**	**92**	**183**

[1] Trip generation data obtained from the Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 9
Phase Two AM Peak Hour Trip Generation
Chabad Southwest Broward Community Campus

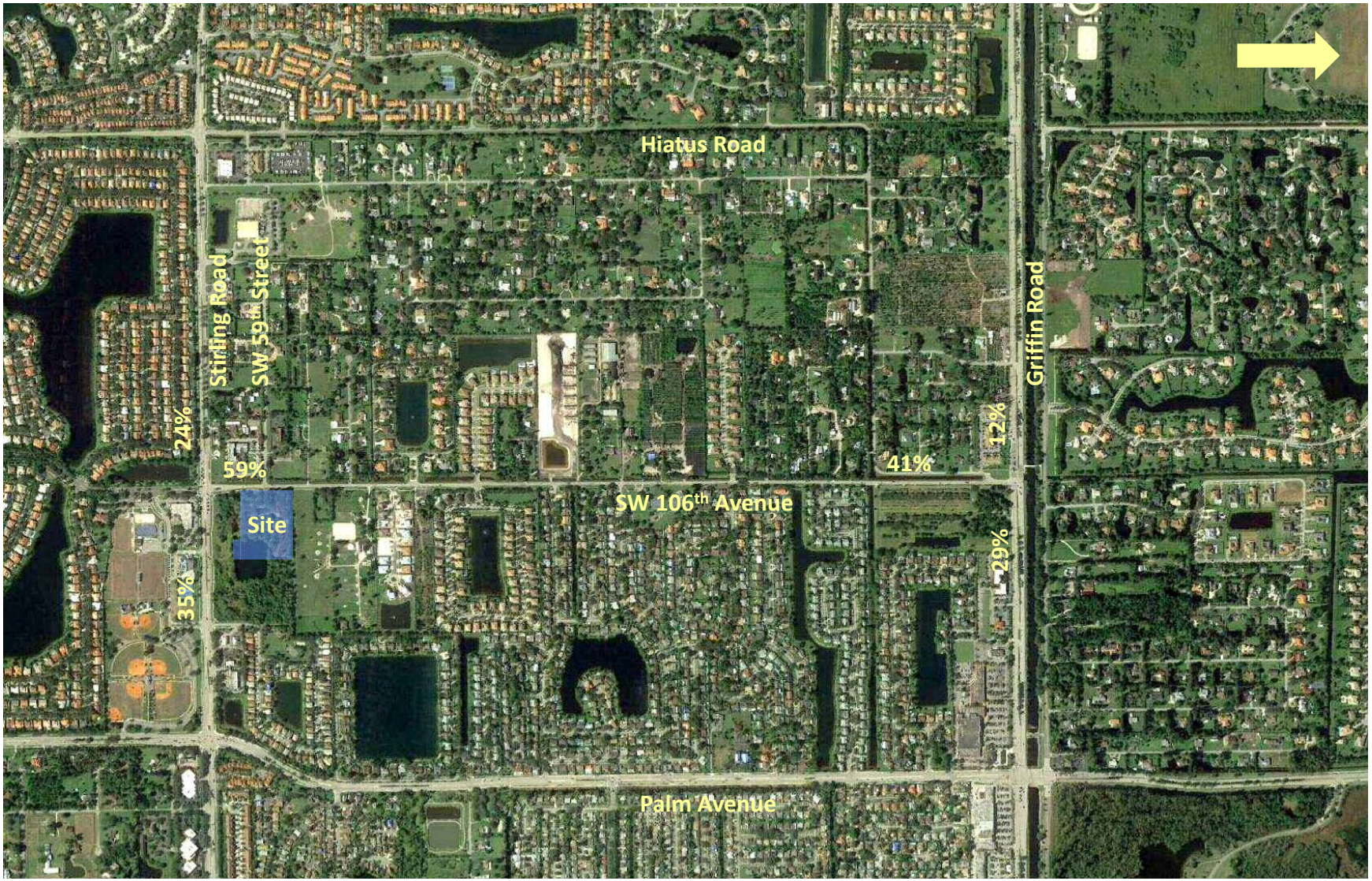
Land Use	ITE Code	Intensity		Trip Generation Rate[1]	Total Trips			Internal Trips				External Trips			Pass-by Trip Reduction[2]		New Trips		
					In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Existing Use																			
Nursing Home	620	62	beds	T=0.17(X) (72/28)	8	3	11	0	0	0	0.00%	8	3	11	0	0.00%	8	3	11
Proposed Use																			
Daycare	565	72	students	T=0.66(X)+8.42 (53/47)	30	26	56	0	0	0	0.00%	30	26	56	0	0.00%	30	26	56
Boarding School	N/A	1	staff	T=1(X) (50/50)	1	0	1	0	0	0	0.00%	1	0	1	0	0.00%	1	0	1
Synagogue	561	9,300	s.f.	T=2.41(X) (63/37)	14	8	22	0	0	0	0.00%	14	8	22	0	0.00%	14	8	22
Sub-Total					**45**	**34**	**79**	**0**	**0**	**0**	**0**	**45**	**34**	**79**	**0**	**0**	**45**	**34**	**79**
Net Difference					**37**	**31**	**68**	**0**	**0**	**0**		**37**	**31**	**68**			**37**	**31**	**68**

[1] Trip generation data obtained from the Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 10
Phase Two PM Peak Hour Trip Generation
Chabad Southwest Broward Community Campus

Land Use	ITE Code	Intensity		Trip Generation Rate[1]	Total Trips			Internal Trips				External Trips			Pass-by Trip Reduction[2]		New Trips		
					In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Existing Use																			
Nursing Home	620	62	beds	T=0.22(X) (33/67)	5	9	14	0	0	0	0.00%	5	9	14	0	0.00%	5	9	14
Proposed Use																			
Daycare	565	72	students	Ln(T)=0.87Ln(X)+0.29 (47/53)	26	29	55	0	0	0	0.00%	26	29	55	0	0.00%	26	29	55
Boarding School	N/A	1	staff	T=1(X) (50/50)	0	1	1	0	0	0	0.00%	0	1	1	0	0.00%	0	1	1
Synagogue	561	9,300	s.f.	T=2.92(X) (57/43)	15	12	27	0	0	0	0.00%	15	12	27	0	0.00%	15	12	27
Sub-Total					**41**	**42**	**83**	**0**	**0**	**0**	**0**	**41**	**42**	**83**	**0**	**0**	**41**	**42**	**83**
Net Difference					**36**	**33**	**69**	**0**	**0**	**0**		**36**	**33**	**69**			**36**	**33**	**69**

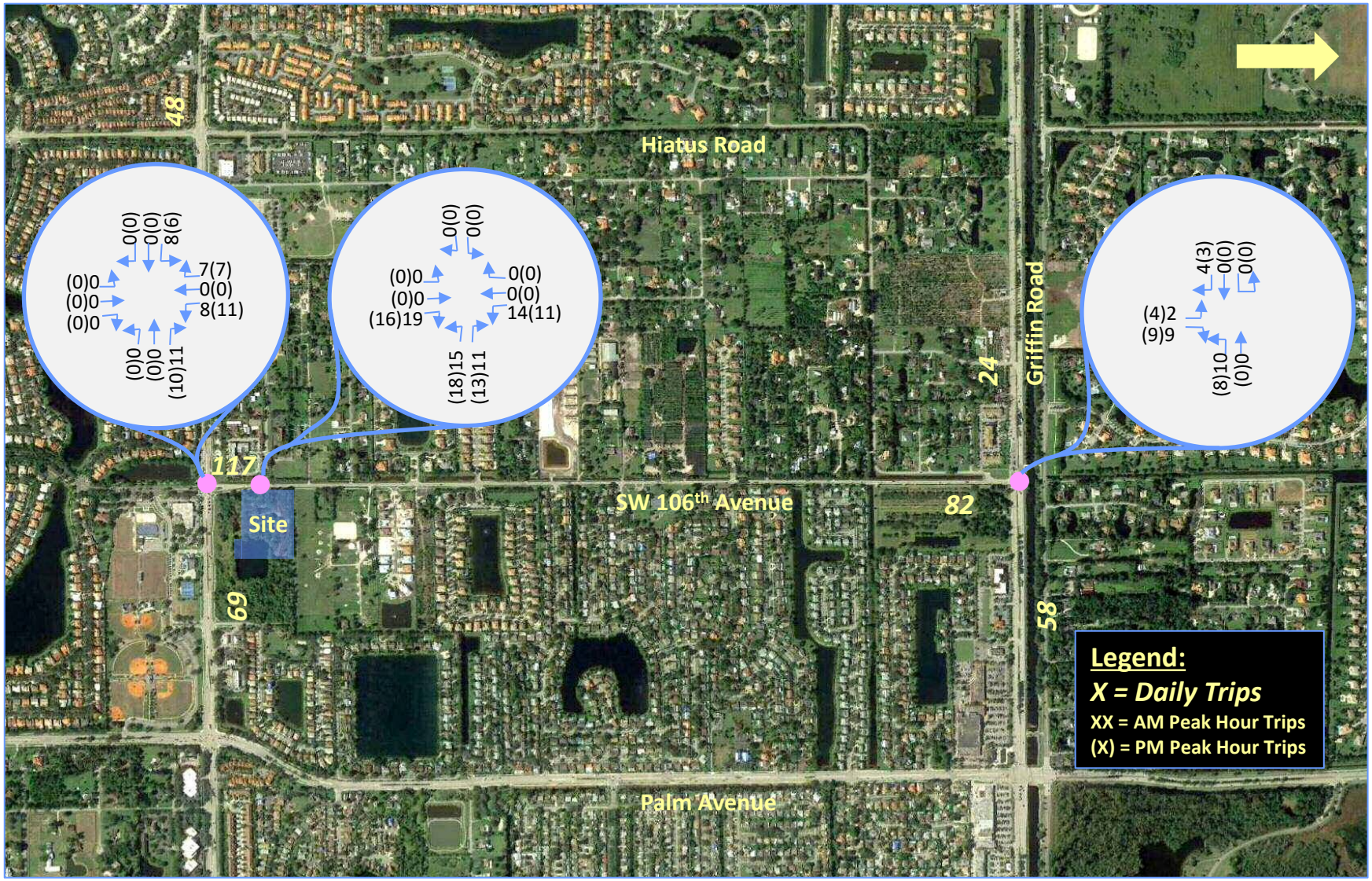
[1] Trip generation data obtained from the Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.



Thomas A. Hall, Inc.

Figure 4 – Project Trip Distribution

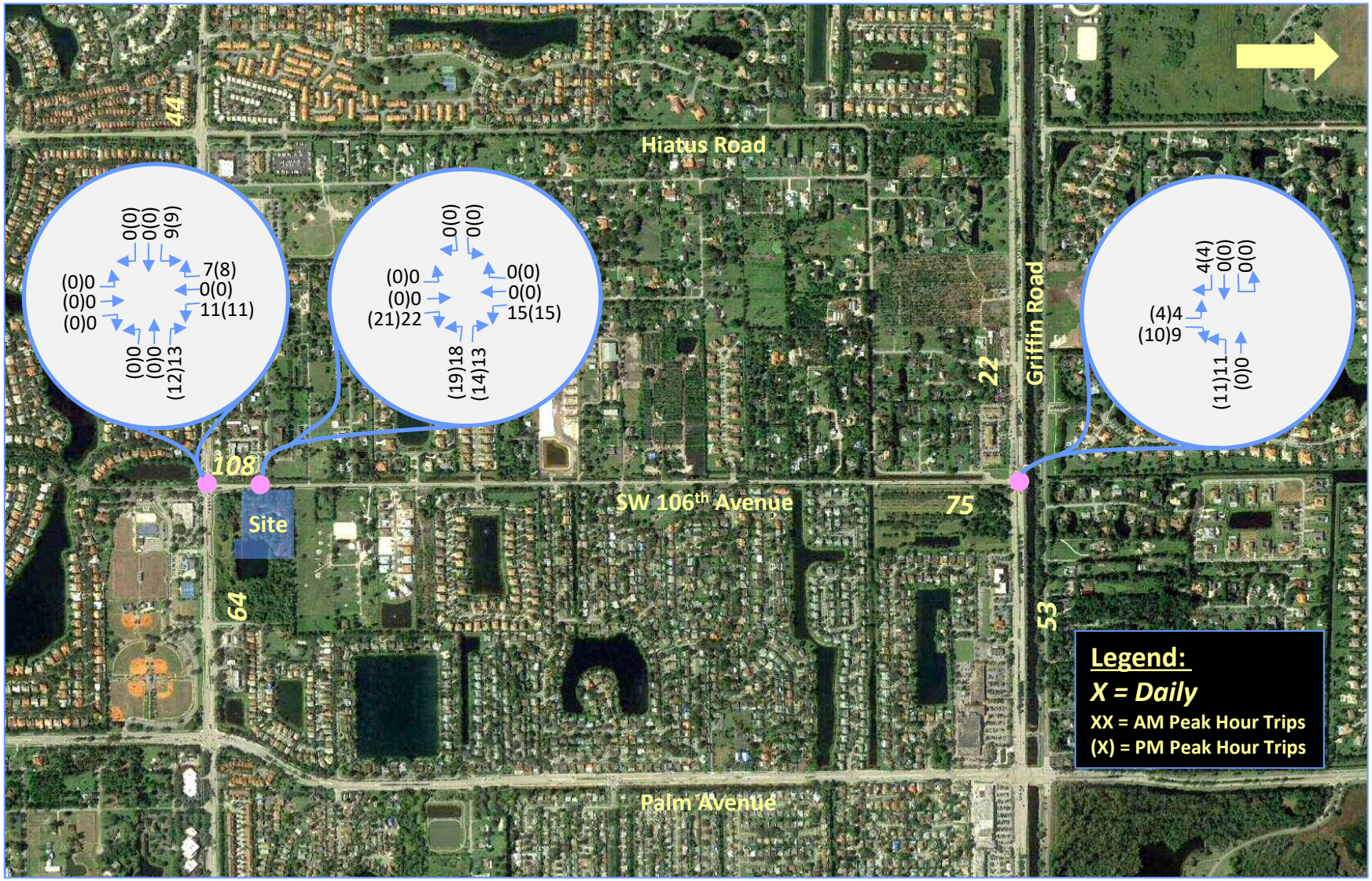
Chabad Southwest Broward Community Campus
Cooper City, Florida



Thomas A. Hall, Inc.

Figure 5 – Phase One Project Trip Assignment

Chabad Southwest Broward Community Campus
Cooper City, Florida



Thomas A. Hall, Inc.

Figure 8 – Phase Two Trip Assignment

Chabad Southwest Broward Community Campus
Cooper City, Florida

AM Peak Hour

T = 0.71 (X) + 4.80 with 25% inbound and 75% outbound
Where T = AM peak hour trip ends and X = number of units

PM Peak Hour

Ln (T) = 0.96 Ln (X) + 0.20 with 63% inbound and 37% outbound
Where T = PM peak hour trip ends and X = number of units

Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for the proposed residential development. The results of this effort are documented in Table 1. As indicated in Table 1, the Kingfisher Reserve project is anticipated to generate approximately 360 daily trips, approximately 32 AM peak hour trips (8 inbound and 24 outbound) and approximately 40 PM peak hour trips (25 inbound and 15 outbound). Hence, the trips generated by the proposed Kingfisher Reserve project are minimal (approximately one new peak hour trip every one minute and 30 seconds).

TABLE 1
Trip Generation Summary (Previous Proposed Use)
Kingfisher Reserve

			AM Peak Hour			PM Peak Hour		
Land Use	Size	Daily Trips	Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
SF Homes (LUC 210)	38	359	32	8	24	40	25	15

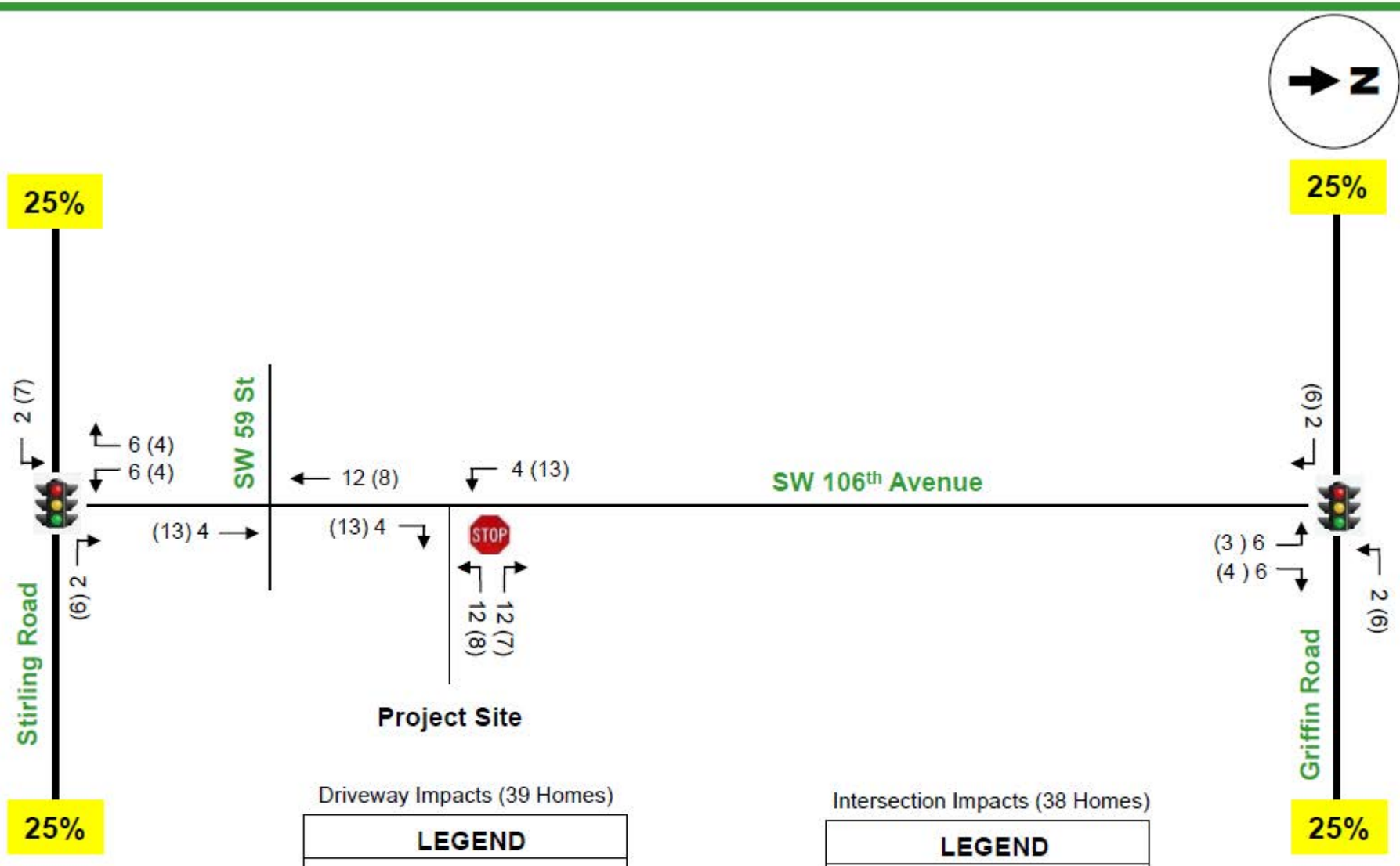
Source: ITE Trip Generation Manual (10th Edition). NOTE. Credit has been given to the existing home at the site.

Trip Distribution and Driveway Assignment

The trip distribution and traffic assignment for the proposed project was based on knowledge of the study area, examination of the surrounding roadway network characteristics, review of current traffic volumes, and existing land use patterns. The trip distribution assumed for the Kingfisher Reserve development is summarized below:

- 50% to and from the north via SW 106th Avenue
  - 25% to and from the east via Griffin Road
  - 25% to and from the west via Griffin Road
- 50% to and from the south via SW 106th Avenue
  - 25% to and from the east via Stirling Road
  - 25% to and from the west via Stirling Road

Figure 2 shows the peak hour traffic assignment for the project on the nearby intersections and projected driveway volumes.



Driveway Impacts (39 Homes)

LEGEND
AM Peak: 8 ins / 24 out (PM Peak: 26 ins / 15 out)

Intersection Impacts (38 Homes)

LEGEND
AM Peak: 8 ins / 24 out (PM Peak: 25 ins / 15 out)

TRAFTECH ENGINEERING, INC.

Project Trip Distribution

FIGURE 2
Kingfisher Reserve
Cooper City, Florida

Appendix E:

Synchro Level of Service Reports

Station : 3222 - Griffin Rd & SW 106 Ave (Standard File)

Phase	1 (EL)	2 (WT)	3	4 (NT)	5 (WL)	6 (ET)	7	8	9	10	11	12	13	14	15	16
Walk						7		7								
Ped Clearance						19		33								
Min Green	4	15		6	4	15		7								
Gap Ext	1.5	3		2	1.5	3										
Max1	12	60		20	12	60		40								
Max2																
Yellow Clr	5	5	4	4	5	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	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																
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk						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	ON	ON	ON	ON	ON	ON
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
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						

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 Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Station : 3222 - Griffin Rd & SW 106 Ave (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		22	22	90	88	22	1		17		12	34		25	13	33		19								
9		23	23	80	20	23	1		17		12	34		20	13	33		14								
15		4	4	80	40	4	1	10	50		15	47		18	15	47										
20		3	3	80	37	3	1	10	50		15	47		18	15	47										
Day Plan 2											**Easy**															
		3	3	80	37	3	1	10	50		15	47		18	15	47										
1		100	254																							
6	30	3	3	80	37	3	1	10	50		15	47		18	15	47										
Day Plan 3											**Easy**															
		3	3	80	37	3	1	10	50		15	47		18	15	47										
1		100	254																							
6	30	3	3	80	37	3	1	10	50		15	47		18	15	47										
23		100	254																							

Station : 3222 - Griffin Rd & SW 106 Ave (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**															
		100	254																							
6	30	22	22	90	88	22	1		17		12	34		25	13	33		19								
9	30	23	23	80	20	23	1		17		12	34		20	13	33		14								
14	30	24	24	90	59	24	1		17		12	34		22	13	33		22								
19		23	23	80	20	23	1		17		12	34		20	13	33		14								

Scheduler

	Month											Day of Week							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	4
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	5
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	6
4	1													1	1	1	1	1		1																														2
5	1													1							1																														2
6					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	1																										2
11											1							1																																		2
12											1							1																																		2
13												1		1				1																																		2
14												1		1	1	1	1	1																																		2
15												1		1																																						2
16												1		1				1																																		1	2
17																																																				1
18																																																				1
19																																																				1
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26																																																				1
27																																																				1
28																																																				1
29																																																				1
30																																																				1
31																																																				1
32																																																				1

User Comments:

Station : 3375 - Stirling Rd & Hiatus Rd (Standard File)

Phase	1	2 (WT)	3	4 (NT)	5 (WL)	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		16		26		16		24								
Min Green		12		6	4	12		6								
Gap Ext		3		2	1.5	3		2								
Max1		50		35	12	50		35								
Max2																
Yellow Clr	4	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	2	1.5	2.5	2	2	1.5	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								
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						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
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						

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 Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Station : 3375 - Stirling Rd & Hiatus Rd (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	116	2	1	10	50			117		43	15	102		43								
9		3	3	160	86	3	1	10	50			117		43	15	102		43								
15		4	4	160	102	4	1	10	50			117		43	15	102		43								
20		3	3	160	86	3	1	10	50			117		43	15	102		43								
Day Plan 2											**Easy**															
		3	3	160	86	3	1	10	50			117		43	15	102		43								
1		100	254																							
6	30	3	3	160	86	3	1	10	50			117		43	15	102		43								
Day Plan 3											**Easy**															
		3	3	160	86	3	1	10	50			117		43	15	102		43								
1		100	254																							
6	30	3	3	160	86	3	1	10	50			117		43	15	102		43								
23		100	254																							

Station : 3375 - Stirling Rd & Hiatus Rd (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 Week							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
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	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	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:

Station : 3446 - Stirling Rd & SW 106 Ave (Standard File)

Phase	1 (EL)	2 (WT)	3	4 (NT)	5 (WL)	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Walk				7		7										
Ped Clearance				18		12										
Min Green	4	12		6	4	12		6								
Gap Ext	1.5	3		2	1.5	3		2								
Max1	12	50		25	12	50		25								
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	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						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
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						

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 Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Station : 3446 - Stirling Rd & SW 106 Ave (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	8	2	1	10	50		15	95		50	15	95		50								
9		3	3	160	139	3	1	10	50		15	100		45	15	100		45								
15		4	4	160	103	4	1	10	50		15	100		45	15	100		45								
20		3	3	160	139	3	1	10	50		15	100		45	15	100		45								
Day Plan 2											**Easy**															
		25	255																							
6		100	254																							
6	30	3	3	160	139	3	1	10	50		15	100		45	15	100		45								
Day Plan 3											**Easy**															
		25	255																							
6		100	254																							
6	30	3	3	160	139	3	1	10	50		15	100		45	15	100		45								
23		100	254																							

Station : 3446 - Stirling Rd & SW 106 Ave (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 Week							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
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	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	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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31																																																				1
32																																																				1

User Comments:

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	44	1035	156	347	914	21	189	20	640	47	20
Future Volume (vph)	44	1035	156	347	914	21	189	20	640	47	20
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		6		5	2			4			8
Permitted Phases	6		6	2		2	4		4	8	
Detector Phase	6	6	6	5	2	2	4	4	4	8	8
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.5	29.5	29.5	12.0	29.5	29.5	39.5	39.5	39.5	37.5	37.5
Total Split (s)	102.0	102.0	102.0	15.0	117.0	117.0	43.0	43.0	43.0	43.0	43.0
Total Split (%)	63.8%	63.8%	63.8%	9.4%	73.1%	73.1%	26.9%	26.9%	26.9%	26.9%	26.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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	6.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	None	Max	Max	None	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Hiatus Rd & Stirling Rd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	1159	117	93	957	146	120	63	300	147	45	130
Future Volume (vph)	233	1159	117	93	957	146	120	63	300	147	45	130
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	6	5	2	2	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	4.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	12.0	26.0	26.0	12.0	25.0	25.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	15.0	95.0	95.0	15.0	95.0	95.0	50.0	50.0	50.0	50.0	50.0	50.0
Total Split (%)	9.4%	59.4%	59.4%	9.4%	59.4%	59.4%	31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
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	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

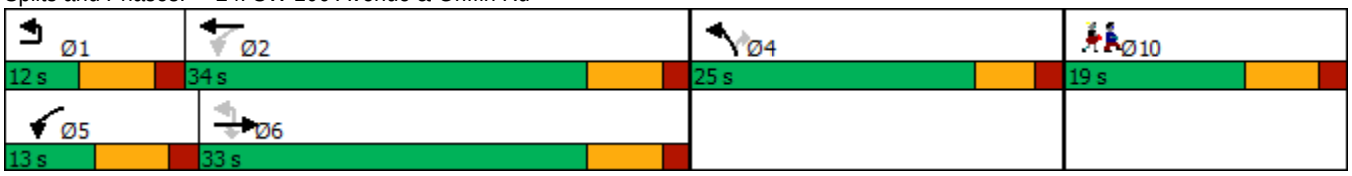
Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 137.9
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Stirling Rd. & SW 106 Avenue

Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR	Ø10
Lane Configurations								
Traffic Volume (vph)	27	1619	99	164	1533	133	251	
Future Volume (vph)	27	1619	99	164	1533	133	251	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm	
Protected Phases	1	6		5	2	4		10
Permitted Phases	6		6	2			4	
Detector Phase	1	6	6	5	2	4	4	
Switch Phase								
Minimum Initial (s)	4.0	15.0	15.0	4.0	6.0	6.0	6.0	5.0
Minimum Split (s)	11.0	25.0	25.0	11.0	25.0	18.0	18.0	19.0
Total Split (s)	12.0	33.0	33.0	13.0	34.0	25.0	25.0	19.0
Total Split (%)	13.3%	36.7%	36.7%	14.4%	37.8%	27.8%	27.8%	21%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	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	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	Max	None	Max	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 62.1
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: SW 106 Avenue & Griffin Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	254	1046	236	182	692	150	220	569	254	191	596	188
Future Volume (vph)	254	1046	236	182	692	150	220	569	254	191	596	188
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	12.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	12.0	44.0	44.0	12.0	44.0	44.0	12.0	45.0	45.0	12.0	45.0	45.0
Total Split (s)	22.0	69.0	69.0	22.0	69.0	69.0	22.0	47.0	47.0	22.0	47.0	47.0
Total Split (%)	13.8%	43.1%	43.1%	13.8%	43.1%	43.1%	13.8%	29.4%	29.4%	13.8%	29.4%	29.4%
Yellow Time (s)	5.0	5.0	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	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	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	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 42 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 115
Control Type: Pretimed

Splits and Phases: 3: Palm Avenue & Stirling Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	62	738	149	249	866	11	209	46	271	56	26
Future Volume (vph)	62	738	149	249	866	11	209	46	271	56	26
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		6		5	2			4			8
Permitted Phases	6		6	2		2	4		4	8	
Detector Phase	6	6	6	5	2	2	4	4	4	8	8
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.5	29.5	29.5	12.0	29.5	29.5	39.5	39.5	39.5	37.5	37.5
Total Split (s)	102.0	102.0	102.0	15.0	117.0	117.0	43.0	43.0	43.0	43.0	43.0
Total Split (%)	63.8%	63.8%	63.8%	9.4%	73.1%	73.1%	26.9%	26.9%	26.9%	26.9%	26.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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	6.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	None	Max	Max	None	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 151.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Hiatus Rd & Stirling Rd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	891	109	127	887	104	68	33	154	111	31	113
Future Volume (vph)	94	891	109	127	887	104	68	33	154	111	31	113
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	6	5	2	2	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	4.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	12.0	26.0	26.0	12.0	25.0	25.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	15.0	100.0	100.0	15.0	100.0	100.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	9.4%	62.5%	62.5%	9.4%	62.5%	62.5%	28.1%	28.1%	28.1%	28.1%	28.1%	28.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
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	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 137
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Stirling Rd. & SW 106 Avenue

Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR	Ø10
Lane Configurations								
Traffic Volume (vph)	48	1368	73	124	1316	92	170	
Future Volume (vph)	48	1368	73	124	1316	92	170	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm	
Protected Phases	1	6		5	2	4		10
Permitted Phases	6		6	2			4	
Detector Phase	1	6	6	5	2	4	4	
Switch Phase								
Minimum Initial (s)	4.0	15.0	15.0	4.0	6.0	6.0	6.0	5.0
Minimum Split (s)	11.0	25.0	25.0	11.0	25.0	20.0	20.0	14.0
Total Split (s)	12.0	33.0	33.0	13.0	34.0	20.0	20.0	14.0
Total Split (%)	15.0%	41.3%	41.3%	16.3%	42.5%	25.0%	25.0%	18%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	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	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	Max	None	Max	None	None	None

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 58.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: SW 106 Avenue & Griffin Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	653	136	174	751	142	139	379	158	152	423	187
Future Volume (vph)	209	653	136	174	751	142	139	379	158	152	423	187
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	12.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	12.0	44.0	44.0	12.0	44.0	44.0	12.0	45.0	45.0	12.0	45.0	45.0
Total Split (s)	22.0	69.0	69.0	22.0	69.0	69.0	22.0	47.0	47.0	22.0	47.0	47.0
Total Split (%)	13.8%	43.1%	43.1%	13.8%	43.1%	43.1%	13.8%	29.4%	29.4%	13.8%	29.4%	29.4%
Yellow Time (s)	5.0	5.0	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	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	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	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 42 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 115
Control Type: Pretimed

Splits and Phases: 3: Palm Avenue & Stirling Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	53	989	180	381	1116	25	208	50	375	45	36
Future Volume (vph)	53	989	180	381	1116	25	208	50	375	45	36
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		6		5	2			4			8
Permitted Phases	6		6	2		2	4		4	8	
Detector Phase	6	6	6	5	2	2	4	4	4	8	8
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.5	29.5	29.5	12.0	29.5	29.5	39.5	39.5	39.5	37.5	37.5
Total Split (s)	102.0	102.0	102.0	15.0	117.0	117.0	43.0	43.0	43.0	43.0	43.0
Total Split (%)	63.8%	63.8%	63.8%	9.4%	73.1%	73.1%	26.9%	26.9%	26.9%	26.9%	26.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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	6.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	None	Max	Max	None	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 151.5
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Hiatus Rd & Stirling Rd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	958	151	165	1181	132	91	38	175	89	17	126
Future Volume (vph)	136	958	151	165	1181	132	91	38	175	89	17	126
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	6	5	2	2	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	4.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	12.0	26.0	26.0	12.0	25.0	25.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	15.0	100.0	100.0	15.0	100.0	100.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	9.4%	62.5%	62.5%	9.4%	62.5%	62.5%	28.1%	28.1%	28.1%	28.1%	28.1%	28.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
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	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

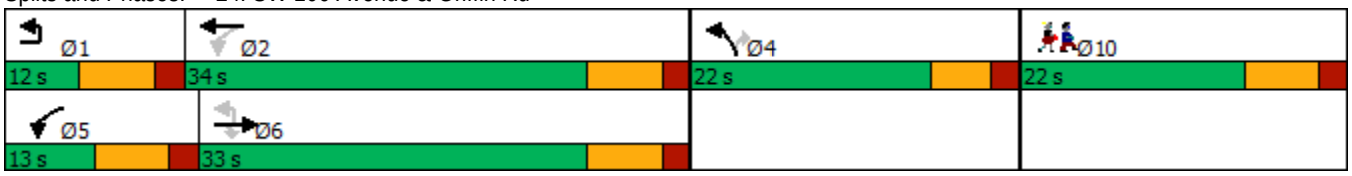
Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 135.2
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Stirling Rd. & SW 106 Avenue

Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR	Ø10
Lane Configurations								
Traffic Volume (vph)	35	1718	119	198	1563	163	210	
Future Volume (vph)	35	1718	119	198	1563	163	210	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm	
Protected Phases	1	6		5	2	4		10
Permitted Phases	6		6	2			4	
Detector Phase	1	6	6	5	2	4	4	
Switch Phase								
Minimum Initial (s)	4.0	15.0	15.0	4.0	6.0	6.0	6.0	5.0
Minimum Split (s)	11.0	25.0	25.0	11.0	25.0	18.0	18.0	22.0
Total Split (s)	12.0	33.0	33.0	13.0	34.0	22.0	22.0	22.0
Total Split (%)	13.3%	36.7%	36.7%	14.4%	37.8%	24.4%	24.4%	24%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	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	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	Max	None	Max	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 63.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: SW 106 Avenue & Griffin Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	827	150	188	918	230	134	484	203	194	536	230
Future Volume (vph)	231	827	150	188	918	230	134	484	203	194	536	230
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	12.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	12.0	44.0	44.0	12.0	44.0	44.0	12.0	45.0	45.0	12.0	45.0	45.0
Total Split (s)	22.0	69.0	69.0	22.0	69.0	69.0	22.0	47.0	47.0	22.0	47.0	47.0
Total Split (%)	13.8%	43.1%	43.1%	13.8%	43.1%	43.1%	13.8%	29.4%	29.4%	13.8%	29.4%	29.4%
Yellow Time (s)	5.0	5.0	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	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	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	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 152 (95%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 115
Control Type: Pretimed

Splits and Phases: 3: Palm Avenue & Stirling Rd

AM Peak Hour (one hour between 7:00 A.M.- 9:00 A.M.)

1 — Southwest 59th Street & NUR-UL Islam Driveway

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:30 - 8:30	0	0	0	11	0	30	44	0	0	0	0	18
PCSF	1.45	0	0	0	16	0	44	64	0	0	0	0	26
PHF	0.59	0	0	0	27	0	75	109	0	0	0	0	44
GF	1.028	0	0	0	28	0	77	112	0	0	0	0	45
Approach (%)		#DIV/0!	#DIV/0!	#DIV/0!	26%	0%	74%	100%	0%	0%	0%	0%	100%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School					10		27	47					17
NUR-UL-Islam Mosque					1		4	8					3
Existing		0	0	0	27	0	75	109	0	0	0	0	44
GF + Com. Dev.		0	0	0	28	0	77	112	0	0	0	0	45
Future + Trips		0	0	0	39	0	108	167	0	0	0	0	65

2 — Southwest 59th Street & Southwest 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:30 - 8:30	3	137	15	28	156	5	0	0	2	13	0	24
PCSF	1.45	4	199	22	41	226	7	0	0	3	19	0	35
PHF	0.865	5	230	25	47	261	8	0	0	3	22	0	40
GF	1.028	5	236	26	48	268	8	0	0	3	23	0	41
Approach (%)		2%	88%	10%	15%	83%	3%	0%	0%	100%	35%	0%	65%
Committed Developments													
Chabad Phase 1	Trip Dist.	14					19	15		11			
Chabad Phase 2		15					22	18		13			
Kingfisher Reserve			12			4							
-													
NUR-UL-Islam School				19	28						11		16
NUR-UL-Islam Mosque				3	5						2		2
Existing		5	230	25	47	261	8	0	0	3	22	0	40
GF + Com. Dev.		34	248	26	48	272	49	33	0	27	23	0	41
Future + Trips		34	248	48	81	272	49	33	0	27	36	0	59

3 — Stirling Road & Southwest 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:45 - 8:45	67	26	60	73	35	182	56	576	60	120	701	71
PCSF	1.45	97	38	87	106	51	264	81	835	87	174	1016	103
PHF	0.905	107	42	96	117	56	292	90	923	96	192	1123	114
GF	1.028	110	43	99	120	58	300	93	949	99	197	1154	117
Approach (%)		44%	17%	39%	25%	12%	63%	8%	83%	9%			
Committed Developments													
Chabad Phase 1	Trip Dist.	8		7						11	8		
Chabad Phase 2		11		7						13	9		
Kingfisher Reserve		6		6						2	2		
-													
NUR-UL-Islam School		7	2	7		3			4	12	13	2	
NUR-UL-Islam Mosque		1	0	1		1			1	2	2	0	
Existing		107	42	96	117	56	292	90	923	96	192	1123	114
GF + Com. Dev.		135	43	119	120	58	300	93	949	125	216	1154	117
Future + Trips		143	45	127	120	62	300	93	954	139	231	1156	117

4 — Stirling Road & 110th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:45 - 8:45	6	0	12	0	0	0	15	703	4	14	901	0
PCSF	1.45	9	0	17	0	0	0	22	1019	6	20	1306	0
PHF	0.905	10	0	19	0	0	0	24	1126	7	22	1443	0
GF	1.028	10	0	20	0	0	0	25	1158	7	23	1483	0
Approach (%)		34%	0%	66%				2%	97%	1%	2%	98%	0%
Committed Developments													
Chabad Phase 1	Trip Dist.								7			8	
Chabad Phase 2									7			9	
Kingfisher Reserve									6			2	
-													
NUR-UL-Islam School		2		8					7	4	13	13	
NUR-UL-Islam Mosque		0		1					1	1	2	2	
Existing		10	0	19	0	0	0	24	1126	7	22	1443	0
GF + Com. Dev.		10	0	20	0	0	0	25	1178	7	23	1502	0
Future + Trips		12	0	29	0	0	0	25	1186	12	38	1517	0

5 — Stirling Road & Hiatus Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2017	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:45 - 8:45	27	11	20	107	11	358	194	497	12	25	562	88
PCSF	1.45	39	16	29	155	16	519	281	721	17	36	815	128
PHF	0.842	46	19	34	184	19	616	334	856	20	43	968	152
GF	1.028	47	20	35	189	20	633	343	880	21	44	995	156
Approach (%)		46%	19%	34%	22%	2%	75%	28%	71%	2%	4%	83%	13%
Committed Developments													
Chabad Phase 1	Trip Dist.								7			8	
Chabad Phase 2									7			9	
Kingfisher Reserve									6			2	
-													
NUR-UL-Islam School							6	4	11			20	
NUR-UL-Islam Mosque							1	0	2			3	
Existing		46	19	34	184	19	616	334	856	20	43	968	152
GF + Com. Dev.		47	20	35	189	20	633	343	900	21	44	1014	156
Future + Trips		47	20	35	189	20	640	347	913	21	44	1037	156

6 — Griffin Road & 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2017	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:45 - 8:45	0	0	0	74	0	141	82	993	0	17	1049	51
PCSF	1.45	0	0	0	107	0	204	119	1440	0	25	1521	74
PHF	0.966	0	0	0	111	0	211	123	1491	0	26	1575	77
GF	1.028	0	0	0	114	0	217	126	1533	0	27	1619	79
Approach (%)					34%	0%	66%	8%	92%	0%	2%	94%	5%
Committed Developments													
Chabad Phase 1	Trip Dist.				2		9	10					4
Chabad Phase 2					4		9	11					4
Kingfisher Reserve					6		6	2					2
-													
NUR-UL-Islam School					4		7	12					7
NUR-UL-Islam Mosque					1		1	2					1
Existing		0	0	0	111	0	211	123	1491	0	26	1575	77
GF + Com. Dev.		0	0	0	126	0	241	149	1533	0	27	1619	89
Future + Trips		0	0	0	131	0	249	163	1533	0	27	1619	97

Mid-Day Peak Hour (11:30 A.M.- 12:30 P.M.)

1 — Stirling RD & SW 106 AV

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	11:30 - 12:30	0	0	0	12	1	34	17	0	0	0	0	4
PCSF	1.45	0	0	0	17	1	49	25	0	0	0	0	6
PHF	0.739	0	0	0	23	1	66	34	0	0	0	0	8
GF	1.028	0	0	0	24	1	68	35	0	0	0	0	8
Approach (%)		#DIV/0!	#DIV/0!	#DIV/0!	26%	1%	73%	100%	0%	0%	0%	0%	100%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School					10		27	18					6
NUR-UL-Islam Mosque													
Existing		0	0	0	23	1	66	34	0	0	0	0	8
GF + Com. Dev.		0	0	0	24	1	68	35	0	0	0	0	8
Future + Trips		0	0	0	34	1	95	53	0	0	0	0	14

2 — Southwest 59th Street & Southwest 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	11:30 -12:30	2	111	3	23	106	3	2	0	2	19	2	24
PCSF	1.45	3	161	4	33	154	4	3	0	3	28	3	35
PHF	0.863	3	187	5	38	178	5	3	0	3	32	3	41
GF	1.028	3	192	5	39	183	5	3	0	3	33	3	42
Approach (%)		2%	96%	3%	17%	81%	2%				42%	4%	54%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School				7	11						10		14
NUR-UL-Islam Mosque													
Existing		3	187	5	38	178	5	3	0	3	32	3	41
GF + Com. Dev.		3	192	5	39	183	5	3	0	3	33	3	42
Future + Trips		3	192	12	50	183	5	3	0	3	43	3	56

3 — Stirling Road & Southwest 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	1:30 - 2:30	62	17	65	43	19	97	80	556	59	55	558	68
PCSF	1.45	90	25	94	62	28	141	116	806	86	80	809	99
PHF	0.938	96	27	100	66	30	150	124	859	92	85	862	106
GF	1.028	99	28	103	68	31	154	127	883	95	87	886	109
Approach (%)		43%	12%	45%	27%	12%	61%	12%	80%	9%	8%	80%	10%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School		6	1	7		1			2	5	5	2	
NUR-UL-Islam Mosque													
Existing		96	27	100	66	30	150	124	859	92	85	862	106
GF + Com. Dev.		99	28	103	68	31	154	127	883	95	87	886	109
Future + Trips		105	29	110	68	32	154	127	885	100	92	888	109

4 — Stirling Road & 110th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	1:30 - 2:30	3	0	16	0	0	0	14	635	2	18	658	0
PCSF	1.45	4	0	23	0	0	0	20	921	3	26	954	0
PHF	0.947	4	0	24	0	0	0	21	973	3	27	1007	0
GF	1.028	4	0	25	0	0	0	22	1000	3	28	1035	0
Approach (%)		14%	0%	86%				2%	98%	0%	3%	97%	0%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School		2		6					7	2	4	5	
NUR-UL-Islam Mosque													
Existing		4	0	24	0	0	0	21	973	3	27	1007	0
GF + Com. Dev.		4	0	25	0	0	0	22	1000	3	28	1035	0
Future + Trips		6	0	31	0	0	0	22	1007	5	32	1040	0

5 — Stirling Road & Hiatus Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	11:30 -12:30	34	16	15	127	28	163	148	518	7	37	443	90
PCSF	1.45	49	23	22	184	41	236	215	751	10	54	642	131
PHF	0.905	54	25	24	203	45	261	238	830	11	60	709	145
GF	1.028	56	26	25	209	46	268	245	853	11	62	729	149
Approach (%)		52%	24%	23%	40%	9%	51%	22%	77%	1%	7%	78%	16%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School							2	3	10			7	
NUR-UL-Islam Mosque													
Existing		54	25	24	203	45	261	238	830	11	60	709	145
GF + Com. Dev.		56	26	25	209	46	268	245	853	11	62	729	149
Future + Trips		56	26	25	209	46	270	248	863	11	62	736	149

6 — Griffin Road & 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	11:30 - 12:30	0	0	0	53	0	100	73	819	0	30	852	42
PCSF	1.45	0	0	0	77	0	145	106	1188	0	44	1235	61
PHF	0.928	0	0	0	83	0	156	114	1280	0	47	1331	66
GF	1.028	0	0	0	85	0	160	117	1316	0	48	1368	68
Approach (%)					35%	0%	65%	8%	92%	0%	3%	92%	5%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School					4		6	4					3
NUR-UL-Islam Mosque													
Existing		0	0	0	83	0	156	114	1280	0	47	1331	66
GF + Com. Dev.		0	0	0	85	0	160	117	1316	0	48	1368	68
Future + Trips		0	0	0	89	0	166	121	1316	0	48	1368	71

PM Peak Hour (one hour between 1:00 A.M.- 4:00 P.M.)

1 — Southwest 59th Street & NUR-UL Islam Driveway

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	1:30 -2:30	0	0	0	20	1	58	38	0	0	0	0	16
PCSF	1.45	0	0	0	29	1	84	55	0	0	0	0	23
PHF	0.43	0	0	0	67	2	194	127	0	0	0	0	53
GF	1.028	0	0	0	69	2	199	131	0	0	0	0	54
Approach (%)		#DIV/0!	#DIV/0!	#DIV/0!	25%	1%	74%	100%	0%	0%	0%	0%	100%
Committed Developments													
Chabad Phase 1	Trip Dist.												
Chabad Phase 2													
Kingfisher Reserve													
-													
NUR-UL-Islam School													
NUR-UL-Islam Mosque					6		17	13					5
Existing		0	0	0	67	2	194	127	0	0	0	0	53
GF + Com. Dev.		0	0	0	69	2	199	131	0	0	0	0	54
Future + Trips		0	0	0	75	2	216	144	0	0	0	0	59

2 — Southwest 59th Street & Southwest 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	1:30 - 2:30	0	133	46	52	109	0	1	0	0	54	0	70
PCSF	1.45	0	164	67	75	158	0	1	0	0	78	0	102
PHF	0.615	0	267	109	122	257	0	2	0	0	127	0	166
GF	1.028	0	274	112	125	264	0	2	0	0	131	0	171
Approach (%)		0%	71%	29%	32%	68%	0%				43%	0%	57%
Committed Developments													
Chabad Phase 1	Trip Dist.	11					16	18		13			
Chabad Phase 2		15					21	19		14			
Kingfisher Reserve			8			13							
-													
NUR-UL-Islam School													
NUR-UL-Islam Mosque				5	8						7		10
Existing		0	267	109	122	257	0	2	0	0	127	0	166
GF + Com. Dev.		26	282	112	125	277	37	39	0	27	131	0	171
Future + Trips		26	282	117	133	277	37	39	0	27	138	0	181

3 — Stirling Road & Southwest 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	3:00- 4:00	40	11	69	60	24	115	106	776	68	75	628	96
PCSF	1.45	58	16	100	87	35	167	154	1125	99	109	911	139
PHF	0.98	59	16	102	89	36	170	157	1148	101	111	930	142
GF	1.028	61	16	105	91	37	175	161	1180	104	114	956	146
Approach (%)		33%	9%	58%	30%	12%	58%	11%	82%	7%			
Committed Developments													
Chabad Phase 1	Trip Dist.	11		7						10	6		
Chabad Phase 2		11		8						12	9		
Kingfisher Reserve		4		4						6	7		
-													
NUR-UL-Islam School													
NUR-UL-Islam Mosque		4	1	5		1				3	4	1	
Existing		59	16	102	89	36	170	157	1148	101	111	930	142
GF + Com. Dev.		87	16	124	91	37	175	161	1180	132	136	956	146
Future + Trips		91	17	129	91	38	175	161	1181	135	140	957	146

4 — Stirling Road & 110th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	3:00 -4:00	2	0	7	0	0	0	5	896	3	3	807	0
PCSF	1.45	3	0	10	0	0	0	7	1299	4	4	1170	0
PHF	0.863	3	0	12	0	0	0	8	1505	5	5	1356	0
GF	1.028	3	0	12	0	0	0	8	1547	5	5	1394	0
Approach (%)		20%	0%	80%				1%	99%	0%	0%	100%	0%
Committed Developments													
Chabad Phase 1	Trip Dist.								7			6	
Chabad Phase 2									8			9	
Kingfisher Reserve									4			7	
-													
NUR-UL-Islam School													
NUR-UL-Islam Mosque		1		5					5	1	4	4	
Existing		3	0	12	0	0	0	8	1505	5	5	1356	0
GF + Com. Dev.		3	0	12	0	0	0	8	1566	5	5	1416	0
Future + Trips		4	0	17	0	0	0	8	1571	6	9	1420	0

5 — Stirling Road & Hiatus Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	3:00 -4:00	28	22	35	128	31	231	235	677	15	33	595	111
PCSF	1.45	41	32	36	186	45	335	341	982	22	48	863	161
PHF	0.922	44	35	39	202	49	363	370	1065	24	52	936	175
GF	1.028	45	36	40	208	50	373	380	1095	25	53	962	180
Approach (%)		37%	30%	33%	33%	8%	59%	25%	73%	2%	4%	80%	15%
Committed Developments													
Chabad Phase 1	Trip Dist.								7			6	
Chabad Phase 2									8			9	
Kingfisher Reserve									4			7	
-													
NUR-UL-Islam School													
NUR-UL-Islam Mosque							2	3	7			6	
Existing		44	35	39	202	49	363	370	1065	24	52	936	175
GF + Com. Dev.		45	36	40	208	50	373	380	1114	25	53	984	180
Future + Trips		45	36	40	208	50	375	383	1121	25	53	990	180

6 — Griffin Road & 106th Avenue

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
4/9/2021	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	1:45 - 2:45	0	0	0	96	0	117	107	988	0	22	1087	65
PCSF	1.45	0	0	0	139	0	170	155	1433	0	32	1576	94
PHF	0.943	0	0	0	147	0	180	164	1520	0	34	1671	100
GF	1.028	0	0	0	151	0	185	169	1563	0	35	1718	103
Approach (%)					45%	0%	55%	10%	90%	0%	2%	93%	6%
Committed Developments													
Chabad Phase 1	Trip Dist.				4		9	8					3
Chabad Phase 2					4		10	11					4
Kingfisher Reserve					3		4	6					6
-													
NUR-UL-Islam School													
NUR-UL-Islam Mosque					3		4	3					2
Existing		0	0	0	147	0	180	164	1520	0	34	1671	100
GF + Com. Dev.		0	0	0	162	0	208	194	1563	0	35	1718	116
Future + Trips		0	0	0	165	0	212	197	1563	0	35	1718	118

Sterling Road & Palm Ave

AM Peak Hour

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
Category	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	7:15 - 8:00	173	544	171	201	519	232	166	591	136	232	924	215
PHF	0.94	185	579	182	214	553	247	177	629	145	247	983	229
PCSF	1	185	579	182	214	553	247	177	629	145	247	983	229
GF	1.028	191	596	188	220	569	254	182	647	150	254	1011	236
Nur Islam	Trip Gen & Dist.								19			10	
Chabad SW P1									11			8	
Chabad SW P2									13			11	
KingFisher									2			6	
Existing		185	579	182	214	553	247	177	629	145	247	983	229
Future		191	596	188	220	569	254	182	673	150	254	1036	236
Future + Trips		191	596	188	220	569	254	182	692	150	254	1046	236

Mid-day Peak Hour

Factors Applied		Southbound			Northbound			Westbound			Eastbound		
Category	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	11:30-12:30	141	396	174	130	355	147	163	697	133	195	605	127
PHF	0.965	147	411	181	135	368	153	169	723	138	203	627	132
PCSF	1	147	411	181	135	368	153	169	723	138	203	627	132
GF	1.028	152	423	187	139	379	158	174	744	142	209	645	136
Nur Islam	Trip Gen & Dist.								7			8	
Chabad SW P1													
Chabad SW P2													
KingFisher													
Existing		147	411	181	135	368	153	169	723	138	203	627	132
Future		152	423	187	139	379	158	174	744	142	209	645	136
Future + Trips		152	423	187	139	379	158	174	751	142	209	653	136

Sterling Road & Palm Ave

PM Peak Hour

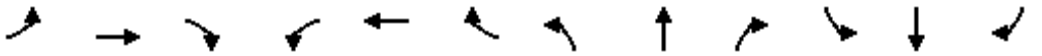
Factors Applied		Southbound			Northbound			Westbound			Eastbound		
Category	Value	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth	Left	Thru	Rigth
RAW TMC	2:45 - 3:30	176	490	209	122	442	185	171	810	209	210	728	136
PHF	0.941	188	521	223	130	470	197	182	861	223	224	774	145
PCSF	1	188	521	223	130	470	197	182	861	223	224	774	145
GF	1.028	194	536	230	134	484	203	188	886	230	231	796	150
Nur Islam	Trip Gen & Dist.								4			5	
Chabad SW P1									10			11	
Chabad SW P2									12			11	
KingFisher									6			4	
Existing		188	521	223	130	470	197	182	861	223	224	774	145
Future		194	536	230	134	484	203	188	914	230	231	822	150
Future + Trips		194	536	230	134	484	203	188	918	230	231	827	150

Scenario 1

AM

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

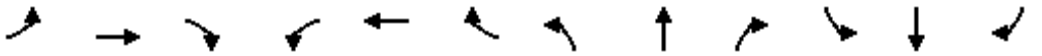
12/20/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	968	152	334	856	20	184	19	616	46	19	34
Future Volume (veh/h)	43	968	152	334	856	20	184	19	616	46	19	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	968	152	334	856	20	184	19	616	46	19	34
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	413	2087	930	363	2415	1077	314	420	355	217	135	241
Arrive On Green	0.60	0.60	0.60	0.06	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	623	3497	1559	1753	3497	1559	1328	1841	1558	780	591	1058
Grp Volume(v), veh/h	43	968	152	334	856	20	184	19	616	46	0	53
Grp Sat Flow(s),veh/h/ln	623	1749	1559	1753	1749	1559	1328	1841	1558	780	0	1649
Q Serve(g_s), s	4.9	24.7	7.0	9.0	16.0	0.6	20.5	1.3	36.5	7.8	0.0	4.1
Cycle Q Clear(g_c), s	5.9	24.7	7.0	9.0	16.0	0.6	24.6	1.3	36.5	9.1	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	413	2087	930	363	2415	1077	314	420	355	217	0	376
V/C Ratio(X)	0.10	0.46	0.16	0.92	0.35	0.02	0.59	0.05	1.73	0.21	0.00	0.14
Avail Cap(c_a), veh/h	413	2087	930	363	2415	1077	314	420	355	217	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	18.0	14.4	26.7	10.1	7.8	59.1	48.2	61.8	51.7	0.0	49.2
Incr Delay (d2), s/veh	0.5	0.7	0.4	27.7	0.4	0.0	1.9	0.0	341.6	0.2	0.0	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	0.8	10.3	2.6	11.8	6.3	0.2	7.1	0.6	48.2	1.6	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	18.7	14.8	54.4	10.5	7.8	61.0	48.2	403.3	51.9	0.0	49.3
LnGrp LOS	B	B	B	D	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1163			1210			819			99	
Approach Delay, s/veh		18.1			22.6			318.2			50.5	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		43.0	15.0	102.0		43.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		18.0		38.5	11.0	26.7		11.1				
Green Ext Time (p_c), s		7.8		0.0	0.0	10.8		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			95.4									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	1123	114	90	923	96	117	56	292	107	42	96
Future Volume (veh/h)	192	1123	114	90	923	96	117	56	292	107	42	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	192	1123	114	90	923	96	117	56	292	107	42	96
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	394	2179	969	304	2103	935	281	382	323	235	382	323
Arrive On Green	0.05	0.62	0.62	0.03	0.60	0.60	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1753	3497	1556	1753	3497	1556	1228	1841	1555	1015	1841	1555
Grp Volume(v), veh/h	192	1123	114	90	923	96	117	56	292	107	42	96
Grp Sat Flow(s),veh/h/ln	1753	1749	1556	1753	1749	1556	1228	1841	1555	1015	1841	1555
Q Serve(g_s), s	6.2	26.1	4.4	2.9	20.9	3.8	12.5	3.6	26.8	14.1	2.7	7.6
Cycle Q Clear(g_c), s	6.2	26.1	4.4	2.9	20.9	3.8	15.2	3.6	26.8	17.7	2.7	7.6
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	394	2179	969	304	2103	935	281	382	323	235	382	323
V/C Ratio(X)	0.49	0.52	0.12	0.30	0.44	0.10	0.42	0.15	0.90	0.46	0.11	0.30
Avail Cap(c_a), veh/h	394	2179	969	342	2103	935	396	553	468	329	553	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	12.0	15.3	11.2	12.6	15.8	12.4	53.2	47.4	56.6	54.7	47.0	49.0
Incr Delay (d2), s/veh	0.9	0.9	0.2	0.5	0.7	0.2	1.0	0.2	15.9	1.4	0.1	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	2.5	10.5	1.6	1.2	8.6	1.4	4.0	1.7	12.0	3.7	1.3	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	16.2	11.5	13.1	16.5	12.6	54.2	47.6	72.5	56.0	47.2	49.5
LnGrp LOS	B	B	B	B	B	B	D	D	E	E	D	D
Approach Vol, veh/h		1429			1109			465			245	
Approach Delay, s/veh		15.4			15.9			64.9			52.0	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	95.0		36.4	11.8	98.2		36.4				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	88.0		44.0	8.0	88.0		44.0				
Max Q Clear Time (g_c+I1), s	8.2	22.9		28.8	4.9	28.1		19.7				
Green Ext Time (p_c), s	0.0	9.0		1.6	0.0	12.2		1.0				

Intersection Summary												
HCM 6th Ctrl Delay			25.4									
HCM 6th LOS			C									

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	26	1575	77	123	1491	111	211
Future Volume (vph)	26	1575	77	123	1491	111	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1736	4988	1517	1736	4988	1736	1553
Flt Permitted	0.14	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	260	4988	1517	228	4988	1736	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	1575	77	123	1491	111	211
RTOR Reduction (vph)	0	0	32	0	0	0	180
Lane Group Flow (vph)	26	1575	45	123	1491	111	31
Confl. Peds. (#/hr)			3	3		3	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	31.3	29.4	29.4	36.7	32.1	9.2	9.2
Effective Green, g (s)	31.3	29.4	29.4	36.7	32.1	9.2	9.2
Actuated g/C Ratio	0.50	0.47	0.47	0.58	0.51	0.15	0.15
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	173	2320	705	242	2533	252	226
v/s Ratio Prot	0.00	c0.32		c0.04	c0.30	c0.06	
v/s Ratio Perm	0.07		0.03	0.26			0.02
v/c Ratio	0.15	0.68	0.06	0.51	0.59	0.44	0.14
Uniform Delay, d1	8.3	13.2	9.3	7.6	10.9	24.7	23.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	1.6	0.2	1.7	1.0	1.2	0.3
Delay (s)	8.7	14.8	9.5	9.3	11.9	25.9	23.8
Level of Service	A	B	A	A	B	C	C
Approach Delay (s)		14.5			11.7	24.5	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	63.2	Sum of lost time (s)	27.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	22	1443	24	1126	7	10	19
Future Vol, veh/h	22	1443	24	1126	7	10	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	22	1443	24	1126	7	10	19

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1133	0	1443	-	0	1944	567
Stage 1	-	-	-	-	-	1178	-
Stage 2	-	-	-	-	-	766	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	607	-	170	-	-	56	464
Stage 1	-	-	-	-	-	253	-
Stage 2	-	-	-	-	-	417	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	607	-	170	-	-	46	464
Mov Cap-2 Maneuver	-	-	-	-	-	46	-
Stage 1	-	-	-	-	-	244	-
Stage 2	-	-	-	-	-	358	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0.6	44.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	607	-	170	-	-	46	464
HCM Lane V/C Ratio	0.036	-	0.141	-	-	0.217	0.041
HCM Control Delay (s)	11.2	-	29.6	-	-	103.8	13.1
HCM Lane LOS	B	-	D	-	-	F	B
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	0	40	0	0	3	47	261	8	5	230	25
Future Vol, veh/h	22	0	40	0	0	3	47	261	8	5	230	25
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	22	0	40	0	0	3	47	261	8	5	230	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	616	616	243	632	624	267	255	0	0	269	0	0
Stage 1	253	253	-	359	359	-	-	-	-	-	-	-
Stage 2	363	363	-	273	265	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	400	403	791	390	399	767	1298	-	-	1283	-	-
Stage 1	747	694	-	655	624	-	-	-	-	-	-	-
Stage 2	652	621	-	729	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	383	384	791	357	380	766	1298	-	-	1283	-	-
Mov Cap-2 Maneuver	383	384	-	357	380	-	-	-	-	-	-	-
Stage 1	715	691	-	627	597	-	-	-	-	-	-	-
Stage 2	620	594	-	689	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	9.7	1.2	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1298	-	-	574	766	1283	-	-
HCM Lane V/C Ratio	0.036	-	-	0.108	0.004	0.004	-	-
HCM Control Delay (s)	7.9	0	-	12	9.7	7.8	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0	0	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	44	109	0	0	27	0	75	0	0	0
Future Vol, veh/h	0	0	44	109	0	0	27	0	75	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	44	109	0	0	27	0	75	0	0	0

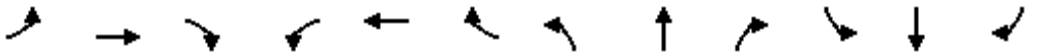
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	44	0	0	240	240	22	278	262	0
Stage 1	-	-	-	-	-	-	22	22	-	218	218	-
Stage 2	-	-	-	-	-	-	218	218	-	60	44	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1564	-	-	714	661	1055	674	643	-
Stage 1	-	-	-	-	-	-	996	877	-	784	723	-
Stage 2	-	-	-	-	-	-	784	723	-	951	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1564	-	-	-	615	1055	592	598	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	615	-	592	598	-
Stage 1	-	-	-	-	-	-	996	877	-	784	672	-
Stage 2	-	-	-	-	-	-	729	672	-	883	858	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1564	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.07	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.2	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

06/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	983	229	177	629	145	214	553	247	185	579	182
Future Volume (veh/h)	247	983	229	177	629	145	214	553	247	185	579	182
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		0.99	1.00		0.99	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	247	983	229	177	629	145	214	553	247	185	579	182
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	758	1377	607	551	1377	607	556	888	393	561	888	393
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1567	3456	3554	1567	3456	3554	1572	3456	3554	1572
Grp Volume(v), veh/h	247	983	229	177	629	145	214	553	247	185	579	182
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1728	1777	1567	1728	1777	1572	1728	1777	1572
Q Serve(g_s), s	6.4	37.5	16.8	4.5	21.1	10.0	6.9	22.1	22.4	5.9	23.4	15.7
Cycle Q Clear(g_c), s	6.4	37.5	16.8	4.5	21.1	10.0	6.9	22.1	22.4	5.9	23.4	15.7
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	758	1377	607	551	1377	607	556	888	393	561	888	393
V/C Ratio(X)	0.33	0.71	0.38	0.32	0.46	0.24	0.39	0.62	0.63	0.33	0.65	0.46
Avail Cap(c_a), veh/h	758	1377	607	551	1377	607	556	888	393	561	888	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	24.9	41.5	35.2	28.2	36.5	33.1	38.7	53.3	53.4	38.2	53.8	50.9
Incr Delay (d2), s/veh	1.1	3.2	1.8	1.5	1.1	0.9	2.0	3.3	7.4	1.6	3.7	3.9
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	2.8	17.1	6.8	2.0	9.5	4.0	3.1	10.4	9.7	2.7	11.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	44.7	36.9	29.7	37.6	34.0	40.8	56.6	60.8	39.8	57.5	54.8
LnGrp LOS	C	D	D	C	D	C	D	E	E	D	E	D
Approach Vol, veh/h		1459			951			1014			946	
Approach Delay, s/veh		40.3			35.6			54.3			53.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	8.4	23.1	7.9	24.4	6.5	39.5	8.9	25.4
Green Ext Time (p_c), s	0.3	5.5	0.2	2.7	0.2	8.5	0.2	2.7

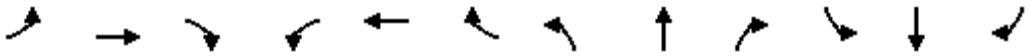
Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Scenario 1

Mid Day

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

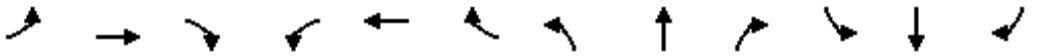
12/20/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	709	145	238	830	11	203	45	261	54	25	24
Future Volume (veh/h)	60	709	145	238	830	11	203	45	261	54	25	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	60	709	145	238	830	11	203	45	261	54	25	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	453	2203	982	491	2549	1137	273	356	301	230	167	160
Arrive On Green	0.62	0.62	0.62	0.06	0.72	0.72	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	649	3526	1572	1767	3526	1572	1342	1856	1568	1063	869	834
Grp Volume(v), veh/h	60	709	145	238	830	11	203	45	261	54	0	49
Grp Sat Flow(s),veh/h/ln	649	1763	1572	1767	1763	1572	1342	1856	1568	1063	0	1702
Q Serve(g_s), s	5.8	14.4	5.8	7.2	13.0	0.3	22.7	3.1	24.7	6.8	0.0	3.7
Cycle Q Clear(g_c), s	5.8	14.4	5.8	7.2	13.0	0.3	26.3	3.1	24.7	9.8	0.0	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	453	2203	982	491	2549	1137	273	356	301	230	0	327
V/C Ratio(X)	0.13	0.32	0.15	0.48	0.33	0.01	0.74	0.13	0.87	0.23	0.00	0.15
Avail Cap(c_a), veh/h	453	2203	982	491	2549	1137	335	443	374	280	0	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.9	13.5	11.9	9.5	7.7	5.9	62.3	51.1	59.9	55.2	0.0	51.4
Incr Delay (d2), s/veh	0.6	0.4	0.3	0.3	0.3	0.0	5.0	0.1	14.0	0.2	0.0	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	0.9	5.9	2.2	2.8	4.9	0.1	8.1	1.5	11.0	1.8	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	13.9	12.2	9.8	8.0	5.9	67.4	51.2	73.8	55.4	0.0	51.4
LnGrp LOS	B	B	B	A	A	A	E	D	E	E	A	D
Approach Vol, veh/h		914			1079			509			103	
Approach Delay, s/veh		13.5			8.4			69.3			53.5	
Approach LOS		B			A			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		35.9	15.0	102.0		35.9				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		15.0		28.3	9.2	16.4		11.8				
Green Ext Time (p_c), s		7.4		0.7	0.0	7.4		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			23.9									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	862	106	124	859	92	66	30	150	96	27	100
Future Volume (veh/h)	85	862	106	124	859	92	66	30	150	96	27	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	85	862	106	124	859	92	66	30	150	96	27	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	463	2466	1098	463	2489	1109	182	213	180	174	213	180
Arrive On Green	0.03	0.70	0.70	0.04	0.71	0.71	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1767	3526	1570	1767	3526	1570	1254	1856	1572	1195	1856	1572
Grp Volume(v), veh/h	85	862	106	124	859	92	66	30	150	96	27	100
Grp Sat Flow(s),veh/h/ln	1767	1763	1570	1767	1763	1570	1254	1856	1572	1195	1856	1572
Q Serve(g_s), s	1.8	12.9	2.9	2.7	12.6	2.4	6.6	1.9	12.4	10.5	1.7	8.0
Cycle Q Clear(g_c), s	1.8	12.9	2.9	2.7	12.6	2.4	8.4	1.9	12.4	12.4	1.7	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	463	2466	1098	463	2489	1109	182	213	180	174	213	180
V/C Ratio(X)	0.18	0.35	0.10	0.27	0.35	0.08	0.36	0.14	0.83	0.55	0.13	0.55
Avail Cap(c_a), veh/h	518	2466	1098	507	2489	1109	405	544	461	387	544	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	5.8	7.9	6.4	5.8	7.6	6.1	56.6	52.9	57.6	58.5	52.9	55.6
Incr Delay (d2), s/veh	0.2	0.4	0.2	0.3	0.4	0.1	1.2	0.3	9.4	2.7	0.3	2.6
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	0.7	4.8	1.0	1.0	4.7	0.8	2.2	0.9	5.4	3.3	0.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.0	8.3	6.6	6.1	8.0	6.2	57.8	53.2	67.0	61.2	53.1	58.3
LnGrp LOS	A	A	A	A	A	A	E	D	E	E	D	E
Approach Vol, veh/h		1053			1075			246			223	
Approach Delay, s/veh		8.0			7.6			62.9			58.9	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	100.9		21.3	11.7	100.0		21.3				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	93.0		39.0	8.0	93.0		39.0				
Max Q Clear Time (g_c+I1), s	3.8	14.6		14.4	4.7	14.9		14.4				
Green Ext Time (p_c), s	0.1	8.1		0.8	0.1	8.2		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		17.4	
HCM 6th LOS		B	

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	47	1331	66	114	1280	83	156
Future Volume (vph)	47	1331	66	114	1280	83	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1719	4940	1503	1719	4940	1719	1538
Flt Permitted	0.19	1.00	1.00	0.16	1.00	0.95	1.00
Satd. Flow (perm)	350	4940	1503	282	4940	1719	1538
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	47	1331	66	114	1280	83	156
RTOR Reduction (vph)	0	0	34	0	0	0	139
Lane Group Flow (vph)	47	1331	32	114	1280	83	17
Confl. Peds. (#/hr)			3	3		3	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.8	30.0	30.0	36.2	31.7	6.6	6.6
Effective Green, g (s)	32.8	30.0	30.0	36.2	31.7	6.6	6.6
Actuated g/C Ratio	0.54	0.49	0.49	0.59	0.52	0.11	0.11
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	250	2425	737	272	2562	185	166
v/s Ratio Prot	0.01	c0.27		c0.03	0.26	c0.05	
v/s Ratio Perm	0.09		0.02	0.22			0.01
v/c Ratio	0.19	0.55	0.04	0.42	0.50	0.45	0.10
Uniform Delay, d1	6.8	10.8	8.1	5.9	9.5	25.5	24.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.9	0.1	1.0	0.7	1.7	0.3
Delay (s)	7.1	11.7	8.2	7.0	10.2	27.3	24.8
Level of Service	A	B	A	A	B	C	C
Approach Delay (s)		11.4			10.0	25.7	
Approach LOS		B			A	C	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	27.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	27	1007	21	973	3	4	24
Future Vol, veh/h	27	1007	21	973	3	4	24
Conflicting Peds, #/hr	1	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	27	1007	21	973	3	4	24

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	977	0	1007	-	0	1576	489
Stage 1	-	-	-	-	-	1018	-
Stage 2	-	-	-	-	-	558	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	696	-	326	-	-	99	522
Stage 1	-	-	-	-	-	307	-
Stage 2	-	-	-	-	-	534	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	695	-	326	-	-	89	522
Mov Cap-2 Maneuver	-	-	-	-	-	89	-
Stage 1	-	-	-	-	-	295	-
Stage 2	-	-	-	-	-	499	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0.4	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	695	-	326	-	-	89	522
HCM Lane V/C Ratio	0.039	-	0.064	-	-	0.045	0.046
HCM Control Delay (s)	10.4	-	16.8	-	-	47.3	12.2
HCM Lane LOS	B	-	C	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	32	3	41	3	0	3	38	178	5	3	187	5
Future Vol, veh/h	32	3	41	3	0	3	38	178	5	3	187	5
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	32	3	41	3	0	3	38	178	5	3	187	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	454	455	191	476	455	181	192	0	0	183	0	0
Stage 1	196	196	-	257	257	-	-	-	-	-	-	-
Stage 2	258	259	-	219	198	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	513	498	846	496	498	857	1370	-	-	1380	-	-
Stage 1	801	735	-	743	691	-	-	-	-	-	-	-
Stage 2	742	690	-	779	733	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	498	482	845	457	482	857	1370	-	-	1380	-	-
Mov Cap-2 Maneuver	498	482	-	457	482	-	-	-	-	-	-	-
Stage 1	776	734	-	720	670	-	-	-	-	-	-	-
Stage 2	716	669	-	736	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	11.1	1.3	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1370	-	-	639	596	1380	-	-
HCM Lane V/C Ratio	0.028	-	-	0.119	0.01	0.002	-	-
HCM Control Delay (s)	7.7	0	-	11.4	11.1	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	8	34	0	0	23	1	66	0	0	0
Future Vol, veh/h	0	0	8	34	0	0	23	1	66	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	8	34	0	0	23	1	66	0	0	0

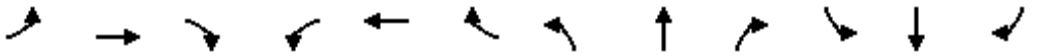
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	8	0	0	72	72	4	106	76	0
Stage 1	-	-	-	-	-	-	4	4	-	68	68	-
Stage 2	-	-	-	-	-	-	68	68	-	38	8	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1612	-	-	919	818	1080	873	814	-
Stage 1	-	-	-	-	-	-	1018	892	-	942	838	-
Stage 2	-	-	-	-	-	-	942	838	-	977	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1612	-	-	-	801	1080	806	797	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	801	-	806	797	-
Stage 1	-	-	-	-	-	-	1018	892	-	942	820	-
Stage 2	-	-	-	-	-	-	922	820	-	916	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1612	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.021	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

06/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	627	132	169	723	138	135	368	153	147	411	181
Future Volume (veh/h)	203	627	132	169	723	138	135	368	153	147	411	181
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		0.99	1.00		0.99	0.99		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	203	627	132	169	723	138	135	368	153	147	411	181
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	701	1377	607	764	1377	607	656	888	393	692	888	393
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1567	3456	3554	1567	3456	3554	1572	3456	3554	1572
Grp Volume(v), veh/h	203	627	132	169	723	138	135	368	153	147	411	181
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1728	1777	1567	1728	1777	1572	1728	1777	1572
Q Serve(g_s), s	5.2	21.0	9.0	4.3	25.0	9.5	4.3	13.9	12.9	4.7	15.7	15.6
Cycle Q Clear(g_c), s	5.2	21.0	9.0	4.3	25.0	9.5	4.3	13.9	12.9	4.7	15.7	15.6
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	701	1377	607	764	1377	607	656	888	393	692	888	393
V/C Ratio(X)	0.29	0.46	0.22	0.22	0.53	0.23	0.21	0.41	0.39	0.21	0.46	0.46
Avail Cap(c_a), veh/h	701	1377	607	764	1377	607	656	888	393	692	888	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	25.2	36.4	32.8	24.2	37.7	32.9	36.7	50.2	49.9	36.6	50.9	50.9
Incr Delay (d2), s/veh	1.0	1.1	0.8	0.7	1.4	0.9	0.7	1.4	2.9	0.7	1.7	3.9
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	2.3	9.5	3.6	1.9	11.3	3.8	1.9	6.4	5.5	2.1	7.3	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	37.5	33.6	24.9	39.1	33.8	37.4	51.6	52.7	37.3	52.6	54.7
LnGrp LOS	C	D	C	C	D	C	D	D	D	D	D	D
Approach Vol, veh/h		962			1030			656			739	
Approach Delay, s/veh		34.6			36.1			49.0			50.1	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	7.2	27.0	6.7	15.9	6.3	23.0	6.3	17.7
Green Ext Time (p_c), s	0.2	6.4	0.1	1.9	0.2	5.4	0.1	2.1

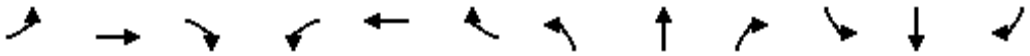
Intersection Summary	
HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Scenario 1

PM

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

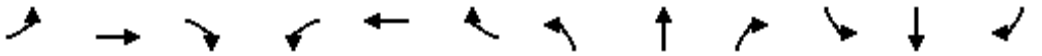
12/20/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	936	175	370	1065	24	202	49	363	44	35	39
Future Volume (veh/h)	52	936	175	370	1065	24	202	49	363	44	35	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	936	175	370	1065	24	202	49	363	44	35	39
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2121	945	375	2454	1094	301	427	362	247	184	205
Arrive On Green	0.60	0.60	0.60	0.06	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	518	3554	1584	1781	3554	1584	1326	1870	1585	974	808	900
Grp Volume(v), veh/h	52	936	175	370	1065	24	202	49	363	44	0	74
Grp Sat Flow(s),veh/h/ln	518	1777	1584	1781	1777	1584	1326	1870	1585	974	0	1708
Q Serve(g_s), s	7.9	23.1	8.0	9.0	21.2	0.8	23.2	3.3	36.5	6.0	0.0	5.6
Cycle Q Clear(g_c), s	14.1	23.1	8.0	9.0	21.2	0.8	28.8	3.3	36.5	9.3	0.0	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	334	2121	945	375	2454	1094	301	427	362	247	0	390
V/C Ratio(X)	0.16	0.44	0.19	0.99	0.43	0.02	0.67	0.11	1.00	0.18	0.00	0.19
Avail Cap(c_a), veh/h	334	2121	945	375	2454	1094	301	427	362	247	0	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	17.6	14.6	29.9	10.9	7.8	61.4	48.9	61.8	52.6	0.0	49.8
Incr Delay (d2), s/veh	1.0	0.7	0.4	42.8	0.6	0.0	4.7	0.0	48.3	0.1	0.0	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	1.1	9.7	3.1	15.4	8.4	0.3	8.2	1.6	19.6	1.5	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	18.3	15.0	72.7	11.5	7.8	66.1	49.0	110.1	52.8	0.0	49.9
LnGrp LOS	B	B	B	E	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1163			1459			614			118	
Approach Delay, s/veh		17.8			27.0			90.7			51.0	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		43.0	15.0	102.0		43.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		23.2		38.5	11.0	25.1		11.3				
Green Ext Time (p_c), s		10.8		0.0	0.0	10.8		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			36.3									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	930	142	157	1148	101	89	36	170	59	16	102
Future Volume (veh/h)	111	930	142	157	1148	101	89	36	170	59	16	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	111	930	142	157	1148	101	89	36	170	59	16	102
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	350	2396	1068	422	2426	1081	209	245	207	186	245	207
Arrive On Green	0.03	0.68	0.68	0.04	0.69	0.69	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1767	3526	1571	1767	3526	1571	1259	1856	1565	1163	1856	1565
Grp Volume(v), veh/h	111	930	142	157	1148	101	89	36	170	59	16	102
Grp Sat Flow(s),veh/h/ln	1767	1763	1571	1767	1763	1571	1259	1856	1565	1163	1856	1565
Q Serve(g_s), s	2.6	15.7	4.4	3.7	20.6	2.9	9.1	2.4	14.5	6.5	1.0	8.3
Cycle Q Clear(g_c), s	2.6	15.7	4.4	3.7	20.6	2.9	10.1	2.4	14.5	8.8	1.0	8.3
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	350	2396	1068	422	2426	1081	209	245	207	186	245	207
V/C Ratio(X)	0.32	0.39	0.13	0.37	0.47	0.09	0.43	0.15	0.82	0.32	0.07	0.49
Avail Cap(c_a), veh/h	393	2396	1068	451	2426	1081	402	529	446	364	529	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	7.8	9.5	7.7	7.1	9.9	7.1	56.4	52.6	57.8	56.5	52.0	55.1
Incr Delay (d2), s/veh	0.5	0.5	0.3	0.5	0.7	0.2	1.4	0.3	8.0	1.0	0.1	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	1.0	6.0	1.5	1.4	7.8	1.0	3.0	1.1	6.2	2.0	0.5	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.4	10.0	8.0	7.6	10.5	7.3	57.8	52.8	65.8	57.4	52.1	57.0
LnGrp LOS	A	B	A	A	B	A	E	D	E	E	D	E
Approach Vol, veh/h		1183			1406			295			177	
Approach Delay, s/veh		9.6			10.0			61.8			56.7	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	101.2		24.1	12.8	100.0		24.1				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	93.0		39.0	8.0	93.0		39.0				
Max Q Clear Time (g_c+I1), s	4.6	22.6		16.5	5.7	17.7		10.8				
Green Ext Time (p_c), s	0.1	12.7		1.0	0.1	9.4		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	34	1671	100	164	1520	147	180
Future Volume (vph)	34	1671	100	164	1520	147	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1736	4988	1518	1736	4988	1736	1553
Flt Permitted	0.14	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	257	4988	1518	212	4988	1736	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	1671	100	164	1520	147	180
RTOR Reduction (vph)	0	0	39	0	0	0	152
Lane Group Flow (vph)	34	1671	61	164	1520	147	28
Confl. Peds. (#/hr)			2	2		2	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.3	30.4	30.4	40.5	34.5	10.5	10.5
Effective Green, g (s)	32.3	30.4	30.4	40.5	34.5	10.5	10.5
Actuated g/C Ratio	0.48	0.45	0.45	0.61	0.52	0.16	0.16
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	166	2266	689	265	2572	272	243
v/s Ratio Prot	0.01	c0.34		c0.06	0.30	c0.08	
v/s Ratio Perm	0.09		0.04	c0.32			0.02
v/c Ratio	0.20	0.74	0.09	0.62	0.59	0.54	0.12
Uniform Delay, d1	9.2	15.0	10.4	9.0	11.3	26.0	24.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	2.2	0.3	4.3	1.0	2.2	0.2
Delay (s)	9.8	17.2	10.6	13.3	12.3	28.2	24.4
Level of Service	A	B	B	B	B	C	C
Approach Delay (s)		16.7			12.4	26.1	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	66.9	Sum of lost time (s)	27.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	5	1356	8	1505	5	3	12
Future Vol, veh/h	5	1356	8	1505	5	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	5	1356	8	1505	5	3	12

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1510	0	1356	-	0	2212	755
Stage 1	-	-	-	-	-	1524	-
Stage 2	-	-	-	-	-	688	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	434	-	194	-	-	37	349
Stage 1	-	-	-	-	-	164	-
Stage 2	-	-	-	-	-	458	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	434	-	194	-	-	35	349
Mov Cap-2 Maneuver	-	-	-	-	-	35	-
Stage 1	-	-	-	-	-	162	-
Stage 2	-	-	-	-	-	439	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	36
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	434	-	194	-	-	35	349
HCM Lane V/C Ratio	0.012	-	0.041	-	-	0.086	0.034
HCM Control Delay (s)	13.4	-	24.4	-	-	117.3	15.7
HCM Lane LOS	B	-	C	-	-	F	C
HCM 95th %tile Q(veh)	0	-	0.1	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	127	0	166	2	0	0	122	257	0	0	267	109
Future Vol, veh/h	127	0	166	2	0	0	122	257	0	0	267	109
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	127	0	166	2	0	0	122	257	0	0	267	109

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	823	823	322	906	877	257	376	0	0	257	0	0
Stage 1	322	322	-	501	501	-	-	-	-	-	-	-
Stage 2	501	501	-	405	376	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	291	307	717	256	286	779	1177	-	-	1302	-	-
Stage 1	688	649	-	550	541	-	-	-	-	-	-	-
Stage 2	550	541	-	620	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	264	270	717	178	251	779	1177	-	-	1302	-	-
Mov Cap-2 Maneuver	264	270	-	178	251	-	-	-	-	-	-	-
Stage 1	605	649	-	483	476	-	-	-	-	-	-	-
Stage 2	483	476	-	476	615	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.7	25.5	2.7	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1177	-	-	411	178	1302	-	-
HCM Lane V/C Ratio	0.104	-	-	0.713	0.011	-	-	-
HCM Control Delay (s)	8.4	0	-	32.7	25.5	0	-	-
HCM Lane LOS	A	A	-	D	D	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	5.4	0	0	-	-

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	0	0	53	127	0	0	67	2	194	0	0	0
Future Vol, veh/h	0	0	53	127	0	0	67	2	194	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	53	127	0	0	67	2	194	0	0	0

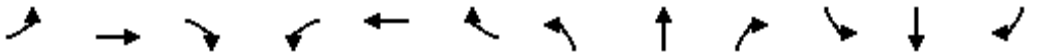
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	53	0	0	281	281	27	379	307	0
Stage 1	-	-	-	-	-	-	27	27	-	254	254	-
Stage 2	-	-	-	-	-	-	254	254	-	125	53	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1553	-	-	671	627	1048	579	607	-
Stage 1	-	-	-	-	-	-	990	873	-	750	697	-
Stage 2	-	-	-	-	-	-	750	697	-	879	851	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1553	-	-	-	576	1048	441	557	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	576	-	441	557	-
Stage 1	-	-	-	-	-	-	990	873	-	750	640	-
Stage 2	-	-	-	-	-	-	689	640	-	715	851	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1553	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.082	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.3	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

06/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	774	145	182	861	223	130	470	197	188	521	223
Future Volume (veh/h)	224	774	145	182	861	223	130	470	197	188	521	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.98	0.99		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	224	774	145	182	861	223	130	470	197	188	521	223
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	607	1377	594	669	1377	594	581	888	388	615	888	388
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1532	3456	3554	1532	3456	3554	1553	3456	3554	1553
Grp Volume(v), veh/h	224	774	145	182	861	223	130	470	197	188	521	223
Grp Sat Flow(s),veh/h/ln	1728	1777	1532	1728	1777	1532	1728	1777	1553	1728	1777	1553
Q Serve(g_s), s	5.8	27.3	10.2	4.6	31.3	16.7	4.1	18.3	17.4	6.0	20.6	20.1
Cycle Q Clear(g_c), s	5.8	27.3	10.2	4.6	31.3	16.7	4.1	18.3	17.4	6.0	20.6	20.1
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	607	1377	594	669	1377	594	581	888	388	615	888	388
V/C Ratio(X)	0.37	0.56	0.24	0.27	0.63	0.38	0.22	0.53	0.51	0.31	0.59	0.57
Avail Cap(c_a), veh/h	607	1377	594	669	1377	594	581	888	388	615	888	388
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	27.0	38.4	33.1	25.5	39.6	35.1	37.3	51.9	51.5	37.6	52.7	52.5
Incr Delay (d2), s/veh	1.7	1.7	1.0	1.0	2.2	1.8	0.9	2.3	4.7	1.3	2.8	6.1
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	2.6	12.3	4.1	2.0	14.2	6.6	1.8	8.5	7.4	2.7	9.6	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	40.0	34.1	26.5	41.8	36.9	38.2	54.1	56.2	38.9	55.6	58.6
LnGrp LOS	C	D	C	C	D	D	D	D	E	D	E	E
Approach Vol, veh/h		1143			1266			797			932	
Approach Delay, s/veh		37.1			38.7			52.0			52.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	7.8	33.3	8.0	20.3	6.6	29.3	6.1	22.6
Green Ext Time (p_c), s	0.2	8.0	0.2	2.4	0.2	6.9	0.1	2.6

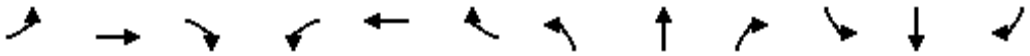
Intersection Summary	
HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Scenario 2

AM

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

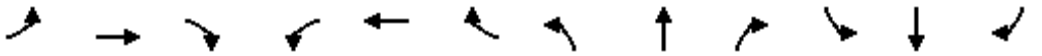
12/20/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1014	156	343	900	21	189	20	633	47	20	35
Future Volume (veh/h)	44	1014	156	343	900	21	189	20	633	47	20	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	1014	156	343	900	21	189	20	633	47	20	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	393	2087	930	348	2415	1077	312	420	355	213	137	240
Arrive On Green	0.60	0.60	0.60	0.06	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	597	3497	1559	1753	3497	1559	1326	1841	1558	767	600	1050
Grp Volume(v), veh/h	44	1014	156	343	900	21	189	20	633	47	0	55
Grp Sat Flow(s),veh/h/ln	597	1749	1559	1753	1749	1559	1326	1841	1558	767	0	1650
Q Serve(g_s), s	5.3	26.3	7.2	9.0	17.2	0.7	21.2	1.4	36.5	8.2	0.0	4.3
Cycle Q Clear(g_c), s	7.5	26.3	7.2	9.0	17.2	0.7	25.5	1.4	36.5	9.5	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	393	2087	930	348	2415	1077	312	420	355	213	0	376
V/C Ratio(X)	0.11	0.49	0.17	0.99	0.37	0.02	0.61	0.05	1.78	0.22	0.00	0.15
Avail Cap(c_a), veh/h	393	2087	930	348	2415	1077	312	420	355	213	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	18.3	14.4	30.1	10.3	7.8	59.5	48.2	61.8	51.9	0.0	49.3
Incr Delay (d2), s/veh	0.6	0.8	0.4	44.4	0.4	0.0	2.4	0.0	362.7	0.2	0.0	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	0.8	11.0	2.7	14.2	6.7	0.2	7.4	0.6	50.3	1.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	19.1	14.8	74.5	10.8	7.8	61.9	48.2	424.5	52.1	0.0	49.4
LnGrp LOS	B	B	B	E	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1214			1264			842			102	
Approach Delay, s/veh		18.4			28.0			334.1			50.6	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		43.0	15.0	102.0		43.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		19.2		38.5	11.0	28.3		11.5				
Green Ext Time (p_c), s		8.4		0.0	0.0	11.6		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			100.6									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	1154	117	93	949	125	120	58	300	135	43	119
Future Volume (veh/h)	216	1154	117	93	949	125	120	58	300	135	43	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	216	1154	117	93	949	125	120	58	300	135	43	119
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	375	2161	962	292	2089	930	282	391	331	237	391	331
Arrive On Green	0.05	0.62	0.62	0.03	0.60	0.60	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1753	3497	1556	1753	3497	1556	1202	1841	1556	1006	1841	1556
Grp Volume(v), veh/h	216	1154	117	93	949	125	120	58	300	135	43	119
Grp Sat Flow(s),veh/h/ln	1753	1749	1556	1753	1749	1556	1202	1841	1556	1006	1841	1556
Q Serve(g_s), s	7.2	27.7	4.6	3.0	22.1	5.2	13.2	3.8	27.7	18.6	2.8	9.6
Cycle Q Clear(g_c), s	7.2	27.7	4.6	3.0	22.1	5.2	15.9	3.8	27.7	22.3	2.8	9.6
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	375	2161	962	292	2089	930	282	391	331	237	391	331
V/C Ratio(X)	0.58	0.53	0.12	0.32	0.45	0.13	0.43	0.15	0.91	0.57	0.11	0.36
Avail Cap(c_a), veh/h	375	2161	962	328	2089	930	385	550	465	323	550	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	13.0	16.1	11.6	13.2	16.4	13.0	53.2	47.2	56.6	56.2	46.8	49.5
Incr Delay (d2), s/veh	2.2	1.0	0.3	0.6	0.7	0.3	1.0	0.2	16.9	2.2	0.1	0.7
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	3.0	11.3	1.7	1.2	9.1	1.9	4.1	1.8	12.4	4.9	1.3	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	17.0	11.9	13.8	17.1	13.3	54.2	47.3	73.5	58.4	46.9	50.1
LnGrp LOS	B	B	B	B	B	B	D	D	E	E	D	D
Approach Vol, veh/h		1487			1167			478			297	
Approach Delay, s/veh		16.3			16.4			65.5			53.4	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	95.0		37.3	12.0	98.0		37.3				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	88.0		44.0	8.0	88.0		44.0				
Max Q Clear Time (g_c+I1), s	9.2	24.1		29.7	5.0	29.7		24.3				
Green Ext Time (p_c), s	0.0	9.5		1.6	0.0	12.7		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			26.4									
HCM 6th LOS			C									

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	27	1619	89	149	1533	126	241
Future Volume (vph)	27	1619	89	149	1533	126	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1736	4988	1517	1736	4988	1736	1553
Flt Permitted	0.14	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	256	4988	1517	212	4988	1736	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	27	1619	89	149	1533	126	241
RTOR Reduction (vph)	0	0	36	0	0	0	206
Lane Group Flow (vph)	27	1619	53	149	1533	126	35
Confl. Peds. (#/hr)			3	3		3	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.2	30.3	30.3	40.4	34.4	9.7	9.7
Effective Green, g (s)	32.2	30.3	30.3	40.4	34.4	9.7	9.7
Actuated g/C Ratio	0.49	0.46	0.46	0.61	0.52	0.15	0.15
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	167	2289	696	268	2599	255	228
v/s Ratio Prot	0.00	c0.32		c0.05	c0.31	c0.07	
v/s Ratio Perm	0.07		0.04	0.29			0.02
v/c Ratio	0.16	0.71	0.08	0.56	0.59	0.49	0.16
Uniform Delay, d1	8.9	14.3	10.0	8.2	10.9	25.9	24.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	1.9	0.2	2.5	1.0	1.5	0.3
Delay (s)	9.3	16.2	10.2	10.6	11.9	27.4	24.9
Level of Service	A	B	B	B	B	C	C
Approach Delay (s)		15.8			11.8	25.8	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	66.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	23	1502	25	1178	7	10	20
Future Vol, veh/h	23	1502	25	1178	7	10	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	23	1502	25	1178	7	10	20

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1185	0	1502	-	0	2029	593
Stage 1	-	-	-	-	-	1232	-
Stage 2	-	-	-	-	-	797	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	579	-	156	-	-	49	446
Stage 1	-	-	-	-	-	236	-
Stage 2	-	-	-	-	-	402	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	579	-	156	-	-	39	446
Mov Cap-2 Maneuver	-	-	-	-	-	39	-
Stage 1	-	-	-	-	-	227	-
Stage 2	-	-	-	-	-	338	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0.7	51.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	579	-	156	-	-	39	446
HCM Lane V/C Ratio	0.04	-	0.16	-	-	0.256	0.045
HCM Control Delay (s)	11.5	-	32.4	-	-	126.6	13.5
HCM Lane LOS	B	-	D	-	-	F	B
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-	0.8	0.1

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	0	41	33	0	27	48	272	49	34	248	26
Future Vol, veh/h	23	0	41	33	0	27	48	272	49	34	248	26
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	23	0	41	33	0	27	48	272	49	34	248	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	737	746	261	743	735	299	274	0	0	321	0	0
Stage 1	329	329	-	393	393	-	-	-	-	-	-	-
Stage 2	408	417	-	350	342	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	332	339	773	329	344	736	1278	-	-	1228	-	-
Stage 1	680	643	-	628	602	-	-	-	-	-	-	-
Stage 2	616	588	-	662	634	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	300	313	773	293	318	735	1278	-	-	1228	-	-
Mov Cap-2 Maneuver	300	313	-	293	318	-	-	-	-	-	-	-
Stage 1	649	622	-	599	574	-	-	-	-	-	-	-
Stage 2	565	561	-	606	613	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	15.5	1	0.9
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1278	-	-	493	402	1228	-	-
HCM Lane V/C Ratio	0.038	-	-	0.13	0.149	0.028	-	-
HCM Control Delay (s)	7.9	0	-	13.4	15.5	8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	45	112	0	0	28	0	77	0	0	0
Future Vol, veh/h	0	0	45	112	0	0	28	0	77	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	45	112	0	0	28	0	77	0	0	0

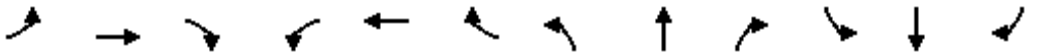
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	45	0	0	247	247	23	285	269	0
Stage 1	-	-	-	-	-	-	23	23	-	224	224	-
Stage 2	-	-	-	-	-	-	224	224	-	61	45	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1563	-	-	707	655	1054	667	637	-
Stage 1	-	-	-	-	-	-	995	876	-	779	718	-
Stage 2	-	-	-	-	-	-	779	718	-	950	857	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1563	-	-	-	608	1054	584	591	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	608	-	584	591	-
Stage 1	-	-	-	-	-	-	995	876	-	779	666	-
Stage 2	-	-	-	-	-	-	723	666	-	881	857	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1563	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.072	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.2	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

08/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	1036	236	182	673	150	220	569	254	191	596	188
Future Volume (veh/h)	254	1036	236	182	673	150	220	569	254	191	596	188
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		0.99	1.00		0.99	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	254	1036	236	182	673	150	220	569	254	191	596	188
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	729	1377	607	528	1377	607	546	888	393	552	888	393
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1567	3456	3554	1567	3456	3554	1572	3456	3554	1572
Grp Volume(v), veh/h	254	1036	236	182	673	150	220	569	254	191	596	188
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1728	1777	1567	1728	1777	1572	1728	1777	1572
Q Serve(g_s), s	6.6	40.3	17.4	4.6	22.9	10.4	7.1	22.9	23.1	6.1	24.2	16.3
Cycle Q Clear(g_c), s	6.6	40.3	17.4	4.6	22.9	10.4	7.1	22.9	23.1	6.1	24.2	16.3
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	729	1377	607	528	1377	607	546	888	393	552	888	393
V/C Ratio(X)	0.35	0.75	0.39	0.34	0.49	0.25	0.40	0.64	0.65	0.35	0.67	0.48
Avail Cap(c_a), veh/h	729	1377	607	528	1377	607	546	888	393	552	888	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	25.3	42.4	35.3	29.2	37.0	33.2	39.0	53.6	53.7	38.4	54.1	51.1
Incr Delay (d2), s/veh	1.3	3.8	1.9	1.8	1.2	1.0	2.2	3.5	8.0	1.7	4.0	4.1
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	2.9	18.5	7.1	2.1	10.3	4.2	3.2	10.7	10.1	2.8	11.4	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	46.2	37.2	31.0	38.3	34.2	41.2	57.1	61.6	40.1	58.1	55.2
LnGrp LOS	C	D	D	C	D	C	D	E	E	D	E	E
Approach Vol, veh/h		1526			1005			1043			975	
Approach Delay, s/veh		41.5			36.3			54.9			54.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	8.6	24.9	8.1	25.1	6.6	42.3	9.1	26.2
Green Ext Time (p_c), s	0.3	6.0	0.2	2.8	0.2	8.5	0.2	2.7

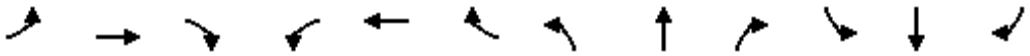
Intersection Summary	
HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

Scenario 2

Mid Day

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

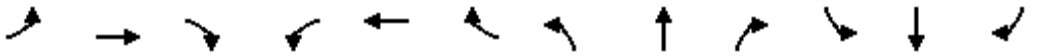
12/20/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	729	149	245	853	11	209	46	268	56	26	25
Future Volume (veh/h)	62	729	149	245	853	11	209	46	268	56	26	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	62	729	149	245	853	11	209	46	268	56	26	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	441	2189	977	478	2533	1130	277	365	309	233	171	164
Arrive On Green	0.62	0.62	0.62	0.06	0.72	0.72	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	635	3526	1572	1767	3526	1572	1339	1856	1568	1055	868	834
Grp Volume(v), veh/h	62	729	149	245	853	11	209	46	268	56	0	51
Grp Sat Flow(s),veh/h/ln	635	1763	1572	1767	1763	1572	1339	1856	1568	1055	0	1702
Q Serve(g_s), s	6.3	15.2	6.1	7.6	13.8	0.3	23.5	3.1	25.5	7.1	0.0	3.8
Cycle Q Clear(g_c), s	6.3	15.2	6.1	7.6	13.8	0.3	27.4	3.1	25.5	10.2	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	441	2189	977	478	2533	1130	277	365	309	233	0	335
V/C Ratio(X)	0.14	0.33	0.15	0.51	0.34	0.01	0.75	0.13	0.87	0.24	0.00	0.15
Avail Cap(c_a), veh/h	441	2189	977	478	2533	1130	331	440	372	276	0	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.2	13.9	12.2	10.0	8.0	6.1	62.4	50.9	59.8	55.1	0.0	51.1
Incr Delay (d2), s/veh	0.7	0.4	0.3	0.4	0.4	0.0	6.0	0.1	14.9	0.2	0.0	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	1.0	6.2	2.3	3.0	5.3	0.1	8.5	1.5	11.4	1.9	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.9	14.3	12.5	10.4	8.4	6.1	68.5	50.9	74.7	55.3	0.0	51.2
LnGrp LOS	B	B	B	B	A	A	E	D	E	E	A	D
Approach Vol, veh/h		940			1109			523			107	
Approach Delay, s/veh		14.0			8.8			70.1			53.3	
Approach LOS		B			A			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		36.8	15.0	102.0		36.8				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		15.8		29.4	9.6	17.2		12.2				
Green Ext Time (p_c), s		7.7		0.7	0.0	7.7		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		24.4
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	886	109	127	883	95	68	31	154	99	28	103
Future Volume (veh/h)	87	886	109	127	883	95	68	31	154	99	28	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	87	886	109	127	883	95	68	31	154	99	28	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	450	2456	1094	452	2482	1105	184	218	185	176	218	185
Arrive On Green	0.03	0.70	0.70	0.04	0.70	0.70	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1767	3526	1570	1767	3526	1570	1249	1856	1572	1189	1856	1572
Grp Volume(v), veh/h	87	886	109	127	883	95	68	31	154	99	28	103
Grp Sat Flow(s),veh/h/ln	1767	1763	1570	1767	1763	1570	1249	1856	1572	1189	1856	1572
Q Serve(g_s), s	1.9	13.6	3.0	2.8	13.2	2.5	6.9	2.0	12.8	10.9	1.8	8.3
Cycle Q Clear(g_c), s	1.9	13.6	3.0	2.8	13.2	2.5	8.7	2.0	12.8	12.9	1.8	8.3
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	450	2456	1094	452	2482	1105	184	218	185	176	218	185
V/C Ratio(X)	0.19	0.36	0.10	0.28	0.36	0.09	0.37	0.14	0.83	0.56	0.13	0.56
Avail Cap(c_a), veh/h	505	2456	1094	494	2482	1105	402	542	459	384	542	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	6.0	8.2	6.6	6.0	7.8	6.2	56.7	52.9	57.6	58.6	52.8	55.6
Incr Delay (d2), s/veh	0.2	0.4	0.2	0.3	0.4	0.2	1.2	0.3	9.3	2.8	0.3	2.6
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	0.7	5.1	1.0	1.0	4.9	0.9	2.2	1.0	5.6	3.4	0.9	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	8.6	6.8	6.4	8.2	6.4	57.9	53.2	67.0	61.4	53.0	58.2
LnGrp LOS	A	A	A	A	A	A	E	D	E	E	D	E
Approach Vol, veh/h		1082			1105			253			230	
Approach Delay, s/veh		8.2			7.8			62.8			59.0	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	101.0		21.7	11.8	100.0		21.7				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	93.0		39.0	8.0	93.0		39.0				
Max Q Clear Time (g_c+I1), s	3.9	15.2		14.8	4.8	15.6		14.9				
Green Ext Time (p_c), s	0.1	8.5		0.9	0.1	8.6		0.8				

Intersection Summary												
HCM 6th Ctrl Delay			17.6									
HCM 6th LOS			B									

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	48	1368	68	117	1316	85	160
Future Volume (vph)	48	1368	68	117	1316	85	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1719	4940	1503	1719	4940	1719	1538
Flt Permitted	0.18	1.00	1.00	0.15	1.00	0.95	1.00
Satd. Flow (perm)	332	4940	1503	266	4940	1719	1538
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	48	1368	68	117	1316	85	160
RTOR Reduction (vph)	0	0	35	0	0	0	143
Lane Group Flow (vph)	48	1368	33	117	1316	85	17
Confl. Peds. (#/hr)			3	3		3	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.3	29.6	29.6	35.7	31.3	6.6	6.6
Effective Green, g (s)	32.3	29.6	29.6	35.7	31.3	6.6	6.6
Actuated g/C Ratio	0.53	0.49	0.49	0.59	0.52	0.11	0.11
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	238	2412	734	262	2551	187	167
v/s Ratio Prot	0.01	c0.28		c0.03	0.27	c0.05	
v/s Ratio Perm	0.10		0.02	0.23			0.01
v/c Ratio	0.20	0.57	0.05	0.45	0.52	0.45	0.10
Uniform Delay, d1	6.8	11.0	8.1	6.0	9.7	25.3	24.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	1.0	0.1	1.2	0.7	1.8	0.3
Delay (s)	7.3	11.9	8.2	7.3	10.4	27.1	24.6
Level of Service	A	B	A	A	B	C	C
Approach Delay (s)		11.6			10.1	25.5	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.6	Sum of lost time (s)	27.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	28	1035	22	1000	3	4	25
Future Vol, veh/h	28	1035	22	1000	3	4	25
Conflicting Peds, #/hr	1	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	28	1035	22	1000	3	4	25

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1004	0	1035	-	0	1621	503
Stage 1	-	-	-	-	-	1047	-
Stage 2	-	-	-	-	-	574	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	680	-	313	-	-	93	511
Stage 1	-	-	-	-	-	297	-
Stage 2	-	-	-	-	-	524	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	679	-	313	-	-	83	511
Mov Cap-2 Maneuver	-	-	-	-	-	83	-
Stage 1	-	-	-	-	-	285	-
Stage 2	-	-	-	-	-	487	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0.4	17.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	679	-	313	-	-	83	511
HCM Lane V/C Ratio	0.041	-	0.07	-	-	0.048	0.049
HCM Control Delay (s)	10.5	-	17.4	-	-	50.6	12.4
HCM Lane LOS	B	-	C	-	-	F	B
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	0.1	0.2

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	33	3	42	3	0	3	39	183	5	3	192	5
Future Vol, veh/h	33	3	42	3	0	3	39	183	5	3	192	5
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	33	3	42	3	0	3	39	183	5	3	192	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	466	467	196	488	467	186	197	0	0	188	0	0
Stage 1	201	201	-	264	264	-	-	-	-	-	-	-
Stage 2	265	266	-	224	203	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	504	491	840	487	491	851	1364	-	-	1374	-	-
Stage 1	796	731	-	737	686	-	-	-	-	-	-	-
Stage 2	736	685	-	774	730	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	489	474	839	448	474	851	1364	-	-	1374	-	-
Mov Cap-2 Maneuver	489	474	-	448	474	-	-	-	-	-	-	-
Stage 1	771	730	-	713	664	-	-	-	-	-	-	-
Stage 2	710	663	-	730	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	11.2	1.3	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1364	-	-	630	587	1374	-	-
HCM Lane V/C Ratio	0.029	-	-	0.124	0.01	0.002	-	-
HCM Control Delay (s)	7.7	0	-	11.5	11.2	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	8	35	0	0	24	1	68	0	0	0
Future Vol, veh/h	0	0	8	35	0	0	24	1	68	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	8	35	0	0	24	1	68	0	0	0

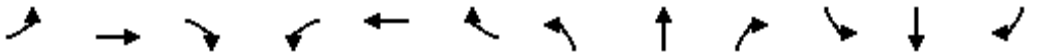
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	8	0	0	74	74	4	109	78	0
Stage 1	-	-	-	-	-	-	4	4	-	70	70	-
Stage 2	-	-	-	-	-	-	70	70	-	39	8	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1612	-	-	916	816	1080	870	812	-
Stage 1	-	-	-	-	-	-	1018	892	-	940	837	-
Stage 2	-	-	-	-	-	-	940	837	-	976	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1612	-	-	-	798	1080	800	794	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	798	-	800	794	-
Stage 1	-	-	-	-	-	-	1018	892	-	940	819	-
Stage 2	-	-	-	-	-	-	919	819	-	914	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1612	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.022	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

08/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	645	136	174	744	142	139	379	158	152	423	187
Future Volume (veh/h)	209	645	136	174	744	142	139	379	158	152	423	187
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		0.99	1.00		0.99	0.99		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	209	645	136	174	744	142	139	379	158	152	423	187
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	1377	607	751	1377	607	647	888	393	683	888	393
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1567	3456	3554	1567	3456	3554	1572	3456	3554	1572
Grp Volume(v), veh/h	209	645	136	174	744	142	139	379	158	152	423	187
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1728	1777	1567	1728	1777	1572	1728	1777	1572
Q Serve(g_s), s	5.3	21.7	9.3	4.4	26.0	9.8	4.4	14.3	13.4	4.8	16.2	16.2
Cycle Q Clear(g_c), s	5.3	21.7	9.3	4.4	26.0	9.8	4.4	14.3	13.4	4.8	16.2	16.2
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	688	1377	607	751	1377	607	647	888	393	683	888	393
V/C Ratio(X)	0.30	0.47	0.22	0.23	0.54	0.23	0.21	0.43	0.40	0.22	0.48	0.48
Avail Cap(c_a), veh/h	688	1377	607	751	1377	607	647	888	393	683	888	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	25.5	36.7	32.9	24.4	38.0	33.0	36.8	50.4	50.0	36.7	51.1	51.1
Incr Delay (d2), s/veh	1.1	1.1	0.9	0.7	1.5	0.9	0.8	1.5	3.0	0.8	1.8	4.1
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	2.3	9.8	3.8	1.9	11.7	4.0	2.0	6.6	5.7	2.2	7.5	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	37.8	33.7	25.1	39.5	33.9	37.6	51.9	53.1	37.5	52.9	55.2
LnGrp LOS	C	D	C	C	D	C	D	D	D	D	D	E
Approach Vol, veh/h		990			1060			676			762	
Approach Delay, s/veh		34.9			36.4			49.2			50.4	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	7.3	28.0	6.8	16.3	6.4	23.7	6.4	18.2
Green Ext Time (p_c), s	0.2	6.6	0.2	1.9	0.2	5.6	0.1	2.2

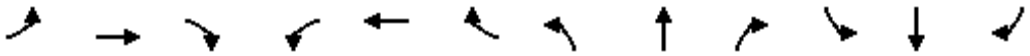
Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Scenario 2

PM

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

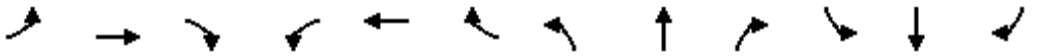
12/20/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	984	180	380	1114	25	208	50	373	45	36	40
Future Volume (veh/h)	53	984	180	380	1114	25	208	50	373	45	36	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	984	180	380	1114	25	208	50	373	45	36	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	2121	945	359	2454	1094	299	427	362	244	185	205
Arrive On Green	0.60	0.60	0.60	0.06	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	494	3554	1584	1781	3554	1584	1323	1870	1585	964	809	899
Grp Volume(v), veh/h	53	984	180	380	1114	25	208	50	373	45	0	76
Grp Sat Flow(s),veh/h/ln	494	1777	1584	1781	1777	1584	1323	1870	1585	964	0	1709
Q Serve(g_s), s	8.7	24.7	8.3	9.0	22.6	0.8	24.1	3.4	36.5	6.2	0.0	5.7
Cycle Q Clear(g_c), s	16.3	24.7	8.3	9.0	22.6	0.8	29.9	3.4	36.5	9.6	0.0	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	316	2121	945	359	2454	1094	299	427	362	244	0	390
V/C Ratio(X)	0.17	0.46	0.19	1.06	0.45	0.02	0.69	0.12	1.03	0.18	0.00	0.19
Avail Cap(c_a), veh/h	316	2121	945	359	2454	1094	299	427	362	244	0	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	18.0	14.7	30.4	11.2	7.8	61.9	49.0	61.8	52.8	0.0	49.9
Incr Delay (d2), s/veh	1.1	0.7	0.4	64.1	0.6	0.0	5.8	0.0	55.7	0.1	0.0	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	1.1	10.4	3.2	16.8	9.0	0.3	8.6	1.6	20.3	1.5	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	18.7	15.1	94.5	11.8	7.8	67.7	49.0	117.4	52.9	0.0	50.0
LnGrp LOS	B	B	B	F	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1217			1519			631			121	
Approach Delay, s/veh		18.2			32.4			95.6			51.1	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		43.0	15.0	102.0		43.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		24.6		38.5	11.0	26.7		11.6				
Green Ext Time (p_c), s		11.6		0.0	0.0	11.7		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			39.5									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	956	146	161	1180	132	91	37	175	87	16	124
Future Volume (veh/h)	136	956	146	161	1180	132	91	37	175	87	16	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	136	956	146	161	1180	132	91	37	175	87	16	124
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	337	2385	1063	411	2401	1070	210	250	211	188	250	211
Arrive On Green	0.04	0.68	0.68	0.04	0.68	0.68	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1767	3526	1571	1767	3526	1571	1234	1856	1565	1157	1856	1565
Grp Volume(v), veh/h	136	956	146	161	1180	132	91	37	175	87	16	124
Grp Sat Flow(s),veh/h/ln	1767	1763	1571	1767	1763	1571	1234	1856	1565	1157	1856	1565
Q Serve(g_s), s	3.3	16.6	4.6	3.9	22.1	4.0	9.5	2.4	15.0	9.9	1.0	10.2
Cycle Q Clear(g_c), s	3.3	16.6	4.6	3.9	22.1	4.0	10.6	2.4	15.0	12.3	1.0	10.2
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	337	2385	1063	411	2401	1070	210	250	211	188	250	211
V/C Ratio(X)	0.40	0.40	0.14	0.39	0.49	0.12	0.43	0.15	0.83	0.46	0.06	0.59
Avail Cap(c_a), veh/h	372	2385	1063	437	2401	1070	393	526	444	360	526	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	8.5	9.9	7.9	7.4	10.5	7.6	56.5	52.5	57.9	57.9	51.9	55.9
Incr Delay (d2), s/veh	0.8	0.5	0.3	0.6	0.7	0.2	1.4	0.3	8.1	1.8	0.1	2.6
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	1.2	6.4	1.6	1.4	8.5	1.4	3.1	1.2	6.4	3.0	0.5	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	10.4	8.2	8.0	11.2	7.9	57.9	52.8	66.0	59.7	52.0	58.5
LnGrp LOS	A	B	A	A	B	A	E	D	E	E	D	E
Approach Vol, veh/h		1238			1473			303			227	
Approach Delay, s/veh		10.0			10.6			61.9			58.5	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.3	100.6		24.5	12.9	100.0		24.5				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	93.0		39.0	8.0	93.0		39.0				
Max Q Clear Time (g_c+I1), s	5.3	24.1		17.0	5.9	18.6		14.3				
Green Ext Time (p_c), s	0.1	13.5		1.1	0.1	9.8		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		18.5	
HCM 6th LOS		B	

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	35	1718	116	194	1563	163	208
Future Volume (vph)	35	1718	116	194	1563	163	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1736	4988	1518	1736	4988	1736	1553
Flt Permitted	0.13	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	240	4988	1518	212	4988	1736	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	1718	116	194	1563	163	208
RTOR Reduction (vph)	0	0	45	0	0	0	174
Lane Group Flow (vph)	35	1718	71	194	1563	163	34
Confl. Peds. (#/hr)			2	2		2	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.3	30.4	30.4	40.5	34.5	11.1	11.1
Effective Green, g (s)	32.3	30.4	30.4	40.5	34.5	11.1	11.1
Actuated g/C Ratio	0.48	0.45	0.45	0.60	0.51	0.16	0.16
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	156	2246	683	262	2549	285	255
v/s Ratio Prot	0.01	0.34		c0.07	0.31	c0.09	
v/s Ratio Perm	0.10		0.05	c0.38			0.02
v/c Ratio	0.22	0.76	0.10	0.74	0.61	0.57	0.13
Uniform Delay, d1	9.5	15.6	10.7	10.1	11.7	26.0	24.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	2.5	0.3	10.7	1.1	2.8	0.2
Delay (s)	10.3	18.1	11.0	20.8	12.9	28.8	24.3
Level of Service	B	B	B	C	B	C	C
Approach Delay (s)		17.5			13.7	26.3	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	27.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	5	1416	8	1566	5	3	12
Future Vol, veh/h	5	1416	8	1566	5	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	5	1416	8	1566	5	3	12

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1571	0	1416	-	0	2303	786
Stage 1	-	-	-	-	-	1585	-
Stage 2	-	-	-	-	-	718	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	411	-	177	-	-	32	333
Stage 1	-	-	-	-	-	152	-
Stage 2	-	-	-	-	-	441	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	411	-	177	-	-	30	333
Mov Cap-2 Maneuver	-	-	-	-	-	30	-
Stage 1	-	-	-	-	-	150	-
Stage 2	-	-	-	-	-	421	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	40.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	411	-	177	-	-	30	333
HCM Lane V/C Ratio	0.012	-	0.045	-	-	0.1	0.036
HCM Control Delay (s)	13.9	-	26.3	-	-	137.9	16.2
HCM Lane LOS	B	-	D	-	-	F	C
HCM 95th %tile Q(veh)	0	-	0.1	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	17.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	131	0	171	39	0	27	125	277	37	26	282	112
Future Vol, veh/h	131	0	171	39	0	27	125	277	37	26	282	112
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	131	0	171	39	0	27	125	277	37	26	282	112

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	949	954	338	1022	992	296	394	0	0	314	0	0
Stage 1	390	390	-	546	546	-	-	-	-	-	-	-
Stage 2	559	564	-	476	446	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	239	258	702	213	245	741	1159	-	-	1241	-	-
Stage 1	632	606	-	520	516	-	-	-	-	-	-	-
Stage 2	512	507	-	568	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	218	702	142	207	741	1159	-	-	1241	-	-
Mov Cap-2 Maneuver	203	218	-	142	207	-	-	-	-	-	-	-
Stage 1	549	590	-	452	448	-	-	-	-	-	-	-
Stage 2	429	441	-	418	557	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	60.2	29.5	2.4	0.5
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1159	-	-	340	212	1241	-	-
HCM Lane V/C Ratio	0.108	-	-	0.888	0.311	0.021	-	-
HCM Control Delay (s)	8.5	0	-	60.2	29.5	8	0	-
HCM Lane LOS	A	A	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	8.5	1.3	0.1	-	-

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	0	0	54	131	0	0	69	2	199	0	0	0
Future Vol, veh/h	0	0	54	131	0	0	69	2	199	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	54	131	0	0	69	2	199	0	0	0

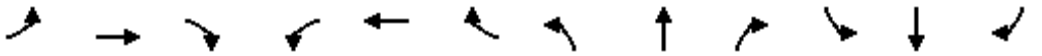
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	54	0	0	289	289	27	390	316	0
Stage 1	-	-	-	-	-	-	27	27	-	262	262	-
Stage 2	-	-	-	-	-	-	262	262	-	128	54	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1551	-	-	663	621	1048	569	600	-
Stage 1	-	-	-	-	-	-	990	873	-	743	691	-
Stage 2	-	-	-	-	-	-	743	691	-	876	850	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1551	-	-	-	569	1048	430	550	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	569	-	430	550	-
Stage 1	-	-	-	-	-	-	990	873	-	743	633	-
Stage 2	-	-	-	-	-	-	681	633	-	708	850	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1551	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.084	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.3	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

08/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	822	150	188	918	230	134	484	203	194	536	230
Future Volume (veh/h)	231	822	150	188	918	230	134	484	203	194	536	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.98	0.99		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	231	822	150	188	918	230	134	484	203	194	536	230
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	579	1377	594	641	1377	594	572	888	388	605	888	388
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1532	3456	3554	1532	3456	3554	1553	3456	3554	1553
Grp Volume(v), veh/h	231	822	150	188	918	230	134	484	203	194	536	230
Grp Sat Flow(s),veh/h/ln	1728	1777	1532	1728	1777	1532	1728	1777	1553	1728	1777	1553
Q Serve(g_s), s	5.9	29.5	10.6	4.8	34.1	17.3	4.2	18.9	18.0	6.2	21.3	20.9
Cycle Q Clear(g_c), s	5.9	29.5	10.6	4.8	34.1	17.3	4.2	18.9	18.0	6.2	21.3	20.9
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	579	1377	594	641	1377	594	572	888	388	605	888	388
V/C Ratio(X)	0.40	0.60	0.25	0.29	0.67	0.39	0.23	0.54	0.52	0.32	0.60	0.59
Avail Cap(c_a), veh/h	579	1377	594	641	1377	594	572	888	388	605	888	388
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	27.9	39.0	33.3	26.0	40.5	35.3	37.4	52.1	51.8	37.8	53.0	52.8
Incr Delay (d2), s/veh	2.0	1.9	1.0	1.2	2.6	1.9	1.0	2.4	5.0	1.4	3.0	6.5
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	2.7	13.4	4.2	2.1	15.5	6.9	1.9	8.8	7.6	2.8	10.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	41.0	34.3	27.2	43.0	37.2	38.4	54.5	56.7	39.2	56.0	59.3
LnGrp LOS	C	D	C	C	D	D	D	D	E	D	E	E
Approach Vol, veh/h		1203			1336			821			960	
Approach Delay, s/veh		38.0			39.8			52.4			53.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	7.9	36.1	8.2	20.9	6.8	31.5	6.2	23.3
Green Ext Time (p_c), s	0.2	8.3	0.2	2.5	0.2	7.3	0.1	2.7

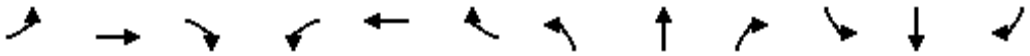
Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Scenario 3

AM

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

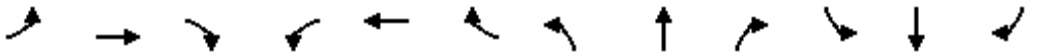
01/20/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1037	156	347	913	21	189	20	640	47	20	35
Future Volume (veh/h)	44	1037	156	347	913	21	189	20	640	47	20	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	1037	156	347	913	21	189	20	640	47	20	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	388	2087	930	341	2415	1077	312	420	355	212	137	240
Arrive On Green	0.60	0.60	0.60	0.06	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	590	3497	1559	1753	3497	1559	1326	1841	1558	762	600	1050
Grp Volume(v), veh/h	44	1037	156	347	913	21	189	20	640	47	0	55
Grp Sat Flow(s),veh/h/ln	590	1749	1559	1753	1749	1559	1326	1841	1558	762	0	1650
Q Serve(g_s), s	5.4	27.2	7.2	9.0	17.5	0.7	21.2	1.4	36.5	8.2	0.0	4.3
Cycle Q Clear(g_c), s	7.9	27.2	7.2	9.0	17.5	0.7	25.5	1.4	36.5	9.6	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	388	2087	930	341	2415	1077	312	420	355	212	0	376
V/C Ratio(X)	0.11	0.50	0.17	1.02	0.38	0.02	0.61	0.05	1.80	0.22	0.00	0.15
Avail Cap(c_a), veh/h	388	2087	930	341	2415	1077	312	420	355	212	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	18.5	14.4	30.7	10.4	7.8	59.5	48.2	61.8	51.9	0.0	49.3
Incr Delay (d2), s/veh	0.6	0.8	0.4	53.5	0.5	0.0	2.4	0.0	371.4	0.2	0.0	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	0.8	11.3	2.7	14.8	6.9	0.2	7.4	0.6	51.1	1.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	19.3	14.8	84.2	10.8	7.8	61.9	48.2	433.2	52.1	0.0	49.4
LnGrp LOS	B	B	B	F	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1237			1281			849			102	
Approach Delay, s/veh		18.6			30.6			341.4			50.6	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		43.0	15.0	102.0		43.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		19.5		38.5	11.0	29.2		11.6				
Green Ext Time (p_c), s		8.5		0.0	0.0	12.0		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			103.0									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	1156	117	93	954	139	120	62	300	143	45	127
Future Volume (veh/h)	231	1156	117	93	954	139	120	62	300	143	45	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	231	1156	117	93	954	139	120	62	300	143	45	127
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	371	2161	961	292	2089	929	279	392	331	234	392	331
Arrive On Green	0.05	0.62	0.62	0.03	0.60	0.60	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1753	3497	1556	1753	3497	1556	1191	1841	1556	1002	1841	1556
Grp Volume(v), veh/h	231	1156	117	93	954	139	120	62	300	143	45	127
Grp Sat Flow(s),veh/h/ln	1753	1749	1556	1753	1749	1556	1191	1841	1556	1002	1841	1556
Q Serve(g_s), s	7.8	27.8	4.6	3.0	22.3	5.8	13.3	4.0	27.7	20.0	2.9	10.3
Cycle Q Clear(g_c), s	7.8	27.8	4.6	3.0	22.3	5.8	16.2	4.0	27.7	24.0	2.9	10.3
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	371	2161	961	292	2089	929	279	392	331	234	392	331
V/C Ratio(X)	0.62	0.54	0.12	0.32	0.46	0.15	0.43	0.16	0.91	0.61	0.11	0.38
Avail Cap(c_a), veh/h	371	2161	961	328	2089	929	381	550	465	321	550	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	13.4	16.1	11.6	13.3	16.4	13.1	53.4	47.3	56.6	57.0	46.8	49.7
Incr Delay (d2), s/veh	3.2	1.0	0.3	0.6	0.7	0.3	1.1	0.2	16.8	2.6	0.1	0.7
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	3.3	11.3	1.7	1.2	9.1	2.2	4.1	1.9	12.4	5.2	1.4	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	17.0	11.9	13.9	17.2	13.5	54.4	47.4	73.4	59.6	46.9	50.5
LnGrp LOS	B	B	B	B	B	B	D	D	E	E	D	D
Approach Vol, veh/h		1504			1186			482			315	
Approach Delay, s/veh		16.6			16.5			65.3			54.1	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	95.0		37.3	12.0	98.0		37.3				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	88.0		44.0	8.0	88.0		44.0				
Max Q Clear Time (g_c+I1), s	9.8	24.3		29.7	5.0	29.8		26.0				
Green Ext Time (p_c), s	0.0	9.7		1.6	0.0	12.7		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			26.7									
HCM 6th LOS			C									

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	27	1619	97	163	1533	131	249
Future Volume (vph)	27	1619	97	163	1533	131	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1736	4988	1517	1736	4988	1736	1553
Flt Permitted	0.14	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	255	4988	1517	212	4988	1736	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	27	1619	97	163	1533	131	249
RTOR Reduction (vph)	0	0	39	0	0	0	212
Lane Group Flow (vph)	27	1619	58	163	1533	131	37
Confl. Peds. (#/hr)			3	3		3	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.2	30.3	30.3	40.4	34.4	9.9	9.9
Effective Green, g (s)	32.2	30.3	30.3	40.4	34.4	9.9	9.9
Actuated g/C Ratio	0.49	0.46	0.46	0.61	0.52	0.15	0.15
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	166	2283	694	267	2591	259	232
v/s Ratio Prot	0.00	c0.32		c0.06	0.31	c0.08	
v/s Ratio Perm	0.07		0.04	c0.32			0.02
v/c Ratio	0.16	0.71	0.08	0.61	0.59	0.51	0.16
Uniform Delay, d1	9.0	14.4	10.1	8.5	11.0	25.9	24.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	1.9	0.2	4.1	1.0	1.6	0.3
Delay (s)	9.4	16.3	10.4	12.6	12.0	27.5	24.9
Level of Service	A	B	B	B	B	C	C
Approach Delay (s)		15.9			12.1	25.8	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	27.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	38	1517	25	1186	12	12	29
Future Vol, veh/h	38	1517	25	1186	12	12	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	38	1517	25	1186	12	12	29

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1198	0	1517	-	0	2077	599
Stage 1	-	-	-	-	-	1242	-
Stage 2	-	-	-	-	-	835	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	573	-	152	-	-	46	442
Stage 1	-	-	-	-	-	234	-
Stage 2	-	-	-	-	-	384	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	573	-	152	-	-	36	442
Mov Cap-2 Maneuver	-	-	-	-	-	36	-
Stage 1	-	-	-	-	-	219	-
Stage 2	-	-	-	-	-	321	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0.7	53.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	573	-	152	-	-	36	442
HCM Lane V/C Ratio	0.066	-	0.164	-	-	0.333	0.066
HCM Control Delay (s)	11.7	-	33.3	-	-	148.6	13.7
HCM Lane LOS	B	-	D	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-	1.1	0.2

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	0	59	33	0	27	81	272	49	34	248	49
Future Vol, veh/h	36	0	59	33	0	27	81	272	49	34	248	49
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	36	0	59	33	0	27	81	272	49	34	248	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	815	824	273	829	824	299	297	0	0	321	0	0
Stage 1	341	341	-	459	459	-	-	-	-	-	-	-
Stage 2	474	483	-	370	365	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	294	306	761	287	306	736	1253	-	-	1228	-	-
Stage 1	670	635	-	578	563	-	-	-	-	-	-	-
Stage 2	567	549	-	646	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	262	277	761	245	277	735	1253	-	-	1228	-	-
Mov Cap-2 Maneuver	262	277	-	245	277	-	-	-	-	-	-	-
Stage 1	626	614	-	540	526	-	-	-	-	-	-	-
Stage 2	510	513	-	576	600	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	17.4	1.6	0.8
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1253	-	-	262	761	350	1228	-	-
HCM Lane V/C Ratio	0.065	-	-	0.137	0.078	0.171	0.028	-	-
HCM Control Delay (s)	8.1	-	-	20.9	10.1	17.4	8	0	-
HCM Lane LOS	A	-	-	C	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.3	0.6	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	65	167	0	0	39	0	108	0	0	0
Future Vol, veh/h	0	0	65	167	0	0	39	0	108	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	65	167	0	0	39	0	108	0	0	0

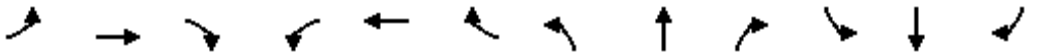
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	65	0	0	367	367	33	421	399	0
Stage 1	-	-	-	-	-	-	33	33	-	334	334	-
Stage 2	-	-	-	-	-	-	334	334	-	87	65	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1537	-	-	589	562	1041	543	539	-
Stage 1	-	-	-	-	-	-	983	868	-	680	643	-
Stage 2	-	-	-	-	-	-	680	643	-	921	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1537	-	-	-	501	1041	446	480	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	501	-	446	480	-
Stage 1	-	-	-	-	-	-	983	868	-	680	573	-
Stage 2	-	-	-	-	-	-	606	573	-	825	841	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.6		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1537	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.109	-	-	-
HCM Control Delay (s)	-	0	-	-	7.6	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.4	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

08/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	1046	236	182	692	150	220	569	254	191	596	188
Future Volume (veh/h)	254	1046	236	182	692	150	220	569	254	191	596	188
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		0.99	1.00		0.99	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	254	1046	236	182	692	150	220	569	254	191	596	188
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	717	1377	607	524	1377	607	546	888	393	552	888	393
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1567	3456	3554	1567	3456	3554	1572	3456	3554	1572
Grp Volume(v), veh/h	254	1046	236	182	692	150	220	569	254	191	596	188
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1728	1777	1567	1728	1777	1572	1728	1777	1572
Q Serve(g_s), s	6.6	40.9	17.4	4.6	23.7	10.4	7.1	22.9	23.1	6.1	24.2	16.3
Cycle Q Clear(g_c), s	6.6	40.9	17.4	4.6	23.7	10.4	7.1	22.9	23.1	6.1	24.2	16.3
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	717	1377	607	524	1377	607	546	888	393	552	888	393
V/C Ratio(X)	0.35	0.76	0.39	0.35	0.50	0.25	0.40	0.64	0.65	0.35	0.67	0.48
Avail Cap(c_a), veh/h	717	1377	607	524	1377	607	546	888	393	552	888	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	25.4	42.5	35.3	29.4	37.3	33.2	39.0	53.6	53.7	38.4	54.1	51.1
Incr Delay (d2), s/veh	1.4	4.0	1.9	1.8	1.3	1.0	2.2	3.5	8.0	1.7	4.0	4.1
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	2.9	18.8	7.1	2.1	10.7	4.2	3.2	10.7	10.1	2.8	11.4	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	46.5	37.2	31.2	38.6	34.2	41.2	57.1	61.6	40.1	58.1	55.2
LnGrp LOS	C	D	D	C	D	C	D	E	E	D	E	E
Approach Vol, veh/h		1536			1024			1043			975	
Approach Delay, s/veh		41.8			36.6			54.9			54.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	8.6	25.7	8.1	25.1	6.6	42.9	9.1	26.2
Green Ext Time (p_c), s	0.3	6.1	0.2	2.8	0.2	8.4	0.2	2.7

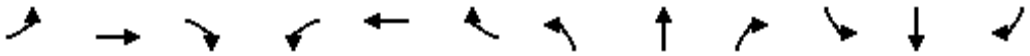
Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Scenario 3

Mid Day

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

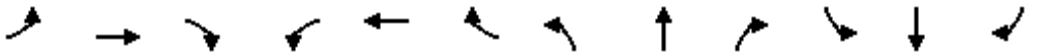
01/20/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	736	149	248	863	11	209	46	270	56	26	25
Future Volume (veh/h)	62	736	149	248	863	11	209	46	270	56	26	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	62	736	149	248	863	11	209	46	270	56	26	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	438	2189	977	475	2533	1130	277	365	309	233	171	164
Arrive On Green	0.62	0.62	0.62	0.06	0.72	0.72	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	629	3526	1572	1767	3526	1572	1339	1856	1568	1053	868	834
Grp Volume(v), veh/h	62	736	149	248	863	11	209	46	270	56	0	51
Grp Sat Flow(s),veh/h/ln	629	1763	1572	1767	1763	1572	1339	1856	1568	1053	0	1702
Q Serve(g_s), s	6.4	15.4	6.1	7.7	14.0	0.3	23.5	3.1	25.7	7.1	0.0	3.8
Cycle Q Clear(g_c), s	6.4	15.4	6.1	7.7	14.0	0.3	27.4	3.1	25.7	10.3	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	438	2189	977	475	2533	1130	277	365	309	233	0	335
V/C Ratio(X)	0.14	0.34	0.15	0.52	0.34	0.01	0.75	0.13	0.87	0.24	0.00	0.15
Avail Cap(c_a), veh/h	438	2189	977	475	2533	1130	331	440	372	275	0	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.3	14.0	12.2	10.1	8.1	6.1	62.4	50.8	59.9	55.1	0.0	51.1
Incr Delay (d2), s/veh	0.7	0.4	0.3	0.5	0.4	0.0	6.0	0.1	15.7	0.2	0.0	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	1.0	6.3	2.3	3.0	5.3	0.1	8.5	1.5	11.6	1.9	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.9	14.4	12.5	10.6	8.4	6.2	68.5	50.9	75.6	55.3	0.0	51.2
LnGrp LOS	B	B	B	B	A	A	E	D	E	E	A	D
Approach Vol, veh/h		947			1122			525			107	
Approach Delay, s/veh		14.0			8.9			70.6			53.3	
Approach LOS		B			A			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		36.8	15.0	102.0		36.8				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		16.0		29.4	9.7	17.4		12.3				
Green Ext Time (p_c), s		7.8		0.7	0.0	7.8		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		24.4
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	888	109	127	885	100	68	32	154	105	29	110
Future Volume (veh/h)	92	888	109	127	885	100	68	32	154	105	29	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	888	109	127	885	100	68	32	154	105	29	110
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	444	2439	1086	447	2462	1097	189	229	194	182	229	194
Arrive On Green	0.03	0.69	0.69	0.04	0.70	0.70	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1767	3526	1570	1767	3526	1570	1240	1856	1572	1188	1856	1572
Grp Volume(v), veh/h	92	888	109	127	885	100	68	32	154	105	29	110
Grp Sat Flow(s),veh/h/ln	1767	1763	1570	1767	1763	1570	1240	1856	1572	1188	1856	1572
Q Serve(g_s), s	2.1	13.9	3.1	2.8	13.6	2.8	6.9	2.1	12.8	11.6	1.9	8.9
Cycle Q Clear(g_c), s	2.1	13.9	3.1	2.8	13.6	2.8	8.8	2.1	12.8	13.7	1.9	8.9
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	444	2439	1086	447	2462	1097	189	229	194	182	229	194
V/C Ratio(X)	0.21	0.36	0.10	0.28	0.36	0.09	0.36	0.14	0.80	0.58	0.13	0.57
Avail Cap(c_a), veh/h	497	2439	1086	488	2462	1097	396	538	456	380	538	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	6.2	8.5	6.9	6.3	8.2	6.5	56.4	52.6	57.3	58.7	52.5	55.6
Incr Delay (d2), s/veh	0.2	0.4	0.2	0.3	0.4	0.2	1.2	0.3	7.2	2.9	0.2	2.6
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	0.8	5.3	1.1	1.0	5.1	0.9	2.2	1.0	5.5	3.7	0.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	9.0	7.0	6.6	8.6	6.7	57.6	52.9	64.5	61.6	52.7	58.2
LnGrp LOS	A	A	A	A	A	A	E	D	E	E	D	E
Approach Vol, veh/h		1089			1112			254			244	
Approach Delay, s/veh		8.6			8.2			61.2			59.0	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	100.9		22.6	11.9	100.0		22.6				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	93.0		39.0	8.0	93.0		39.0				
Max Q Clear Time (g_c+I1), s	4.1	15.6		14.8	4.8	15.9		15.7				
Green Ext Time (p_c), s	0.1	8.5		0.9	0.1	8.6		0.9				

Intersection Summary												
HCM 6th Ctrl Delay			17.9									
HCM 6th LOS			B									

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	48	1368	71	121	1316	89	166
Future Volume (vph)	48	1368	71	121	1316	89	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1719	4940	1502	1719	4940	1719	1538
Flt Permitted	0.18	1.00	1.00	0.14	1.00	0.95	1.00
Satd. Flow (perm)	323	4940	1502	251	4940	1719	1538
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	48	1368	71	121	1316	89	166
RTOR Reduction (vph)	0	0	39	0	0	0	143
Lane Group Flow (vph)	48	1368	32	121	1316	89	23
Confl. Peds. (#/hr)			3	3		3	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	30.7	27.9	27.9	34.3	29.7	8.5	8.5
Effective Green, g (s)	30.7	27.9	27.9	34.3	29.7	8.5	8.5
Actuated g/C Ratio	0.50	0.46	0.46	0.56	0.49	0.14	0.14
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226	2259	686	251	2405	239	214
v/s Ratio Prot	0.01	c0.28		c0.04	0.27	c0.05	
v/s Ratio Perm	0.10		0.02	0.23			0.02
v/c Ratio	0.21	0.61	0.05	0.48	0.55	0.37	0.11
Uniform Delay, d1	7.8	12.4	9.2	7.0	10.9	23.8	22.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	1.2	0.1	1.5	0.9	1.0	0.2
Delay (s)	8.3	13.6	9.3	8.5	11.8	24.8	23.2
Level of Service	A	B	A	A	B	C	C
Approach Delay (s)		13.3			11.6	23.7	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	32	1040	22	1007	5	6	31
Future Vol, veh/h	32	1040	22	1007	5	6	31
Conflicting Peds, #/hr	1	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	32	1040	22	1007	5	6	31

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1013	0	1040	-	0	1639	507
Stage 1	-	-	-	-	-	1055	-
Stage 2	-	-	-	-	-	584	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	674	-	310	-	-	90	508
Stage 1	-	-	-	-	-	294	-
Stage 2	-	-	-	-	-	518	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	673	-	310	-	-	79	508
Mov Cap-2 Maneuver	-	-	-	-	-	79	-
Stage 1	-	-	-	-	-	280	-
Stage 2	-	-	-	-	-	481	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0.4	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	673	-	310	-	-	79	508
HCM Lane V/C Ratio	0.048	-	0.071	-	-	0.076	0.061
HCM Control Delay (s)	10.6	-	17.5	-	-	54.3	12.5
HCM Lane LOS	B	-	C	-	-	F	B
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	0.2	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	3	56	3	0	3	50	183	5	3	192	12
Future Vol, veh/h	43	3	56	3	0	3	50	183	5	3	192	12
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	43	3	56	3	0	3	50	183	5	3	192	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	491	492	199	521	496	186	204	0	0	188	0	0
Stage 1	204	204	-	286	286	-	-	-	-	-	-	-
Stage 2	287	288	-	235	210	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	485	475	837	463	472	851	1356	-	-	1374	-	-
Stage 1	793	729	-	717	671	-	-	-	-	-	-	-
Stage 2	716	670	-	764	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	469	456	836	417	454	851	1356	-	-	1374	-	-
Mov Cap-2 Maneuver	469	456	-	417	454	-	-	-	-	-	-	-
Stage 1	764	728	-	690	646	-	-	-	-	-	-	-
Stage 2	687	645	-	708	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	11.5	1.6	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1356	-	-	468	836	560	1374	-	-
HCM Lane V/C Ratio	0.037	-	-	0.098	0.067	0.011	0.002	-	-
HCM Control Delay (s)	7.8	-	-	13.5	9.6	11.5	7.6	0	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	14	53	0	0	43	1	95	0	0	0
Future Vol, veh/h	0	0	14	53	0	0	43	1	95	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	14	53	0	0	43	1	95	0	0	0

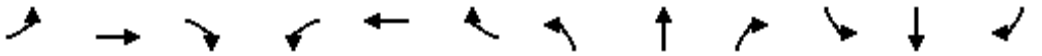
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	14	0	0	113	113	7	161	120	0
Stage 1	-	-	-	-	-	-	7	7	-	106	106	-
Stage 2	-	-	-	-	-	-	106	106	-	55	14	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1604	-	-	864	777	1075	804	770	-
Stage 1	-	-	-	-	-	-	1015	890	-	900	807	-
Stage 2	-	-	-	-	-	-	900	807	-	957	884	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1604	-	-	-	751	1075	714	745	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	751	-	714	745	-
Stage 1	-	-	-	-	-	-	1015	890	-	900	780	-
Stage 2	-	-	-	-	-	-	870	780	-	871	884	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1604	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.033	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

08/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	653	136	174	751	142	139	379	158	152	423	187
Future Volume (veh/h)	209	653	136	174	751	142	139	379	158	152	423	187
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		0.99	1.00		0.99	0.99		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	209	653	136	174	751	142	139	379	158	152	423	187
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	683	1377	607	746	1377	607	647	888	393	683	888	393
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1567	3456	3554	1567	3456	3554	1572	3456	3554	1572
Grp Volume(v), veh/h	209	653	136	174	751	142	139	379	158	152	423	187
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1728	1777	1567	1728	1777	1572	1728	1777	1572
Q Serve(g_s), s	5.3	22.1	9.3	4.4	26.3	9.8	4.4	14.3	13.4	4.8	16.2	16.2
Cycle Q Clear(g_c), s	5.3	22.1	9.3	4.4	26.3	9.8	4.4	14.3	13.4	4.8	16.2	16.2
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	683	1377	607	746	1377	607	647	888	393	683	888	393
V/C Ratio(X)	0.31	0.47	0.22	0.23	0.55	0.23	0.21	0.43	0.40	0.22	0.48	0.48
Avail Cap(c_a), veh/h	683	1377	607	746	1377	607	647	888	393	683	888	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	25.5	36.8	32.9	24.4	38.1	33.0	36.8	50.4	50.0	36.7	51.1	51.1
Incr Delay (d2), s/veh	1.2	1.2	0.9	0.7	1.6	0.9	0.8	1.5	3.0	0.8	1.8	4.1
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	2.3	10.0	3.8	1.9	11.9	4.0	2.0	6.6	5.7	2.2	7.5	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	37.9	33.7	25.2	39.6	33.9	37.6	51.9	53.1	37.5	52.9	55.2
LnGrp LOS	C	D	C	C	D	C	D	D	D	D	D	E
Approach Vol, veh/h		998			1067			676			762	
Approach Delay, s/veh		35.0			36.5			49.2			50.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	7.3	28.3	6.8	16.3	6.4	24.1	6.4	18.2
Green Ext Time (p_c), s	0.2	6.6	0.2	1.9	0.2	5.7	0.1	2.2

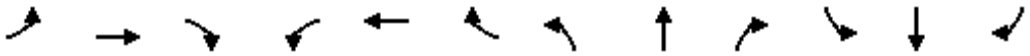
Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Scenario 3

PM

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

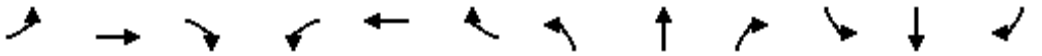
01/20/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	990	180	383	1121	25	208	50	375	45	36	40
Future Volume (veh/h)	53	990	180	383	1121	25	208	50	375	45	36	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	990	180	383	1121	25	208	50	375	45	36	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	2121	945	357	2454	1094	299	427	362	244	185	205
Arrive On Green	0.60	0.60	0.60	0.06	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	491	3554	1584	1781	3554	1584	1323	1870	1585	962	809	899
Grp Volume(v), veh/h	53	990	180	383	1121	25	208	50	375	45	0	76
Grp Sat Flow(s),veh/h/ln	491	1777	1584	1781	1777	1584	1323	1870	1585	962	0	1709
Q Serve(g_s), s	8.8	24.9	8.3	9.0	22.8	0.8	24.1	3.4	36.5	6.2	0.0	5.7
Cycle Q Clear(g_c), s	16.6	24.9	8.3	9.0	22.8	0.8	29.9	3.4	36.5	9.6	0.0	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	314	2121	945	357	2454	1094	299	427	362	244	0	390
V/C Ratio(X)	0.17	0.47	0.19	1.07	0.46	0.02	0.69	0.12	1.04	0.18	0.00	0.19
Avail Cap(c_a), veh/h	314	2121	945	357	2454	1094	299	427	362	244	0	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	18.0	14.7	30.4	11.2	7.8	61.9	49.0	61.8	52.8	0.0	49.9
Incr Delay (d2), s/veh	1.2	0.7	0.4	68.6	0.6	0.0	5.8	0.0	57.3	0.1	0.0	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	1.1	10.5	3.2	17.2	9.1	0.3	8.6	1.6	20.5	1.5	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	18.8	15.1	99.0	11.8	7.8	67.7	49.0	119.0	52.9	0.0	50.0
LnGrp LOS	B	B	B	F	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1223			1529			633			121	
Approach Delay, s/veh		18.3			33.6			96.6			51.1	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		117.0		43.0	15.0	102.0		43.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		110.5		36.5	9.0	95.5		36.5				
Max Q Clear Time (g_c+I1), s		24.8		38.5	11.0	26.9		11.6				
Green Ext Time (p_c), s		11.8		0.0	0.0	11.8		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	957	146	161	1182	135	91	38	175	91	17	129
Future Volume (veh/h)	140	957	146	161	1182	135	91	38	175	91	17	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	140	957	146	161	1182	135	91	38	175	91	17	129
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	337	2385	1063	410	2398	1069	208	250	211	187	250	211
Arrive On Green	0.04	0.68	0.68	0.04	0.68	0.68	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1767	3526	1571	1767	3526	1571	1228	1856	1566	1156	1856	1566
Grp Volume(v), veh/h	140	957	146	161	1182	135	91	38	175	91	17	129
Grp Sat Flow(s),veh/h/ln	1767	1763	1571	1767	1763	1571	1228	1856	1566	1156	1856	1566
Q Serve(g_s), s	3.4	16.6	4.6	3.9	22.2	4.1	9.6	2.5	15.0	10.4	1.1	10.7
Cycle Q Clear(g_c), s	3.4	16.6	4.6	3.9	22.2	4.1	10.7	2.5	15.0	12.9	1.1	10.7
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	337	2385	1063	410	2398	1069	208	250	211	187	250	211
V/C Ratio(X)	0.42	0.40	0.14	0.39	0.49	0.13	0.44	0.15	0.83	0.49	0.07	0.61
Avail Cap(c_a), veh/h	370	2385	1063	437	2398	1069	391	526	444	359	526	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	8.6	9.9	7.9	7.4	10.6	7.7	56.6	52.5	57.9	58.2	51.9	56.1
Incr Delay (d2), s/veh	0.8	0.5	0.3	0.6	0.7	0.2	1.4	0.3	8.0	1.9	0.1	2.8
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	1.3	6.4	1.6	1.4	8.5	1.4	3.1	1.2	6.4	3.1	0.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	10.4	8.2	8.0	11.3	7.9	58.0	52.8	66.0	60.1	52.0	58.9
LnGrp LOS	A	B	A	A	B	A	E	D	E	E	D	E
Approach Vol, veh/h		1243			1478			304			237	
Approach Delay, s/veh		10.0			10.6			61.9			58.9	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	100.5		24.6	12.9	100.0		24.6				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	8.0	93.0		39.0	8.0	93.0		39.0				
Max Q Clear Time (g_c+I1), s	5.4	24.2		17.0	5.9	18.6		14.9				
Green Ext Time (p_c), s	0.1	13.5		1.1	0.1	9.8		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	35	1718	118	197	1563	165	212
Future Volume (vph)	35	1718	118	197	1563	165	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1736	4988	1518	1736	4988	1736	1553
Flt Permitted	0.13	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	240	4988	1518	212	4988	1736	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	1718	118	197	1563	165	212
RTOR Reduction (vph)	0	0	45	0	0	0	177
Lane Group Flow (vph)	35	1718	73	197	1563	165	35
Confl. Peds. (#/hr)			2	2		2	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	1	6		5	2	4	
Permitted Phases	6		6	2			4
Actuated Green, G (s)	32.3	30.4	30.4	40.5	34.5	11.2	11.2
Effective Green, g (s)	32.3	30.4	30.4	40.5	34.5	11.2	11.2
Actuated g/C Ratio	0.48	0.45	0.45	0.60	0.51	0.17	0.17
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	156	2243	682	262	2545	287	257
v/s Ratio Prot	0.01	0.34		c0.07	0.31	c0.10	
v/s Ratio Perm	0.10		0.05	c0.38			0.02
v/c Ratio	0.22	0.77	0.11	0.75	0.61	0.57	0.14
Uniform Delay, d1	9.6	15.6	10.8	10.2	11.8	26.0	24.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	2.6	0.3	11.5	1.1	2.8	0.2
Delay (s)	10.3	18.2	11.1	21.7	12.9	28.8	24.3
Level of Service	B	B	B	C	B	C	C
Approach Delay (s)		17.6			13.9	26.3	
Approach LOS		B			B	C	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	67.6	Sum of lost time (s)	27.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	9	1420	8	1571	6	4	17
Future Vol, veh/h	9	1420	8	1571	6	4	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	230	-	230	-	-	0	180
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	9	1420	8	1571	6	4	17

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	1577	0	1420	-	0	2318	789
Stage 1	-	-	-	-	-	1590	-
Stage 2	-	-	-	-	-	728	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	409	-	176	-	-	31	331
Stage 1	-	-	-	-	-	151	-
Stage 2	-	-	-	-	-	436	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	409	-	176	-	-	29	331
Mov Cap-2 Maneuver	-	-	-	-	-	29	-
Stage 1	-	-	-	-	-	148	-
Stage 2	-	-	-	-	-	416	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0.1	41.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	409	-	176	-	-	29	331
HCM Lane V/C Ratio	0.022	-	0.045	-	-	0.138	0.051
HCM Control Delay (s)	14	-	26.4	-	-	148.1	16.5
HCM Lane LOS	B	-	D	-	-	F	C
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	0.4	0.2

Intersection	
Int Delay, s/veh	10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	0	181	39	0	27	133	277	37	26	282	117
Future Vol, veh/h	138	0	181	39	0	27	133	277	37	26	282	117
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	138	0	181	39	0	27	133	277	37	26	282	117

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	968	973	341	1045	1013	296	399	0	0	314	0	0
Stage 1	393	393	-	562	562	-	-	-	-	-	-	-
Stage 2	575	580	-	483	451	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	232	251	699	206	238	741	1154	-	-	1241	-	-
Stage 1	630	604	-	510	508	-	-	-	-	-	-	-
Stage 2	502	499	-	563	569	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	200	216	699	136	205	741	1154	-	-	1241	-	-
Mov Cap-2 Maneuver	200	216	-	136	205	-	-	-	-	-	-	-
Stage 1	558	588	-	451	450	-	-	-	-	-	-	-
Stage 2	428	442	-	406	554	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.8	30.9	2.5	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	200	699	204	1241	-	-
HCM Lane V/C Ratio	0.115	-	-	0.69	0.259	0.324	0.021	-	-
HCM Control Delay (s)	8.5	-	-	55.5	11.9	30.9	8	0	-
HCM Lane LOS	A	-	-	F	B	D	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	4.3	1	1.3	0.1	-	-

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	0	0	59	144	0	0	75	2	216	0	0	0
Future Vol, veh/h	0	0	59	144	0	0	75	2	216	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	59	144	0	0	75	2	216	0	0	0

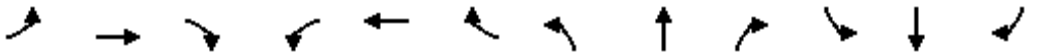
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	59	0	0	318	318	30	427	347	0
Stage 1	-	-	-	-	-	-	30	30	-	288	288	-
Stage 2	-	-	-	-	-	-	288	288	-	139	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1545	-	-	635	598	1044	538	576	-
Stage 1	-	-	-	-	-	-	987	870	-	720	674	-
Stage 2	-	-	-	-	-	-	720	674	-	864	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1545	-	-	-	542	1044	395	522	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	542	-	395	522	-
Stage 1	-	-	-	-	-	-	987	870	-	720	611	-
Stage 2	-	-	-	-	-	-	653	611	-	684	846	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.6		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1545	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.093	-	-	-
HCM Control Delay (s)	-	0	-	-	7.6	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.3	-	-	-

HCM 6th Signalized Intersection Summary
3: Palm Avenue & Stirling Rd

08/09/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	827	150	188	918	230	134	484	203	194	536	230
Future Volume (veh/h)	231	827	150	188	918	230	134	484	203	194	536	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.98	0.99		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	231	827	150	188	918	230	134	484	203	194	536	230
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	579	1377	594	639	1377	594	572	888	388	605	888	388
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3456	3554	1532	3456	3554	1532	3456	3554	1553	3456	3554	1553
Grp Volume(v), veh/h	231	827	150	188	918	230	134	484	203	194	536	230
Grp Sat Flow(s),veh/h/ln	1728	1777	1532	1728	1777	1532	1728	1777	1553	1728	1777	1553
Q Serve(g_s), s	5.9	29.7	10.6	4.8	34.1	17.3	4.2	18.9	18.0	6.2	21.3	20.9
Cycle Q Clear(g_c), s	5.9	29.7	10.6	4.8	34.1	17.3	4.2	18.9	18.0	6.2	21.3	20.9
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	579	1377	594	639	1377	594	572	888	388	605	888	388
V/C Ratio(X)	0.40	0.60	0.25	0.29	0.67	0.39	0.23	0.54	0.52	0.32	0.60	0.59
Avail Cap(c_a), veh/h	579	1377	594	639	1377	594	572	888	388	605	888	388
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	27.9	39.1	33.3	26.1	40.5	35.3	37.4	52.1	51.8	37.8	53.0	52.8
Incr Delay (d2), s/veh	2.0	1.9	1.0	1.2	2.6	1.9	1.0	2.4	5.0	1.4	3.0	6.5
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	2.7	13.5	4.2	2.1	15.5	6.9	1.9	8.8	7.6	2.8	10.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	41.1	34.3	27.3	43.0	37.2	38.4	54.5	56.7	39.2	56.0	59.3
LnGrp LOS	C	D	C	C	D	D	D	D	E	D	E	E
Approach Vol, veh/h		1208			1336			821			960	
Approach Delay, s/veh		38.1			39.8			52.4			53.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.0	22.0	47.0	22.0	69.0	22.0	47.0
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	15.0	62.0	15.0	40.0	15.0	62.0	15.0	40.0
Max Q Clear Time (g_c+I1), s	7.9	36.1	8.2	20.9	6.8	31.7	6.2	23.3
Green Ext Time (p_c), s	0.2	8.3	0.2	2.5	0.2	7.3	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Retiming Analysis

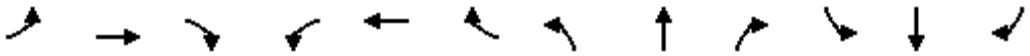
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	44	1037	156	347	913	21	189	20	640	47	20
Future Volume (vph)	44	1037	156	347	913	21	189	20	640	47	20
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		6		5	2			4			8
Permitted Phases	6		6	2		2	4		4	8	
Detector Phase	6	6	6	5	2	2	4	4	4	8	8
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.5	29.5	29.5	12.0	29.5	29.5	39.5	39.5	39.5	37.5	37.5
Total Split (s)	97.0	97.0	97.0	15.0	112.0	112.0	48.0	48.0	48.0	48.0	48.0
Total Split (%)	60.6%	60.6%	60.6%	9.4%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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	6.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	None	Max	Max	None	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Hiatus Rd & Stirling Rd.

HCM 6th Signalized Intersection Summary
3: Hiatus Rd & Stirling Rd.

01/20/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1037	156	347	913	21	189	20	640	47	20	35
Future Volume (veh/h)	44	1037	156	347	913	21	189	20	640	47	20	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	1037	156	347	913	21	189	20	640	47	20	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	363	1978	882	320	2306	1028	355	477	404	236	156	272
Arrive On Green	0.57	0.57	0.57	0.06	0.66	0.66	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	590	3497	1559	1753	3497	1559	1326	1841	1558	762	600	1050
Grp Volume(v), veh/h	44	1037	156	347	913	21	189	20	640	47	0	55
Grp Sat Flow(s),veh/h/ln	590	1749	1559	1753	1749	1559	1326	1841	1558	762	0	1650
Q Serve(g_s), s	5.9	29.3	7.7	9.0	19.3	0.7	20.4	1.3	41.5	7.9	0.0	4.1
Cycle Q Clear(g_c), s	10.2	29.3	7.7	9.0	19.3	0.7	24.5	1.3	41.5	9.2	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	363	1978	882	320	2306	1028	355	477	404	236	0	428
V/C Ratio(X)	0.12	0.52	0.18	1.08	0.40	0.02	0.53	0.04	1.58	0.20	0.00	0.13
Avail Cap(c_a), veh/h	363	1978	882	320	2306	1028	355	477	404	236	0	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	21.5	16.8	33.3	12.6	9.4	54.8	44.4	59.3	47.8	0.0	45.4
Incr Delay (d2), s/veh	0.7	1.0	0.4	74.4	0.5	0.0	0.8	0.0	274.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	12.4	3.0	15.5	7.7	0.3	6.9	0.6	47.2	1.5	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	22.5	17.2	107.6	13.1	9.4	55.6	44.4	333.5	48.0	0.0	45.4
LnGrp LOS	B	C	B	F	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1237			1281			849			102	
Approach Delay, s/veh		21.7			38.6			264.8			46.6	
Approach LOS		C			D			F			D	

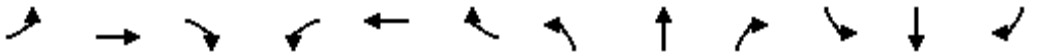
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		112.0		48.0	15.0	97.0		48.0				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		105.5		41.5	9.0	90.5		41.5				
Max Q Clear Time (g_c+I1), s		21.3		43.5	11.0	31.3		11.2				
Green Ext Time (p_c), s		8.5		0.0	0.0	11.9		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			88.2									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	53	990	180	383	1121	25	208	50	375	45	36
Future Volume (vph)	53	990	180	383	1121	25	208	50	375	45	36
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		6		5	2			4			8
Permitted Phases	6		6	2		2	4		4	8	
Detector Phase	6	6	6	5	2	2	4	4	4	8	8
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.5	29.5	29.5	12.0	29.5	29.5	39.5	39.5	39.5	37.5	37.5
Total Split (s)	96.0	96.0	96.0	17.0	113.0	113.0	47.0	47.0	47.0	47.0	47.0
Total Split (%)	60.0%	60.0%	60.0%	10.6%	70.6%	70.6%	29.4%	29.4%	29.4%	29.4%	29.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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	6.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	None	Max	Max	None	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 147.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Hiatus Rd & Stirling Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	990	180	383	1121	25	208	50	375	45	36	40
Future Volume (veh/h)	53	990	180	383	1121	25	208	50	375	45	36	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	990	180	383	1121	25	208	50	375	45	36	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	2003	892	358	2383	1062	327	463	392	264	200	223
Arrive On Green	0.56	0.56	0.56	0.07	0.67	0.67	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	491	3554	1584	1781	3554	1584	1323	1870	1585	962	809	899
Grp Volume(v), veh/h	53	990	180	383	1121	25	208	50	375	45	0	76
Grp Sat Flow(s),veh/h/ln	491	1777	1584	1781	1777	1584	1323	1870	1585	962	0	1709
Q Serve(g_s), s	9.3	26.8	8.9	11.0	24.1	0.8	23.3	3.3	37.0	6.0	0.0	5.6
Cycle Q Clear(g_c), s	16.4	26.8	8.9	11.0	24.1	0.8	28.9	3.3	37.0	9.3	0.0	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	300	2003	892	358	2383	1062	327	463	392	264	0	423
V/C Ratio(X)	0.18	0.49	0.20	1.07	0.47	0.02	0.64	0.11	0.96	0.17	0.00	0.18
Avail Cap(c_a), veh/h	300	2003	892	358	2383	1062	336	477	404	271	0	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	21.0	17.1	29.4	12.6	8.8	58.4	46.2	58.9	49.8	0.0	47.1
Incr Delay (d2), s/veh	1.3	0.9	0.5	67.2	0.7	0.0	2.8	0.0	32.6	0.1	0.0	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	1.2	11.5	3.5	16.0	9.8	0.3	8.1	1.6	18.4	1.5	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	21.8	17.6	96.6	13.3	8.8	61.3	46.2	91.5	49.9	0.0	47.1
LnGrp LOS	C	C	B	F	B	A	E	D	F	D	A	D
Approach Vol, veh/h		1223			1529			633			121	
Approach Delay, s/veh		21.2			34.0			78.0			48.2	
Approach LOS		C			C			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		113.0		45.8	17.0	96.0		45.8				
Change Period (Y+Rc), s		6.5		6.5	6.0	6.5		6.5				
Max Green Setting (Gmax), s		106.5		40.5	11.0	89.5		40.5				
Max Q Clear Time (g_c+I1), s		26.1		39.0	13.0	28.8		11.3				
Green Ext Time (p_c), s		11.7		0.3	0.0	11.7		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			38.0									
HCM 6th LOS			D									

Appendix F:

Parking Analysis

PARKING ACCUMULATION

TIME AM	Existing Parking Accumulation	TIME PM	Existing Parking Accumulation
7:00:00 AM	3	12:30:00 PM	18
7:01:00 AM	3	12:31:00 PM	18
7:02:00 AM	4	12:32:00 PM	18
7:03:00 AM	8	12:33:00 PM	17
7:04:00 AM	8	12:34:00 PM	18
7:05:00 AM	9	12:35:00 PM	17
7:06:00 AM	10	12:36:00 PM	17
7:07:00 AM	10	12:37:00 PM	17
7:08:00 AM	10	12:38:00 PM	17
7:09:00 AM	10	12:39:00 PM	18
7:10:00 AM	10	12:40:00 PM	19
7:11:00 AM	10	12:41:00 PM	20
7:12:00 AM	10	12:42:00 PM	21
7:13:00 AM	10	12:43:00 PM	21
7:14:00 AM	11	12:44:00 PM	21
7:15:00 AM	11	12:45:00 PM	21
7:16:00 AM	11	12:46:00 PM	21
7:17:00 AM	11	12:47:00 PM	20
7:18:00 AM	11	12:48:00 PM	21
7:19:00 AM	11	12:49:00 PM	21
7:20:00 AM	11	12:50:00 PM	22
7:21:00 AM	11	12:51:00 PM	22
7:22:00 AM	13	12:52:00 PM	23
7:23:00 AM	13	12:53:00 PM	24
7:24:00 AM	12	12:54:00 PM	24
7:25:00 AM	12	12:55:00 PM	23
7:26:00 AM	12	12:56:00 PM	23
7:27:00 AM	12	12:57:00 PM	24
7:28:00 AM	13	12:58:00 PM	24
7:29:00 AM	15	12:59:00 PM	25
7:30:00 AM	16	1:00:00 PM	25
7:31:00 AM	16	1:01:00 PM	27
7:32:00 AM	16	1:02:00 PM	27
7:33:00 AM	17	1:03:00 PM	28
7:34:00 AM	18	1:04:00 PM	29
7:35:00 AM	19	1:05:00 PM	30
7:36:00 AM	19	1:06:00 PM	30
7:37:00 AM	19	1:07:00 PM	32
7:38:00 AM	19	1:08:00 PM	32
7:39:00 AM	21	1:09:00 PM	32
7:40:00 AM	21	1:10:00 PM	34
7:41:00 AM	21	1:11:00 PM	36
7:42:00 AM	24	1:12:00 PM	36
7:43:00 AM	25	1:13:00 PM	40

PARKING ACCUMULATION

TIME AM	Existing Parking Accumulation	TIME PM	Existing Parking Accumulation
7:44:00 AM	26	1:14:00 PM	39
7:45:00 AM	27	1:15:00 PM	38
7:46:00 AM	27	1:16:00 PM	41
7:47:00 AM	27	1:17:00 PM	42
7:48:00 AM	28	1:18:00 PM	44
7:49:00 AM	28	1:19:00 PM	45
7:50:00 AM	28	1:20:00 PM	45
7:51:00 AM	29	1:21:00 PM	47
7:52:00 AM	31	1:22:00 PM	49
7:53:00 AM	35	1:23:00 PM	50
7:54:00 AM	36	1:24:00 PM	53
7:55:00 AM	37	1:25:00 PM	57
7:56:00 AM	43	1:26:00 PM	57
7:57:00 AM	46	1:27:00 PM	57
7:58:00 AM	45	1:28:00 PM	57
7:59:00 AM	46	1:29:00 PM	57
8:00:00 AM	46	1:30:00 PM	61
8:01:00 AM	47	1:31:00 PM	64
8:02:00 AM	48	1:32:00 PM	65
8:03:00 AM	48	1:33:00 PM	69
8:04:00 AM	48	1:34:00 PM	69
8:05:00 AM	46	1:35:00 PM	71
8:06:00 AM	46	1:36:00 PM	73
8:07:00 AM	41	1:37:00 PM	74
8:08:00 AM	41	1:38:00 PM	77
8:09:00 AM	41	1:39:00 PM	79
8:10:00 AM	42	1:40:00 PM	83
8:11:00 AM	42	1:41:00 PM	88
8:12:00 AM	41	1:42:00 PM	91
8:13:00 AM	40	1:43:00 PM	95
8:14:00 AM	40	1:44:00 PM	98
8:15:00 AM	39	1:45:00 PM	102
8:16:00 AM	39	1:46:00 PM	103
8:17:00 AM	40	1:47:00 PM	105
8:18:00 AM	40	1:48:00 PM	109
8:19:00 AM	37	1:49:00 PM	110
8:20:00 AM	37	1:50:00 PM	114
8:21:00 AM	38	1:51:00 PM	115
8:22:00 AM	38	1:52:00 PM	116
8:23:00 AM	38	1:53:00 PM	117
8:24:00 AM	38	1:54:00 PM	118
8:25:00 AM	38	1:55:00 PM	116
8:26:00 AM	38	1:56:00 PM	121
8:27:00 AM	38	1:57:00 PM	123

PARKING ACCUMULATION

TIME AM	Existing Parking Accumulation
8:28:00 AM	38
8:29:00 AM	38
8:30:00 AM	38
8:31:00 AM	39
8:32:00 AM	39
8:33:00 AM	39
8:34:00 AM	39
8:35:00 AM	38
8:36:00 AM	38
8:37:00 AM	38
8:38:00 AM	38
8:39:00 AM	37
8:40:00 AM	40
8:41:00 AM	41
8:42:00 AM	41
8:43:00 AM	41
8:44:00 AM	41
8:45:00 AM	41
8:46:00 AM	41
8:47:00 AM	41
8:48:00 AM	41
8:49:00 AM	41
8:50:00 AM	41
8:51:00 AM	41
8:52:00 AM	40
8:53:00 AM	39
8:54:00 AM	39
8:55:00 AM	39
8:56:00 AM	39
8:57:00 AM	39
8:58:00 AM	39
8:59:00 AM	39
9:00:00 AM	39

TIME PM	Existing Parking Accumulation
1:58:00 PM	123
1:59:00 PM	124
2:00:00 PM	125
2:01:00 PM	126
2:02:00 PM	127
2:03:00 PM	128
2:04:00 PM	128
2:05:00 PM	128
2:06:00 PM	128
2:07:00 PM	129
2:08:00 PM	129
2:09:00 PM	129
2:10:00 PM	129
2:11:00 PM	129
2:12:00 PM	136
2:13:00 PM	136
2:14:00 PM	136
2:15:00 PM	134
2:16:00 PM	128
2:17:00 PM	113
2:18:00 PM	104
2:19:00 PM	95
2:20:00 PM	90
2:21:00 PM	84
2:22:00 PM	77
2:23:00 PM	65
2:24:00 PM	42
2:25:00 PM	50
2:26:00 PM	45
2:27:00 PM	39
2:28:00 PM	36
2:29:00 PM	32
2:30:00 PM	28
2:31:00 PM	28
2:32:00 PM	29
2:33:00 PM	26
2:34:00 PM	23
2:35:00 PM	22
2:36:00 PM	23
2:37:00 PM	21
2:38:00 PM	22
2:39:00 PM	22
2:40:00 PM	22
2:41:00 PM	22

PARKING ACCUMULATION

TIME AM	Existing Parking Accumulation	TIME PM	Existing Parking Accumulation
		2:42:00 PM	21
		2:43:00 PM	20
		2:44:00 PM	20
		2:45:00 PM	20
		2:46:00 PM	20
		2:47:00 PM	18
		2:48:00 PM	18
		2:49:00 PM	18
		2:50:00 PM	17
		2:51:00 PM	16
		2:52:00 PM	16
		2:53:00 PM	16
		2:54:00 PM	14
		2:55:00 PM	14
		2:56:00 PM	14
		2:57:00 PM	14
		2:58:00 PM	13
		2:59:00 PM	12
		3:00:00 PM	12
		3:01:00 PM	12
		3:02:00 PM	12
		3:03:00 PM	11
		3:04:00 PM	8
		3:05:00 PM	8
		3:06:00 PM	8
		3:07:00 PM	7
		3:08:00 PM	6
		3:09:00 PM	5
		3:10:00 PM	4
		3:11:00 PM	4
		3:12:00 PM	3
		3:13:00 PM	3
		3:14:00 PM	3
		3:15:00 PM	3
		3:16:00 PM	3
		3:17:00 PM	3
		3:18:00 PM	3
		3:19:00 PM	2
		3:20:00 PM	2
		3:21:00 PM	2
		3:22:00 PM	2
		3:23:00 PM	2
		3:24:00 PM	2
		3:25:00 PM	1

PARKING ACCUMULATION

TIME AM	Existing Parking Accumulation	TIME PM	Existing Parking Accumulation
		3:26:00 PM	1
		3:27:00 PM	1
		3:28:00 PM	1
		3:29:00 PM	1
		3:30:00 PM	1
		3:31:00 PM	1
		3:32:00 PM	1
		3:33:00 PM	1
		3:34:00 PM	1
		3:35:00 PM	1
		3:36:00 PM	1
		3:37:00 PM	0
		3:38:00 PM	0
		3:39:00 PM	0
		3:40:00 PM	0
		3:41:00 PM	0
		3:42:00 PM	0
		3:43:00 PM	0
		3:44:00 PM	0
		3:45:00 PM	0
		3:46:00 PM	0
		3:47:00 PM	0
		3:48:00 PM	0
		3:49:00 PM	0
		3:50:00 PM	0
		3:51:00 PM	0
		3:52:00 PM	0
		3:53:00 PM	0
		3:54:00 PM	0
		3:55:00 PM	0
		3:56:00 PM	0
		3:57:00 PM	0
		3:58:00 PM	0
		3:59:00 PM	0
		4:00:00 PM	0

Appendix G:

Queue Analysis

APPLICATIONS OF QUEUEING ANALYSIS

Providing an adequate and well-defined storage area for drive-thru traffic is particularly critical, especially at fast-food restaurants and drive-thru bank facilities where queues can, and do, become quite long. Waiting vehicles should be stored on private property clear of driveways so that traffic back-up does not interfere with movement on the arterial street. At fast-food restaurants, the menu board should be installed upstream of the service window to permit drive-thru customers to place their orders prior to their arrival at the service window. Preparation of their order can then begin before they reach the service window, thus minimizing their time at the service window. A well-defined storage area for the waiting traffic should be located so that the waiting vehicles do not block or impede the movement of driveway traffic.

Where a single service position is involved, the situation is referred to as a *single-channel problem*. *Multiple-channel problems* arise when two or more service positions are available. Such problems commonly arise with bank tellers (indoor as well as drive-in windows), entrances and exits at large parking lots and garages, at passenger pick-up areas at transit stations and taxi stands, truck terminals or loading/unloading areas, supermarket checkout counters, telephone calls, building entrances, and transit-station turnstiles. The assumptions of Poisson arrivals and negative exponential service time are commonly acceptable and used for both single- and multiple-channel problems. Thurgood [11] found these assumptions to be representative of drive-in facilities.

Customers arriving randomly at a drive-in facility may enter into service immediately or may have to enter the queue until they can be served. Waiting lines occur whenever the immediate demand for service exceeds the current capacity of the facility providing that service.

Basic Notation and Terminology

The following notation is employed throughout this section:

n = number of customers in the drive-in system
M = number of customers in the queue waiting to be served (number of customers in the system minus the number being served)
$P(n)$ = steady-state probability that exactly n customers are in the queueing system
$P(0)$ = probability that zero vehicles are in the queueing system
N = number of parallel service positions
q = mean average arrival rate of vehicles into the system (vehicles/hour)
Q = mean average service rate per service position (vehicles/hour/position)
Avg $(t) = \%Q$ = mean service time expressed in minutes per vehicle
$\rho = \%NQ$ = coefficient of utilization
$E(m)$ = expected (average) number of customers in the system
$E(n)$ = expected (average) number of customers waiting in the queue
$E(t)$ = expected (average) waiting time in system (includes service time)
$E(w)$ = expected (average) waiting time in queue (excludes service time)

The equations employed in the analysis of queueing problems are given in Table 8-10.

Jones, Woods, and Thurgood [4] have developed a graph (Figure 8-6) for determining the probability that there will be no customers in the system—values for $P(0)$. They also developed graphs for determining the average number of waiting customers (Figure 8-7), the average waiting time (Figure 8-8), and average queue length (Figure 8-9). These figures avoid the necessity to perform the time-consuming, although simple, queueing-analysis calculations. See pp. 228–30.

TABLE 8-10
Queueing System Equations

Equation Number	*Variable*	*Equation*
(8-1)	Coefficient of utilization	$\rho = \dfrac{q}{NQ}$
(8-2)	Probability of no customers in the system	$P(0) = \left[\sum_{n=0}^{N-1} \dfrac{\left(\frac{q}{Q}\right)^n}{n!} + \dfrac{\left(\frac{q}{Q}\right)^N}{N!(1-\rho)}\right]^{-1}$
(8-3)	Mean number in the queue	$E(m) = \left[\dfrac{\rho\left(\frac{q}{Q}\right)^N}{N!(1-\rho)^2}\right] P(0)$
(8-4)	Mean number in the system	$E(n) = E(m) + \dfrac{q}{Q}$
(8-5)	Mean wait time in queue (hours)	$E(w) = \dfrac{E(m)}{q}$
(8-6)	Mean time in the system (hours)	$E(t) = E(w) + \dfrac{1}{Q}$ $= E(w) + \text{Avg}\ (t)$
(8-7)	Proportion of customers who wait	$P[E(w) > 0] = \left[\dfrac{\left(\frac{q}{Q}\right)^N}{N!(1-\rho)}\right] P(0)$
(8-8)	Probability of a queue exceeding a length M	$P(x > M) = (\rho^{N+1})P[E(w) > 0]$
(8-9a)	Queue storage required	$M = \left[\dfrac{\ln P(x > M) - \ln E(w) > 0}{\ln \rho}\right] - 1$
(8-9b)*	Queue storage required	$M = \left[\dfrac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$

*Q_M is a statistic which is a function of the utilization rate and the number of service channels (service positions); see Table 8-11. The table of Q_M values and use of Equation (8-9b) greatly simplifies the calculations compared to those using Equations (8-9a).

Use of the equations and the graphs may be illustrated by the following example of a drive-in bank.

Conditions:

Number of drive-in windows, $N = 3$

Demand on the system, $q = 70$

Service capacity per channel, $Q = 28.6$ for an average service time, Avg $(t) = 2.1$ minutes

Solution Using Graphs:

- Coefficient of utilization $= 70/(3)(28.6) = 0.816$
- Probability that there are customers waiting in the system, Figure 8-6: $P(0) = 0.05$
- Expected average number of customers waiting in the queue, Figure 8-7: $E(m)/N = 1.0$; and the average number $E(m) = (3)(1.0) = 3$

location, a 5% probability of back-up onto the adjacent street is judged to be acceptable. Demand on the system for design is expected to be 110 vehicles in a 45-minute period. Average service time was expected to be 2.2 minutes. Is the queue storage adequate?

Such problems can be quickly solved using Equation (8–9b) given in Table 8-10 and repeated below for convenience.

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$$

where:

M = queue length which is exceeded p percent of the time
N = number of service channels (drive-in positions)
Q = service rate per channel (vehicles per hour)
$\rho = \dfrac{\text{demand rate}}{\text{service rate}} = \dfrac{q}{NQ}$ = utilization factor
q = demand rate on the system (vehicles per hour)
Q_M = tabled values of the relationship between queue length, number of channels, and utilization factor (see Table 8.11)

TABLE 8-11
Table of Q_M Values

	$N = 1$	2	3	4	6	8	10
0.0	0.0000	0.0000	0.0000	0.0000			
0.1	.1000	.0182	.0037	.0008	.0000	0.0000	0.0000
.2	.2000	.0666	.0247	.0096	.0015	.0002	.0000
.3	.3000	.1385	.0700	.0370	.0111	.0036	.0011
.4	.4000	.2286	.1411	.0907	.0400	.0185	.0088
.5	.5000	.3333	.2368	.1739	.0991	.0591	.0360
.6	.6000	.4501	.3548	.2870	.1965	.1395	.1013
.7	.7000	.5766	.4923	.4286	.3359	.2706	.2218
.8	.8000	.7111	.6472	.5964	.5178	.4576	.4093
.9	.9000	.8526	.8172	.7878	.7401	.7014	.6687
1.0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

$\rho = \dfrac{q}{NQ} = \dfrac{\text{arrival rate, total}}{(\text{number of channels})(\text{service rate per channel})}$
N = number of channels (service positions)

Solution

Step 1: $Q = \dfrac{60 \text{ min/hr}}{2.2 \text{ min/service}} = 27.3$ services per hour

Step 2: $q = (110 \text{ veh}/45 \text{ min}) \times (60 \text{ min/hr}) = 146.7$ vehicles per hour

Step 3: $\rho = \dfrac{q}{NQ} = \dfrac{146.7}{(6)(27.3)} = 0.8956$

Step 4: $Q_M = 0.7303$ by interpolation between 0.8 and 0.9 for $N = 6$ from the table of Q_M values (see Table 8-11).

Step 5: The acceptable probability of the queue, M, being longer than the storage, 18 spaces in this example, was stated to be 5%. $P(x > M) = 0.05$, and:

$$M = \left[\frac{\ln 0.05 - \ln 0.7303}{\ln 0.8956}\right] - 1 = \left[\frac{-2.996 - (-0.314)}{-0.110}\right] - 1$$

$$= 24.38 - 1 = 23.38, \text{ say } 23 \text{ vehicles.}$$

Appendix H:

Concurrency Analysis

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas[1]

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,700	>1,770	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
4	4,050	5,640	6,800	7,420
6	5,960	8,310	10,220	11,150
8	7,840	10,960	13,620	14,850
10	9,800	13,510	17,040	18,580
12	11,600	16,350	20,930	23,200

Urbanized

Lanes	B	C	D	E
4	4,130	5,640	7,070	7,690
6	6,200	8,450	10,510	11,530
8	8,270	11,270	13,960	15,380
10	10,350	14,110	17,310	19,220

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 1,800	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	1,050	1,620	2,180	2,930
4	Divided	3,270	4,730	5,960	6,780
6	Divided	4,910	7,090	8,950	10,180

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

Appendix I:

95th Percentile Queue Analysis

Scenario 2

AM

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	325	458	376	245	345	623	594	37	330	663	365	113
Average Queue (ft)	35	295	236	55	345	585	529	5	169	623	365	49
95th Queue (ft)	128	432	375	141	345	619	596	19	280	689	367	96
Link Distance (ft)		508	508			560	560			600		
Upstream Blk Time (%)						86	1			67		
Queuing Penalty (veh)						0	0			0		
Storage Bay Dist (ft)	300			220	320			260	340		340	360
Storage Blk Time (%)		6	4	0	92	4	3		0	1	68	
Queuing Penalty (veh)		2	6	0	416	13	1		0	11	142	

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	85
Average Queue (ft)	27
95th Queue (ft)	66
Link Distance (ft)	394
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Stirling Rd. & SW 110 Avenue

Movement	EB	WB	SB	SB
Directions Served	L	U	L	R
Maximum Queue (ft)	71	55	73	68
Average Queue (ft)	11	19	17	16
95th Queue (ft)	42	48	52	46
Link Distance (ft)			296	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	230	230		180
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	265	375	364	255	239	393	366	248	175	111	234	163
Average Queue (ft)	142	215	174	20	65	219	172	35	105	37	98	109
95th Queue (ft)	274	362	289	94	168	363	321	107	164	82	178	175
Link Distance (ft)		407	407			503	503			386		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	240			230	215			230	240		240	140
Storage Blk Time (%)	1	4	2		0	8	0	0			0	9
Queuing Penalty (veh)	6	9	2		0	8	0	0			1	15

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	213	85
Average Queue (ft)	44	33
95th Queue (ft)	138	64
Link Distance (ft)	442	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		120
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: SW 106 Avenue & SW 59 Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	78	74	72	72
Average Queue (ft)	34	30	22	16
95th Queue (ft)	59	60	60	51
Link Distance (ft)	121	112	442	272
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 24: SW 106 Avenue & Griffin Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	304	390	350	273	53	118	276	270	200	114	146
Average Queue (ft)	38	273	230	124	28	67	172	130	66	58	56
95th Queue (ft)	124	394	336	242	60	108	262	224	149	99	103
Link Distance (ft)		476	476	476			515	515	515		240
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	280				170	330				90	
Storage Blk Time (%)		7		1						2	1
Queuing Penalty (veh)		2		1						5	2

Intersection: 29: Nur Ur Islam Driveway & SW 59 Street

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	54	81
Average Queue (ft)	6	36
95th Queue (ft)	28	57
Link Distance (ft)	91	78
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Scenario 2

Mid Day

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	96	372	318	75	296	199	186	20	262	114	132	111
Average Queue (ft)	28	179	120	35	117	110	114	3	174	40	57	40
95th Queue (ft)	64	290	248	69	133	139	133	13	208	69	110	85
Link Distance (ft)		508	508			526	526			600		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			220	320			260	340		340	360
Storage Blk Time (%)		1	0						1			
Queuing Penalty (veh)		1	0						2			

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	84
Average Queue (ft)	30
95th Queue (ft)	66
Link Distance (ft)	393
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Stirling Rd. & SW 110 Avenue

Movement	EB	WB	SB	SB
Directions Served	L	U	L	R
Maximum Queue (ft)	51	71	31	55
Average Queue (ft)	12	17	4	12
95th Queue (ft)	38	47	21	39
Link Distance (ft)			253	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	230	230		180
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	70	262	207	88	174	198	204	53	122	90	104	148
Average Queue (ft)	39	155	112	25	56	113	74	13	42	28	35	76
95th Queue (ft)	66	248	216	58	109	200	165	37	95	69	67	133
Link Distance (ft)		406	406			503	503			386		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	240			230	215			230	240		240	140
Storage Blk Time (%)		1				0						1
Queuing Penalty (veh)		1				0						1

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	66	90
Average Queue (ft)	26	31
95th Queue (ft)	60	58
Link Distance (ft)	264	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		120
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: SW 106 Avenue & SW 59 Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	81	30	55	31
Average Queue (ft)	37	4	9	1
95th Queue (ft)	57	21	34	10
Link Distance (ft)	127	120	124	272
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 24: SW 106 Avenue & Griffin Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	94	287	274	199	53	130	215	178	136	84	88
Average Queue (ft)	36	188	137	66	27	53	136	114	56	46	41
95th Queue (ft)	70	285	235	145	49	96	216	185	116	76	71
Link Distance (ft)		476	476	476			515	515	515		242
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	280				170	330				90	
Storage Blk Time (%)		0		0						1	0
Queuing Penalty (veh)		0		0						1	0

Intersection: 29: Nur Ur Islam Driveway & SW 59 Street

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	67
Average Queue (ft)	36
95th Queue (ft)	54
Link Distance (ft)	78
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Scenario 2

PM

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	133	523	443	245	345	578	541	285	279	67	345	110
Average Queue (ft)	42	269	219	56	297	404	374	13	181	31	152	34
95th Queue (ft)	92	422	358	150	382	623	674	97	286	73	286	76
Link Distance (ft)		508	508			526	526			600		
Upstream Blk Time (%)		0				53	2					
Queuing Penalty (veh)		0				0	0					
Storage Bay Dist (ft)	300			220	320			260	340		340	360
Storage Blk Time (%)		4	3	0	57	1	3				0	
Queuing Penalty (veh)		2	5	0	317	5	1				1	

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	147
Average Queue (ft)	49
95th Queue (ft)	106
Link Distance (ft)	393
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Stirling Rd. & SW 110 Avenue

Movement	EB	WB	SB	SB
Directions Served	L	U	L	R
Maximum Queue (ft)	31	30	30	50
Average Queue (ft)	3	5	1	11
95th Queue (ft)	18	24	10	36
Link Distance (ft)			253	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	230	230		180
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	265	394	274	86	240	339	300	254	134	108	115	162
Average Queue (ft)	87	172	119	21	91	178	150	23	76	36	43	77
95th Queue (ft)	203	291	198	54	181	277	241	99	133	82	75	138
Link Distance (ft)		407	407			503	503			386		
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)	240			230	215			230	240		240	140
Storage Blk Time (%)	0	2	1			3	0	0				2
Queuing Penalty (veh)	0	3	1			5	0	0				3

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	243	109
Average Queue (ft)	24	43
95th Queue (ft)	115	76
Link Distance (ft)	444	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		120
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 20: SW 106 Avenue & SW 59 Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	160	96	183	53
Average Queue (ft)	102	39	56	6
95th Queue (ft)	152	78	127	28
Link Distance (ft)	121	97	444	272
Upstream Blk Time (%)	14	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 24: SW 106 Avenue & Griffin Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	304	505	490	339	195	137	288	298	230	114	160
Average Queue (ft)	70	394	311	194	47	76	165	148	76	72	61
95th Queue (ft)	245	436	430	316	115	111	246	230	153	116	127
Link Distance (ft)		476	476	476			515	515	515		242
Upstream Blk Time (%)		5	0								
Queuing Penalty (veh)		0	0								
Storage Bay Dist (ft)	280				170	330				90	
Storage Blk Time (%)	0	29		5	0					7	1
Queuing Penalty (veh)	0	10		5	0					15	2

Intersection: 29: Nur Ur Islam Driveway & SW 59 Street

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	53	101
Average Queue (ft)	13	61
95th Queue (ft)	41	95
Link Distance (ft)	91	78
Upstream Blk Time (%)		1
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Scenario 3

AM

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	324	523	381	245	345	559	525	19	364	660	365	68
Average Queue (ft)	65	290	218	57	298	368	312	5	164	500	352	28
95th Queue (ft)	236	453	362	146	395	700	607	18	279	883	384	59
Link Distance (ft)		508	508			525	525			621		
Upstream Blk Time (%)		0				29	0			38		
Queuing Penalty (veh)		0				0	0			0		
Storage Bay Dist (ft)	300			220	320			260	340		340	360
Storage Blk Time (%)	0	7	4	0	54	0	0			1	49	
Queuing Penalty (veh)	0	3	6	0	246	0	0			12	102	

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	122
Average Queue (ft)	32
95th Queue (ft)	87
Link Distance (ft)	393
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Stirling Rd. & SW 110 Avenue

Movement	EB	WB	SB	SB
Directions Served	L	U	L	R
Maximum Queue (ft)	71	68	73	72
Average Queue (ft)	15	20	21	17
95th Queue (ft)	41	53	55	48
Link Distance (ft)			268	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	230	230		180
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	264	422	441	255	239	412	449	255	177	288	260	165
Average Queue (ft)	180	269	207	64	78	226	165	29	100	52	98	106
95th Queue (ft)	286	429	378	209	190	366	333	102	174	137	197	186
Link Distance (ft)		407	407			503	503			386		
Upstream Blk Time (%)		3	1									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	240			230	215			230	240		240	140
Storage Blk Time (%)	4	7	4	0		9	1				2	9
Queuing Penalty (veh)	24	17	5	0		8	2				3	15

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	280	85
Average Queue (ft)	53	33
95th Queue (ft)	151	63
Link Distance (ft)	434	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		120
Storage Blk Time (%)	1	
Queuing Penalty (veh)	2	

Intersection: 20: SW 106 Avenue & SW 59 Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	L	LTR
Maximum Queue (ft)	77	55	114	76	32
Average Queue (ft)	20	32	30	24	9
95th Queue (ft)	55	47	64	56	33
Link Distance (ft)	267		112		273
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)		150		150	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 24: SW 106 Avenue & Griffin Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	274	399	321	262	91	141	279	178	208	114	127
Average Queue (ft)	18	282	221	128	32	73	140	112	55	67	63
95th Queue (ft)	148	396	302	232	65	119	263	225	144	112	117
Link Distance (ft)		473	473	473			518	518	518		235
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	280				170	330				90	
Storage Blk Time (%)		7		1						4	3
Queuing Penalty (veh)		2		1						11	4

Intersection: 29: Nur Ur Islam Driveway & SW 59 Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	21	55	80
Average Queue (ft)	1	11	43
95th Queue (ft)	7	39	70
Link Distance (ft)	123	267	105
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Scenario 3

Mid Day

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	92	381	358	94	322	258	203	18	300	67	147	176
Average Queue (ft)	30	177	128	33	128	121	99	1	195	30	79	46
95th Queue (ft)	62	294	250	69	249	207	193	8	289	64	134	112
Link Distance (ft)		508	508			526	526			600		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			220	320			260	340		340	360
Storage Blk Time (%)		0	1		0							
Queuing Penalty (veh)		0	1		1							

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	104
Average Queue (ft)	38
95th Queue (ft)	76
Link Distance (ft)	393
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Stirling Rd. & SW 110 Avenue

Movement	EB	WB	SB	SB
Directions Served	L	U	L	R
Maximum Queue (ft)	31	71	31	53
Average Queue (ft)	17	9	6	18
95th Queue (ft)	42	50	25	45
Link Distance (ft)			253	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	230	230		180
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	264	369	235	94	130	280	237	58	108	94	82	150
Average Queue (ft)	47	176	118	24	61	133	106	15	47	20	38	89
95th Queue (ft)	147	277	214	56	106	244	218	42	99	71	66	148
Link Distance (ft)		407	407			503	503			386		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	240			230	215			230	240		240	140
Storage Blk Time (%)	0	1	0			1	0					3
Queuing Penalty (veh)	0	1	0			1	0					4

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	66	85
Average Queue (ft)	19	36
95th Queue (ft)	51	67
Link Distance (ft)	434	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		120
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: SW 106 Avenue & SW 59 Street

Movement	EB	EB	WB	NB
Directions Served	LT	R	LTR	L
Maximum Queue (ft)	56	74	29	27
Average Queue (ft)	25	32	10	6
95th Queue (ft)	50	54	32	24
Link Distance (ft)	268		112	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		150
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 24: SW 106 Avenue & Griffin Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	55	304	276	183	91	137	258	268	144	115	173
Average Queue (ft)	32	186	134	58	21	58	141	107	48	50	49
95th Queue (ft)	58	285	254	137	55	96	221	197	107	91	107
Link Distance (ft)		476	476	476			515	515	515		242
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	280				170	330				90	
Storage Blk Time (%)		0		0						2	0
Queuing Penalty (veh)		0		0						4	0

Intersection: 29: Nur Ur Islam Driveway & SW 59 Street

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	78
Average Queue (ft)	1	36
95th Queue (ft)	10	56
Link Distance (ft)	268	78
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Scenario 3

PM

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	127	554	484	245	345	578	541	281	344	111	300	90
Average Queue (ft)	37	285	224	66	329	519	463	12	196	45	132	45
95th Queue (ft)	99	449	342	172	405	665	628	95	309	95	225	83
Link Distance (ft)		508	508			526	526			600		
Upstream Blk Time (%)						82	1					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	300			220	320			260	340		340	360
Storage Blk Time (%)		3	4		88	1	5	0	1			
Queuing Penalty (veh)		2	6		492	3	1	0	3			

Intersection: 3: Hiatus Rd & Stirling Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	159
Average Queue (ft)	55
95th Queue (ft)	99
Link Distance (ft)	393
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Stirling Rd. & SW 110 Avenue

Movement	EB	WB	SB	SB
Directions Served	L	U	L	R
Maximum Queue (ft)	31	31	72	31
Average Queue (ft)	2	4	23	15
95th Queue (ft)	19	21	61	40
Link Distance (ft)			253	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	230	230		180
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	271	394	322	255	239	375	286	185	157	111	116	163
Average Queue (ft)	90	182	131	39	102	204	159	59	84	30	49	73
95th Queue (ft)	222	292	253	137	206	331	277	91	142	76	89	134
Link Distance (ft)		407	407			503	503			386		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	240			230	215			230	240		240	140
Storage Blk Time (%)		2	1		0	6	1					
Queuing Penalty (veh)		3	2		0	9	1					

Intersection: 17: Stirling Rd. & SW 106 Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	88	98
Average Queue (ft)	18	37
95th Queue (ft)	59	69
Link Distance (ft)	433	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		120
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: SW 106 Avenue & SW 59 Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	L	LTR
Maximum Queue (ft)	187	166	93	50	31
Average Queue (ft)	75	48	40	25	5
95th Queue (ft)	165	91	79	53	24
Link Distance (ft)	268		97		272
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)		150		150	
Storage Blk Time (%)	1	0			
Queuing Penalty (veh)	2	0			

Intersection: 24: SW 106 Avenue & Griffin Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	304	491	477	329	195	196	296	272	186	114	254
Average Queue (ft)	53	390	323	183	47	88	179	157	82	74	80
95th Queue (ft)	194	531	440	311	117	148	282	243	158	122	185
Link Distance (ft)		476	476	476			515	515	515		241
Upstream Blk Time (%)		3	0								0
Queuing Penalty (veh)		0	0								0
Storage Bay Dist (ft)	280				170	330				90	
Storage Blk Time (%)		26		3	0					5	2
Queuing Penalty (veh)		9		4	0					11	3

Intersection: 29: Nur Ur Islam Driveway & SW 59 Street

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	52	93
Average Queue (ft)	7	61
95th Queue (ft)	30	99
Link Distance (ft)	268	78
Upstream Blk Time (%)		2
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Appendix J:

Traffic Operations

Mosque Operations

The daily usage of the Mosque is not concurrent with the daily usage of the school. Muslims are required to pray five times per day as detailed below and most do so in their homes and at work. The Friday congregation prayers is the one which attended by community members in the Mosque.

Fajir: The early morning prayers before the sunrise around 6 am in the morning. Approximately 15 members perform this prayer in the Mosque

Zhur: The Midday prayer at 1.30 pm. Members usually do not attend this prayer as they are at work. Approximately 5 members perform this prayer in the Mosque

Asr: The late afternoon prayer at 5.0 pm. Members usually do not attend this prayer as they are at work. Approximately 5 members perform this prayer in the Mosque

Maghrib: The first evening prayer immediately after the sun sets between 6pm and 8.30 pm depending on the month of the year. Approximately 25 members perform this prayer in the Mosque

Esha: The late evening prayer between 8 pm and 9.30pm depending on the month of the year. Approximately 25 members perform this prayer in the Mosque

Friday: congregation prayer starts at 1.30 pm and ends at 2.15pm. Approximately 300 members perform this prayer in the Mosque.

School Arrival and Dismissal policy

Procedures are provided to ensure efficacy and efficiency as well as safety measures for all students, teachers, and visitors at the Academy. The school should coordinate the implementation of a new traffic operation plan (TOP) aim to assign extra vehicular traffic to the intersection of Southwest 110th Avenue at Southwest 59th Street and then approach the school westbound though Southwest 59th Street. Traffic Operations can be found in **Appendix J**.

Arrival

School arrival for students is between 7:30 a.m. and 8:00 a.m. There is a designated area for Preschool, a different area for Elementary, and another area for Middle and High school. Teachers stand at these diverse areas to welcome students to the campus daily. Teachers who teach first period classes leave at 7:50 to prepare for classes and complete the student attendance reports, while other teachers welcome the latecomers until 8:15 a.m. After 8:15 a.m. students report to the administration office prior to going to class so that they will be marked present and be given late passes to enter their classes.

Dismissal

School dismissal and pick-up time is staggered: 2:45 p.m. for Preschool, 2:55 p.m. for Elementary, and 3:07 p.m. for Middle and High School. The three schools have different designated areas for pick-up. After 3:30 p.m. the students remain with the afterschool teacher on staff until they are picked up, usually by 4:00 p.m. There is no after care offered at this time.

Only the authorized parent or guardian may pick-up children after school. Other persons may be designated by the parent through a signed authorization and must show proper ID at the time of pick up. Dated and signed letter of authorization must be on file from the child's parents. Early sign – out requires a parental signature in the administration office and cannot take place after 2:00 p.m.

School	Days	Start	End
Elementary	M-T	8:00 AM	2:55 PM
	F	8:00 AM	11:50PM
Middle	M-T	8:00 AM	3:07 PM
	F	8:00 AM	11:50PM
High School	M-T	8:00 AM	3:07 PM
	F	8:00 AM	11:50PM

Security

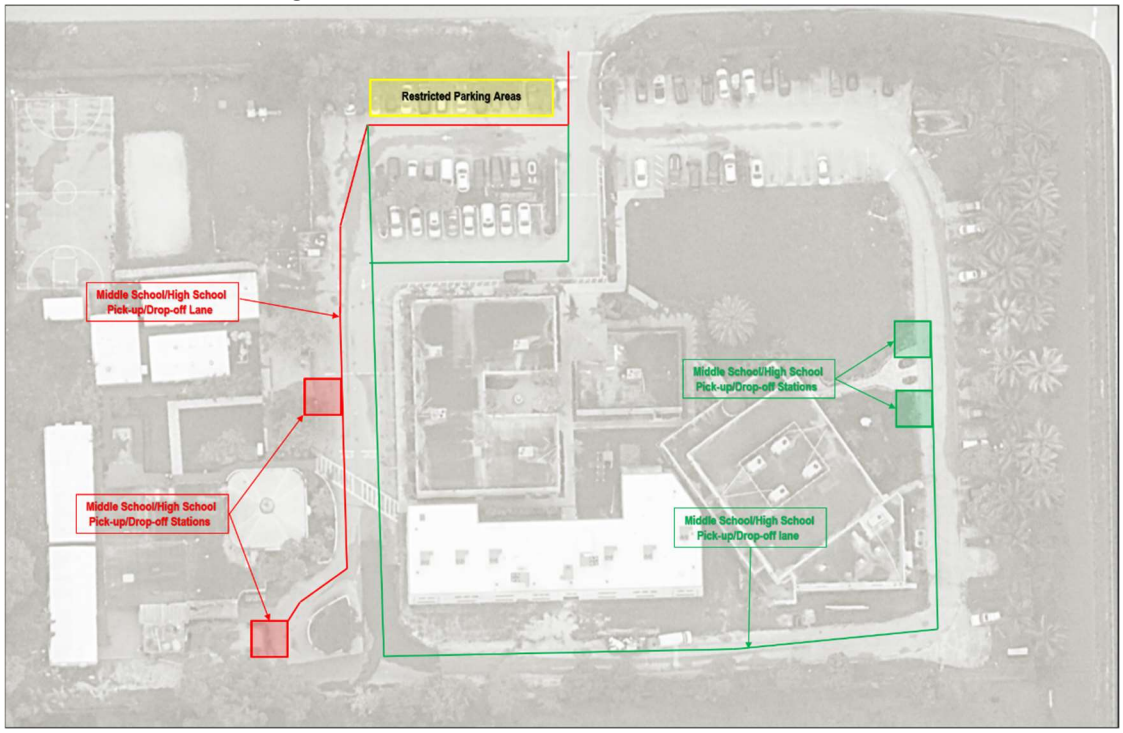
The Academy and Community provides security to everyone visiting through personnel and surveillance.

A security guard is stationed every day at the entrance to the school; he is there one hour prior to the start of school and two hours after dismissal, remaining at this post the entire time the school is in session. The gates are closed during the day and the guard opens the gate for parents, teachers, and guests as they enter and leave the school. Guests must report to the administration office where they receive name tags if they are going to be around the school. All adults can ask for identification if they encounter strangers without passes on the campus. There is 24-hour surveillance through strategically placed cameras.

Traffic Study Observations
Attachment A

General Observations:

- It was observed that Nur-Ul-Islam School provides two pick-up/drop-off lanes, one lane for the pre-k and elementary students and another for the middle school and high school. Each lane provides two pick-up/drop-off stations. The pick-up/drop-off stations for pre-k and elementary students are located at the western side of the school, while the pick-up/drop-off stations for the middle school and high school students are located on the eastern side of the school.



- 10 parking spaces are blocked as part of the school's operational plan in order to reduce traffic conflicts and ensure safety of vehicles and pedestrians.
- School staff were observed to use traffic signs to direct traffic at the Nur-Ul-Islam driveway in order to facilitate the vehicular operations.

School Morning Observations:

- 3 school staff members were observed directing traffic at the Nur-Ul-Islam driveway. In addition, 6 school staff members were observed receiving the students and directing traffic at the pick-up/drop-off stations (3 members at the pre-K/elementary pick-up/drop-off stations and 3 members at the middle school and high school pick-up/drop-off stations).
- It was observed that approximately a 5% of the parents use the available parking spaces to drop-off students during the AM peak period.
- During the AM observations, a maximum of 6 vehicles were observed queuing in the pre-k/elementary lane.
- A maximum of 9 cars were observed queueing in the eastbound approach at the intersection of SW 106th Avenue and 59th Street. However, the maximum observed queue was dissipated within a period of three minutes.

- A maximum of 5 cars were observed queueing in the westbound approach at the intersection of Nur-Ul-Islam driveway and 59th Street. However, the maximum observed queue was dissipated within a two-minute period. This queue was presented due to school personnel gave the right-of-way to vehicles leaving the school.

School Afternoon Observations:

- 3 school staff members were observed directing traffic at the Nur-Ul-Islam. In addition, 6 school staff members were observed helping drop-off students at the pick-up/drop-off stations (3 at the pre-K/elementary pick-up/drop-off stations and 3 at the middle school and high school pick-up/drop-off stations).
- It was observed that approximately a 5% of the parents use the available parking spaces to pick-up students during the PM peak period.
- During the PM observations, a maximum of 12 vehicles were observed queuing in the pre-k/elementary lane. All queues were kept within the Nur-Ul-Islam property boundaries.
- An average of 4 vehicles were observed queuing in the middle school/high school pick-up/drop-off lane during the PM peak period of the school.
- A maximum of 7 cars were observed queueing in the eastbound approach at the intersection of SW 106th Avenue and 59th Street. However, the maximum observed queue was dissipated within a period of five minutes.
- A maximum of 7 cars were observed queueing in the westbound approach at the intersection of Nur-Ul-Islam driveway and 59th Street. However, the maximum observed queue was dissipated within a two-minute period. This queue was presented due to school personnel gave the right-of-way to vehicles leaving the school. It is important to mention that the queue length never reached 106th Avenue.

Mosque Afternoon Observations:

- A higher demand for parking was observed during this period of time than during the AM and PM peak hours of the school.
- The Nur-Ul-Islam parking lot was able to satisfy the parking demand during this period of time.
- Vehicles were observed using the front (north) parking lot as well as the parking spaces located at the rear (south) of the property.
- Field observations support previous parking accumulation data collection, indicating that the peak period of parking operation demand at the studied Ur-Ul-Islam property is during the afternoon service of the Mosque.

Field observation images are shown next:

School Morning Observations:

Resticted Parking zone

School Staff Directing Traffic

Eastbound Queue at intersection of SW 106th Avenue and 59th Street

Vehicles Entering to Nur-Ul-Islam Facilities.

School Afternoon Observations:

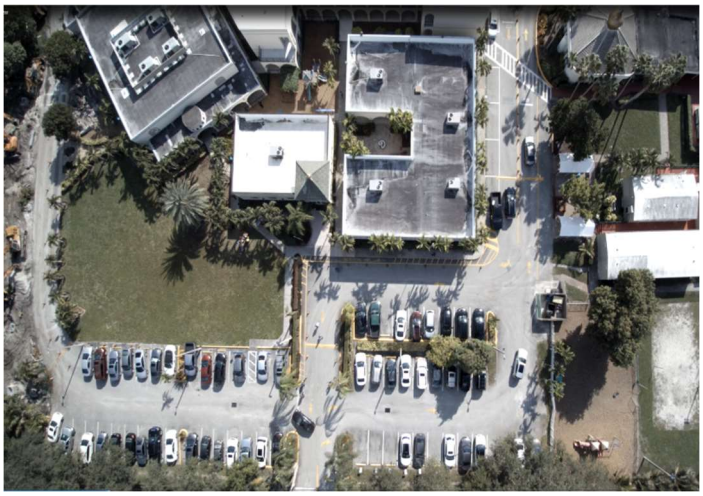
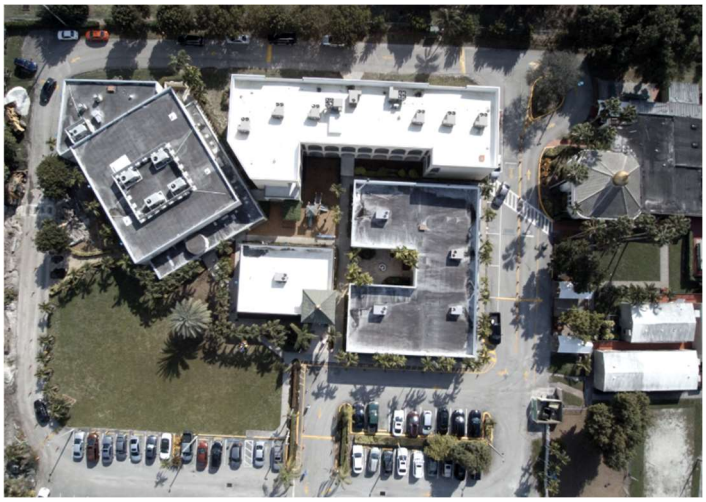
Pre-K/Elementary pick-up/drop-off lane Queue

School Staff Directing Traffic

Pre-K/Elementary pick-up/drop-off lane on the right and middle school/high school pick-up/drop-off lane on the left

3 school staff members were observed directing traffic at the Nur-Ul-Islam Nur-Ul-Islam Facilities.

Mosque Afternoon Observations:

	
A higher demand for parking was observed during the Mosque arrival period of time	Nur-Ul-Islam parking lot was able to satisfy the parking demand during the afternoon service of the Mosque