



Feasibility Study Report

Jeffery Street to Federal Highway FEC Railroad Crossing

City of Boca Raton, Florida

Prepared by:
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April 2023



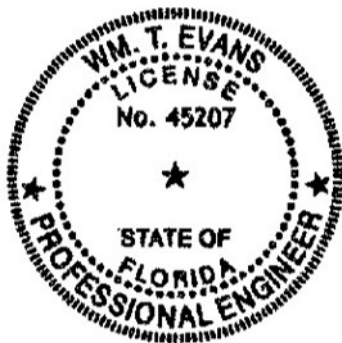
PROFESSIONAL ENGINEER CERTIFICATION

FEASIBILITY STUDY REPORT

Project: Jeffery Street to Federal Highway FEC Railroad Crossing

This feasibility study report contains engineering information related to the extension of Jeffery Street from NW 2nd Avenue to Federal Highway in the City of Boca Raton, Palm Beach County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Wantman Group Inc. (WGI Inc.) and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for this project.



This item has been digitally signed and sealed by [William T. Evans, P.E.](#) 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.

April 13, 2023

Signature of Responsible Engineer/Submitter

William T. Evans, P.E., AICP
Project Manager

Printed Name of Responsible Engineer/Submitter, P.E.

Date of Submittal

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WGI, Inc



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EXECUTIVE SUMMARY

The City of Boca Raton City Council unanimously approved a new Brightline station in December 2019 and passenger service began on December 21, 2022. The station was built on a portion of City-owned property located at 400 NW 2nd Ave., just east of the Boca Raton Public Library, next to N. Dixie Highway. The ongoing operation of the commuter rail station within the City of Boca Raton will provide a significant benefit to city residents and the surrounding communities. New traffic patterns and shifts in current transportation patterns will emerge as a new mode of travel comes online. To address these changes in traffic and transportation patterns, the city has previously identified the need (2020 Comprehensive Plan) for extending Jeffery Street, which is the continuation of Clint Moore Road from east of the I-95 bridge, to US-1/SR-5/Federal Highway.

The roadway extension to Federal Highway improves the roadway grid within the northeast section of the city; creates opportunities for redevelopment; improves pedestrian circulation to access multimodal opportunities along Federal Highway and provides a continuous corridor between SR-7 and Federal Highway, which allows for future transit. The Jeffery Street extension to Federal Highway requires a railroad crossing. As a result, the city reviewed the at-grade railroad crossings within City limits and optimized the roadway network configuration to best serve local and regional mobility needs and traffic circulation.

This report evaluates the existing and future traffic conditions resulting from the extension of Jeffery Street from NW 2nd Avenue to Dixie Highway with the addition of a railroad crossing at the Florida East Coast (FEC) railroad in Boca Raton, Florida. The proposed addition of the at-grade railroad crossing considers the closure of either one or two existing at-grade railroad crossings. The proposed project would close the railroad crossing at NW 28th Street/N Dixie Highway which is located within the city limits of Boca Raton. The closure of a secondary at-grade railroad crossing was analyzed at W Hidden Valley Boulevard and N Dixie Highway, which is also located in Boca Raton's city limits. Four scenarios were evaluated, which included the Existing condition (2021), 2045 No Build condition, 2045 1-1 Build condition, and 2045 2-1 Build condition. The No-Build condition analyzed 2045 traffic volumes with the existing railroad crossings, and without the proposed Jeffery Street railroad crossing. The Build condition analyzes the 2045 traffic conditions with the closure of either one railroad crossing at NW 28th Street, which is the 1-1 Build condition; and the closure of two crossings with the second closure at W Hidden Valley Blvd, which is the 2-1 Build condition.

For the existing condition, traffic counts from November of 2021 were applied along with FDOT Seasonal Factors to develop the traffic model. Traffic counts were supplemented with counts prior to 2021 to account for the construction project at the Clint Moore Road/Jeffery Street bridge over I-95, which was closed for



construction in November 2021. For the 2045 No Build condition an annual background growth of 1 percent was applied along with the projected site trips from 18-hole golf course at the Ocean Breeze site. For the 2045 Build conditions, traffic was reassigned based on the revised roadway network, existing travel patterns, the shortest/easiest path of travel, land use in the area, and engineering judgement.

It is recommended that four lanes are provided along Jeffery Street between NW 2nd Avenue and US-1. In addition to the necessary gates, signage, striping, and lighting improvements needed at the Jeffery Street railroad crossing. Traffic mitigations are recommended at three consecutive intersections on Jeffery Street, which are, NW 2nd Ave, N Dixie Hwy, and N Federal Hwy to offset the increased traffic associated with the new extension of Jeffery Street as shown in **Figure 1**.

The intersection of Jeffery St at NW 2nd Ave requires additional turn lanes to meet the required Level of Service D standard to operate acceptably. The eastbound dual left turn lanes require two receiving lanes headed northbound on NW 2nd Avenue, and the northbound through lanes take advantage of the condition. The two northbound receiving lanes continue for a short distance and merge into the existing lane on NW 2nd Avenue. The project will comply with the Boca Raton Comprehensive plan that restricts the number of travel lanes to two (2) lanes on NW 2nd Avenue between Yamato Road and the northern city limit.

The intersection of Jeffery Street at Dixie Highway will require signalization that is coordinated with the railroad crossing. The US-1 intersection will require signal modifications and/or replacement.



Figure 1: Conceptual Schematics Showing the Existing and Proposed Lane Configurations

Figure 2 shows the Jeffery Street typical section between NW 2nd Avenue and Dixie Highway. The section between Dixie Highway and US 1 will not have a median due to right of way constraints and the sidewalk along the eastside will be eight feet wide.

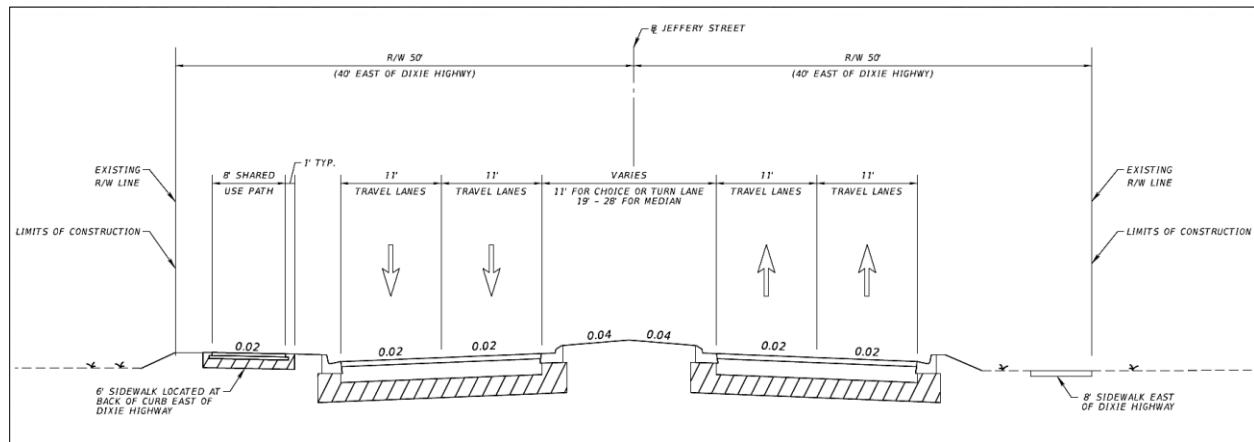


Figure 2: Jeffery Street Proposed Typical Section from NW 2nd Ave to Dixie Highway

A crash analysis was conducted for the study area which shows crashes are most frequent along Yamato Road. The addition of a new railroad crossing at Jeffery Street is projected to reduce daily traffic on Yamato Road by approximately 10% which will help decrease congestion which can reduce the occurrence of crashes.

There are many benefits associated with replacing the existing railroad crossing on NW 28th Street with the proposed crossing on Jeffery Street, including: serving a substantially greater number of drivers, providing better east-west network connectivity, redistribution of approximately 10% of traffic on Yamato Road, and providing a more easily accessible and convenient FEC railway crossing for both Dixie Highway and US 1. It is recommended that only one railroad crossing is eliminated, which is at NW 28th Street.

Eliminating the second FEC railway crossing at West Hidden Valley Boulevard will have negative impacts on traffic in the area, including:

- Causing the intersection of NW 2nd Avenue and Jeffery Street to operate at an unacceptable condition even with improvements,
- Add substantial traffic on local roads at the Lindell Boulevard crossing in Delray Beach,
- Add traffic onto NW 2nd Avenue, which is already operating at capacity, and
- Reduce access for local residents to commercial centers east of the railway.

It is recommended that the Jeffery Street railroad crossing is implemented with the recommended traffic mitigations and the closure of only one existing railway crossing at NW 28th Street.



1. PROJECT SUMMARY

Introduction

This report outlines the feasibility and planning analysis related to the proposed project to extend Jeffery Street approximately 1200 feet, from NW 2nd Avenue to Dixie Highway; and to widen the existing Jeffery Street from Dixie Highway to US 1, which is approximately 1000 feet long. The analysis includes the addition of a new Florida East Coast (FEC) railroad crossing at Jeffery Street. This project is located in the City of Boca Raton (City), Florida. Jeffery Street is also known as Clint Moore Road west of NW 2nd Avenue.

The FEC Railway and Florida Department of Transportation (FDOT) require at least one and up to two existing railroad crossings to be closed when a new railroad crossing is opened. Included in the evaluation is the closure analysis for the FEC railroad crossing at NW 28th Street and N Dixie Highway, which is the scenario 1-1 Build condition; and the closure of two crossings with the second closure at W Hidden Valley Blvd, which is the scenario 2-1 Build condition.

The analysis looks at the proposed changes to the street network with regards to mobility and safety. A comparison of the impacts on traffic in the area was conducted regarding closing either one or two existing railroad crossings along with the addition of a new railroad crossing at Jeffery Street. An overview graphic of the FDOT Rail opening-closure program is in **Appendix A**.

Study Area

The study area shown in **Figure 3** includes intersections from NW 76th Street (W Hidden Valley Boulevard) to the north and NW 20th Street to the south. The study area extends west to Congress Avenue, and eastward to North Federal Highway. The proposed extension of Jeffery Street and new FEC railroad crossing is shown in green. The existing railroad crossings on NW 28th Street and W Hidden Valley Boulevard which were evaluated for closure are shown with a red star. The study intersections and roadway links where traffic data was collected are identified in the figure.

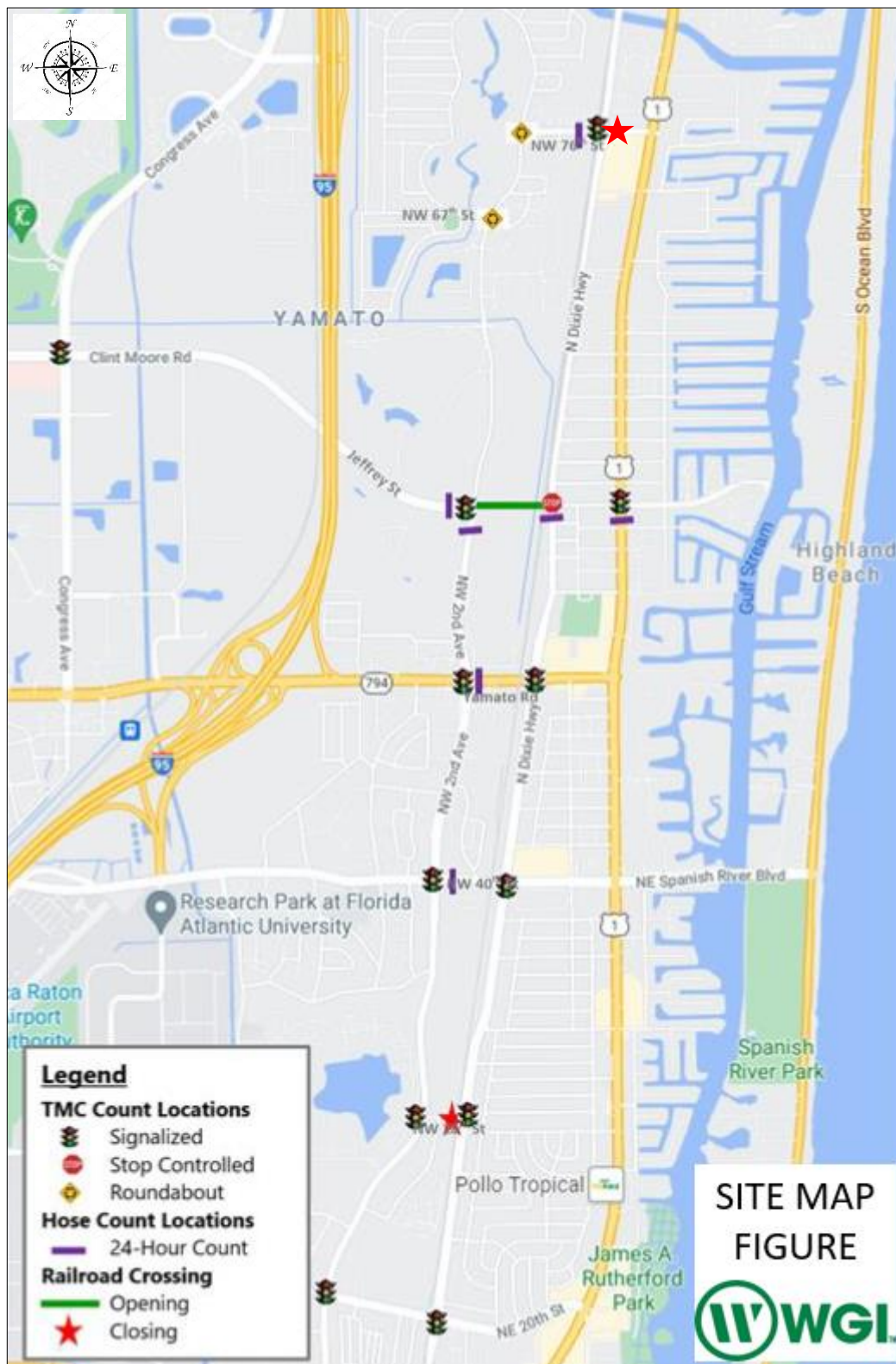


Figure 3: Study Area and Traffic Data Collection Sites



Project Description

The project proposes to extend Jeffery Street between NW 2nd Avenue and Dixie Highway as a new four lane roadway, approximately 1200 feet in length; and widen the existing portion of Jeffery Street from two lanes to four lanes for approximately 1,000 feet in length. A new railroad crossing is required at the FEC Railway, which parallels Dixie Highway. The project will complete a missing link to the 8.5 mile east-west corridor known as Clint Moore Road, providing connectivity from US-1 in eastern Boca Raton to US-441 in western Boca Raton.

Project Purpose

The purpose of this project is to improve local and regional mobility within the northern portion of the City of Boca Raton. Of all the existing seven (7) arterial roadways in Boca Raton that cross I-95, Clint Moore Road/Jeffery Street is the only roadway that does not also cross the FEC railway. Providing a new railroad crossing at Jeffery Street creates a new connection between the east and west sides of Boca Raton that would connect activity from the neighborhoods and commercial activity along US-1 to the land uses west of the FEC railway and I-95. This addition of an at-grade railroad crossing on an arterial that extends west of I-95 between US-441 S and US-1 will help distribute traffic and alleviate traffic congestion on the other east-west arterials in the area.

The northern Boca Raton community utilizes two arterial roadways to travel east and west of I-95, which are Yamato Road and Spanish River Boulevard. The next major arterial that connects east of the FEC railway and west of I-95 is Linton Boulevard, which is 3.11 miles north of Yamato Road and is located in Delray Beach. Adding this new roadway connection north of Yamato Road that links US 1 with areas west of I-95 will help reduce driver frustration and congestion on Yamato Road and improve connectivity. Both NW 28th Street and W Hidden Valley Boulevard do not travel across I-95, and NW 28th Street does not provide a direct connection to US-1 without having to make multiple turns.

Purpose and Need

City of Boca Raton, Comprehensive Plan – Transportation Element

The City of Boca Raton Comprehensive Plan Transportation Element in **Appendix A** identifies several goals, objectives and policies that support the project purpose to provide a safe, efficient, convenient, and economical transportation circulation system.



- **Policy Tran.1.2.3:** Proposed shared use pathways and wide sidewalks provide safe pedestrian and bicycle mobility, and the roadway link aides in connecting to Tri-Rail by linking US 1 Federal Highway with Congress Avenue and the Boca Raton Tri-Rail station via the Jeffery Street extension.
- **Policy Tran.1.2.4:** Increased street connectivity will reduce vehicle trip lengths and create a more walkable system along a minor collector roadway.
- **Policy Tran.1.3.1:** The project proposes a needed roadway that reduces delay and congestion on the existing City roadways.
- **Policy Tran.2.1.5:** The layout of the Jeffery Street extension establishes a new street connection to existing adjacent streets and creates a US-1 to US-441 local roadway connection for improved regional City mobility.
- **Policy Tran.2.2.1:** The project supports the strategy to minimize any degradation to the operation conditions of the Strategic Intermodal System (SIS) roadways. Yamato Road is an SIS Connector to the Boca Raton Tri-Rail station. This project reduces the travel demand and intersection delay on Yamato Road which is a nearby and parallel roadway to Jeffery Street.
- **Policy Tran.2.3.1:** The project reduces the need for a future expansion of Yamato Road which could result in environmental and economic impact to the local community.
- **Policy Tran.2.3.3:** The project optimizes the use of City assets as the Jeffery Street alignment falls within the City of Boca Raton dedicated right of way.
- **Policy Tran.2.4.4:** The project supports the policy to keep NW 2nd Avenue a 2-lane undivided constrained facility, from Yamato Road to the northern City limit, to maintain the residential character by allowing traffic to redistribute to Jeffery Street, Dixie Highway and US 1.
- **Policy Tran.3.1.3:** The project supports the construction of bicycle and pedestrian facilities on the proposed Jeffery Street corridor with a new 8-foot shared-use walkway.
- **Policy Tran.3.2.4:** Crosswalks and upgraded pedestrian signals at NW 2nd Avenue, Dixie Highway and US 1 are included in the project, which will improve pedestrian safety.
- **Policy Tran.5.5.1** Future Boca Raton shuttle systems could use Clint Moore Road/Jeffery Street to connect between the major land uses and residential areas located both east and west of I-95 and the FEC railway, instead of a relying on Yamato Road, a principle arterial, which is less connected to residential neighborhoods.

Transportation Travel Demand

The local project area has two existing roadways that connect east of I-95 and extend far west of I-95. These are Yamato Road, a principle arterial, 0.5 miles south of Jeffery Street; and Linton Boulevard, a minor arterial, located 2.6 miles to the north in the City of Delray Beach. Only Yamato Road extends west of the Florida Turnpike.



The Jeffery Street/Clint Moore Road corridor has a functional classification as a major collector from NW 2nd Avenue to Congress Avenue, and a minor arterial functional classification from Congress Avenue to US 441. With added FEC railway crossing it would have an uninterrupted connection between US-441 and US-1, like Yamato Road.

The United States Census data indicates the City's population grew 1.3% annually from 84,392 (2010) to an estimated 95,787 (2021). FDOT population growth estimates (County by City/Place Population Estimates 4/1/2020) show the City of Boca Raton grew 12.7% from 2010 to 2020 with a recent one-year growth of 0.7% from 2019 to 2020. Palm Beach County grew 11.1% between 2010 and 2020 and 1.3% from 2019 to 2020. With the continued growth and constrained roadway network, roadway improvements that improve mobility with low impact are a priority need.

The existing traffic volumes in the project study area are predicted to grow approximately 27% over twenty-four years from 2021 to 2045, with an average annual growth rate of 1%. The forecasted growth is expected to lead to increased delay, congestion and increased crash rates as roadways become more heavily traveled. Roadway improvements are needed to reduce total vehicle miles traveled, delay and emissions.

Roadway Network Connectivity

The Jeffery Street project creates a new network link between NW 2nd Avenue and US-1 that supports local community mobility and east-west mobility across the City of Boca Raton. The new link reduces a single round trip by two miles, potentially saving 40,000 vehicle miles per day for the projected 20,000 approximate vehicles traveling along the new Jeffery Street.

An FEC railway crossing at Clint Moore Road/Jeffery Street would provide a more convenient connection for substantially more drivers than along NW 28th Street, as there is substantially less daily traffic on NW 28th Street (6,100 AADT) and W Hidden Valley Boulevard (7,300 AADT) compared to Clint Moore Road (33,500 AADT).

Mobility

The Jeffery Street connection improves mobility for pedestrians and bicyclists between the residential area west of the FEC Railroad and the retail businesses along the US-1 corridor. Additional opportunities for the Boca Shuttle and Palm Tran bus service could also utilize the new connection.



2. EXISTING TRAFFIC CONDITIONS

This chapter describes the data collection conducted as part of the traffic study and the existing conditions of the roadway facilities in the study area.

Traffic Counts and FDOT Seasonal Factor

Peak period turning movement traffic counts and 24-hour volume counts were conducted on November 18, 2021. Prior traffic data was also used for specific intersections to reflect typical conditions in the area where the bridge on Clint Moore Road/Jeffery Street over I-95 was closed for construction when the traffic counts were conducted on November 18, 2021. Prior peak period turning movement traffic data was used for the following intersections: Yamato Road and NW 2nd Ave (12/12/2019), Clint Moore Road and Congress Avenue (04/25/2018), Yamato Road and Congress Avenue (05/01/2018), and Jeffery Street and NW 2nd Avenue (08/31/2016).

The Florida Department of Transportation (FDOT) seasonal factors were applied to estimate the 85th percentile peak traffic conditions. The seasonal factors applied are based on when the traffic counts were conducted. The seasonal factor normalizes traffic for the specific time of the year and applies a factor to reduce impacts of increased or decreased traffic based on seasons.

Existing Peak Hour Traffic and Lane Characteristics

Weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection turning movement counts were conducted at the fifteen (15) study intersections. In addition, 24-hour traffic counts were conducted at seven (7) locations, as shown in **Figure 3** above. **Figure 4** has intersection ID numbers that corresponds to the traffic volume figures. The peak hour factor was calculated and applied for each intersection. Existing lane configurations and signal controls were obtained through field observations and traffic signal timing sheets. During data collection, queue lengths, traffic circulation, and traffic issues were observed. Existing peak hour traffic volumes are presented in **Figure 5** with the existing lane configurations and traffic control devices (stops signs or traffic signals).

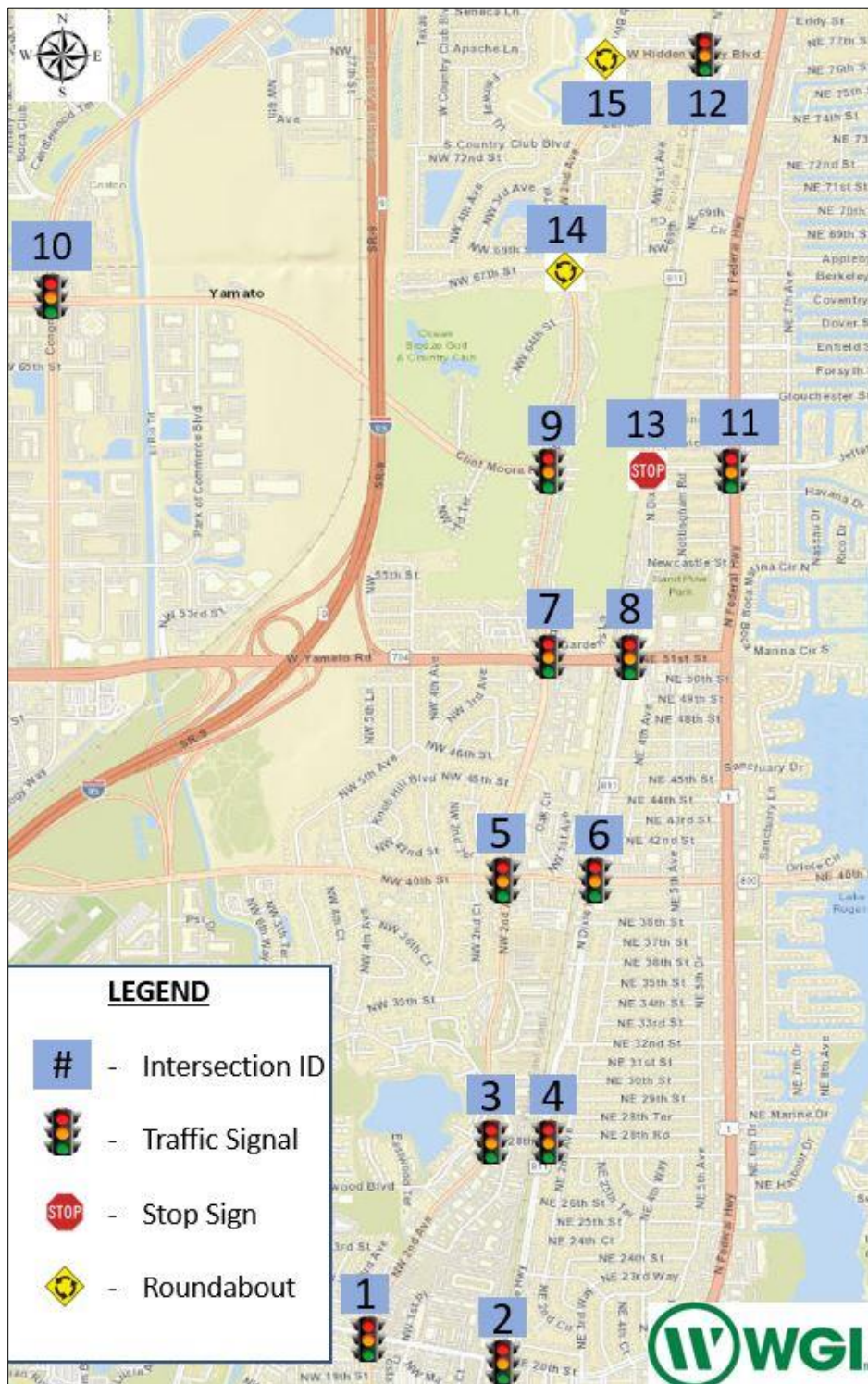


Figure 4: Traffic Study Intersections ID Map

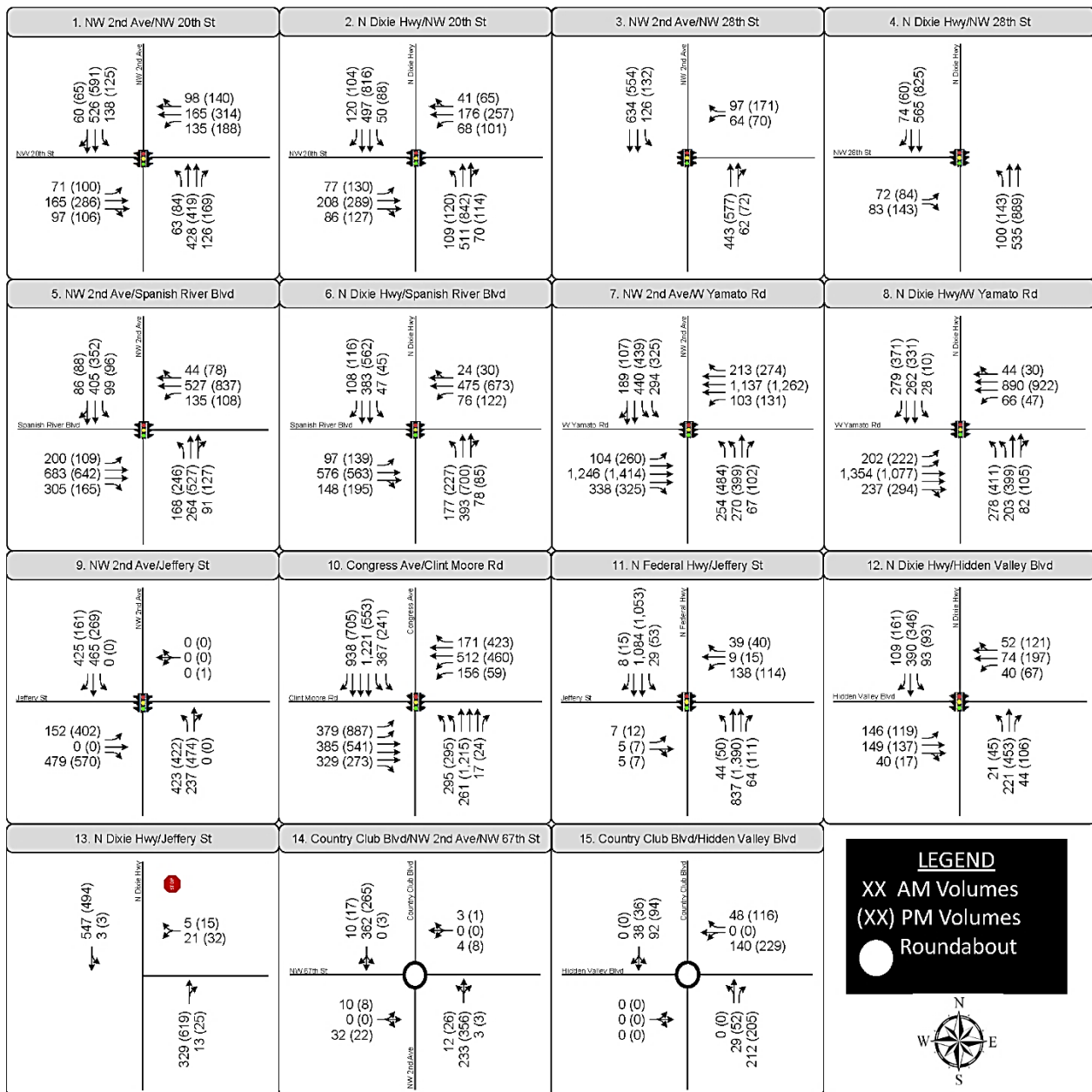


Figure 5: 2021 Existing Peak Hour Volumes 2021



Crash Analysis

Crashes in the study area have been examined from 2016-2020. Crash data was extracted from Signal Four Analytics. A summary of different safety performance metrics (i.e., crashes distributed by intersection and crash type) can be found in **Table 1**. The intersection with the most crashes was Yamato Road and NW 2nd Avenue at 25 crashes per year. The most common crash type was rear end, accounting for 291 of the 651 crashes in the study area over the five-year period.

The crash rate was calculated per million vehicles entering the intersection, which is a recommended practice for normalizing crash data according to the Federal Highways Administration (FHWA). Through both methods of analyzing crash frequency (crashes per year and crashes per million entering vehicles), the intersections of Yamato Rd at NW 2nd Ave and at N Dixie Hwy, and the intersection of Clint More Rd and Congress Ave have the three (3) highest crash rates in the study area. Full details on crashes by intersection and crash type can be found in **Table 1**.

Visual representation of the crashes over a 5-year period in the study area (crash point overview) can also be found in **Figure 6**. This figure shows that a substantial number of crashes are occurring along Yamato Rd, Spanish River Boulevard, 20th Street, Dixie Hwy, and US-1.

The addition of a railroad crossing on Jeffery Street and connection to US 1 will help reduce the amount of traffic on Yamato Road and potentially help reduce congestion and improve safety. Regional traffic going to/from I-95 will continue to use Yamato Road with an additional route via Jeffery Street and Congress Avenue. Local city traffic will also redistribute to the proposed new Jeffery Street connector.



Intersection	Crashes per		Grand Total	Crashes/ Year	Animal	Backed Into	Bicycle	Head On	Left Entering	Left Leaving	Left Rear	Opposing Sideswipe	Parked Vehicle	Off Road	Other Pedestrian	Rear End	Right Angle	Right/ Left	Right/ Through	Rollover	Same Direction Sideswipe	Single Vehicle	Unknown	
	Daily Trips	Million																						
NW 2nd Ave & NW 20th St	32444	1.03	61	12.2	N/A	1	N/A	1	7	N/A	1	N/A	N/A	2	6	N/A	21	8	N/A	3	1	6	2	2
NW 20th St & N Dixie Hwy	38289	1.04	73	14.6	1	1	2	N/A	12	N/A	5	N/A	N/A	N/A	4	2	22	3	N/A	3	4	9	2	3
NW 2nd Ave & NW 28th St	19756	0.17	6	1.2	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A	1	N/A	N/A	N/A	1	N/A	N/A	1
NW 28th St & N Dixie Hwy	26889	0.18	9	1.8	N/A	1	1	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	N/A	N/A	1	2	N/A	1
NW 2nd Ave & Spanish River Blvd	42344	0.69	53	10.6	N/A	2	3	N/A	3	N/A	1	N/A	N/A	1	1	N/A	30	2	N/A	N/A	2	7	1	N/A
N Dixie Hwy & Spanish River Blvd	43356	0.92	73	14.6	N/A	1	2	2	12	1	2	N/A	N/A	4	3	N/A	30	2	N/A	1	N/A	11	N/A	2
Yamato Rd & NW 2nd Ave	64600	1.07	126	25.2	N/A	N/A	1	1	12	N/A	2	N/A	N/A	1	6	N/A	58	10	N/A	2	5	23	3	2
Yamato Rd & N Dixie Hwy	52922	1.05	101	20.2	N/A	N/A	N/A	1	1	3	1	2	1	2	1	N/A	50	3	1	1	3	28	1	2
Jeffery St & NW 2nd Ave	28267	0.31	16	3.2	N/A	1	N/A	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	1	1		1	2	1	1
Clint Moore Rd & Congress Ave	104600	0.57	108	21.6	N/A	N/A	1	N/A	3	1	N/A	N/A	N/A	1	5	N/A	61	3	1	2	N/A	24	2	4
N Dixie Hwy & Jeffery St	14911	0.18	5	1.0	N/A	N/A	N/A	N/A	N/A	1	N/A	1	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N Federal Hwy & Jeffery St	35989	0.29	19	3.8	N/A	N/A	N/A	1	2	N/A	1	N/A	N/A	2	2	N/A	7	1	N/A	N/A	3	N/A	N/A	N/A
East Country Club & Hidden Valley Blvd	9244	0.06	1	0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Totals			651	130.2	1	7	10	7	54	6	14	4	2	14	28	2	291	33	3	12	21	112	12	18

Table 1: Crash Analysis Summary

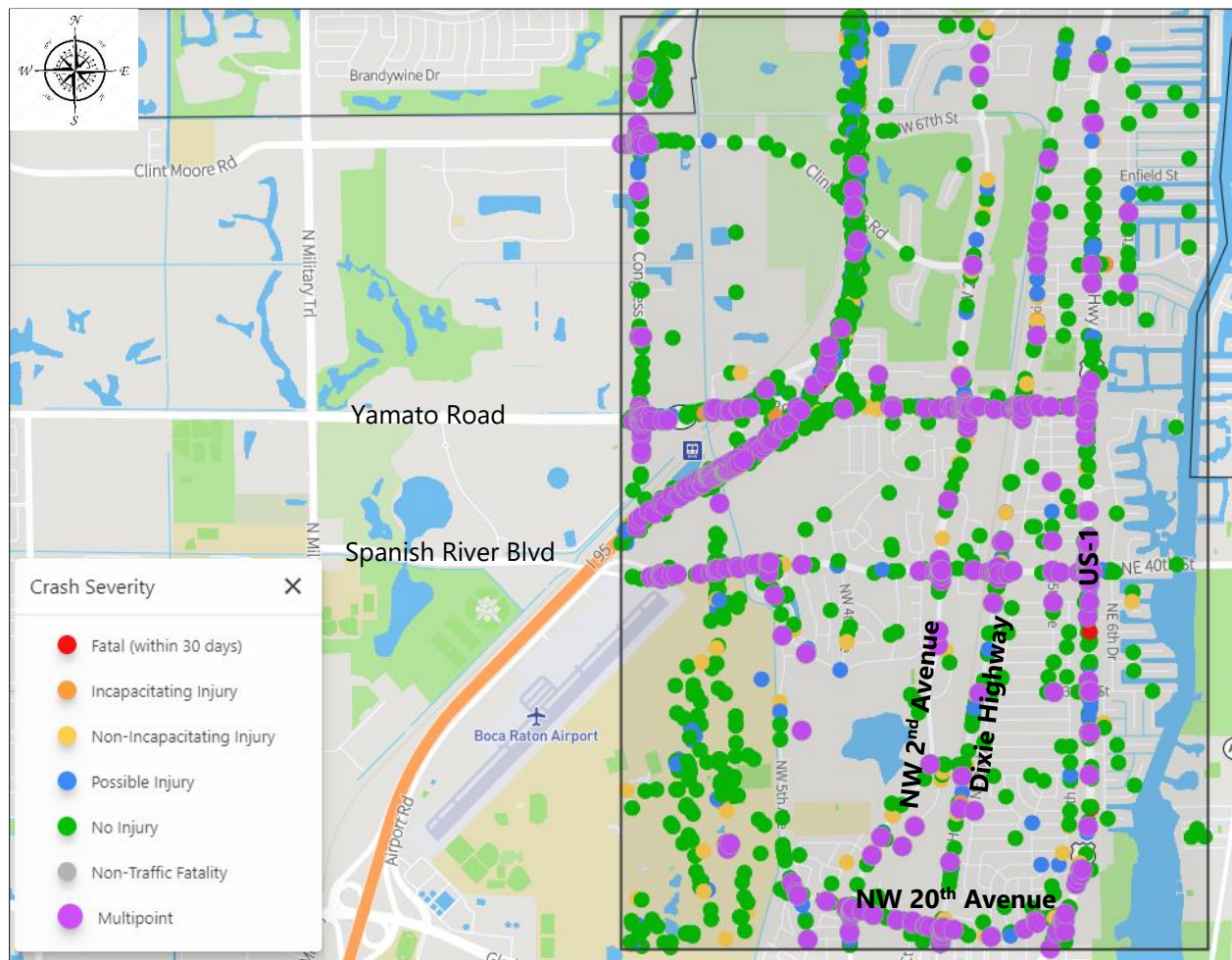


Figure 6: Study Area Crash Locations Over a 5-Year Period (2016-2020)



3. ROADWAY NETWORK AND ALTERNATIVE CORRIDORS

Existing Roadway Network

The existing roadway network in the northern portion of the City of Boca Raton has a limited number of roadways serving east-west travel across the I-95 corridor. The C-15 Canal, other canals, I-95, FEC Railway and Southeast Florida Rail Corridor limit east-west mobility in the north section of the City of Boca Raton.

Only two existing east-west roadways, Yamato Road and Clint Moore Road cross the I-95 corridor. Yamato Road is a major six-lane state road that reaches the far western city boundary and continues east for 8.6 miles connecting to the I-95 interchange, and eventually reaching US-1 / Federal Highway on the east termini, for a total distance of 9.4 miles. Clint Moore Road has a similar western starting point at SR 7 / US 441 and continues east for 7.6 miles crossing over, but not connecting to I-95, and terminating at NW 2nd Avenue, west of the FEC railroad. Clint Moore Road varies from two-lanes to six-lanes as it travels across the city limits serving commercial property near I-95, and residential areas throughout the remaining corridor. Jeffery Street is a two-lane roadway between Dixie Highway and US 1 / Federal Highway, with a four-lane section connecting the multi-family residential area between US 1 and the Intracoastal waterway.

The one-quarter mile (0.25 mile) gap between NW 2nd Avenue and Dixie Highway was previously an active golf course with a city owned roadway right of way reserved for the future extension or connection of Jeffery Street to Clint Moore Road. The right of way is 100 ft wide.

By completing this gap or missing link, the residential areas and businesses east of US 1 would gain needed mobility in this region with a continuous east-west corridor across the city. This new link can improve connectivity of bicycle, pedestrian, and transit routes on a less congested, community focused, collector roadway as compared to Yamato Road which is a major arterial.

Alternate Routes Considered

Three alternative routes were evaluated to complete the roadway corridor (**Figure 7 and Appendix B**).

- Ipswich Street
- Jeffery Street
- Newcastle Street

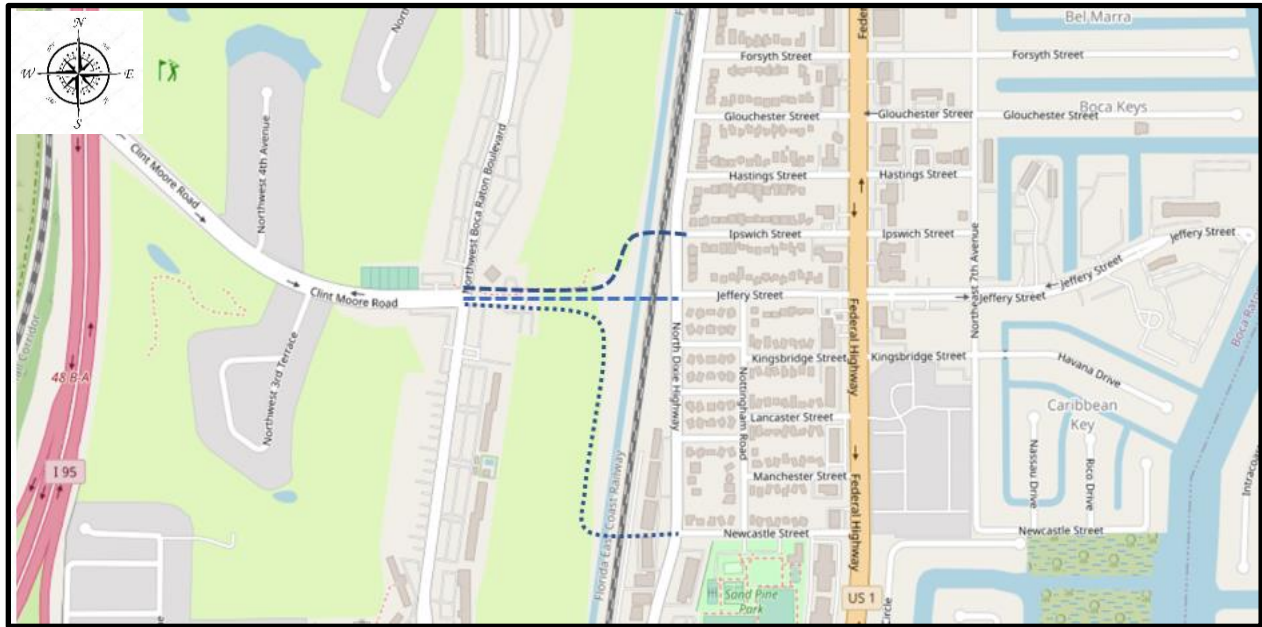


Figure 7: Alternate Routes Considered

Proposed Typical Section

The **typical section** identified for the corridor requires four travel or through lanes based on the traffic analysis and operational turn lane requirements between Dixie Highway and US 1. The typical section in **Figure 8** features four 11 ft travel lanes, wide sidewalk, and/or a shared use pathway where right of way is available, curb and gutter, and a utility buffer. To accommodate these features a typical section width of 100 ft is required and was reduced to 80 ft where right of way is restricted by eliminating the median and modifying the path and sidewalk widths to reduce property impacts.

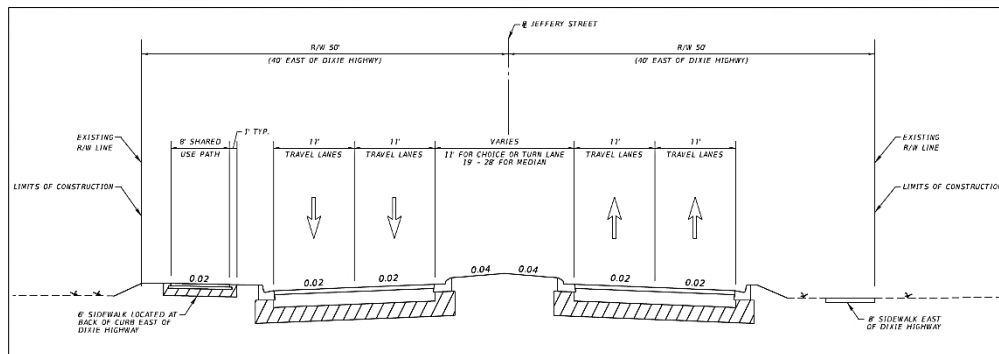


Figure 8: Proposed Typical Section (from NW 2nd Avenue to Dixie Highway)



Alternate Route Evaluation

Ipswich Street has two-lanes within a 50 ft right of way and does not have sidewalks. Twenty-six residential properties, one religious center (God's Place), and two restaurants (Natuzzi Italia and Novello) are located on Ipswich street. The connection at US 1 / Federal Highway is right-in, right-out only due to a median turn lane at this location. An additional 500 feet of alignment is needed west of the railroad.



Figure 9: Ipswich Street

Jeffery Street has two-lanes within an 80 ft right of way and sidewalk along the south side. Twenty-five residential properties, a new convenience/fuel store, small shopping center and a utility owned property are located on Jeffery Street. This roadway aligns directly with the existing right of way alignment, west of the railroad. The connection at US 1 / Federal Highway is a full access signalized intersection.



Figure 10: Jeffery Street

Newcastle Street has two-lanes within a 40-50 ft right of way and sidewalk along the south side. Fourteen residential properties, three businesses and Sand Pine Park are located on Newcastle Street. This roadway is separated from the FEC Railroad by commercial buildings. The connection at US 1 / Federal Highway is a directional median opening. This route requires 1400 feet of new alignment west of the railroad.



Figure 11: Newcastle Street



Alternate Route Comparison Matrix

The three routes, with two additional route variations are illustrated an Alternative Alignment schematic located in **Appendix B**. A planning level review and comparison of the corridors was conducted to identify major factors that affect the route's feasibility. All three routes share similar features that are not included in the comparison such as:

- Same improvements at NW 2nd Avenue intersection.
- Use of all or some of the existing 100 ft wide right of way on the golf course property
- New FEC railroad grade crossing for the roadway over the two main tracks.

Tables 2 identifies the routes' major right of way differences. **Table 3** compares the social, environmental, and engineering factors to identify the best route.

Table 2: Right of Way Comparison Matrix

Route	Existing Street R/W	R/W Acquisition Needs	Potential Relocations R/W and Utility	Environmental	US 1 Connection
Ipswich St.	50 ft	30 ft width on Ipswich 100'x500' R/W on golf course property	13 residential 13 commercial parking spaces	Social impact due to relocations. Approx. 1.2 acres of grassed area required on golf course property. Increased impervious area.	No US 1 median opening. Right-in and Right-out from Ipswich St.
Jeffery St.	80 ft	1 vacant parcel between railroad and Dixie Hwy, corner clips	Potential utility reimbursement	Least amount of grassed area required on golf course property.	Full median opening. Signalized Intersection
Newcastle St.	40 to 50 ft	2 business parcels between railroad and Dixies Hwy. 30 ft width on Newcastle 100'x1400' R/W on golf course property	14 residential 4 parking spaces, 2 commercial buildings	Social impact due to relocations. Approx. 4.2 acres of grassed area required on golf course property. Increased impervious area.	US 1 directional median allows for northbound left-turn. Right-in and Right-out from Newcastle St.

The Ipswich and Newcastle routes have substantial right of way acquisition requirements with social and business effects. Both routes lack full median access at US 1 / Federal Highway which is critical to serve the mobility needs.

The Ipswich railroad crossing would be located 600 feet from the railroad siding switch, and the Newcastle crossing would have commercial parking access located directly adjacent to the crossing which is not compatible with the roadway and train operations. The Jeffery Street crossing is similar to the many typical crossings along Dixie Highway that exist throughout south Florida.



The Jeffery Street impacts are minimal and do not have residential or business relocations. The route is mainly within existing city owned right of way with an existing signalized intersection at US 1 which make Jeffery Street the preferred route for the connection between NW 2nd Avenue, Dixie Highway and US 1.

Table 3: Alternative Route Comparison Matrix

ALTERNATE ROUTE COMPARISON MATRIX			
ELEMENT	Jeffrey Street Alternate Route Center	Ipswich Street Alternate Route North	Newcastle Street Alternate Route South
Satisfies Purpose and Need	Yes	No (full access at US-1 not provided)	No (full access at US-1 not provided)
Consistent with City Comprehensive Plan and Transportation Element	Yes	Yes	Yes
Improves Traffic Operation and Safety	Yes	Yes	Yes
Improves Bicycle Pedestrian Mobility	Yes	Yes	Yes
Enhances Roadway Network	Regional	Local	Local
Median Access Type at US-1	Full Traffic Signal	No median opening Right-in, Right-out	Directional Left-in, Right-in, Right-out
US-1 Access Management Class	No Change	No Change	No Change
Railroad Crossing	1 siding (200' from switch) 2 main tracks	1 siding (600' from switch) 2 main tracks	2 main tracks
Railroad Considerations	Maintains rail siding	Segments one rail siding	No existing rail siding
Utilizes City R/W on Golf Course	Yes	Uses 30-50%	Uses 30-50%
Existing R/W Width (minimum)	80 feet	50 feet	50 feet
Required R/W from Golf Course	none	1.2 Acres	3.2 Acres
Potential Residential Property Impacts	1 vacant parcel	13 parcels	14 parcels
Potential Commercial Property Impacts	1 Parking space corner clips	13 parking spaces	4 parking spaces 2 buildings
Environmental Effects	Minimal	Minimal	Minimal
Utility Impacts	Moderate	Minimal	Minimal
Constructability	Signals New rail crossing Siding track	Signals New rail crossing Siding Track	Signals New rail crossing
Recommended Route	Yes	No	No



4. TRAFFIC FORECAST AND OPERATIONS

This chapter summarizes the Conceptual Traffic and Analysis Report (CTAR) prepared for this project that details the existing and future year 2045 traffic conditions. No Build Conditions are defined as 2045 traffic conditions with the existing traffic network and added traffic from background growth, which includes traffic from the vacant property zoned as an 18-hole golf course. The Build conditions include the traffic reassignment from the construction of the Jeffery Street railroad crossing and either the elimination of one or two existing railroad crossings.

Traffic Analysis Scenarios

The operations of the study intersections were evaluated during the weekday morning (AM) and weekday evening (PM) peak hours and the daily roadway capacity for the following scenarios:

Existing:	Existing volumes obtained from traffic counts collected in November 2021 and prior to the closure of the Clint Moore Rd bridge over I-95 for select intersections that were heavily impacted by this road closure. Seasonal factors were also added to the existing volumes based on when the traffic counts were conducted.
Future No Build:	Existing condition volumes plus traffic from growth through 2045 and generated trips from the former golf course site.
Future 1-1 Build:	The 1-1 Build scenario (1-closure, 1-opening) modifies the No Build 2045 traffic volumes with traffic reassignment from the closure of the railroad crossing at NW 28 th Street and N Dixie Highway, and the new opening of a railroad crossing at Jeffery Street and N Dixie Highway.
Future 2-1 Build:	The 2-1 Build scenario (2-closures, 1-opening) is an adaptation of the 1-1 Build scenario with one additional railroad crossing closure at W Hidden Valley Boulevard.



Traffic Forecast

The only potential development identified in the study area was an 18-hole golf course. Trip generation for the 18-hole golf course was added to reflect the potential for restoration of the former Ocean Breeze golf course located between I-95 and the railroad tracks north of Yamato Road. While the exact plans for the land were still undetermined at the time of the analysis, a golf course is the approved zoning for the property. The Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* was applied for the trip generation analysis because of its widely accepted methodology.

Table 4 summarizes the estimated to generate 547 daily vehicle trips, with 32 trips occurring during the AM peak hour and 52 trips occurring during the PM peak hour. Overall, the golf course will generate minimal traffic to the study area.

Table 4: Trip Generation Summary

Land Use	ITE Code	Units	Daily Total	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Golf Course	430	18 Holes	547	25	7	32	28	25	52

Note: Used the ITE Trip Generation, 11th Ed. ITE Code 430 for Golf Course



No Build Traffic Volumes (Year 2045)

The No Build 2045 traffic volumes shown in **Figure 12** were forecasted based on the existing traffic, projected site trips to the proposed golf course, and annual traffic growth projections.

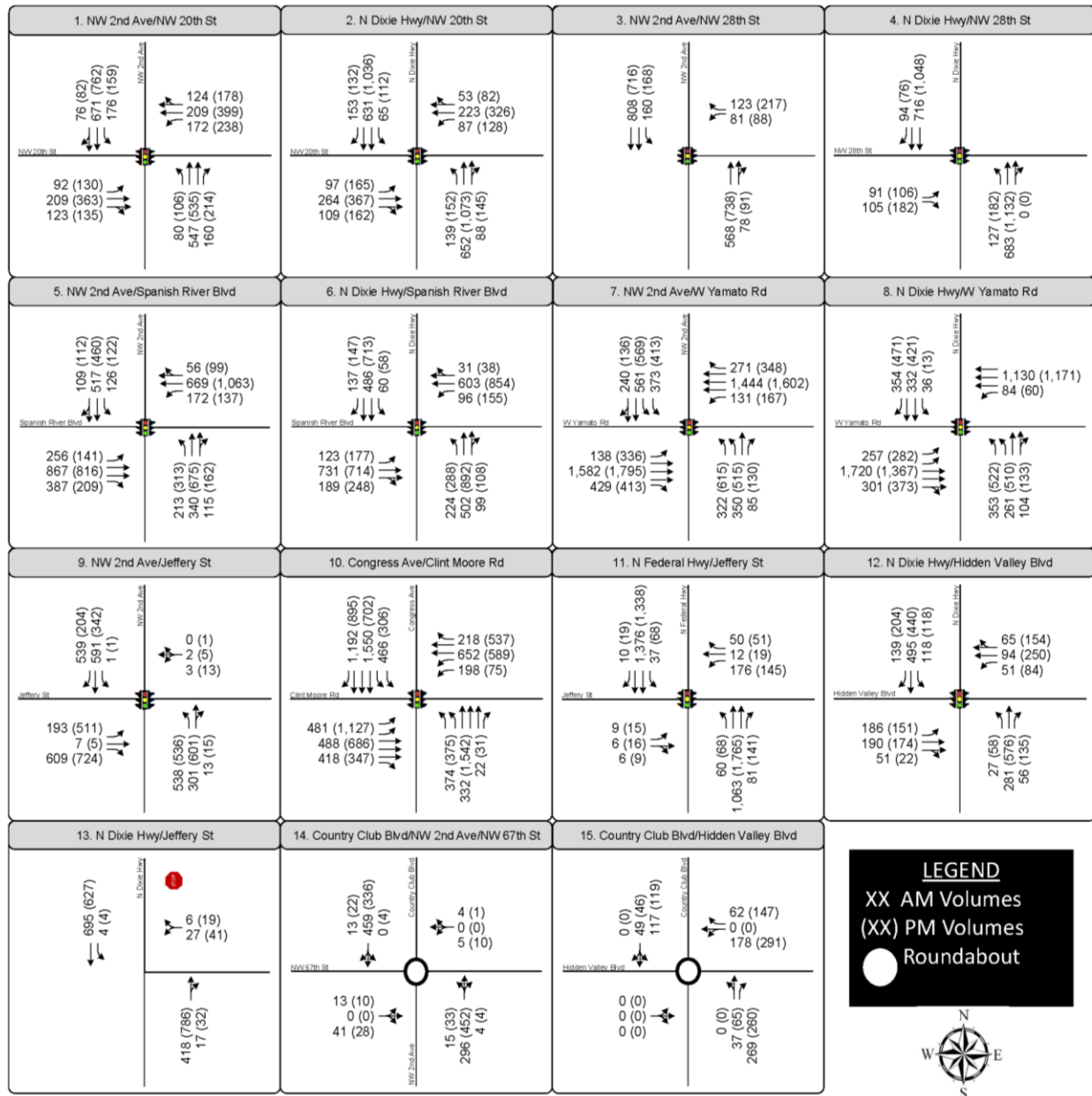


Figure 12: No Build Peak Hour Volumes 2045



Build Peak Hour Volumes (Year 2045)

Network traffic was reassigned to reflect the added railroad crossing at Jeffery Street for the Build Scenarios. For the 1-1 Build scenario, it was assumed the existing railroad crossing at NW 28th Street would be closed per FDOT railroad closure/opening policy. **Figures 13 and 14** shows the peak hour volumes at each intersection for the future (2045) 1-1 and 2-1 Build Scenarios.

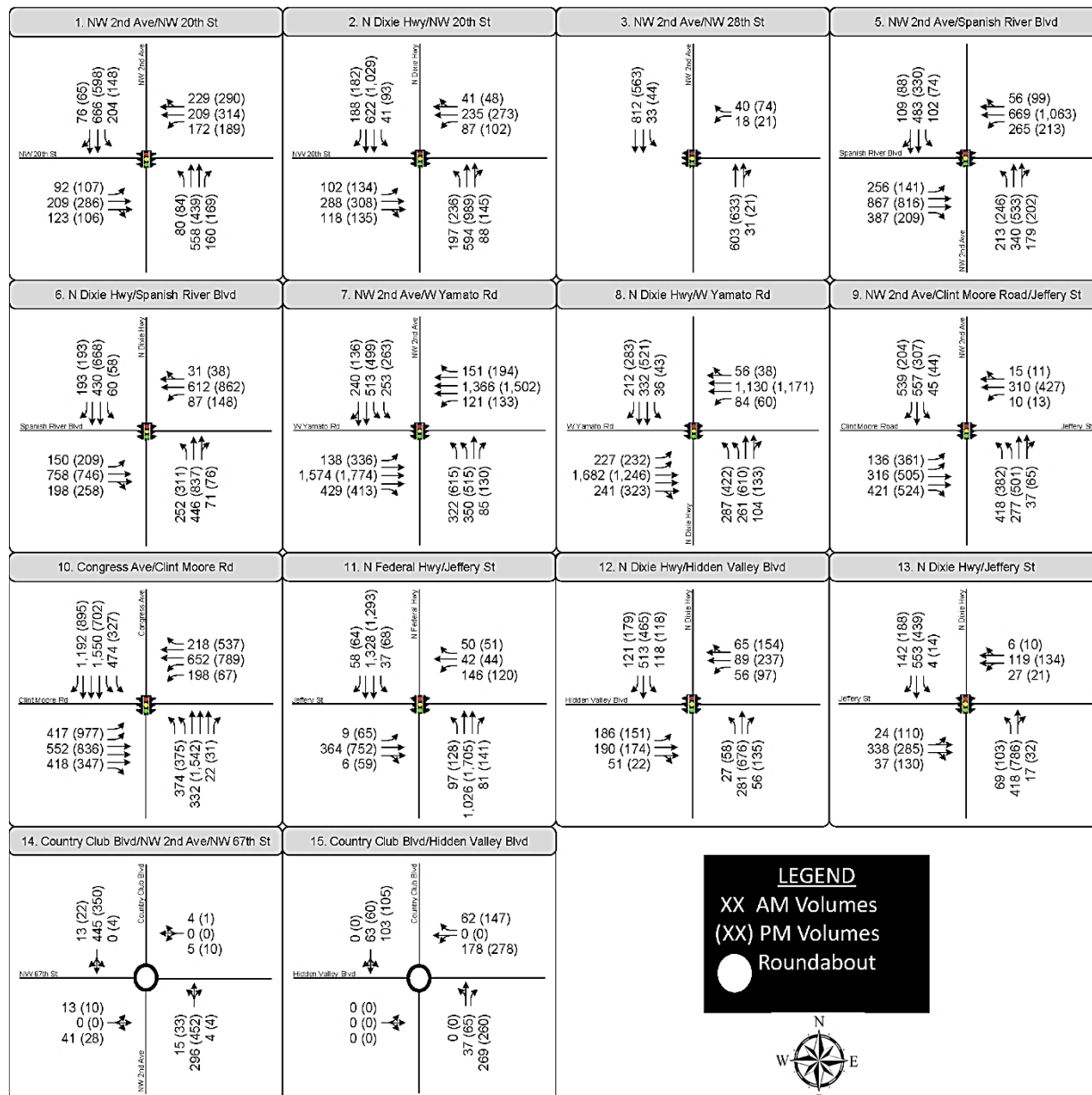


Figure 13: Scenario 1-1 Build Peak Hour Volumes 2045

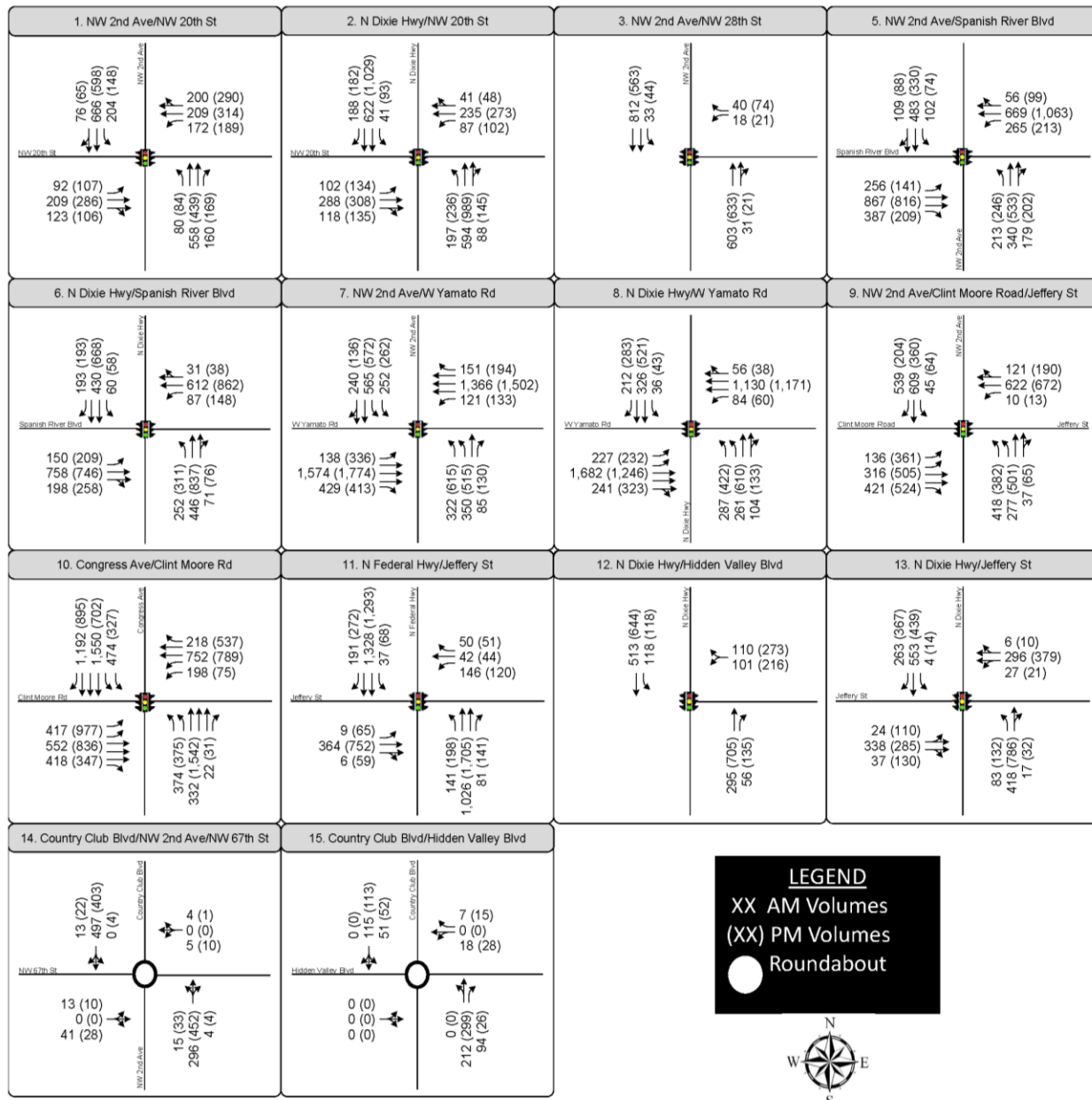


Figure 14: Scenario 2-1 Build Peak Hour Volumes 2045



Traffic Operational Analysis

The traffic analysis identifies potential impacts of the addition of a new railroad crossing on Jeffery Street and closure of one or two existing railroad crossings on the traffic network in the study area.

The operational traffic analyses consider both the impact at intersections and roadway segments. The operational performance of an intersection or roadway is commonly described with the term “Level of Service” (LOS). LOS is a qualitative description of operating conditions, ranging from LOS A (free flow traffic conditions with little or no delay) to LOS F (oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). The LOS analysis methods outlined in the 6th edition of the *Highway Capacity Manual* (Transportation Research Board, 2016) were used in this study.

Traffic operations at signalized intersections were evaluated using the LOS method described in Chapter 18 of the 2016 *Highway Capacity Manual*. The Synchro 11 software package was used to model traffic conditions throughout the project study area. Synchro is a macroscopic simulation tool that uses deterministic equations to evaluate operations at an intersection. Please note that HCM 6 has limitations for certain intersections; for any intersections unable to be analyzed by HCM 6, HCM 2000 was used.

Table 5 shows the list of intersections that were analyzed by HCM 6 for Existing, No Build, and Build Conditions:

Table 5: List of Study Intersections

Study Area Intersections	
NW 20 th St. & NW 2 nd Ave. (Signalized)	Clint Moore Rd. & NW 2 nd Ave. (Signalized)
NW 20 th St. & N Dixie Hwy. (Signalized)	Clint Moore Rd. & Congress Ave. (Signalized)
NW 28 th St. & NW 2 nd Ave. (Signalized)	Jeffery St. & N Federal Hwy. (Signalized)
NW 28 th St. & N Dixie Hwy. (Signalized)	Hidden Valley Blvd. & N Dixie Hwy. (Signalized)
Spanish River Blvd. & NW 2 nd Ave. (Signalized)	Jeffery St. & N Dixie Hwy. (Unsignalized)
Spanish River Blvd. & N Dixie Hwy. (Signalized)	NW 67 th St. & NW 2 nd Ave. (Roundabout)
W Yamato Rd. & NW 2 nd Ave. (Signalized)	Hidden Valley Blvd. & Country Club Blvd. (Roundabout)
W Yamato Rd. & N Dixie Hwy. (Signalized)	



Existing (Year 2021) and No Build (Year 2045) Performance

The results of the intersection capacity analyses for the 2021 Existing and 2045 No Build conditions are provided in **Table 6**. The Synchro output sheets, which show the delay and corresponding LOS, volume-to-capacity (v/c) ratio, and 95th percentile queue length for each movement is presented in the CTAR.

The results of the capacity analyses indicate that several intersections do not currently operate at an acceptable LOS D, which include N Dixie Hwy/Spanish River Blvd., Yamato Rd/NW 2nd Ave., Yamato Rd./N Dixie Highway, Jeffery St./NW 2nd Ave, and Jeffery St./Congress Ave. In 2045, the intersections of NW 20th St./N Dixie Hwy, Spanish River Blvd/NW 2nd Ave, Jeffery St/Federal Hwy, and W Hidden Valley Blvd/N Dixie Hwy will also operate at unacceptable conditions. These intersections operate at either LOS of E or F during one of or both of the peak hours. This analysis shows that the Spanish River Boulevard, Yamato Road, and Clint Moore Road/Jeffery Street corridors operate poorly. This analysis shows that there is substantial roadway capacity adjacent to the NW 28th Street railroad crossing. However, the roadways adjacent to the proposed Jeffery Street extension and railroad crossing are currently or projected to operate at unacceptable conditions.



Roadway Build Improvements

Roadway mitigations were developed for the three project intersections along Jeffery Street at NW 2nd Ave, N Dixie Hwy, and N Federal Hwy. These intersection improvements are needed to allow the intersections along Jeffery Street to operate at acceptable conditions. **Figure 15** shows the recommended traffic mitigation improvements at the three intersections along Jeffery Street in the study area. **Appendix C** includes the Jeffery Street concept plan of the proposed roadway between NW 2nd Avenue and US-1.

It is understood that there is a requirement to maintain only one lane in each direction on NW 2nd Avenue, per the City's Comprehensive Master Plan Transportation Element. The short dual thru lanes on NW 2nd Avenue will be limited to the intersection and merge into the existing two-lane roadway just beyond the intersection, similar in length to a left-turn lane.



Figure 15: Conceptual Schematics Showing the Existing and Proposed Lane Configurations



Build (Year 2045) Performance For Scenarios 1-1 and 2-1

Table 6 shows the level of service and delay results for the 1-1 and 2-1 2045 Build scenarios, which includes the proposed intersection improvements along Jeffery Street. The addition of the Jeffery Street extension and railroad crossing causes approximately 10% of the traffic on Yamato Road to redistribute onto Jeffery Street, which allows Yamato Road to operate with less delay compared to the No Build condition.

With the addition of the Jeffery Street crossing, the 1-1 Build Scenario is projected to reduce the delays at the intersections of Yamato Road/NW 2nd Avenue and Yamato Road/N Dixie Hwy by approximately 26 and 18 seconds, respectively, during the PM peak hour for the 2045 conditions. The v/c ratio is also projected to decrease at these two intersections by 0.09 and 0.19, respectively, during the PM peak hour for the 2045 conditions. All other intersections in the north part of the study area are projected to operate at approximately the same level of service. Detailed traffic analysis is presented in the **CTAR** for the 2045 Build conditions for 1-1 closure.

Based on the capacity analyses, the 2-1 Build scenario causes the intersection of Jeffery Street and NW 2nd Avenue to operate at an unacceptable level during both the AM and PM peak hours even with the substantial traffic mitigations suggested. It is essential that this intersection operate at an acceptable level to make this new railroad crossing an attractive alternative route for drivers. This analysis also shows that traffic conditions during the AM peak hour at Yamato Road and NW 2nd Avenue with the 2-1 scenario will be problematic compared to the 1-1 Build scenario. Detailed traffic analysis is presented in the **CTAR** for the 2045 Build conditions for 2-1 closure.



Table 6: Intersection LOS and Delay (Existing, 2045 No Build, 2045 Build 1-1 and 2-1 Conditions)

Summary Table																									
Intersection ID	Intersection Name	2021 Existing Conditions						2045 No-Build Conditions						2045 Build Conditions 1-1 Closure						2045 Build Conditions 2-1 Closure					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
1	NW 20th St. & NW 2nd Ave. (Signalized)	C	27.70	0.65	C	33.90	0.78	C	29.90	0.72	D	42.90	1.00	C	31.30	0.79	D	38.00	0.91	C	31.40	0.71	D	38.00	0.91
2	NW 20th St. & N Dixie Hwy. (Signalized)	C	28.60	0.71	D	43.40	0.79	C	30.60	0.82	D	54.20	1.01	C	32.00	0.87	D	46.00	0.85	C	32.20	0.88	D	46.00	0.85
3	NW 28th St. & NW 2nd Ave. (Signalized)	B	10.70	0.37	B	12.40	0.57	B	11.80	0.49	B	14.30	0.72	A	7.80	0.38	A	9.40	0.39	A	7.80	0.38	A	9.40	0.39
4	NW 28th St. & N Dixie Hwy. (Signalized)	B	11.00	0.37	B	12.10	0.63	B	12.20	0.48	B	13.80	0.80	-	-	-	-	-	-	-	-	-	-	-	-
5	Spanish River Blvd. & NW 2nd Ave. (Signalized)	D	35.60	0.88	D	46.50	0.98	D	43.40	1.07	E	58.00	1.18	D	43.70	1.04	D	47.20	0.93	D	44.10	1.07	D	47.10	0.95
6	Spanish River Blvd. & N Dixie Hwy. (Signalized)	D	44.60	0.93	D	51.70	0.93	D	51.50	0.99	E	65.90	1.09	E	56.10	1.03	E	68.30	1.16	E	56.10	1.03	E	68.20	1.16
7	W Yamato Rd. & NW 2nd Ave. (Signalized)	D	44.10	0.92	E	55.30	0.93	E	60.80	1.04	F	117.50	1.36	E	55.30	0.99	F	80.30	1.35	E	58.30	1.05	F	84.00	1.35
8	W Yamato Rd. & N Dixie Hwy. (Signalized)	D	46.90	0.92	E	56.20	0.98	F	80.90	1.13	E	70.30	1.25	D	46.80	0.87	D	55.00	0.91	D	46.50	0.88	D	55.00	0.91
9	Jeffery St. & NW 2nd Ave. (Signalized)	C	28.90	0.93	C	22.90	0.83	E	61.60	1.20	D	45.50	1.15	D	51.20	1.01	D	44.80	0.94	F	132.70	1.78	F	94.90	1.42
10	Clint Moore Rd. & Congress Ave. (Signalized)	F	107.70	1.51	F	138.90	1.81	F	191.90	2.36	F	230.00	2.30	F	188.80	2.36	F	232.50	2.30	F	191.00	2.36	F	232.10	2.30
11	Jeffery St. & N Federal Hwy. (Signalized)	B	13.80	0.66	D	36.30	0.87	B	16.90	0.71	E	66.50	1.11	C	26.60	0.85	E	69.60	1.12	C	26.80	0.85	E	76.10	1.14
12	Hidden Valley Blvd. & N Dixie Hwy. (Signalized)	D	45.80	1.30	C	28.60	0.90	D	39.60	1.19	D	42.80	1.29	D	41.00	1.22	D	50.80	1.44	B	12.80	0.80	E	66.90	1.35
13	Jeffery St. & N Dixie Hwy. (Unsignalized to Signalized)	A	0.50	0.09	A	1.10	0.26	A	0.80	0.17	A	2.30	0.52	C	26.70	0.82	D	52.20	1.12	D	45.00	1.33	E	62.20	1.16
14	NW 67th St. & NW 2nd Ave. (Roundabout)	A	5.00	0.32	A	5.10	0.32	A	5.90	0.40	A	6.00	0.40	A	5.80	0.39	A	6.10	0.40	A	6.20	0.44	A	6.30	0.40
15	Hidden Valley Blvd. & Country Club Blvd. (Roundabout)	A	3.90	0.11	A	4.30	0.20	A	4.40	0.15	A	4.90	0.26	A	4.30	0.15	A	4.80	0.24	A	3.90	0.17	A	4.60	0.27

Note: LOS - Level of Service; V/C - Volume to Capacity Ratio

Jeffery Street intersections with proposed improvements are highlighted

V/C ratio shown for worst movement



Roadway Link Level of Service Analysis (1-1 Scenario)

The roadway capacity analysis was conducted for the peak hour two-way and annual average daily traffic conditions. The maximum service volumes (MSV) are from the FDOT's 2020 *Quality/Level of Service Handbook*.

Table 7 shows the roadway capacity analysis for Jeffery Street, NW 2nd Avenue, Dixie Highway, and US-1. The analysis shows that 4 lanes are needed on Jeffery Street west of NW 2nd Avenue, which is the proposed number of lanes. Jeffery Street between NW 2nd Avenue and Dixie Highway would operate at an acceptable condition (LOS D) with 4 lanes. Jeffery Street is projected to operate at an acceptable condition (LOS C) with 4 through lanes between Dixie Highway and US-1. Due to the limited distance between US-1 and N Dixie Highway, four lanes are required to sufficiently serve the turning movement volumes and local residential driveway access needs within that segment.

The existing condition for NW 2nd Avenue is at an unacceptable LOS of E with only 2 lanes and additional lanes are needed to support existing and future traffic volumes. However, it is understood that NW 2nd Avenue is restricted to only 2 lanes by the City Comprehensive Plan, north of Yamato Road.

Table 7: Roadway Link Level of Service

Roadway	Functional Classification (# of Lanes, Posted Speed)	Direction	Roadway Capacity at LOS D	2021 AADTs	Existing Level of Service** (Year 2021)	2045 AADTs with Jeffery Street RR Crossing	Future Level of Service
Jeffery Street (West of NW 2nd Ave.)	Major Collector (4L, 35 mph)	East-West	29,160	15,106	LOS D	24,114	LOS D
Jeffery Street (East of NW 2nd Ave.)	Major Collector (4L, 35 mph)	East-West	29,160	-	-	13,061	LOS C
Jeffery Street (East of Dixie Hwy.)	Major Collector (4L, 25 mph)	East-West	29,160	864	LOS C	5,864	LOS C
NW 2nd Avenue***	Major Collector (2L, 30 mph)	North-South	14,800	15,200 *	LOS E	22,100	LOS E
Yamato Road	Major Arterial (6L, 45 mph)	East-West	59,900	37,000 *	LOS B	44,901	LOS B
Dixie Highway	Major Collector (2L, 40 mph)	North-South	17,700	11,900 *	LOS C	25,300	LOS E
US-1	Minor Arterial (4L, 45 mph)	North-South	39,800	27,026 *	LOS B	35,100	LOS C

*Reference: FDOT Traffic Online Portal. **Generalized LOS Tables

*** NW 2nd Avenue is restricted to remain as a 2-lane roadway north of Yamato Road



Build 1-1 Scenario

This analysis considers replacing the existing railroad crossing at NW 28th Street with a new crossing at Jeffery Street, which is considered the 1-1 Build scenario. There are several benefits to locate a railroad crossing at Jeffery Street as opposed to NW 28th Street. Below is a summary of the factors and benefits associated with replacing the NW 28th Street railroad crossing with the proposed crossing at Jeffery Street.

NW 28th Street Factors:

- Lowest volume of daily traffic (6,100 daily vehicles) of all the railroad crossings in Boca Raton;
- Does not provide a continuous connection between NW 2nd Avenue and US-1, as the intersection with Dixie Highway is a "T" or three leg intersection;
- It is a short, 1,000 foot long two lane east-west roadway serving a limited set of local trips within the immediate area; and
- Two other existing railroad crossings, Spanish River Boulevard and NW 20th Street, are located within a mile of NW 28th Street.

The roadway network around NW 28th Street is more extensive compared to the Jeffery Street corridor making it easier for traffic to enter/exit the area from other directions. Below are some examples of how the roadway network adjacent to the NW 28th Street corridor is more robust and provides greater mobility options compared to the Jeffery Street corridor.

- NW 2nd Avenue is a four-lane divided roadway between Palmetto Park Road and Yamato Road, which provides good local and regional mobility around NW 28th Street.
- The roadway network around NW 28th Street has numerous local streets and collector roadways to distribute traffic volumes and provide access.
 - NW 5th Avenue is 0.5 miles west of NW 2nd Avenue and provides network linkage between NW 20th Street and NW 40th Street (Spanish River Blvd).
 - Windwood community residents have roadway links between NW 5th Avenue and NW 2nd Avenue for local and regional mobility.
 - NW 23rd Street and NW 35th Street provide connections between NW 2nd Avenue and NW 5th Avenue that creates a local street network.



Jeffery Street Railroad Crossing Benefits:

- Improved east-west connectivity for a substantially greater volume of drivers compared to NW 28th Street (33,500 daily vehicles versus only 6,100 daily vehicles);
- Continuous connectivity between US-1 and US-441 across I-95, unlike NW 28th Street
- Redistributes approximately 10% of traffic from Yamato Road, reducing delay on a major roadway
- Provides a more convenient FEC railway crossing north of Yamato Road. The next existing crossing north of Yamato Road is West Hidden Valley Boulevard) which is 1.6 miles away.

Build 2-1 Scenario

As part of this analysis there was a comparison of eliminating one or two existing railroad crossings with the proposed railroad crossing at Jeffery Street. Eliminating two railroad crossings will have a greater negative impact on traffic in the area compared to only eliminating one railroad crossing since it reduces access, connectivity, and convenience. However, it is important to understand the level of impact associated with eliminating the additional railroad crossing at W Hidden Valley Boulevard. Below is a summary of the negative impacts associated with eliminating the additional railroad crossing at W Hidden Valley Boulevard.

- Reduces the level of service at the NW 2nd Avenue and Jeffery Street intersection to an unacceptable condition (LOS F) even with the extensive traffic mitigations recommended as part of adding the Jeffery Street crossing.
- Adds substantial traffic onto the railroad crossing at Lindell Boulevard which is a 2-lane local road west of the FEC railway, in the City of Delray Beach, that is beyond the City of Boca Raton's jurisdiction.
- Adds substantial traffic turning left off Lindell Boulevard, which will delay westbound through traffic on Lindell Boulevard and add traffic onto narrow neighborhood streets.
- Reduces access for the Boca Lake Estates community to the nearby Boca Valley Plaza shopping mall and medical area, located east of N Dixie Highway.
- Reduces access to the US 1 commercial corridor for residents and requires traffic to use local roads or NW 2nd Avenue, which is currently operating at capacity with only two lanes.

Based on the findings of the 1-1 and 2-1 scenarios, the two closures and one opening (2-1) scenario is not recommended due to the substantial increase in traffic on NW 2nd Avenue, causing failing traffic operations and requiring capacity improvements on NW 2nd Avenue. Therefore the 1 closure and 1 opening of the railroad grade crossings, or the 1-1 Scenario is recommended.



5. RAILROAD GRADE CROSSINGS

Railroad Crossing Openings Considered

From the alternatives route analysis, the recommended location to locate or open a railroad grade crossing is at Jeffery Street, rail mile post 320.991 which is approximately 5810 feet south of the existing crossing at West Hidden Valley Blvd (272499F, MP 319.891).

The railroad has three tracks at Jeffery Street. Two tracks continue throughout the rail corridor. The third track is the first siding that begins 200 ft south of the Jeffery Street crossing and continues north for 5000 ft. A fourth track (second siding) begins 1000 ft north of Jeffery Street and continues north for 2700 ft. With a proposed crossing at Jeffery Street, the third track (first siding) would maintain 4750 ft of rail car storage. No effect would occur to the second siding located beyond the proposed Jeffery Street crossing.

The existing profile of the rail siding is several inches lower than the mainline tracks and would need to be raised to the profile of the main tracks at the proposed crossing. The southern end of the siding track and switch has an existing elevation that matches the mainline track profile, so the switch will not be affected.

Railroad Crossing Closures Considered

There are ten existing railroad crossings within the jurisdiction of the City of Boca Raton. Six of these crossings are major roadways classified as principal arterials or major collectors. Closing these heavily traveled grade crossings would create significant changes in the regional traffic patterns and increase delay and congestion. The existing FEC railroad grade crossings within the City of Boca Raton are listed in **Tables 8 and 9, and Figure 16**.

Three other roadways are minor collectors, and one is a local access road. The local access road, NW 2nd Street (272925L) provides direct access for the City of Boca Raton Police Department to Dixie Highway and US 1 / Federal Highway. NW 2nd Street also serves the 20-acre Memorial Park and recreation facility and the City's Building Permits office building. Access reduction by closing this railroad crossing that serves several community and emergency service properties is not considered feasible.

The two remaining crossings at minor collectors were reviewed in detail, West Hidden Valley Blvd (272499F) and NW 28th Street (272502L). The railroad crossing inventory reports are in **Appendix E**. Traffic analysis for closing West Hidden Valley Blvd was evaluated under the 2-1 Scenario in detail and found the rail crossing closure would cause NW 2nd Avenue, a two-lane roadway to fail operationally in the future and capacity improvements to NW 2nd Avenue is not permitted in the City Comprehensive Plan. The nearby Lindell Boulevard rail crossing to the north is in the City of Delray Beach and has existing operational traffic congestion and is outside of the jurisdiction of the City of Boca Raton. Traffic analysis for NW 28th Street identified a lower traffic volume and closure would be the least disruptive to the motoring public and adjacent properties.



Table 8: Existing FEC Railroad Grade Crossings in the City of Boca Raton

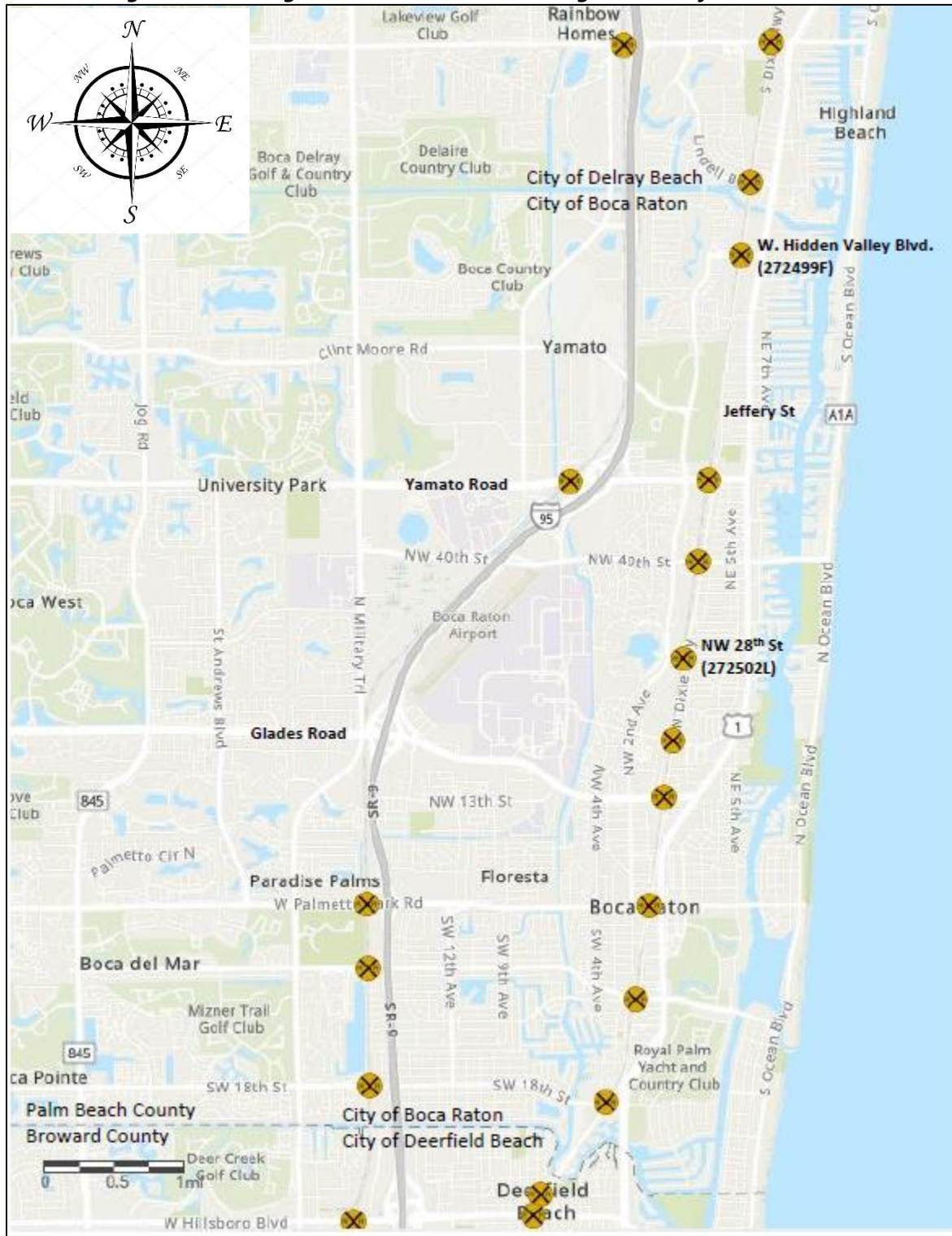
Street	Railroad Crossing Number	Railroad Mile Post	Roadway Functional Classification
W Hidden Valley Boulevard	272499F	319.891	Minor Collector
Yamato Road (SR 794)	272500X	321.505	Principal Arterial – Other
NW Spanish River Blvd (NW 40th ST)	272501E	322.094	Major Collector
NW 28th Street	272502L	322.786	Minor Collector
NW 20th Street	272503T	323.371	Major Collector
Glades Road (SR 808)	272910W	323.782	Principal Arterial - Other
NW 2nd Street	272925L	324.437	Local Access
West Palmetto Park Road	272509J	324.565	Principal Arterial-Other
West Camino Real Road	272510D	325.232	Major Collector
SW 18th Street	272933D	326.014	Minor Collector

Table 9: Potential Rail Crossings Considered for Closure

Street	Intersection type	Roadway Type	Level of Service	Vehicles per hour At railroad crossing Year 2021
W Hidden Valley Blvd	Signalized 4-leg	4-lane divided	D	539
NW 28th St	Signalized 3-leg	2-lane	B	321



Figure 16: Existing FEC Railroad Grade Crossings in the City of Boca Raton





FDOT Railroad Closure and Opening Applications

The process for obtaining review and approval to open or close a railroad crossing includes submittal of the appropriate FDOT forms and supporting technical information. The process requires one application to open a new crossing at Jeffery Street, and one application for closing the existing crossing at NW 28th Street.

This Feasibility Report, Conceptual Traffic Analysis Report and appendices serve as the technical support information for the opening and closure applications.

The FDOT coordination flowchart figure is in **Appendix A**.

The FDOT railroad crossing opening/closure applications and concept plans are in **Appendix C**.

Process Overview

1. City of Boca Raton submits the railroad crossing applications and support material to FDOT
2. FDOT reviews the open/closure applications.
3. FDOT seeks response from the railroad, Florida East Coast Railway.
4. FDOT conducts Fact-Finding with a public meeting.
5. FDOT will draft a Stipulation of Parties (SOP) if the opening/closing meets FAC criteria and is agreeable to all parties. The SOP serves as the Final Order and permit to open/close the crossings.
6. If there is opposition to the SOP and administrative hearing is held and a Recommended Order is issued by an Administrative Law Judge.
7. Final Order is executed by the FDOT Secretary and may overrule the Recommended Order.

The applications were completed after contact with the FDOT Railroad Office and FEC Railway Public Projects Engineer, and reviewing several sources which include but not limited to:

- FDOT Open Data Hub Rail System Map
- Federal Railroad Administration, Office of Safety Analysis Inventory Reports
- City of Boca Raton
- Palm Beach County Transportation Planning Agency



6. PROJECT COORDINATION AND PUBLIC INVOLVEMENT

Agency Coordination

The Florida Department of Transportation and Florida East Coast Railway were contacted during the study to collect information, provide input and submit the Feasibility Study and FDOT Railroad Grade Crossing opening and closure applications. See **Appendix D** for agency and public correspondence.

Coordination occurred with the following transportation agency personnel:

- Maurice Borrows , FDOT District 4 Railroad Coordinator
- Eugene Jules, FCCM, FDOT Central Office Freight and Rail Planner
- Christopher Burgess, FDOT Rail Administration Manager
- Daniel Fetahovic, FEC Railway Public Projects Engineer

Local utility owners and agencies were contacted to identify existing utilities and potential impacts.

The City of Boca Raton police and emergency fire rescue services were contacted regarding the proposed railroad grade crossing opening and closure. Both the police and fire rescue services were supportive of the new railroad crossing at Jeffery Street and sited the new crossing would improve emergency response times; and noted that the closure of 28th Street could potentially have negative impacts to response times. The preference was to keep all current crossings open and add the Jeffery Street crossing as well. See **Appendix D** for their responses.

The Palm Beach County School District was contacted regarding the school bus routes using the new railroad crossing at Jeffery Street. Their response was the new railroad crossing at Jeffery Street would be beneficial and more efficient for routes servicing the area which has 15 routes as of January 2023. See **Appendix D** for their response.

Public Involvement

This section to be completed after the public outreach meeting has been conducted.



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7. DESIGN CONTROLS

Table 10: Design Controls and Criteria

DESIGN CRITERIA FOR JEFFERY ST (PO#: CBR2200494)				
Reference: 2018 Florida Greenbook (FGB), FDOT Design Manual (FDM)				
DESIGN CRITERIA		REFERENCE DOCUMENT		NOTES
CONTEXT CLASSIFICATION				
Criteria:	Functional Classification	Major Collector (West of NW 2nd Ave)	PBC TPA Mapping	Context Class C4 Urban
Criteria:	Design Speed (MPH)	35 MPH	FGB Table 3-1	Posted 35 mph west of NW 2nd Ave Posted 20 mph east of Dixie Hwy
Criteria:	Minimum Travel Lanes (Feet)	11	FGB Table 3-20	
	Minimum Auxiliary Lanes (Feet)	11	FGB Table 3-20	
	Bike Lanes (Feet)	4' Min	FGB Figure 9-1	4' Adjacent to Curb or grass shoulder, 5' Adjacent to parking or barrier wall
	Keyhole Lanes (Feet)	5' Min	FGB Figure 9-7	
Criteria:	Maximum algebraic difference in cross slope between adjacent through lanes	0.04	FGB Section C.5.b, C.7.b.2	
	Maximum cross slope in one direction	0.03	FGB Section C.7.b.2	0.03 rec. 0.04 allowed
	Maximum algebraic difference in cross slope at turning roadway terminals	0.06	FGB Table 3-25	
Criteria:	Front Slope	1:3 or not flatter than 1:6	FGB Section C.7.f.2	
	Back Slope	1:3 or not flatter than 1:6	FGB Section C.7.f.2	
Criteria:	Min. Clear Zone	10 Feet	FGB Table 4-1	
Criteria:	Allowable Deflection	2°00'00"	FGB Section C.4.b	
	Length of Horizontal Curve (Feet)	525	FGB Table 3-8	
	Maximum Deflection Angle Through Intersection	6°00'00"	FGB Table 3-7	
	Minimum Radius for $e_{max}=0.05$ (Feet)	355	FGB Table 3-12	
Criteria:	Min. Width of Clear Zone	6 Feet	FGB Table 3-15	
Criteria:	Maximum Grade	7%	FGB Table 3-16	
	Max. Change in Grade Without Vertical Curve	0.90%	FGB Table 3-17	
	Min. distance between VPIs on curbed roadways	250 Feet	FDM Section 210.10.1.1	
Criteria:	Min. K Value for Sag Curve	49	FGB Table 3-18	
	Min. K Value for Crest Curve	29	FGB Table 3-18	
	Min. Vertical Curve Length for Sag Curve (Feet)	75	FGB Table 3-9	Length of vert curve = 3V
	Min. Vertical Curve Length for Crest Curve (Feet)	75	FGB Table 3-9	Length of vert curve = 3V
Criteria:	Min. Vertical Clearance	16'	FGB Section 3.C.7.j.4	16' for arterials
	Min. Vertical Clearance Traffic Signals	17'-6"	FDM Section 210.10.3	17' allowed for existing signals
Criteria:	Min. stopping sight distance	250	FGB Table 3-4	
	Min. passing sight distance	550	FGB Table 3-6, Table 3-19	



8. DESIGN FEATURES OF THE PREFERRED ALTERNATIVE

Right of Way

Table 11: Right of Way (Existing and Required)

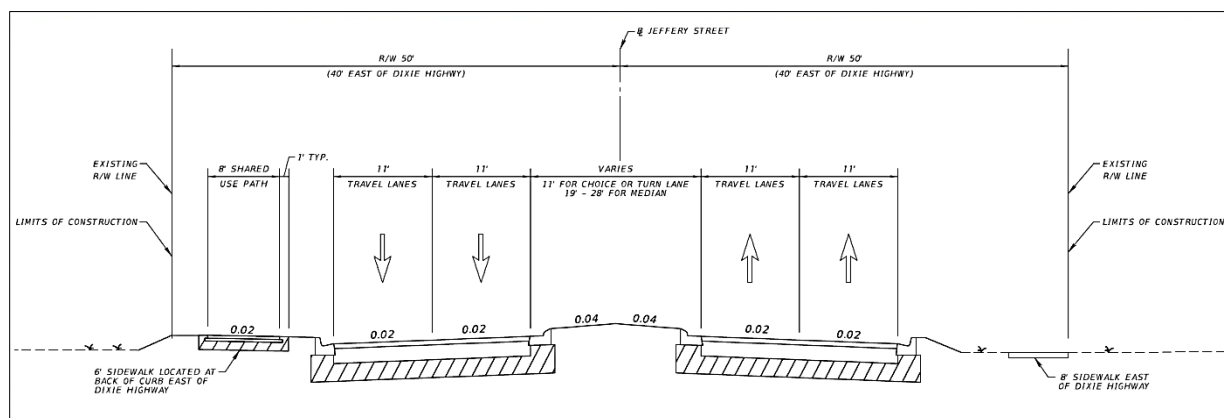
Street	Existing	Additional R/W Required
Jeffery Street	100 ft west of FEC RR 80 ft east of FEC RR	1 vacant parcel Modify utility building parking/entrance Minor corner clips
NW 2nd Avenue	100 ft	Potential minor corner clips
Dixie Highway	50 ft	Same parcel noted above for southbound right turn lane

There is sufficient right of way to provide for the typical section features and the improvements noted on the other cross streets. The concept plan has identified where minor corner clips may be required for signalization and/or pedestrian crosswalk features.

Proposed Typical Section

The Jeffery Street typical section in **Figure 17** includes four, 11 ft wide travel lanes. West of the FEC RR, the roadway has a raised median and 8 ft shared use path. East of the FEC RR, the raised median is eliminated, and 6 ft/8 ft wide sidewalks are provided on the north and south sides, respectively. The design speed is 35 mph with existing posted speeds of 35 mph and 20 mph west and east of Dixie Highway, respectively.

Figure 17: Proposed Typical Section for Jeffery Street





Horizontal and Vertical Geometry

During the design phase close coordination with Palm Beach County is recommended for the PBC Dixie Highway project that will add a turn lane at Jeffery Street. The Jeffery Street horizontal alignment is primarily a straight alignment. The existing northbound NW 2nd Avenue alignment will be modified to receive the dual left turn lanes from eastbound Jeffery Street / Clint Moore Road. Below is a summary of the proposed travel and turn lane improvements. Refer to **Appendix C** for the conceptual design plan.

Jeffery Street and NW 2nd Avenue

- Create a four-lane roadway along Jeffery Street between NW 2nd Avenue and N Dixie Highway.
- Add EB left-turn lane to create double left-turn lanes and provide additional receiving lane on the north leg of NW 2nd Avenue.
- Add WB left-turn lane on Jeffery Street.
- Add NB left-turn lane on NW 2nd Avenue to create a double left-turn
- Add a NB thru/right-turn lane on NW 2nd Avenue

Jeffery Street and Dixie Highway

- Add a traffic signal at the intersection that is coordinated with the railroad crossing.
- Add a west leg with a shared thru/right-turn lane and shared thru/left-turn lane on Jeffery Street.
- Add a NB left-turn lane on Dixie Highway.
- Add a WB shared thru/left-turn lane on Jeffery Street.
- Add a SB right-turn lane on Dixie Highway.

Jeffery Street and N Federal Highway

- Add an EB shared thru/right-turn lane on Jeffery Street.
- Add WB through receiving lane

Bicycle and Pedestrian

Connectivity to the existing bicycle and pedestrian features will be provided at the NW 2nd Avenue, Dixie Highway and US 1 intersections. Pedestrian and bicycle accommodations will be provided via a shared use pathway where right of way is available west of Dixie Highway and 6 ft and 8 ft sidewalks will be provided



east of Dixie Highway. Pedestrian signal crossings will be included. The existing pedestrian crossing at NW 2nd Avenue includes audible features which should be considered during design.

During the study, the project team reviewed the mobility connections west of the project area. Beyond the Jeffery Street study area, the existing pedestrian and bicycle network has a gap between NW 3rd Terrace and NW 4th Avenue. This gap is being addressed by the Clint Moore Road/I-95 bridge improvements to complete the pedestrian and bicycle regional network. Other observations and potential enhancements to consider between NW 3rd Terrace and NW 2nd Avenue are the following:

- At the NW corner of NW 2nd Avenue, the proposed Jeffery Street shared use path could be connected to the existing path that was the golf cart pathway that continues westward around the northside of the tennis courts then under Clint Moore Road/Jeffery Street via an existing tunnel located 200 ft east of NW 3rd Terrace. This would utilize city assets and improve bike/ped safety.
- Extend the 8 ft wide pathway from NW 3rd Terrace to NW 4th Avenue on either the north or south side of NW 2nd Avenue.
- Investigate the need for a pedestrian signal crossing at NW 3rd Terrace or NW 4th Ave.
- Investigate incorporating the existing golf cart tunnel into a public pedestrian crossing, in lieu of a pedestrian mid-block signal.

Signalization

For the Jeffery Street project, two existing signals will be modified, and one new signal installed for the Jeffery Street project; and one signal removed for the NW 28th Street project.

- **NW 2nd Ave:** The existing span wire system will require additional signal heads on all spans, and full design analysis conducted for signal pole placement and/or consideration for a new mast arm system.
- **US 1:** The existing mast arm system will require additional heads on the eastbound approach to account for the additional lanes on Jeffery Street. FDOT permit is required.
- **Dixie Highway:** A new signal system with railroad signal connections will be required. Detailed utility investigation is required due to the ATT and Verizon subsurface utilities.
- **NW 28th Street:** When the railroad crossing is removed, the traffic signal and pedestrian crossing will be removed.
- **Railroad Crossing:** Coordinate with FEC RR on safety enhancement, signal connections, preemption, and improvements at the new crossing.



Utilities

The utility data collection effort distributed an initial contact letter to sixteen the utility agency owners (UAO) requesting information along the three alternate routes.

Along the preferred route of Jeffery Street there is a utility parcel in the northwest corner of Jeffery Street and Dixie Highway, and a communication hub between Dixie Highway and the FEC RR directly adjacent to the proposed Jeffery Street alignment. See **Appendix E** for photos of the communication equipment at the Dixie Highway intersection.

Impacts to utilities include the following:

- In the southwest corner of Jeffery Street and Dixie Highway, at the communications building next to the FEC RR, a parking space and concrete privacy wall needs to be removed from the structures north side and replaced on the south side.
- Small corner clip of property in the northeast corner, which is the ATT parcel. No direct impacts to surface utility boxes are identified in this area.
- ATT has 2 large 6'x12'x7' underground vaults near the intersection of Jeffery Street and Dixie Highway. Jeffery Street widening may require minor manhole adjustments. Palm Beach County's Dixie Highway project will require adjustment if that project occurs prior to the Jeffery Street project.
- Verizon/MCI has fiber optic facilities connecting to the communication hub on the southwest corner of Jeffery Street and Dixie Highway. They have one fiber facility that runs along Jeffery Street to the west, along with 2 facilities running parallel to the railroad tracks within existing FEC Railroad right-of-way.
- FPL has aerial facilities running along the entire limits of Jeffery Street. Some power poles may require relocation and impacts can be further identified in design. FPL recently upgraded/hardened their facilities on Jeffery Street between Dixie Highway and Federal Highway.
- GU Holdings and Columbus Network have shared ductwork running along the center of the Jeffery Street right-of-way between NW 2nd Ave to the communication hub on the southwest corner of Jeffery Street and Dixie Highway. There are six 4'x4' underground vault that will require adjustments.
- InterMetro Fiber (Resurgence/Allied AF2072) owns a 528-fiber cable in a 1.5" HDPE shared FECR Duct Bank. They are located on the east side of the tracks, running parallel to the tracks within exit FEC Railroad right-of-way, generally within 50' of the tracks.
- From initially review it looks like the existing water and sewer lines can be maintained, they will require manhole and junction box adjustments.



Drainage and Stormwater Management Facilities

Existing Drainage Conditions

This project is located within the jurisdictional boundaries of the South Florida Water Management District (SFWMD) and Lake Worth Drainage District (LWDD) within Palm Beach County. There are two existing storm drain systems within the project corridor. Per the City's Drainage Atlas, the system at the intersection of NW 2nd Avenue and Jeffery Street conveys runoff to the east, discharging into an existing ditch within a drainage easement west of and parallel to, the Florida East Coast (FEC) railroad. The 1985 Boca Teca Golf Course boundary survey identifies the location of this drainage easement in **Appendix F**. This ditch flows north to an existing canal, joining a part of the LWDD L-40E Canal and discharges into the SFWMD C-15 Canal leading to the intracoastal waterway. The second system is along Federal Highway that consists of inlets within roadside swales. This is a Florida Department of Transportation (FDOT) system. There is no formal storm drain system for Jeffery Street between the FEC railroad and Federal Highway. Runoff from the roadway drains into existing shallow roadside swales within the City's R/W. Jeffery Street is within FEMA Flood Zone X, an area of minimal flood hazard, and poses no significant floodplain encroachment.

Proposed Drainage System Features

This project proposes to extend Jeffery Street between NW 2nd Ave and Dixie Hwy and widen the existing sections of Jeffrey Street from Dixie Highway to US1 to a four-lane roadway. A new stormwater management (SWM) facility will be provided to treat and attenuate the runoff from the proposed section of roadway before discharging into the existing drainage easement ditch.

The intersection of Jeffery Street and NW 2nd Avenue will be expanded to accommodate additional turn lanes and the Jeffrey Street extension. The roadside swales along NW 2nd Ave will require regrading to accommodate the additional runoff. Within large ditch and drainage easement, the crossdrains under the existing Jeffery Street and railroad right of way will be evaluated for extension, replacement, or to remain.

The project will increase the impervious area and require a storm drain system be implemented to capture and convey the additional runoff. A new SFWMD Environmental Resource Permit (ERP) will be required for the proposed widening and expansion. The proposed SWM system will be designed to treat 2.5 inches of runoff from the impervious area or 1 inch of runoff from the entire area, whichever is greater. The proposed drainage system is a curb and gutter closed drainage system. Potential treatment with exfiltration trenches maybe a solution as there is limited existing R/W east of the railroad.



The city owns the large drainage ditch that is located adjacent to the western railroad right of way line (**Appendix F**). This swale is approximately 100 ft wide and 4000 ft long and should be evaluated during design phase for stormwater treatment and attenuation. The third option is right of way acquisition for swales or ponds to accommodate the proposed stormwater treatment system.

Palm Beach County has proposed, under project number 20144500, to add a new storm drain system on Dixie Highway with a new treatment pond near Lancaster Street. Coordination with the county design and system should be conducted during the design phase.

The Jeffery Street project is located 1.5 miles from the Boca Raton Airport and in-line with the flight path of Runway 23. The Federal Aviation Administration (FAA) design criteria for pond design will be followed with the preference for dry facilities that drawdown within 24 hours. The site will be evaluated to best minimize the wildlife hazard potential.

NW 28th Street Modifications for Railroad Closure

The proposed plan includes the closure of the NW 28th Street railroad crossing and is depicted in **Appendix C**. The NW 28th Street railroad crossing closure will require the following modifications:

- N. Dixie Highway:
 - Remove the traffic signal
 - Remove school crossing signal and pedestrian crosswalk
 - Close the existing median opening at NW 28th Avenue and construct median and curb.
 - Remove the southbound right turn and northbound left turn lanes
 - Add curb along southbound lanes where NW 28th Avenue pavement is removed.
 - Mill/resurface pavement, modify signing and pavement markings
- NW 28th Avenue between N. Dixie Highway and the railroad tracks.
 - Remove the railroad signal (work by FEC RR)
 - Construct a new vehicle turn-around on the west side of the railroad tracks
 - Remove sidewalk approaching railroad crossing
 - Mill/resurface pavement, modify signing and pavement markings
 - Coordinate with the FEC RR on safety enhancement and fencing to reduce pedestrian trespassing.



Planning Estimate of Construction Costs

Construction costs listed in **Table 12** were estimated based on the FDOT Long Range Estimate, Cost per Mile models (Jan 2023) for new construction, urban curb and gutter section with four lanes, a median and 4 ft bike lanes. The cost per mile includes the features required to build the typical section such as pavement, base, curb, drainage, lighting, pavement markings and signs. Additional costs were added on a separate line for signalization to construct the signal interconnect, a new signal at Dixie Highway, and modify the two signal systems at NW 2nd Avenue and US 1. The railroad crossing estimate was obtained from a prior planning study and should be coordinated with FDOT and FEC for more accurate estimates. Planning cost estimate is approximately \$9,959,200 plus the railroad, utilities and right of way costs. Not included are the cost estimates are railroad siding track adjustments, railroad flagmen, right of way appraisal and acquisition, pond site and permitting, utility relocation or professional services related to design and construction inspection. See **Appendix G**.

Table 12 Planning Level Estimate of Construction Costs

PLANNING LEVEL ESTIMATE OF CONSTRUCTION COSTS	
Roadway New Construction* - NW 2nd Ave to US-1 - 0.50 miles @ \$11.2M per mile	\$5,600,000
Signalization - 1 new signal at Dixie Hwy, 2 new signal replacements (US1, NW 2nd Ave)	\$1,840,000
Railroad: new crossing at Jeffery Street	\$500,000
Railroad: remove crossing at NW 28th Street	\$276,000
Utility relocation	not included
Right of way acquisition	not included
Pond site and permitting	not included
Railroad siding track construction and signal flagman cost	not included
Note: Roadway cost based on FDOT Long Range Estimate Cost Per Mile Data for a four-lane urban roadway and includes cost to build typical section, signing, pavement markings, and lighting	
Subtotal =	\$8,216,000
INITIAL CONTINGENCY AMOUNT (20%)	\$1,643,200
LOCAL AGENCY INITIAL CONTINGENCY AMOUNT	\$100,000
Planning Estimate of Construction Costs	\$9,959,200



9. CONCLUSION

This report presents the results of the transportation analysis for the proposed Jeffery Street railroad crossing in Boca Raton, Florida. The analysis examines impacts of the opening of a new railroad crossing at Jeffery Street along with closing the existing crossings at NW 28th Street and W Hidden Valley Boulevard. The study considered the impact of eliminating only one railroad crossing at NW 28th Street or two crossings with the additional closure at W Hidden Valley Boulevard.

The traffic analysis shows that Jeffery Street requires four lanes between NW 2nd Avenue and US-1. The intersection of Jeffery Street and Dixie Highway will require signalization that is coordinated with the railroad crossing. Intersection improvements are needed at the intersection of NW 2nd Avenue and Jeffery Street that include providing two receiving lanes northbound on NW 2nd Avenue that merge to one lane just north of the intersection. Capacity improvement to NW 2nd Avenue corridor is not proposed and NW 2nd Avenue will remain a two-lane roadway between Yamato Road and the northern city limit.

There are many benefits associated with replacing the existing railroad crossing on NW 28th Street with the proposed crossing on Jeffery Street, including: serving a substantially greater number of drivers, providing better east-west connectivity, redistributing traffic from a congested Yamato Road, and enhancing the city's northern roadway network with a complete east-west roadway from US 1 to US 441.

The proposed Jeffery Street railroad crossing will include safety measures and the NW 28th Street railroad crossing closure will include safety enhancements to prevent railway trespassing incidents.

It is recommended that only one railroad crossing be eliminated at NW 28th Street. Eliminating the FEC railway crossing at W Hidden Valley Boulevard will have negative impacts on traffic in the area, including:

- Causing the intersection of NW 2nd Avenue and Jeffery Street to operate at an unacceptable condition even with the suggested improvements,
- Add substantial traffic on local roads from the Lindell Boulevard crossing,
- Add traffic onto NW 2nd Avenue, which is already operating at capacity, and
- Reduce access for local residents traveling to commercial centers east of the railway.

It is recommended that the Jeffery Street railroad crossing is implemented with the recommended roadway and railroad improvements with the closure of only one existing railway crossing at NW 28th Street.



APPENDICIES



APPENDIX A:

FDOT Rail Process and City Comprehensive Development Plan

OPENING-CLOSURE PROGRAM

The Crossing Opening-Closure Program promotes the FMO Strategic Focus of building a well-connected, reliable and safe multimodal network. The program accomplishes this by identifying hazardous public highway-rail grade crossing locations, and by identifying redundant and unnecessary public highway-rail grade crossings for potential roadway closure. The Office uses the following multi-step process to implement a successful OCP program.

START

Party Submits Application.

FDOT reviews and determines the viability of the application.

EACH CLOSURE:



Saves
Lives



Eliminates
Incidents

TOTAL PUBLIC AT-GRADE CROSSINGS

3,500+

**as of 11.12.2021*

FDOT Seeks Response. Seeks response to application by affected parties (example: if city/county submits opening, FDOT will ask railroad to state their position).

SOP Executed. If opening/closing meets FAC criteria and is agreeable to all parties, FDOT will draft Stipulation of Parties. Execution of Stipulation of Parties (SOP) serves as Final Order and permit to open or close crossing.

The Final Order. Executed by the FDOT Secretary. This Final Order may overrule the Administrative Law Judge's Recommended Order.

FDOT reviews application. Ensures that all necessary information is provided and the crossing is a public, at-grade crossing.

FDOT Conducts Fact-Finding.

Public input is sought depending on circumstances, FDOT may facilitate negotiation to resolve differences.

Conduct Administrative Hearing. If affected party(ies) or FDOT opposes Stipulation, FDOT will issue a Notice of Intent to permit or deny the opening or closing of the subject crossing. A Recommended Order will be issued by the Administrative Law Judge.



For additional information, please visit:
www.fdot.gov/rail/programs/opening-closure



Contact us for information about the process or to submit applications.
ocp@dot.state.fl.us

END

TRANSPORTATION ELEMENT

The City of Boca Raton has embarked on a new path for transportation services and infrastructure that more fully links different transportation modes to each other, as well as with existing and planned land use patterns. Within the Comprehensive Plan, transportation is defined broadly and incorporates streets, automobiles, transit, cycling and walking. All these modes work together to create a transportation system that improves mobility for people and goods within and between the City's five planning areas as well as the region. The use of different modes, and even the choice of multiple modes, will impact not only the character of the right-of-way, but also the means by which to measure the use and quality of the right-of-way. In addition to the classification system for level of service standards on its streets, the City is actively considering alternative standards to encourage enhanced multi-modal mobility.

This Element contains goal statements for each mode of transportation, and includes policies for the coordination of the City with the other entities that supply transportation services, funding, and infrastructure to the City. These include Palm Tran, South Florida Regional Transportation Authority (Tri-Rail), the Florida Department of Transportation (FDOT), Palm Beach County, the Boca Raton Airport Authority, and the Palm Beach Transportation Planning Agency (TPA). Additionally, the City will coordinate with Broward County Transit, the City of Delray Beach and the City of Deerfield Beach for greater regional connectivity.

Element Goals, Objectives and Policies

GOAL TRAN.1.0.0

It is the goal of the City of Boca Raton to provide a safe, efficient, convenient, and economical transportation circulation system, which offers sufficient choice, quality, and accessibility to connect people, goods, and services throughout the City and to the region.

(SRPP 7.1, 7.1.1)

OBJECTIVE TRAN.1.1.0

The City shall strive to achieve the adopted levels of service standards as set forth in the policies below. Section 163.3180(5)(f), Florida Statutes, states that local governments are encouraged to develop tools and techniques to complement the application of transportation concurrency. The standards in this Element will be reevaluated by the City on an ongoing basis, and the City will continue to develop transportation and land use strategies to support and fund mobility. City staff will explore alternatives to the existing Alternative Transportation Concurrency Standard (ATCS) as described in Objective TRAN 2.4.0 which may include the establishment of a City-wide mobility fee to fund mobility improvement projects, the adoption of a City-wide mobility plan, or other techniques to complement the application of transportation concurrency.

The level-of-service standards provided in Policy TRAN.1.1.1., will provide for standards for all roadway transportation facilities in the City, with the exception of any projects/roadways that have an Alternative Transportation Concurrency Standard approved by an amendment to the Comprehensive Plan.

POLICY TRAN.1.1.1

City streets are subject to level of service (LOS) standards indicated in the table below in order to maintain acceptable operating conditions on the street network. The following LOS for roads and streets shall be maintained during peak-hour/peak-direction:

FACILITY TYPE	LOS STD
I-95	D
State principal arterial	D
County minor arterial	D
County collector	D
State minor arterial	D
City collector and arterial	D
Intersections	D

POLICY TRAN 1.1.2

The City shall consider the feasibility of implementing a mobility plan, mobility fee, or other techniques to complement the application of transportation concurrency, to be adopted city-wide or only for specific areas or districts within the City.

OBJECTIVE TRAN.1.2.0

Enhance the safety, efficiency, and travel options of the City's multi-modal transportation system.

POLICY TRAN.1.2.1

The City of Boca Raton shall be comprised of five planning areas. The City shall require redevelopment and new development meet applicable standards such that each development is designed to safely promote increased walking, biking, and transit use while reducing vehicle trip lengths and vehicle miles of travel, as outlined in the Land Use and Transportation Elements of this Plan and implemented by the Land Development Code in the City's Code of Ordinances.

POLICY TRAN.1.2.2

The City shall support mobility by developing land use plans and policies that encourage mixed-use land use patterns, pedestrian-oriented site design, and direct higher density development toward locations served by transit, all of which will also help to reduce greenhouse gas emissions through a reduction in Vehicle Miles Traveled (VMT).

POLICY TRAN.1.2.3

The City establishes the following additional performance measures to be met by 2040:

- a) Increase transit system coverage;
- b) Aide in connecting all major transportation generators and attractors to Palm-Tran and Tri-Rail hubs within the City limits through enhanced Palm-Tran service and the implementation of the Boca Raton Shuttle system;

- c) Construct sidewalks on both sides of the street or shared use pathways on at least one side of the street with a sidewalk on the other streets within ½-mile of schools and parks within the City; and
- d) Provide safe pedestrian crossings with crosswalks, pedestrian-activated signals, median refuges, bulb-outs, and other necessary features along arterial and collector streets within or adjacent to the Downtown. It is the City's goal that at least 70 percent of the linear miles of these streets shall meet a maximum spacing standard of 660 feet between crossings.

POLICY TRAN.1.2.4

The City shall further support pedestrian, bicycle, and transit use by:

- a) Evaluating appropriate residential density and non-residential intensity in locations served by transit;
- b) Planning for an appropriate mix of residential, commercial, educational, recreational, civic, and other complementary uses to allow residents and visitors to meet daily needs more efficiently while minimizing travel distances;
- c) Requiring sites to be designed in a manner that provides preferential, safe, and convenient access for pedestrians, cyclists, and transit users; and
- d) Increasing street connectivity to reduce vehicle trip lengths and create a more walkable system of short blocks.

POLICY TRAN.1.2.5

The City shall collect a road impact fee in accordance with and required by the Palm Beach County Fair Share Contribution for Road Improvements, unless this system is replaced, in whole or in part, by a mobility fee in accordance with Policies TRAN 1.1.2.

POLICY TRAN.1.2.6

The City shall continue to use general funds, transportation funds, special assessments, US and FDOT funds, and other sources to fund multi-modal transportation improvements in the City. By 2021, the City, to the extent feasible, shall define additional dedicated funding sources to finance the cost of proposed transportation and general mobility improvements.

POLICY TRAN.1.2.7

By 2021, the City, to the extent feasible at that time, shall revise the Land Development Code to ensure consistency with the policies contained in this Plan. Development review procedures will be revised to ensure predictable evaluation criteria for assessing site plan design. The highest priority standards will be required, while other secondary standards will be more flexible, allowing trade-offs when meeting these standards. These procedures will include flexibility for applicants to substitute off-site multi-modal mitigation in-lieu of

meeting on-site design criteria in circumstances where site constraints preclude an applicant's ability to reasonably meet all design criteria. The total required multi-modal mitigation will be proportionate to the size, location, and projected traffic impact of the project.

OBJECTIVE TRAN.1.3.0

The City of Boca Raton shall continue to develop intergovernmental coordination strategies to achieve the objectives and policies of this Element. All street, transit, bicycle, and pedestrian improvement plans and programs shall be coordinated with county, state, regional, and local transportation agencies. The City shall coordinate with other entities to resolve any areas of conflict with FDOT, Palm Beach County, Palm Beach TPA, Lake Worth Drainage District, Florida Power and Light, the School District of Palm Beach County, and other units of local government by implementing these strategies.

(SCP 20 (b) 2, 3)

POLICY TRAN.1.3.1

The City shall develop, adopt, and annually update a five-year transportation improvements program that shall include City roads that are currently "over capacity" and facilities that are needed to accommodate projected traffic increases including pedestrian, bicycle, transit, and street projects needed to ease congestion and support mobility.

POLICY TRAN.1.3.2

The City shall continue to maintain consistency between construction of the transportation network and the City's adopted *Thoroughfare Right-of-Way Protection Map*, which also designates the maximum number of lanes.

POLICY TRAN.1.3.3

The Capital Improvements Elements shall include a provision for funds specifically earmarked for use in an advanced corridor right-of-way acquisition program consistent with the *Thoroughfare Right-of-Way Protection Map*.

POLICY TRAN.1.3.4

Development Orders issued by the City shall require dedication of street, intersection, and interchange rights-of-way consistent with the adopted *Thoroughfare Right-of-Way Protection Map* unless dedication shall be contrary to law or constitute a substantial taking.

POLICY TRAN.1.3.5

The City of Boca Raton shall continue to encourage the Palm Beach TPA to support the planned and programmed transportation infrastructure improvements on Glades Road near and adjacent to Interstate 95 in order to increase throughput onto and along Glades Road.

POLICY TRAN.1.3.6

The City shall continue to utilize the TPA as one of the City's coordination mechanisms for transportation planning, including data collection and warehousing, and intergovernmental coordination.

POLICY TRAN.1.3.7

The City shall coordinate with the Intergovernmental Plan Amendment Review Committee (IPARC) to develop criteria for addressing multijurisdictional transportation impacts to ensure maintenance of acceptable levels of service on the transportation network.

(SRPP 7.1.2.9; SCP 20 (b) 2,3)

POLICY TRAN.1.3.8

The City will provide current and future land use and socio-economic data for use by the TPA in developing regional transportation plans.

OBJECTIVE TRAN.1.4.0

The City shall maintain acceptable operating conditions on the street network and minimize traffic impacts to the Statewide Intermodal System (SIS).

POLICY TRAN.1.4.1

Proposed land use changes shall only be approved when traffic impact studies or mitigation measures ensure that adopted street LOS standards will be upheld through street improvements and multi-modal strategies.

POLICY TRAN. 1.4.2

The City shall annually identify backlogged and constrained facilities, which include streets and intersections operating below the adopted LOS. A constrained facility shall mean a street which operates below the LOS standards as identified in Policy 1.1.1 as a result of existing plus approved development traffic and which is constrained from adding at least two additional through-lanes due to physical or policy constraints. Physical constraints refer primarily to intensive adjacent land use development making street expansion cost prohibitive. Policy constraints refer to the maximum through-lane standards being already achieved. A backlogged facility shall mean a street which operates below the LOS standards as identified in Policy 1.1.1 as a result of existing plus approved development traffic, which is not constrained, and which is not scheduled for major capacity improvements in the next five years.

POLICY TRAN.1.4.3

The City shall complete all street projects necessary to maintain or achieve the adopted street LOS on City streets standards as detailed in the Schedule of Capital Improvements in the Capital Improvements Element of this Plan.

POLICY TRAN. 1.4.4

Traffic analyses, methodologies, capacities and other traffic requirements for all new and redeveloped property in the City of Boca Raton shall conform to the standards of the Palm Beach County Traffic Performance Standards (TPS) Ordinance with respect to State and county streets and to the City Concurrency Management System Administrative Manual (which incorporates appropriate provisions of the Palm Beach County TPS Ordinance) with respect to City streets. In order to achieve the City's Goals and Objectives for mobility of people and goods and those mandated by the State, the City will take full advantage of all possible options for flexibility in meeting concurrency standards.

POLICY TRAN. 1.4.5

The City may allow exemptions from the transportation concurrency requirements for not-for-profit medical facilities that otherwise are consistent with the adopted Comprehensive Plan and demonstrate that they will promote public transportation pursuant to Section 163.3180(5) F.S. The following criteria shall be used to determine compliance with the statute for this exception:

1. The proposed development project shall be a not-for-profit medical facility, which is designed to promote transit and other modes of transportation other than single occupant vehicles; and
2. Consideration shall be given to the impacts of the not-for-profit medical facility on the Florida Interstate Highway System; and
3. The not-for-profit medical facility shall implement and maintain trip reduction measures to reduce travel by single-occupant vehicles through a transportation demand management program approved by the City; and
4. The not-for-profit medical facility shall provide street, intersection, or signalization improvements as required by the City; and
5. The not-for-profit medical facility must be located adjacent to i.e., abutting or separated only by other public or governmental rights-of-way the Tri-County Commuter Rail Authority line, or is adjacent to a street which is served by Palm Tran or served by another committed public or private transit service acceptable to the City; and
6. The not-for-profit medical facility shall provide a bus stop large enough to accommodate at least two Palm Tran buses at a time with a covered waiting area of sufficient size to accommodate at least 50 passengers; and
7. If the not-for-profit medical facility has multiple buildings, it shall provide an internal shuttle or tram system (wheel chair accessible with a minimum of twelve (12) seats) to provide passenger service between the Tri-Rail parcel and Palm Tran facility and the other buildings and facilities on the project site; and

8. The not-for-profit medical facility shall provide a financial incentive in the form of a subsidy of a percentage of the annual ticket cost, to persons employed at the project site for riding Tri-Rail or Palm Tran to and from the project site a minimum of 200 working days per year; and
9. The not-for-profit medical facility shall provide a ride-sharing information service to persons employed at the project site; and
10. The not-for-profit medical facility shall provide emergency transportation for those employees using transit, sharing rides, or riding bikes; and
11. The not-for-profit medical facility shall maximize the use of shared access points along constrained streets; and
12. The not-for-profit medical facility shall provide external and internal pedestrian access to the project, including persons with disabilities, and other persons using alternative modes of transportation to the automobile; and
13. The not-for-profit medical facility shall not be located within the Coastal High Hazard Area as identified on the Future Land Use Map.

POLICY TRAN. 1.4.6

The City should consider a framework for exceptions from transportation concurrency for roads under the City's jurisdiction.

GOAL TRAN.2.0.0

Maintain and enhance the existing street network to promote safe and efficient accessibility by all modes of transportation including personal automobile, transit, walking, and cycling by designing a pedestrian-scale, well-connected street network.

OBJECTIVE TRAN.2.1.0

The City shall use design features such as wide sidewalks, street trees, on-street parking, narrow travel lanes, consolidation of driveways and turn lanes, traffic calming, prominent crosswalks, conservative building setbacks, and signal timing, where feasible, to achieve more modest average vehicle speeds in order to create a more balanced and livable street system that supports transportation choice and efficiency.

POLICY TRAN.2.1.1

The City shall adopt design standards for constructing context-sensitive local streets that support walking, biking, and transit use while continuing to accommodate safe vehicular travel. "Context-sensitive" design recognizes that not all streets should be designed to move high-speed traffic, and that many local streets should be designed with a higher priority to calming traffic and promoting multi-modal transportation. Cross-sections will be designed to minimize lane widths to discourage excessive speeds and provide on-street parking,

bicycle lanes, and sidewalks. The City shall encourage FDOT and Palm Beach County to apply these standards for streets within Boca Raton city limits.

POLICY TRAN.2.1.2

Use traffic calming, where appropriate, to reduce the negative impacts of vehicle volume or speed on neighborhood streets and any streets that serve non-motorized travelers.

POLICY TRAN.2.1.3

Intersections, where appropriate, shall be designed to slow vehicular traffic and promote safe pedestrian crossing.

POLICY TRAN.2.1.4

The City shall use street resurfacing projects as an opportunity to install or enhance sidewalks, bicycle lanes, raised medians, and brick or brick-imprinted, paver, or painted crosswalks, where feasible. If not a City project, the City shall recommend that FDOT or Palm Beach County, or require that developers, make such enhancements.

POLICY TRAN.2.1.5

The street layout of new developments shall be coordinated with the streets and parking scheme of surrounding areas. This shall be implemented by establishing street connections to existing adjacent streets and parking lots, or stub streets for future connection to existing vacant parcels, unless natural features prevent such a connection. Bicycle and pedestrian facilities shall also be designed as part of the street network or exclusive from the network to connect with adjacent uses.

POLICY TRAN.2.1.6

Block lengths in new developments as small as 300 feet in length are recommended and shall not exceed 660 feet in length. Infill of a street network meeting these spacing standards shall be required upon redevelopment, where feasible, to improve the connectivity of the existing street network and relieve traffic from existing, congested facilities.

POLICY TRAN.2.1.7

The City shall develop and apply access management standards to minimize the frequency of individual driveways and intersections through the consolidation of existing driveways, requiring shared access for new development between adjacent parcels, and developing an interconnected network of streets and alleyways that will provide direct access to low-speed, local streets.

POLICY TRAN.2.1.8

On and off-site parking standards shall be designed to minimize the visual and operational impact of parking on the pedestrian environment, encourage the use of on-street parking, where appropriate, and encourage the development of public, shared parking facilities in lieu of private, on-site parking.

POLICY TRAN.2.1.9

The City shall study the feasibility of the installation of a parking structure with an intermodal terminal within the Southeast Planning Area, specifically within the Downtown Redevelopment Area.

POLICY TRAN.2.1.10

All future development shall make provisions for safe, convenient on-site traffic flow; parking shall be provided and designed so as not to be a detriment to pedestrian, bicycle, and transit access.

OBJECTIVE TRAN.2.2.0

Maintain acceptable operating conditions on the street network, especially with regards to the SIS, through system preservation and enhancement, strategic system expansion, and development of viable pedestrian, cycling, and transit systems.

POLICY TRAN.2.2.1

The City shall use Transportation Systems Management, Transportation Demand Management, and additional strategies to minimize any degradation of operating conditions on SIS roadways below the standards indicated in the table below.

SIS	LOS Standard
SIS Corridors:	
I-95 (Broward County Line to NW 82nd Street)	D
SIS Roadway Connectors:	
Boca Raton Tri-Rail Station:	D
• Yamato Road between I-95 to the entrance to Boca Raton Tri-Rail Station	

POLICY TRAN 2.2.2

Minimize the impact of new development on SIS roadways. The City shall promote transit system expansion, bicycle and pedestrian travel, and the development of parallel street corridors to provide options that minimize traffic impacts on these roadways. Developers may be responsible for additional mitigation where transportation impacts of a development are projected to degrade conditions on SIS, regionally significant, or major Palm Beach County thoroughfares.

POLICY TRAN.2.2.3

Require all large employment centers with over 100 employees (over 50 in the Downtown Redevelopment Area) to utilize car pools, transit and other means of transportation to reduce trip generation and peak hour traffic.

SRPP 7.1.3.4; SCP 20(b)10)

POLICY TRAN.2.2.4

Transportation Systems Management strategies which include optimization of traffic signal systems, turning lanes, and other intersection improvements shall be implemented so as to improve operational service levels. The City shall study intersections and streets which are approaching or have exceeded acceptable service levels, and identify and install low-cost improvements to upgrade traffic flow. These improvements shall include, but not be limited to, signal system coordination, adjustments of signal timing, adding turn-lanes, and restriping to achieve additional lanes.

OBJECTIVE TRAN.2.3.0

The City will prioritize street system maintenance and multi-modal system expansion over widening of existing streets, especially where street expansion would have a detrimental impact on environmentally and economically sensitive systems.

POLICY TRAN.2.3.1

Prohibit extensive expansion of streets that would ultimately result in adversely impacting areas that are environmentally and economically sensitive, particularly when substantial public and private investments have been made in the area to preserve and enhance such resources.

POLICY TRAN.2.3.2

The City shall utilize the *Thoroughfare Right-of-Way Protection Map* to assist in determining the number of lanes that should be provided on the City's street facilities, as well as those facilities identified as having important residential neighborhood and/or historic characteristics.

POLICY TRAN.2.3.3

The City shall coordinate with the County and State to optimize the use of County, State, and Federal funds by advance preparation of right-of-way acquisition documents and construction plans for street improvements.

SRPP 7.1.1; SCP 20 (b)(2)

POLICY TRAN.2.3.4

Federal Highway within the Downtown area shall be designated as the "local business corridor" in order to create a pedestrian oriented street in the Downtown, while Dixie Highway shall be designed as the "through traffic corridor" with the primary purpose being the movement of automobile traffic.

OBJECTIVE TRAN.2.4.0

The City has adopted an alternative traffic concurrency standard (ATCS) over streets that are constrained and exceed the adopted LOS as provided in Policy TRAN.1.1.1. Any development approved pursuant to the ATCS shall employ mitigation measures as provided below and must be consistent with all other provisions of the Comprehensive Plan.

Any development approved pursuant to the ATCS shall implement mitigation measures including, but not limited to, the following:

- a. All development shall include on-site and off-site non-vehicular transportation improvements including sidewalks, shared use pathways, transit facilities and/or bike lanes. These improvements shall be constructed to either tie into or expand existing public facilities as a means to provide connectivity to existing regional transit facilities.
- b. All development shall continue to test for concurrency pursuant to the Palm Beach County Traffic Performance Standards Ordinance.
- c. Any required street network improvements, otherwise consistent with the Comprehensive Plan, such as turn lanes and signalization improvements shall be constructed by, and at the expense of, the petitioner.
- d. All development shall include a Transportation Demand Management program, traffic calming techniques, a complementary mix of land uses, appropriate densities and intensities of land, access to transit facilities, access management plans and pedestrian friendly site design.
- e. Any development approved pursuant to this Comprehensive Plan Goal shall enter into an agreement documenting any and all mitigation measures, including any funding necessary to implement mobility improvements (i.e. mitigation measures) proposed to mitigate street LOS impacts.

The City has also designated certain streets as constrained in order to maintain their residential character due to environmental impacts or other considerations.

POLICY TRAN.2.4.1

The City shall adopt appropriate Land Development Regulations prior to the approval of any development pursuant to this Goal.

POLICY TRAN.2.4.2

Any request for development approval pursuant to the ATCS shall be authorized by the City Council.

POLICY TRAN.2.4.3

S.R. A1A shall remain a 2-laned constrained facility due to environmental impacts of widening and the adverse effect 4-laning would have on the dunes and endangered species.

POLICY TRAN.2.4.4

NW 2nd Avenue from Yamato Road to the northern city limits shall remain a 2-lane undivided constrained facility in order to maintain the residential character and provide a pedestrian and bicycle-friendly culture to adjacent neighborhoods.

POLICY TRAN. 2.4.5

NE 5th Avenue from Palmetto Park Road to North Federal Highway shall remain a 2-lane undivided constrained facility in order to maintain the residential character and provide a pedestrian and bicycle-friendly culture to adjacent neighborhoods.

POLICY TRAN. 2.4.6

Palmetto Park Road from NW/SW 12th Avenue to S.R. A1A shall remain as a 4-lane constrained facility in order to maintain the residential and historical character of the area to the west of Crawford Boulevard and the pedestrian continuity in the Downtown to the area east of Crawford Boulevard.

POLICY TRAN. 2.4.7

SW 18th Street from Dixie Highway to the CSX railroad shall remain a 2-lane constrained facility in order to maintain the residential character and pedestrian and bicycle-friendly culture to adjacent neighborhoods.

POLICY TRAN. 2.4.8

West Palmetto Park Road between Military Trail and NW/SW 12th Avenue shall remain as a 6-lane constrained facility to maintain the residential character of the area and to preserve and protect the environmentally sensitive areas in the Cypress Knee Slough property on the north side of West Palmetto Park Road; and public recreation, open space, and oak hammock habitat located in Sugar Sand Park, on the south side of West Palmetto Park Road.

POLICY TRAN. 2.4.9

Federal Highway from Glades Road to the northern city limits shall remain a 4-lane divided facility in order to maintain the adjacent roadside culture, consisting of small strip commercial development.

GOAL TRAN.3.0.0

Provide a safe, convenient, efficient, continuous, and aesthetically pleasing transportation environment that is conducive to walking, cycling and transit.

OBJECTIVE TRAN.3.1.0

Integrate sidewalks, bikeways, greenways and trails, within the street system, as an alternative to automotive transportation and to optimize the comfort and safety of pedestrians and bicyclists. Pedestrian and cycling facilities shall be designed to safely connect residences, workplaces, shops, parks, schools, and transit stops.

POLICY TRAN.3.1.1

The City shall continue to promote the installation of bicycle and pedestrian facilities in accordance with this Comprehensive Plan.

POLICY TRAN.3.1.2

The City shall identify and take advantage of opportunities to use streets, utility corridors, canals and railroad corridors as locations for bicycle and pedestrian facilities.

POLICY TRAN.3.1.3

The City shall continue to support the construction of bicycle and pedestrian facilities located on all local, collector, and arterial streets under City jurisdiction where right-of-way is

available, emphasizing sidewalks on both sides of the street; wide curb lanes; bike lanes; and/or paved shoulders as the desired facility type.

POLICY TRAN.3.1.4

The City shall continue to coordinate and incorporate the bicycle and pedestrian system with other public street improvement projects, including: street widening, bridge construction, street tree planting, resurfacing projects, among others, where right-of-way is not a constraint.

POLICY TRAN.3.1.5

The City shall provide funding within the CIP for paths for pedestrians and cyclists within and between residential areas; schools; employment, retail, and recreation centers as identified in the City's updated pedestrian & bicycle maps. The budget shall be allocated towards the development of bicycle and pedestrian enhancements providing (but not limited to) sidewalks, bike lanes, shared use pathways/trails, extended shoulders, and extended curbs.

POLICY TRAN.3.1.6

The City will continue to cooperate with adjacent communities and Palm Beach County to establish and equitably finance an interconnected bicycle, pedestrian, greenways and trails network system.

(SRPP Natural Resources 6.1.1.3, 6.1.1.4)

POLICY TRAN 3.1.7

The City shall consider implementing a City-wide bicycle sharing system that promotes cycling as a viable mode of alternative transportation around the City.

OBJECTIVE TRAN.3.2.0

Design pedestrian and bicycle facilities and the surrounding environment to ensure the safety of non-motorized travelers and encourage increased use of these systems.

POLICY TRAN.3.2.1

Sidewalks shall be a minimum of 6 feet in width in non-residential districts, with widths of 10 feet or more encouraged in locations of significant pedestrian activity or to provide additional space for sidewalk cafés, displays, sales, or other pedestrian-oriented activities.

POLICY TRAN.3.2.2

Sidewalks shall be lined with street trees, seating areas, pedestrian-scaled lighting, awnings, and other pedestrian-oriented features to provide for an aesthetically pleasing environment with protection from the sun and rain.

POLICY TRAN.3.2.3

Utilities, street trees, poles, and all other objects shall be located off of the sidewalk or along the edge of the sidewalk and shall be designed at widths that provide unobstructed

clear space for the entire length of the sidewalk. Street trees shall be located between the edge of sidewalk and the street, where possible, to provide a physical barrier to further separate pedestrians from vehicular traffic.

POLICY TRAN.3.2.4

Crosswalks should be provided at all signalized or stopped controlled intersections, and pedestrian signals shall be installed at all signalized intersections and any other locations where high pedestrian volumes or other conditions warrant a signalized crossing.

POLICY TRAN.3.2.5

Bicycle lanes shall be designed at widths that provide cyclists adequate space to operate their bicycles with an acceptable level of comfort.

POLICY TRAN.3.2.6

Multi-use trails, shared use pathways, and/or greenways shall be designed at widths that allow users to safely pass in opposing directions.

POLICY TRAN.3.2.7

Sidewalks, bicycle lanes, shared-use pathways, and greenways shall be regularly maintained to clear obstructions and trim landscaping that encroach onto the facility.

POLICY TRAN.3.2.8

The City shall continue to provide an alternative to automotive transportation that optimizes the comfort and safety of bicyclists by implementing bicycle transportation to the work place, and requiring new multi-family and non-residential developments and additions to non-residential developments, based on square footage calculation, to include bicycle amenities (e.g., secure bike lockers, well placed bike racks, shower and locker facilities).

POLICY TRAN 3.2.9

The City shall consider the feasibility of implementing Vision Zero City-wide, with the goal of eliminating all pedestrian, bicyclist, and motorist deaths associated with automobile accidents on all streets within the City.

OBJECTIVE TRAN.3.3.0

The City shall promote the development of “Complete Streets” that are designed, built, and maintained in a manner that accommodates not only automobiles, but transit vehicles and non-motorized modes of travel such as pedestrians and bicyclists. “Complete Streets” shall seek to be aesthetically pleasing and provide for a safe and comfortable environment for its different users.

POLICY TRAN 3.3.1

The City shall continue to support and improve infrastructure, including beautification and amenities, where appropriate, for comfort and safety for bicyclists, pedestrians, and transit users as part of its planning and construction activities.

POLICY TRAN 3.3.2

The City shall continue to identify and address any missing links in its pedestrian network in order to ensure that all City streets have sidewalks. Special emphasis shall be placed on streets located in the Downtown and in single-family neighborhoods. Consideration shall be given toward ensuring that the streets have American with Disabilities Act (ADA) compliant curb ramps at pedestrian crossings.

POLICY TRAN 3.3.3

The City shall seek to provide choices for people to walk, bike, and take more trips via transit resulting in healthier lifestyles, a more physically active population, and a cleaner environment.

POLICY TRAN 3.3.4

As part of the development of Complete Streets, the City may evaluate the possibility of eliminating lanes on certain streets in order to provide adequate facilities for pedestrians and bicyclists, and to help improve safety by reducing vehicular speeds.

POLICY TRAN 3.3.5

The City shall use the best and latest design standards available when evaluating potential designs for the development of Complete Streets. Possible sources of design guidance could be obtained from, but are not limited to, the following: the American Association of State Highway Officials (AASHTO), FDOT, the Institute of Transportation Engineers (ITE), the National Association of City Transportation Officials (NACTO), ADA, the Public Right-of-Way Accessibility Guidelines (PROWAG), and the Model Design Manual for Living Streets.

POLICY TRAN 3.3.6

The City shall consider, where appropriate, the development of “pop-up design” or tactical implementation approaches in order to test multimodal transportation proposals prior to final design or construction.

GOAL TRAN.4.0.0

It is the goal of the City of Boca Raton to coordinate with the Boca Raton Airport Authority to ensure proper and orderly development of the Boca Raton Airport, consistent with the Airport Master Plan, and to minimize negative impacts from airport activities upon adjacent residents, lands, natural systems, and public facilities.

OBJECTIVE TRAN.4.1.0

Operating conditions on ground access routes to the Airport will be properly preserved and access will be integrated with other modes of transportation.

POLICY TRAN.4.1.1

The City will ensure that all ground access routes to the Airport within its jurisdiction will be properly maintained.

POLICY TRAN.4.1.2

The City shall coordinate with the Boca Raton Airport Authority to install an intermodal terminal at the Boca Raton Airport which will tie Tri-Rail and Palm Tran together with the Airport.

POLICY TRAN.4.1.3

The City shall coordinate with the Boca Raton Airport Authority to construct pedestrian and bicycle facilities and to provide transit service to and through the Boca Raton Airport property as permitted by applicable laws and security considerations.

OBJECTIVE TRAN.4.2.0

All aviation and non-aviation development at the Boca Raton Airport shall be made with proper consideration for the adjacent population, environment and the Future Land Use Element of this plan. Development shall proceed based upon the Boca Raton Airport Master Plan as amended, subject to the Memorandum of Agreement approved in Boca Raton City Council Ordinance No. 5023 and any amendments thereto, as approved by the City of Boca Raton, which are consistent with this Plan.

POLICY TRAN.4.2.1

The City will coordinate with the Boca Raton Airport Authority on matters relating to development and land use compatibility at the Airport and development in the surrounding areas, including complete streets, and the protection and conservation of natural resources.

POLICY TRAN.4.2.2

Non-aviation Property. All development construction on non-aviation property, as designated in the Airport Layout Plan (within the Airport Master Plan, as amended), as amended, shall obtain building permits from the City. Non-aviation property designated in the Airport Master Plan as amended, shall be developed consistent with all applicable City, County, State and Federal regulations.

POLICY TRAN.4.2.3

Aviation Property. Development of land designated for aviation use is subject to the Memorandum of Agreement approved in Ordinance No. 5023 and any amendments thereto which are consistent with this Plan and which empowers the Airport Authority with the responsibility of siting aviation facilities on Airport property provided such determination shall be in compliance with all applicable federal or state law regarding activity on Airport property designated for aviation uses. All plans submitted to the City shall meet or exceed the provisions of the Code of Ordinances, the Florida Building Code and the Life Safety Code unless other federal or state laws, codes, or regulations are controlling.

POLICY TRAN.4.2.4

The City shall provide copies of development proposals that are located within the 55 through 70 DNL noise zone to the Boca Raton Airport Authority for review and comment prior to scheduling for public hearing before Planning and Zoning and/or City Council consideration.

OBJECTIVE TRAN.4.3.0

The City will coordinate with the Boca Raton Airport Authority to ensure that plans for airport development or other airport activities are in coordination with all other agencies having jurisdiction.

POLICY TRAN.4.3.1

Development of the Boca Raton Airport may proceed subsequent to compliance with applicable laws, statutes, ordinances, rules, regulations or policies of the following agencies:

- a) Any applicable Federal, State, or local law; or
- b) Activities of the United States Military, including the Army Corps of Engineers; or
- c) Any rule, regulation, or policy in the Code of Federal Regulations, the Florida Administrative Code, or local administrative regulation or Comprehensive Plan; or
- d) Any Federal or State agency policy, regulation, or Functional Plan; or
- e) Plans, studies, or other activities of the TPA; or

Any plans prepared and approved under Chapter 380, F.S., including but not limited to Developments of Regional Impact, Florida Quality Development, description of Areas of Critical State Concern should one ever be designated in Boca Raton, or any other plan for the management of land and/or water resources.

POLICY TRAN.4.3.2

The City will coordinate with the Boca Raton Airport Authority on aviation issues that are determined to be mutually beneficial.

GOAL TRAN.5.0.0

Provide an efficient, interconnected system of public transit services for residents and visitors to increase transportation choices and reduce automobile congestion, and therefore greenhouse gas emissions. Coordinate with FDOT, Palm Tran, South Florida Regional Transportation Authority, Broward County Transit, and other agencies to ensure effective coordination and provision of transit planning and operations.

OBJECTIVE TRAN.5.1.0

The City of Boca Raton, with the cooperation of transit providers, developers, and local employers will provide for expanded transit services to encourage the use of transit to alleviate street congestion and improve mobility.

POLICY TRAN.5.1.1

The City shall strive to develop vibrant, mixed use communities including residential development surrounding transit stations and stops to provide more opportunities to use public transit, cycling, and walking to serve multiple daily needs.

POLICY TRAN.5.1.2

The City shall ensure that buses, transit stops, transit stations, and key locations in activity centers are equipped with route and system information and timetables that are easy to understand.

POLICY TRAN.5.1.3

The City shall coordinate with transit providers to improve reliability, frequency, operating hours and coverage area of transit services and the comfort and cleanliness of transit vehicles.

POLICY TRAN.5.1.4

The City shall prepare and distribute marketing materials in a manner that will encourage people who have transportation choices, including using transit services, to use transit instead of single-occupancy vehicles.

POLICY TRAN.5.1.5

The City will strongly encourage transit providers and local employers to provide mass transit opportunities during business commuting hours to help alleviate peak hour street congestion.

POLICY TRAN.5.1.6

The City will promote ride sharing by public and private sector employees. Information regarding ride sharing benefits will be provided on the City cable access channel and website/internet.

POLICY TRAN.5.1.7

The City will require all large employment centers to contribute towards mass transit through the implementation of additional mobility strategies determined by the City.

OBJECTIVE TRAN.5.2.0

The City will coordinate with all transit providers to expand public transportation services to the elderly, adolescents, disabled individuals, low-income persons, and others classified as transportation disadvantaged.

POLICY TRAN 5.2.1

The City, to the extent feasible, will coordinate with all transit providers in the marketing of services to transportation disadvantaged individuals through pamphlets to senior centers, organizations providing disabled services, low-income neighborhoods, and development and redevelopment of transit stops through information disseminated through all City facilities.

POLICY TRAN 5.2.2

The City will coordinate with all transit providers in the marketing and provision of additional methods of transportation.

POLICY TRAN.5.2.3

The City shall promote the availability of specialized transportation. The City, to the extent feasible, will advertise on the City cable access channel and website/internet by providing information on availability of special transportation needs including, but not limited to, names of companies, fare rates, telephone numbers, and schedules.

POLICY TRAN 5.2.4

The City will coordinate with all transit providers to provide transportation for not only wheelchair-bound individuals, but also for those who are of limited ambulatory ability. The City will continue to request that Palm Beach County provide transportation for wheelchair-bound individuals and persons with limited ambulatory ability.

POLICY TRAN 5.2.5

In order to have a diverse workforce, the City shall encourage the construction of affordable housing located in proximity to mixed use areas, major transportation generators and attractors, and along transit corridors consistent with the Housing Element to provide easier access to public transit services.

OBJECTIVE TRAN.5.3.0

The City will continue to coordinate with Palm Tran to provide demographic, economic, and engineering data necessary for effective transit planning, and to ensure that development in Boca Raton is designed to allow for safe and efficient operation by Palm Tran buses along existing or proposed routes. The City shall encourage Palm Tran to maintain routes in Boca Raton unless alternative routes, acceptable to Palm Tran, the City, and the TPA are available.

(SRPP 7.1.3.4)

POLICY TRAN.5.3.1

The City shall consult with Palm Tran through the TPA before abandonments of any street on which a Palm Tran route exists, or is planned to exist, during the planning period.

POLICY TRAN.5.3.2

The City shall not abandon any right-of-way which would result in the non-attainment of Objective TRAN.1.2.0

POLICY TRAN.5.3.3

The City shall, through the TPA, advise Palm Tran of any planned street construction in the City's 5-Year Capital Improvements Program, as well as the approximate construction dates when known. The City shall work cooperatively with Palm Tran to plan alternative temporary transit routes.

POLICY TRAN.5.3.4

The City will, in the site plan review process and where recommended by Palm Tran and the City, require developer dedications of bus pullover lanes, shelters, shade trees, lighting, benches, or other transit stop amenities.

POLICY TRAN.5.3.5

The City will coordinate with Palm Tran to review site plan proposals to ensure that the design of streets, buildings, and other features will allow for safe and efficient operation by Palm Tran buses and City shuttle buses.

OBJECTIVE TRAN.5.4.0

The City will coordinate with regional rail-based transit providers, such as South Florida Regional Transportation Authority (SFRTA), to provide demographic, economic, and engineering data necessary for effective rail transit planning and to improve the efficiency and interconnections to local transit services and destinations.

POLICY TRAN.5.4.1

The City, to the extent feasible, will provide to the SFRTA staff demographic, economic, and engineering data and citizen input on existing rail operations.

POLICY TRAN.5.4.2

The City shall encourage SFRTA to provide a satisfactory system of feeder transportation services.

POLICY TRAN.5.4.3

The City shall coordinate with SFRTA on public/private development proposals surrounding the Boca Raton Tri-Rail station to encourage new residences and destinations within walking distance of the Tri-Rail station.

POLICY TRAN.5.4.4

The City shall continue to coordinate with SFRTA regarding the feasibility of constructing an additional Tri-Rail station in the Southwest Planning Area, near the Town Center Mall.

OBJECTIVE TRAN.5.5.0

Develop a system of shuttle routes that provide connections between the commuter rail-based transit stations and major transportation generators and attractors. Local transit stops shall be integrated into existing and future development with convenient access to destinations, safe and comfortable waiting areas, and other amenities to improve the user experience and increase transit ridership in the City.

POLICY TRAN.5.5.1

Design the Boca Raton shuttle system to connect transit users to key local destinations such as Downtown, Town Center Mall, Florida Atlantic University (FAU), Boca Raton Regional Hospital, Park at Broken Sound, Peninsula Corporate Center, and other transportation generators and attractors.

POLICY TRAN.5.5.2

Coordinate with regional rail-based and vehicular transit operators to ensure that the operations of the Boca Raton shuttle system, SFRTA Tri-Rail, Broward County Transit, Palm-Tran and SFRTA shuttle service are interconnected as efficiently as possible.

POLICY TRAN.5.5.3

Provide shelters, benches, trash receptacles, and transit route and system information, where feasible, at stops in the City's shuttle network.

POLICY TRAN.5.5.4

Provide bicycle parking at transit stops and bicycle racks on shuttle buses as a means to interface bicycle travel with public transit.

POLICY TRAN.5.5.5

Continue to utilize a color scheme and identifiable logo so that the shuttle system can be easily recognizable and visually engaging.

POLICY TRAN.5.5.6

Equip shuttles with wireless internet access, live news broadcasts, and other technology forward integration, where feasible, to market the shuttles towards choice-riders.

OBJECTIVE TRAN.5.6.0

Encourage the Florida Transportation Commission (FTC), the FDOT, and the Florida East Coast Railway (FEC) to develop passenger transit services along the rail corridor adjacent to Dixie Highway.

POLICY TRAN.5.6.1

Promote the development of local or regional passenger transit service along the rail corridor adjacent to Dixie Highway.

POLICY TRAN.5.6.2

Reserve land for transit stations at appropriate locations along the transit corridor, and develop the area surrounding each station at an appropriate density and intensity and transit-oriented design to support rail service in the future.

POLICY TRAN.5.6.3

Examine the feasibility of a transit station at the intersection of North Dixie Highway and NW 20th Street and/or Glades Road surrounded by development to serve future passenger transit service along the FEC rail corridor.

POLICY TRAN.5.6.4

Examine the feasibility of a transit station at the intersection of North Dixie Highway and Yamato Road surrounded by development to serve future passenger rail service along the FEC transit corridor.

POLICY TRAN.5.6.5

Examine the feasibility of a transit station at the Northeast Planning Area to serve future passenger transit service along the FEC rail corridor.

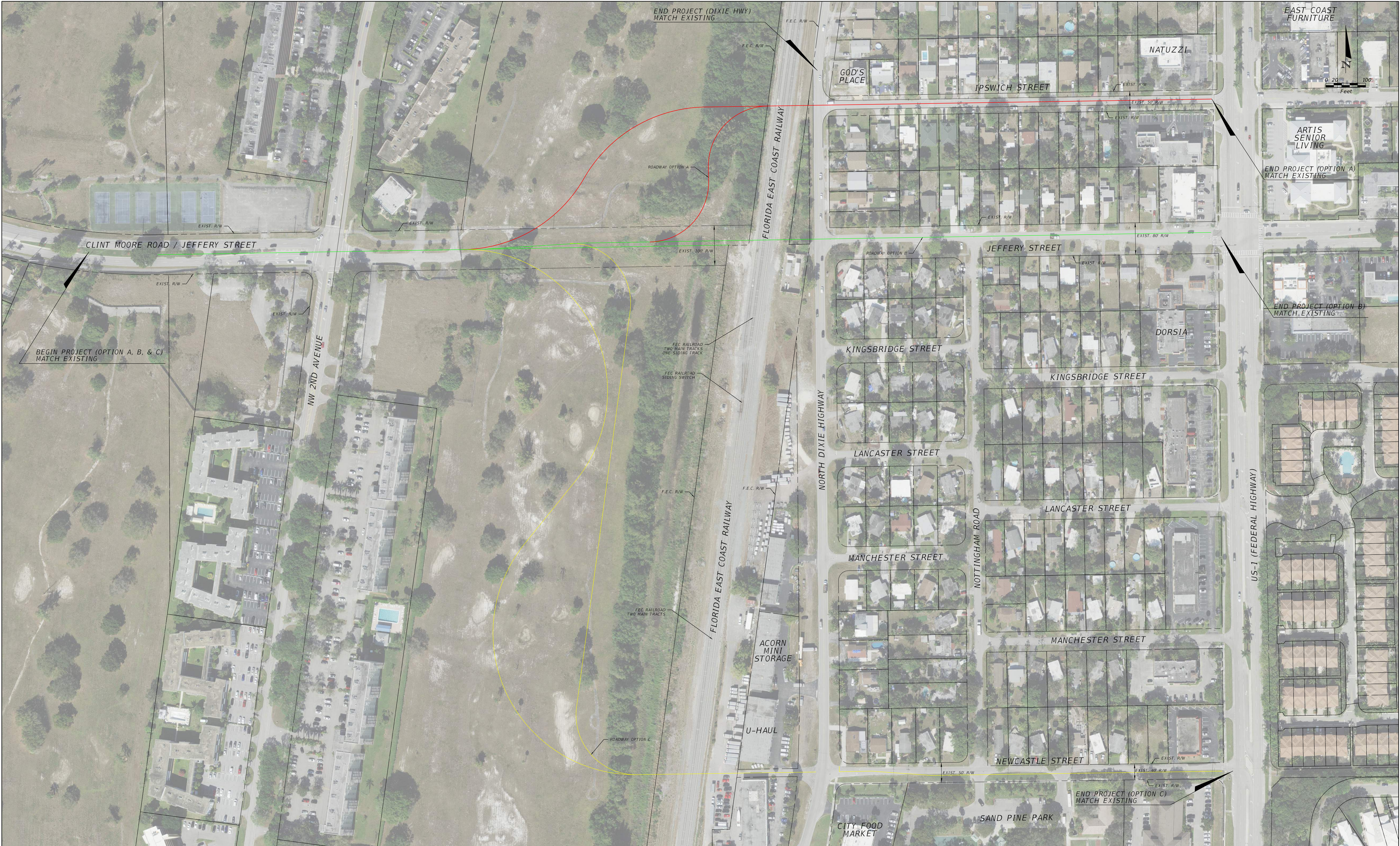
POLICY TRAN.5.6.6



Examine the feasibility of a transit station in the vicinity of Palmetto Park Road to serve future transit service along the FEC rail corridor.



APPENDIX B:

Alternate Routes



REVISIONS		REVISIONS		<div> 2035 Vista Parkway West Palm Beach, FL 33411 Certificate of Authorization 6091</div>	<div>CITY OF BOCA RATON</div>			<div><i>JEFFERY STREET</i> <i>ALTERNATE ROUTES</i></div>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	PURCHASE ORDER NO.		AA-01
					JEFFERY ST	PALM BEACH	CBR2200494		



APPENDIX C:
Concept Plans for Jeffery Street and NW 28th Street, and Railroad
Crossing Applications

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**RAILROAD GRADE CROSSING APPLICATION
OPENING**

ROAD NAME OR NUMBER	COUNTY/CITY NAME
Jeffery Street	Palm Beach County / City of Boca Raton

A. IDENTIFICATION

Submitted By:

Application For:

Applicant: City of Boca RatonOffice: City EngineerTelephone: (561) 416-3429Address: 201 W. Palmetto Park RoadBoca Raton, FL 33432**Opening** a public highway-rail grade crossing
by:☐ new rail line construction☒ new roadway construction☐ conversion of private to public highway-rail
grade crossing**B. CROSSING LOCATION**FDOT/AAR Crossing Number: New CrossingJurisdiction for Street or Roadway by Authority of: ☒ City ☐ County ☐ StateLocal Popular Name of Street or Roadway: Jeffery StreetRailroad Company: Florida East Coast RailwayRailroad Mile Post: RR MP 321.11 Jeffery Street is 1.22 miles south of RR MP 319.891, crossing 272499F at W
Hidden Valley BlvdSubmitted for the Applicant by: Clecio De Sa, Assistant City Engineer DATE: _____
Name and TitleApplication FDOT Review by: _____ DATE: _____
Central Rail Office**REFERENCES:**

(Specific Legal Authority) 334.044 F.S.

(Law Implemented) 335.141 F.S.

(Administrative Rule) 14-57.012 F.A.C.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**RAILROAD GRADE CROSSING APPLICATION
OPENING****OPENING APPLICATION QUESTIONNAIRE**

Design plans, maps, aerials, and supporting documentation must be provided with the application.

If all parties, Applicant, Railroad, and Department, fail to agree to the rail crossing opening through a Stipulation of Parties, the Applicant must establish the crossing meets the criteria found in Rule 14-57.012, Florida Administrative Code. This questionnaire will assist the Department in evaluating the criteria and is not intended to be an exclusive list of factors. If the information is not available or unknown, please mark N/A.

Florida Administrative Code criteria:**A) Safety**

- a-1. How will the proposed crossing affect safety to drivers, pedestrians, cyclists, and rail personnel? The proposed railroad crossing will help distribute traffic away from Yamato Road which is operating near capacity where there is a large percentage of vehicle crashes in the area. The new crossing is for Jeffery Street which is a major collector roadway with lower traffic volumes and lower speeds, which are safer for pedestrians and cyclist; as opposed to Yamato Road, which is a principal arterial roadway, with high traffic volumes and higher speeds. The new Jeffery Street roadway plans to include a new east-west sidewalk on the north side of the street between US-1 and NW 2nd Avenue. Rail personnel will be able to readily access the west siding tracks without traversing the large drainage ditch that parallels the railroad. A Feasibility Study Report (FSR) and Conceptual Traffic Analysis Report (CTAR) were prepared with appendices and included as an attachment to this application.
- a-2. Has grade separation been considered in planning the crossing? Yes, however an overpass is not feasible. If not, why? The project area is highly urbanized and compact. Extensive residential and commercial impacts would occur. The overpass ramps cannot connect into the existing roadway network in the short distance available between Dixie Highway and US-1.
- a-3. What crossings will be submitted for closure to offset the safety impacts of a new crossing opening? 272502L NW 28th Street
- a-4. What safety measures are designed for the proposed crossing? During the design phase, the latest railroad crossing safety measures will be incorporated and consistent with the standard practice in South Florida.
- a-5. What is the distance from the proposed crossing to the nearest intersection? Identify the street. 140 feet to North Dixie Highway.
- a-6. Are there plans for any structures to be built near the crossing intersection? None planned. Between the railroad and Dixie Highway is an existing communications hub with a single parking space and wall around the equipment. The proposed crossing will relocate the parking space to the south side which has substantially more available right of way to keep personnel and vehicles further away from the railroad.
- a-7. Identify all major traffic generators (i.e., businesses, shopping malls, recreational areas, special events, etc.) in this area. Specify type, location, and distance to proposed crossing. Within a half mile of the proposed crossing the land use is low density single family residential and two story multi-family residential. There are restaurant and retail commercial businesses along US-1. The developed land is bounded by the intracoastal waterway, 3000 feet east of the proposed crossing, which limits traffic growth. No special event land use is in the vicinity.
- a-8. Provide a traffic operations and safety analysis, with traffic issues evaluated for the railroad crossing, train traffic movements, and railroad preemption. This analysis should include all proposed developments in the immediate vicinity and the increase in traffic predicted from the developments. The FSR and CTARA include a safety and traffic analysis associated with opening a railroad crossing at Jeffery Street. The only potential change in development may be the conversion of portions of the dormant golf course on the west side of the FEC railroad. Redevelopment has not been approved. Annual background traffic growth of 1% was also included in the traffic study to the year 2045.

B) Necessity for rail and vehicle traffic

- b-1. Why is the crossing necessary? This proposed crossing and Jeffery Street extension will provide an additional arterial roadway that connects US-1 to areas west of I-95. Currently, there are only two roadways that provide this connection (i.e. Yamato Road and Spanish River Boulevard). Improvements to bus transit routes and emergency service response times is anticipated. This crossing helps relieve traffic/congestion on Yamato Road which is operating at unacceptable conditions and experiences the most crashes in the area. It will also help support economic activity in the area as NW 2nd Avenue is limited to only one lane northbound/southbound from Yamato Road to the northern county line. The Palm Beach County School board noted the new crossing would better serve the 16 routes in the area.
- b-2. Provide excerpts from the Comprehensive Plan or any other transportation plans relative to the proposed crossing. The City of Boca Raton Comprehensive Plan Transportation Element (CPTe) identifies several goals,

RAILROAD GRADE CROSSING APPLICATION OPENING

objectives and policies that support the project purpose to provide a safe, efficient, convenient, and economical transportation circulation system. The CPTE policy element and corresponding Jeffery Street project element are listed below. The City planning elements are located in FSR Appendix A.

Policy Tran.1.2.3: Proposed shared use pathways and wide sidewalks provide safe pedestrian and bicycle mobility, and the roadway link aides in connecting to Tri-Rail by linking US 1 Federal Highway with Congress Avenue and the Boca Raton Tri-Rail station via the Jeffery Street extension.

Policy Tran.1.2.4: Increased street connectivity to reduces vehicle trip lengths and creates a more walkable system along a minor collector roadway.

Policy Tran.1.3.1: The project proposes a needed roadway that reduces delay and congestion on the existing City roadways.

Policy Tran.2.1.5: The layout of the Jeffery Street extension establishes a new street connection to existing adjacent streets and creates a US-1 to US-441 local roadway connection for improved regional City mobility.

Policy Tran.2.2.1: The project supports the strategy to minimize any degradation to the operation conditions of the Strategic Intermodal System (SIS) roadways. Yamato Road is an SIS Connector to the Boca Raton Tri-Rail station. This project reduces the travel demand and intersection delay on Yamato Road which is a nearby and parallel roadway to Jeffery Street.

Policy Tran.2.3.1: The project reduces the need for a future expansion of Yamato Road which could result in environmental and economic impact to the local community.

Policy Tran.2.3.3: The project optimizes the use of City assets as the Jeffery Street alignment falls within the City of Boca Raton dedicated right of way.

Policy Tran.2.4.4: The project supports the policy to keep NW 2nd Avenue a 2-lane undivided constrained facility, from Yamato Road to the northern City limit, to maintain the residential character by allowing traffic to redistribute to Jeffery Street, Dixie Highway and US 1.

Policy Tran.3.1.3: The project supports the construction of bicycle and pedestrian facilities on the proposed Jeffery Street corridor with a new 8-foot shared-use walkway.

Policy Tran.3.2.4: Crosswalks and upgraded pedestrian signals at NW 2nd Avenue, Dixie Highway and US 1 are included in the project, which will improve pedestrian safety.

Policy Tran.5.5.1 Future Boca Raton shuttle systems could use Clint Moore Road/Jeffery Street to connect between the major land uses and residential areas located both east and west of I-95 and the FEC railway, instead of a relying on Yamato Road, a principle arterial, which is less connected to residential neighborhoods.

- b-3. Provide description of land use on each side of the rail crossing. East of the crossing are single family residential housing with some small business retail shops, restaurants and office space. West of the crossing, is a golf course which is no longer operational, along with scattered multi-family housing.
- b-4. Provide predicted Annual Average Daily Traffic (AADT) at the crossing. 13,061 refer to the CTAR Chapter 6.
- b-5. Provide level of service at the crossing. LOS B - AM and LOS C - PM at the intersection of Jeffery St and N. Dixie Hwy for the year 2045 traffic conditions. This includes two eastbound lanes and two westbound lanes. Jeffery Street will operate at LOS C for the 2045 traffic conditions.
- b-6. Provide anticipated AADT and level of service in 5 years. See answer in b-5 which provides the AADT and level of service for 2045
- b-7. Provide predicted percentage of truck traffic and anticipated truck traffic 5 years out. 2.1% based on AM and PM peak hour counts at the intersections of Jeffery St/NW 2nd Ave and Jeffery St/Dixie Hwy. Approximately 275 heavy vehicles are projected to use the crossing in 2045.
- b-8. Will trucks carry hazardous materials? unknown If so, approximately how many trips per day or week? unknown
- b-9. Will school buses use the crossing? unknown, the Palm Beach County School Board noted 15 routes operate in the vicinity of the proposed crossing (See FSR Appendix D) If so, how many school buses will use the crossing per day or week?
- b-10. Will emergency rescue vehicles use the crossing? If so, approximately how many trips per day or week? Yes, but the quantity is unknown. City emergency services noted the new crossing would improve response times in the region. (See FSR Appendix D).
- b-11. What is the predicted number of pedestrians and bike riders that will use the proposed crossing? What is the predicted number of users 5 years out? It is projected approximately 200 pedestrian and 25 bicyclists will use the proposed crossing daily which is based on existing pedestrian activity at the intersection of Jeffery Street/Dixie Hwy and half of the bicycle activity at the intersection of Yamato Rd/N Dixie Hwy. It is projected these volumes would grow at approximately 1% per year.
- b-12. Please provide any corridor studies or other preliminary traffic engineering studies that pertain to this crossing. The FSR and CTAR are attached.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**RAILROAD GRADE CROSSING APPLICATION
OPENING**

C) Alternate Routes

- c-1. Are there access roads available to property owners if the crossing is not there? Yes.
- c-2. Name routes currently used or intended for use if the crossing is not approved? Yamato Road is 2700 feet south and Hidden Valley Blvd is 7200 feet north.
- c-3. Are there traffic signals on these routes? Yes, at both intersections.
- c-4. How does the proposed crossing, if built, affect the AADT at nearby public crossings? Provide estimated traffic count changes, if any. For the 2045 traffic conditions, the daily traffic at the RR crossing to the north at W. Hidden Valley Blvd will decrease from 10,993 trips to 10,351 trips, and the daily trips for the RR crossing to the south at Yamato Rd will decrease from 50,000 trips to 44,900 trips.

D) Effect on rail operations and expenses

- d-1. Provide current number and type of rail tracks. 2 through tracks and one siding track
- d-2. Are there rail sidings or switches in the location of the proposed crossing? Yes, one siding track that connects to the main track 250 feet south of the proposed crossing with a second siding that is north of the crossing that connects to the first siding track.
- d-3. Is there a nearby rail yard? None If so, what is the distance of the yard to the proposed crossing. N/A
- d-4. Provide the current number of daily train movements (number of switching or thru trains; number of passenger or freight trains). 27 daylight trains, 27 night trains per Inventory form. plus 36 passenger trains (Brightline)
- d-5. Provide the approximate times during the day and evening that the crossing will be blocked. Freight trains run thorough 24 period, and passenger runs from 5:00 am to just past midnight.
- d-6. Provide the approximate length of time (i.e., minutes) that the crossing is blocked. 30 seconds
- d-7. Provide minimum and maximum train speeds at the proposed crossing. 30 to 79 mph per Inventory Report (2020)
- d-8. What is the anticipated expansion of tracks and/or train movements? unknown.
- d-9. What is the distance from the proposed crossing to adjacent public crossings? (Identify adjacent crossings by road name and crossing number.) 272499F (RR MP 319.891) W Hidden Valley Blvd. is located 5800 ft north and 272500X (RR MP 321.505) Yamato Road is located 2700 ft south of the proposed crossing.
- d-10. What are the estimated costs of the crossing installation and annual maintenance? Unknown Who will be responsible for the costs of installation and maintenance? City of Boca Raton

E) Closure of one or more public crossings to offset opening a new crossing

- e-1. Provide the names and crossing numbers of any crossing closure candidates that may offset the opening of the proposed crossing. Crossing #272502L at NW 28th Street

F) Design of the grade crossing and road approaches

- f-1. Submit design plans, inclusive of location of sidewalks, bike lanes, and traffic control devices, including pavement markings, signs, and highway traffic signals. See FSR Appendix C - Jeffery Street Concept Plans.
- f-2. What future changes are proposed (ex: phase one is a 2-lane roadway, left turn lane to be added in phase two)? Jeffery Street will be extended from NW 2nd Avenue to connect with N. Dixie Hwy with two lanes in each direction. Substantial improvements are proposed at the intersection of Jeffery St and NW 2nd Avenue, at Jeffery St and N Dixie Hwy and at Jeffery St and US-1 to achieve required LOS.
- f-3. What is the vehicular design speed at the proposed crossing? 30-35 mph
- f-4. How many thru or turn lanes? Jeffery St will have two through lanes in each direction. Divided or undivided? undivided

G) Presence of multiple tracks and their effect upon railroad and highway operations

- g-1. Please confirm the number of tracks at the location and identify each track. 2 main tracks and 1 siding
- g-2. How many train movements occur on each track and the types of trains that run on each track (passenger, thru freight or switching freight, and the number of cars)? 27 daylight trains, 27 night trains per Inventory form. plus 36 passenger trains (Brightline)



REVISIONS	
DATE	DESCRIPTION

REVISIONS	
DATE	DESCRIPTION



**2035 Vista Parkway
West Palm Beach, FL 33411
Certificate of Authorization 6091**

CITY OF BOCA RATON		
ROAD NO.	COUNTY	PURCHASE ORDER NO.
JEFFERY ST	PALM BEACH	CBR2200494

**JEFFERY STREET
BUILD OPTION**

SHEET NO.
B0-01

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**RAILROAD GRADE CROSSING APPLICATION
CLOSING**

ROAD NAME OR NUMBER	COUNTY/CITY NAME
NW 28 th Street	Palm Beach County / City of Boca Raton

A. IDENTIFICATION

Submitted By:

Application For:

Applicant: City of Boca Raton**Closing** a public highway-rail grade crossing
by:Office: Municipal Services☒ roadway removalTelephone: (561) 416-3429☐ rail removalAddress: 201 W. Palmetto Park RoadBoca Raton, FL 33432**B. CROSSING LOCATION**FDOT/AAR Crossing Number: 272502L NW 28th StreetJurisdiction for Street or Roadway by Authority of: ☒ City ☐ County ☐ StateLocal Popular Name of Street or Roadway: NW 28th StreetRailroad Company: Florida East Coast RailwayRailroad Mile Post: 322.790Submitted for the Applicant by: Clecio De Sa, Assistant City Engineer DATE: _____
Name and TitleApplication FDOT Review by: _____ DATE: _____
Central Rail Office**REFERENCES:**

(Specific Legal Authority) 334.044 F.S.

(Law Implemented) 335.141 F.S.

(Administrative Rule) 14-57.012 F.A.C.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**RAILROAD GRADE CROSSING APPLICATION
CLOSING****CLOSING APPLICATION QUESTIONNAIRE****Maps, aerials, and supporting documentation must be provided with the application.**

If all parties, Applicant, Railroad, and Department, fail to agree to the rail crossing closure through a Stipulation of Parties, the Applicant must establish the closure meets the criteria found in Rule 14-57.012, Florida Administrative Code. This questionnaire will assist the Department in evaluating the criteria and is not intended to be an exclusive list of factors. If the information is not available or unknown, please mark N/A.

Florida Administrative Code criteria:**A) Safety**

- a-1. How will the crossing closure affect safety to drivers, pedestrians, cyclists, and rail personnel? Closing the crossing will eliminate automobile and pedestrian conflicts with the train, improving safety. Railroad workers can access railroad equipment cabinets without automobile traffic due to the closure and have rail vehicle access from NW 28th Street. Removal of crossing gates will reduce maintenance costs.
- a-2. What, if any, safety measures are proposed for adjacent crossings? The adjacent crossing at NW 20th St. has overhead signalization, quad gates and median. The adjacent crossing at NW 40th St has overhead signals, dual gates with median. No improvements are anticipated for these locations related to this project.
- a-3. Identify all highway traffic control devices and highway traffic signals at adjacent crossings that may be improved or upgraded if the subject crossing is closed. See A-2. The adjacent crossing at NW 20th Street has traffic controls signalization coordinated with the railroad crossing lights and gates. Sidewalks and raised median separators are provided.
- a-4. What is the distance from the subject crossing to the nearest intersection? Identify the street. NW 28th Street at NW 1st Avenue is 275 feet west of the crossing.
- a-5. Are there structures, fences, or vegetation near the subject crossing that inhibits sight distance? The crossing location does not have structures, fences or vegetation near the crossing. The area is maintained grass.
- a-6. Identify major traffic generators (i.e., businesses, shopping malls, recreational areas, special events, etc.) in this area. Specify type, location, and distance to subject crossing. Florida Atlantic University is 1/4 miles west of the project. JC Mitchell Elementary School is 0.7 miles northwest of the crossing. The urban city surrounding land use consist of single and multi-family residential, commercial and medical offices.
- a-7. Is the crossing located on a designated evacuation route? No
- a-8. Provide a traffic operations and safety analysis, with traffic issues evaluated for the railroad crossing closure. This analysis should include all adjacent rail crossings and roadways in the immediate vicinity and the increase in traffic predicted on these roadways from rerouting. A Feasibility Study Report (FSR) and Concept Traffic Analysis Report (CTAR) were and attached to this application. The adjacent crossing to the south at NW 20th Street and Dixie Highway operates at level of service (LOS) C and D in the AM/PM periods for both the no build and build year 2045. The adjacent crossing to the north at NW 40th Street and Dixie Highway operates at LOS D/E and E/E in the in the AM/PM periods for year 2045, no build and build conditions respectively.

B) Necessity for rail and vehicle traffic

- b-1. Is the crossing necessary to access property? No, property access is via US-1/SR-5/Federal Highway to the east and via NW 2nd Ave to the west. A short section of NW 28th Street will remain between NW 2nd Ave and the closed crossing to serve existing businesses.
- b-2. Provide description of land use on each side of the rail crossing. To the east are single family homes and to the west are auto services businesses, retail carpet store, and day time medical office space.
- b-3. Are there any churches, schools, or hospitals within a mile or less of the subject crossing? Please list by name and location. A major canal parallels the railroad and is 0.64 miles west of the railroad that requires all traffic to use the bridge at NW 20th Street. JC Mitchell Elementary School 0.73 miles northwest at 2470 NW 5th Ave. Islamic Center of Boca Raton is 1.02 miles northwest at 3480 NW 5th Ave. Sarepta French Seventh-Day Adventist Church is 0.71 miles north at 300 NW 35th Street. Iglesia Victoria Church is 0.54 miles north at 3499 NW Boca Raton Blvd. Boca Raton Bible Chapel is 1.0 miles at 3900 NW 3rd Ave. Torah Academy of Boca Raton South Campus is 1.0 miles at 3881 NW 3rd Ave.
- b-4. Annual Average Daily Traffic (AADT) at the crossing? 6,100 (2019) per FDOT Traffic Online data
- b-5. Level of service at the crossing? AM - C, PM - D per capacity analyses using Synchro 11 (See CTAR)
- b-6. Percentage of truck traffic? 3% per traffic counts between 7am - 9am and 4pm - 6pm on 11/18/21 (See CTAR)
- b-7. Do trucks carrying hazardous materials use the crossing? unknown If so, approximately how many trips per day or week? unknown

**RAILROAD GRADE CROSSING APPLICATION
CLOSING**

- b-8. How many school buses use the crossing daily? 9 buses (type not known) per 2019 Rail Highway Crossing Inventory data sheet.
- b-9. What is the estimated number of pedestrians and bike riders that use the subject crossing (daily/weekly)? There were no recorded pedestrians or bike riders in the AM peak hour (7:45 am to 8:45 am). There were 4 pedestrians during the PM peak hour that used the railroad crossing.
- b-10. Is the subject crossing on a local transit route? No known routes.
- b-11. Please provide any corridor studies or other preliminary traffic engineering studies that pertain to this crossing. The FSR and CTAR are attached to this application.

C) Alternate Routes

- c-1. Are there access roads available to property owners if the crossing is closed? Yes. Access remains between NW 2nd Avenue and the closed crossing via the remaining 450 foot segment of NW 28th St. There is no existing private property access along the east side of the railroad right of way as it is adjacent to US 1/Federal Highway.
- c-2. Name routes that can be used if the crossing is closed? NW 20th St to the south and NW 40th St/Spanish River Blvd to the north are existing railroad crossings for public roadways.
- c-3. Are there traffic signals on these routes? Yes, full signalized traffic signals, crossing gates, crossing signals and medians.
- c-4. How does the proposed crossing closure impact the AADT at nearby public crossings? Provide estimated traffic count changes. The nearby crossings 2045 AADT traffic is projected to increase from 15,039 to 16,206 at NW 20th ST.
- c-5. By driving alternate routes, during peak times, calculate the additional travel time and distance between two points (nearest intersection or major access) on either side of the subject crossing. Provide calculated times, routes, and distances. The calculated time is 4 additional minutes to travel 1.6 miles

D) Effect on rail operations and expenses

- d-1. Provide current number and type of rail tracks at the subject crossing. Two main line tracks.
- d-2. Are there rail sidings or switches in the location of the subject crossing? No.
- d-3. Is there a nearby rail yard? No If so, what is the distance of the yard to the subject crossing. n/a
- d-4. Provide the current number of daily train movements (number of switching or thru trains; number of passenger or freight trains). 27 daylight trains, 27 night trains per Inventory form. plus 36 passenger trains (Brightline)
- d-5. Provide the approximate times during the day and evening that the crossing is blocked. all hours of the day.
- d-6. Provide the approximate length of time (i.e., minutes) that the crossing is blocked. 2-3 minutes
- d-7. Provide minimum and maximum train speeds at the subject crossing. 25 mph to 40 mph per 2018 rail inventory sheet.
- d-8. What is the anticipated expansion of tracks and/or train movements? n/a
- d-9. What is the distance from the subject crossing to adjacent public crossings? (Identify adjacent crossings by road name and crossing number.) RR# 272503 NW 20th Street is 0.58 miles south and RR# 272501 NW 40th Street is 0.7 miles north of the crossing.

E) Excessive restriction to emergency type vehicles resulting from closure

- e-1. Provide response from the Sheriff/Police Chief and Fire Chief to the proposed crossing closure. Refer to FSR Appendix D. Police stated, the department's preference is no rail crossings are eliminated and closure of NW 28th Street could have negative impact on response times. The current police patrol zone is assigned to one office who remains in the area unless called to another location. The closure would create the longest distance between crossings in the 'middle' of the city of 1.27 miles.
- e-2. Based on observation, the response from the City/County, or traffic studies, is this a route that emergency rescue would typically use? City emergency services did not have data.
- e-3. How many emergency rescue vehicles have used the crossing to respond to calls in the past 2-3 years? Unknown by the city emergency services.

F) Design of the grade crossing and road approaches

- f-1. Identify and describe the condition of: crossing surface, rail warning devices (including pavement markings, signs, and highway traffic signals), sidewalks, bike lanes, and approaches on each side of subject crossing. There are sidewalks on both sides of the crossing. It is adjacent to a signalized intersection so there are traffic signals on the overhead railroad crossing warning structure for eastbound traffic. All traffic has railroad warning signals, rail crossing gates for traffic and for the pedestrian sidewalks. Pavement markings include stop bars on each side of the tracks and right-turn and left-turn arrows designating the lane characteristics for eastbound traffic.

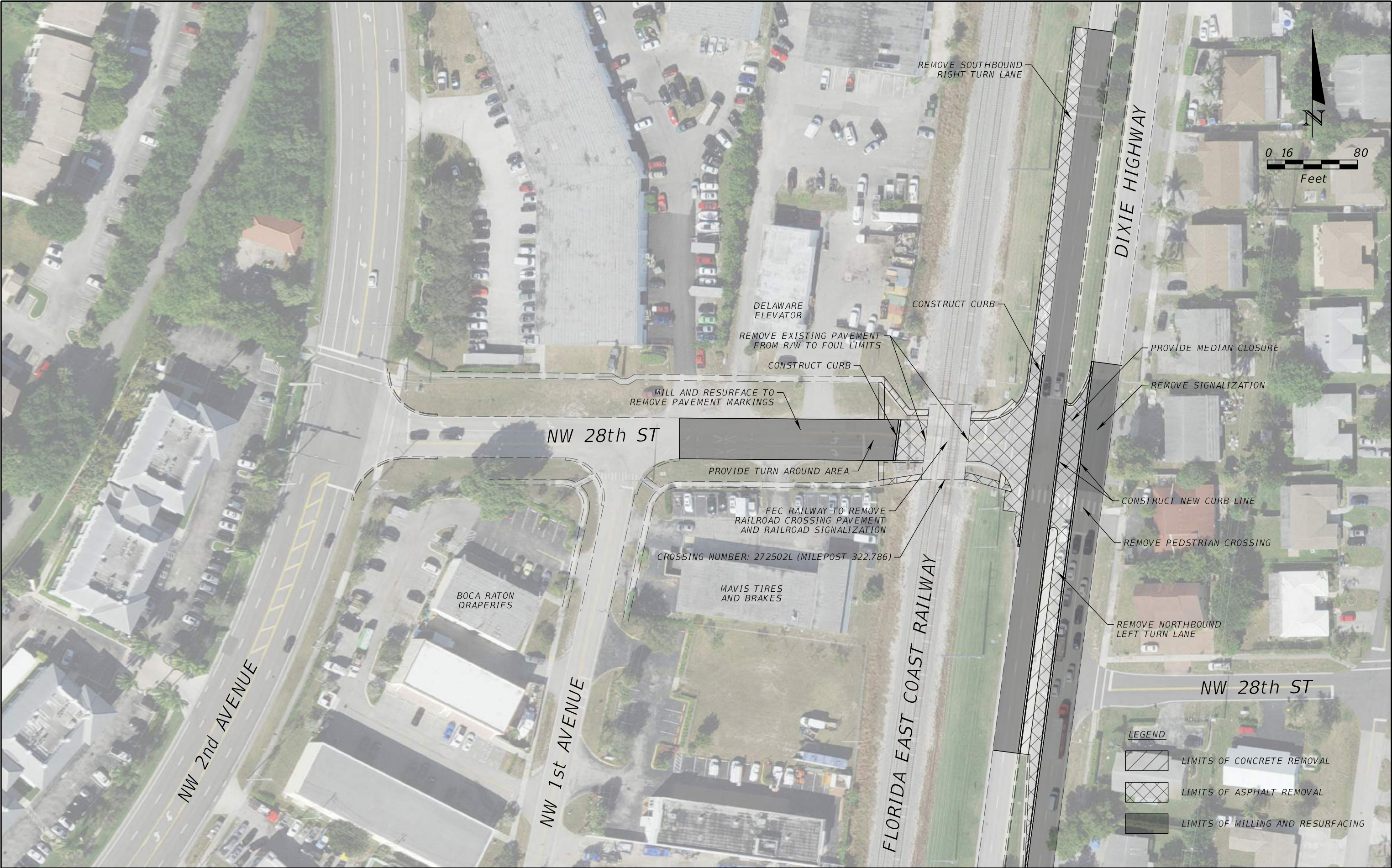
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
RAILROAD GRADE CROSSING APPLICATION
CLOSING

- f-2. Is the crossing surface and track higher than either side of the road (i.e., hump crossing)? Yes
- f-3. What is the vehicular design speed at the subject crossing? 25 mph, low speed due to all movements are turning movements across the railroad crossing. There are no through movements crossing the tracks.
- f-4. Number of lanes at the crossing? The existing lanes are 2 eastbound turn lanes and one westbound through lane. There are no eastbound through lanes because NW 2nd Ave is a T intersection with Federal Highway.
- f-5. Width of crossing? The NW 20th St pavement is 36 ft wide and right of way is 100 ft wide.
- f-6. Condition of roadway? Good.

G) Presence of multiple tracks and their effect upon railroad and highway operations

- g-1. Please confirm the number of tracks at the location and identify each track. two pairs of tracks.
- g-2. How many train movements occur on each track and the types of trains that run on each track (passenger, thru freight, or switching freight and the number of cars)? 27 daylight trains, 27 night trains per Inventory form. plus 36 passenger trains (Brightline)


10/6/2022 11:22:34 AM chad.johnson
c:\pwworking\wgi\chad\2180498\BDPLR001.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION



WGI, INC.
2035 VISTA PARKWAY
WEST PALM BEACH, FL 33411



CITY OF BOCA RATON

ROAD	WORK ORDER No.	PURCHASE ORDER
JEFFERY ST	71	CBR2200494

NW 28th STREET CLOSURE

CROSSING NUMBER: 272502L (MILEPOST 322.786)

SHEET NO.
28-01



APPENDIX D:

Agency and Public Coordination



**COORDINATION MEETING WITH CITY OF BOCA RATON EMERGENCY SERVICES
MEETING NOTES
OCTOBER 20, 2022 @ 2:00 PM
Teams Teleconference**

Project Name: Jeffery St. to Federal Hwy. FEC Railroad Crossing **WGI Project:** 2602.71

Client Name: City of Boca Raton **Client Project:** TWO 71 (CBR2200494)

Attendees: Clecio De Sa, Matthew Welhaf, Naresh Machavarapu, Elizabeth Roberts, Doug Immler, Lauren Burack and Bill Evans.

COORDINATION MEETING WITH CITY OF BOCA RATON EMERGENCY SERVICES

1. Purpose of the meeting was to review the proposed new crossing at Jeffery Street, the closure of NW 28th Street, and obtain comments from the emergency services divisions.
2. **Notes and Action Items:**
 - An overview was presented of
 - The city's goal to improve transportation mobility access in the northern portion of the city.
 - The proposed Jeffery Street extension, and NW 28th Street railroad crossing closure.
 - The FDOT requires at least one crossing to be closed to open one new crossing.
 - The group discussion focused on the general transportation uses at NW 28th Street and the benefits of opening Jeffery Street.
 - The group closed the meeting with the following action items:
 - Consultant to provide the report and concept plans; and summarize what is needed to complete the rail applications.
 - Emergencies services will review and comment on the proposed concept plans as related to their service needs. The questions from the FDOT railroad application forms are noted on page 2.



Railroad Questionnaire Summary

The FDOT railroad applications request the applicant to obtain input from school and emergency services managers on the proposed crossing opening at Jeffery Street and on the proposed crossing closure at NW 28th Street. The responses can be quantitative (estimated), qualitative (low, average, high) or labeled as unknown.

Below are the specific questions taken from the FDOT Railroad Grade Crossing Application Opening and Closing forms 725-090-66a.

Jeffery Street Rail Crossing Opening Questions:

B-9: Will school buses use the crossing? If so, how many school buses will use the crossing per day or week?

B-10: Will emergency rescue vehicles use the crossing? If so, approximately how many trips per day or week?

NW 28th Street Rail Crossing Closure Questions:

E: Excessive restriction to emergency type of vehicles resulting from closure

E-1: Provide response from the Sheriff/Police Chief and Fire Chief to the proposed crossing closure.

E-2: Based on observation, the response from the City/County, or traffic studies, is this a route that emergency rescue vehicles would typically use?

E-3: How many emergency rescue vehicles have used the crossing to respond to calls in the past 2-3 years?

It would be the police department's preference that no rail crossings in the city are eliminated, and closing the rail crossing at NW 28th Street could have a negative impact on our emergency response time.

If the rail crossing at NW 28th Street was closed, the distance between NW 20th Street and Spanish River Blvd would be 1.27 miles which is almost the distance between Yamato Road and Hidden Valley which this proposal seeks to eliminate.

Jeffery Street Rail Crossing Opening Questions:

B-10: Will emergency rescue vehicles use the crossing? If so, approximately how many trips per day or week?

Law enforcement officers/vehicles would likely utilize the crossing daily, however the number of trips per day or week cannot be estimated based on available data.

NW 28th Street Rail Crossing Closure Questions:

E-1: Provide response from the Sheriff/Police Chief and Fire Chief to the proposed crossing closure.

The area east of Dixie Highway, situated north of NW 20th Street and south of Spanish River Boulevard within the jurisdictional boundaries of the City of Boca Raton is the source of a significant amount of the workload for the Boca Raton Police Services Department. This area includes business, residential and recreational areas that account for police response ranging from crimes-in-progress to requests for information and civil assists. Current zone configuration assigns responsibility for patrolling this area to one officer who, in theory, remains within the area and handles any on-view or citizen-initiated service requests. However, the dynamics of police response to crimes-in-progress or serious traffic crashes throughout the city often requires multiple units that are diverted from their assigned patrol areas to an area or event somewhere else. This of course is out of our control and does occur with some frequency. Consequently, response times to calls-for-service in some areas are predictably increased within a given timeframe as officers respond to locations outside of their normal patrol areas. Normally, field supervisors can make strategic adjustments to patrol patterns as necessary and any inconvenience to our citizens is minimized.

The issue of road access to the eastern sector of the city is certainly a factor in the response dynamics because of the railway barrier presented by the Florida East Coast Railway tracks located just west of Dixie Highway. For our purposes, the more FEC crossings available, the better. Currently, the largest gap in FEC crossing access is on the very north (Yamato Road to Hidden Valley Boulevard, 1.6. miles) and on the very south (SW 18th Street to Camino Real, 0.77 miles). Should the NE 28th Street crossing be closed, the largest gap in FEC crossing access would shift to the "middle" (NE 20th Street to Spanish River Boulevard, 1.27 miles). How this will affect response to the area depends on those variables that would impact the route a responding unit would travel between a location west of the FEC tracks to a location east of the tracks and vice-versa. However, we can predict that response times will be

negatively impacted for some locations east or west of the FEC tracks, at some point in time. When this occurs, the impact could be significant enough to negatively impact our response to a citizen in need of help or an officer calling for help. We can also predict based on past incidents that at some point a crossing will malfunction or otherwise become blocked, temporarily increasing the estimated 1.27-mile gap in the “middle” of the city.

E-2: Based on observation, the response from the City/County, or traffic studies, is this a route that emergency rescue vehicles would typically use?

Based on observation, this is a route that law enforcement officers/vehicles utilize daily.

E-3: How many emergency rescue vehicles have used the crossing to respond to calls in the past 2-3 years?

Based on the available data, the Boca Raton Police Services Department cannot assess the number of law enforcement vehicles that have used the crossing in the past 2-3 years.



CITY OF Boca Raton

FIRE RESCUE SERVICES
6500 CONGRESS AVENUE, SUITE 200 • BOCA RATON, FL 33487
PHONE: (561) 982-4000
FAX: (561) 982-4050
(FOR HEARING IMPAIRED) TDD: (561) 367-7043
www.myboca.us

January 11, 2023

To: Lauren Burack
From: Jay Sumner; Assistant Chief
Subject: Jeffery Street – FEC Railroad Crossing

Upon review of the information regarding the proposed railroad crossing on Jeffery Street at the FEC tracks, it is the fire department's preference that there should not be any railroad crossings within the city eliminated. If the railroad crossing at 28th Street was eliminated there is a possibility that it would negatively impact the emergency response time.

Proposed Jeffery Street Rail Crossing Usage:

If the railroad crossing at Jeffery Street were approved, fire department emergency vehicle response times would be positively impacted. Currently, the units stationed at Station 4, located at 375 Yamato Rd, are only able to utilize the crossings at Hidden Valley and Yamato Road. The units at Station 6, located at Military Trail and Clint Moore, are second due to some of the area in the NW and NE sections of the city. The installation of a railroad crossing at Jeffery Street provides an alternative and more direct routing for units at both stations. The number of trips per day/week cannot be estimated based on our available data as emergency response is typically not predictable.

NW 28th Street Closure:

The FEC railway is a barrier / obstacle that runs north and south through the eastern part of our city. As previously stated, the closure of the 28th Street FEC Railroad Track Crossing, creates another obstacle for our emergency response apparatus to overcome. The closure will delay response times in certain instances depending on the location of the emergency in relation to 28th Street. We are unable to provide feedback on how significant the negative impact would be if the 28th Street crossover were eliminated because we cannot predict when and where emergencies occur. I can however, predict that at some point and time, an emergency will occur in that area, and the response times will be negatively impacted due to the closure.

Understanding the FEC rule regarding the adding of a crossing, requires the elimination / closure of two existing crossings, we do not believe it would be prudent to have a project benefit one community, and negatively impact another.

Ideally, we would like to keep all current crossings and add the crossing at Jeffery Street as well.

STAY CONNECTED   

- AN EQUAL OPPORTUNITY EMPLOYER -

From: [Teliska Jackson-Wolliston](#)
To: [Bihr, Zachary](#)
Cc: [De Sa, Clecio](#); [Karla Longworth](#); [Burack, Lauren](#); [Jerry Nyman](#); [Michael Owens](#)
Subject: Re: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study
Date: Friday, January 27, 2023 7:54:33 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)

Good morning Mr. Bihr,
Will school buses use the crossing? unknown If so, how many school buses will use the crossing per day or week?
This location would be beneficial and more efficient for routes servicing this area (15 routes as of today).
Have an awesome day!

On Thu, Jan 26, 2023 at 5:09 PM Bihr, Zachary <ZBihr@ci.boca-raton.fl.us> wrote:

Please note that this is the last step for the City to be able to submit the application.

If you prefer a call to discuss or for the City to provide more details, we would be happy to set something up.

Thank you,

Zachary Bihr, P.E. | Director

City of Boca Raton, Municipal Services Department

201 W. Palmetto Park Road, Boca Raton, FL 33432

P 561-416-3430 | zbihr@myboca.us

From: De Sa, Clecio <CDesa@ci.boca-raton.fl.us>
Sent: Thursday, January 26, 2023 5:02 PM
To: Karla Longworth <karla.longworth@palmbeachschools.org>; Teliska Jackson-Wolliston <teliska.jackson-wolliston@palmbeachschools.org>
Cc: Burack, Lauren <lburack@ci.boca-raton.fl.us>; Jerry Nyman <jerry.nyman@palmbeachschools.org>; Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Michael Owens <michael.owens.1@palmbeachschools.org>
Subject: RE: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study
Importance: High

Karla and Teliska,

The City of Boca Raton has conducted a feasibility study to extend Jeffery St/Clint Moore to Federal Highway which include a new at-grade crossing at the Florida East Coast (FEC) Railroad.

As part of the process, the City needs to submit FDOT applications for the opening/closure of the railroad crossings. We need feedback from the School Board with couple questions of the application. Jerry Nyman was able to provide the response for one of them and gave us your contact information for the second question(below).

Jeffery Street Rail Crossing Opening Question:

b-9. Will school buses use the crossing? unknown If so, how many school buses will use the crossing per day or week?

Response:

We understand that the response will likely be an estimate since this a new crossing.

Please let me know if you need any additional information, we really need this response as this is the last item to complete the application.

Thank you,

Clecio De Sa, P.E. | Assistant City Engineer

City of Boca Raton, Municipal Services Department

201 W. Palmetto Park Road, Boca Raton, FL 33432

P 561-416-3429 | C 561-405-1672 | cdesa@myboca.us

Public Works: "First to Respond...Last to Leave"

From: Jerry Nyman <jerry.nyman@palmbeachschools.org>
Sent: Wednesday, January 18, 2023 12:11 AM
To: Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; De Sa, Clecio <CDesa@ci.boca-raton.fl.us>; Michael Owens <michael.owens.1@palmbeachschools.org>; Burack, Lauren <lburack@ci.boca-raton.fl.us>
Cc: Karla Longworth <karla.longworth@palmbeachschools.org>; Teliska Jackson-Wolliston <teliska.jackson-wolliston@palmbeachschools.org>
Subject: Re: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Zachary,

Here are two contacts (Karla and Teliska) that can help answer your questions:

Karla Longworth,

Area Team Leader, South Facility

Transportation Services
Division of Support Operations
Exceeding Expectations

School District Palm Beach County
1302 SW 30th Ave.

Boynton Beach, FL 33436

Phone 561 738-9201 PX 59201 FAX 561 738-9209 PX 59209

Karla.Longworth@palmbeachschools.org
www.palmbeachschools.org

Kind Regards,

Teliska Jackson-Wolliston, MS

Area Team Leader, South Facility

teliska.jackson-wolliston@palmbeachschools.org

Office Phone: (561)738-9202

District Cell:561-707-6092

Jerry

Good afternoon Jerry,

This is the last remaining item for the City to submit our application. Do you have a phone number where I can reach you to follow up or clarify?

We understand that this will likely be an estimate because this would be a new crossing.

Thank you for supporting us in this effort.

Zachary Bihr, P.E., | Director

City of Boca Raton, Municipal Services Department

201 W. Palmetto Park Road, Boca Raton, FL 33432

P 561-416-3430 | zbihr@myboca.us

From: De Sa, Clecio <CDeSa@ci.boca-raton.fl.us>
Sent: Wednesday, January 11, 2023 4:19 PM
To: Jerry Nyman <jerry.nyman@palmbeachschools.org>
Cc: Michael Owens <michael.owens.1@palmbeachschools.org>; Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>
Subject: RE: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Good afternoon Jerry,

I am following up on my last email, I have received feedback from emergency services and now we are only waiting on your information to complete the FDOT permit application.

Please contact me if you have any questions.

Thank you,

Clecio De Sa, P.E., | Assistant City Engineer

City of Boca Raton, Municipal Services Department

201 W. Palmetto Park Road, Boca Raton, FL 33432

P 561-416-3429 | C 561-405-1672 | cdesa@myboca.us

Public Works: *"First to Respond...Last to Leave"*

From: De Sa, Clecio
Sent: Thursday, December 22, 2022 5:31 PM
To: Jerry Nyman <jerry.nyman@palmbeachschools.org>
Cc: Michael Owens <michael.owens.1@palmbeachschools.org>; Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>
Subject: RE: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Jerry,

I am following up on my last email.

Please let me know if you have any additional questions/concerns.

Thank you,

Clecio De Sa, P.E., | Assistant City Engineer

From: De Sa, Clecio
Sent: Friday, December 9, 2022 9:17 AM
To: Jerry Nyman <jerry.nyman@palmbeachschools.org>
Cc: Michael Owens <michael.owens.1@palmbeachschools.org>; Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>
Subject: RE: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Jerry,

You have the correct location, there is no road that cross the railway tracks at Jeffery St, the city has hired a consultant to conduct a feasibility study to extend the existing road across the railway tracks and as part of the application that the city needs to submit to FDOT we need to respond to the following question:

Will school buses use the crossing? unknown If so, how many school buses will use the crossing per day or week?

Let me know if you have any question.

Thank you,

Clecio De Sa, P.E., | Assistant City Engineer

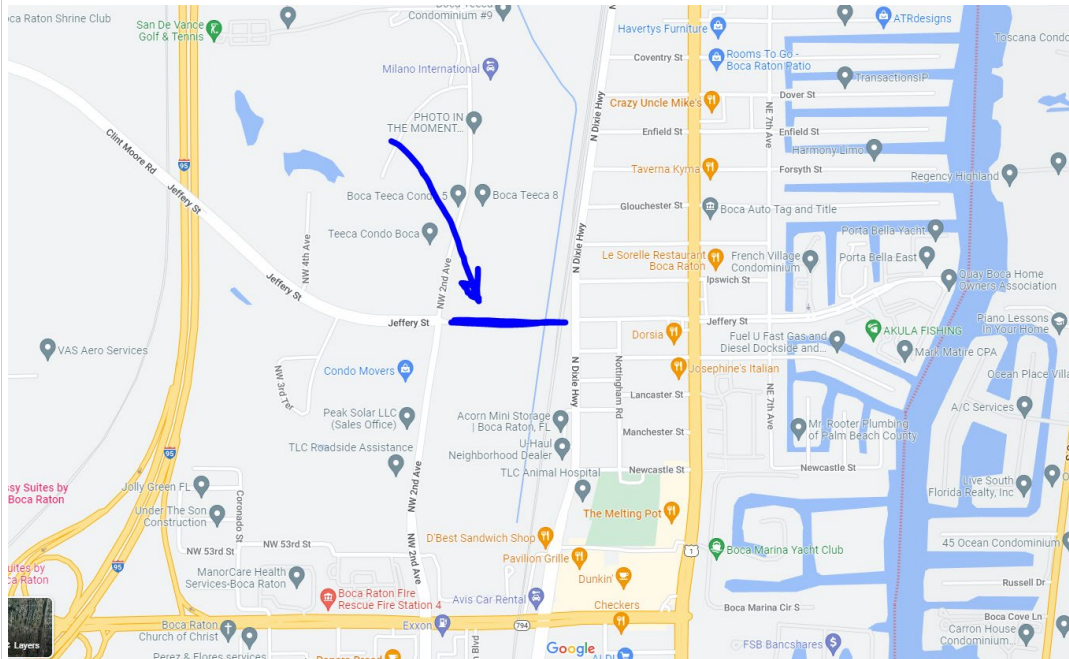
On Fri, Dec 9, 2022 at 9:32 AM Jerry Nyman <jerry.nyman@palmbeachschools.org> wrote:

Karla and Teliska,

There is talk about connecting Clint Moore Rd (Jeffery St) from NW 2nd Ave to N Dixie Hwy. Does your facility have buses that would cross at the new rail road crossing? Currently the buses would probably go down to Yamato. Please

let me know,

Thanks!!



Jerry

----- Forwarded message -----

From: **De Sa, Clecio** <CDeSa@ci.boca-raton.fl.us>

Date: Fri, Dec 9, 2022 at 9:17 AM

Subject: RE: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

To: Jerry Nyman <jermy.nyman@palmbeachschools.org>

Cc: Michael Owens <michael.owens.1@palmbeachschools.org>; Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>

Jerry,

You have the correct location, there is no road that cross the railway tracks at Jeffery St, the city has hired a consultant to conduct a feasibility study to extend the existing road across the railway tracks and as part of the application that the city needs to submit to FDOT we need to respond to the following question:

Will school buses use the crossing? unknown If so, how many school buses will use the crossing per day or week?

Let me know if you have any question.

Thank you,

Clecio De Sa, P.E. | Assistant City Engineer

From: Jerry Nyman <jermy.nyman@palmbeachschools.org>

Sent: Thursday, December 8, 2022 6:10 PM

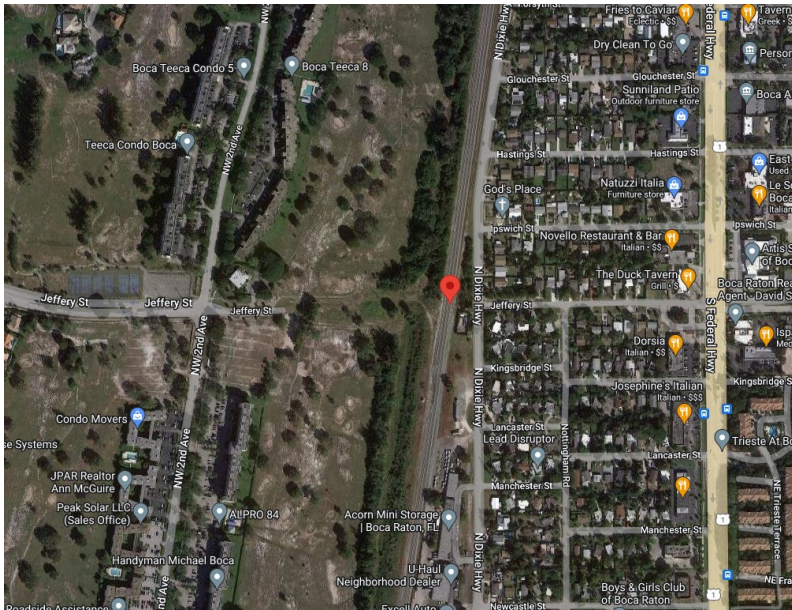
To: De Sa, Clecio <CDeSa@ci.boca-raton.fl.us>

Cc: Michael Owens <michael.owens.1@palmbeachschools.org>; Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>

Subject: Re: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Team,

26.376083, 80.083956



I hope I have the correct location, but it looks like there is no road that crosses the railroad above. I looked at our GPS data from Aug 10, 2022 until today, and we had no bus that crossed there. Or is the question will buses cross here if they can?

Vehicle History

Home / Vehicle History

OPTIONS

FIND: ☒ VEHICLE ☐ DRIVER

Many vehicles selected.

EVENTS

☒ INCLUDE ALL EVENTS

☒ By Date ☐ By Time Span

TIME AND DATE RANGE:

From: 08/10/2022 12:00 AM

To: 12/08/2022 11:59 PM

SPEED OPTIONS

☐ Over ☐ Under

HISTORY OPTIONS

☐ Connect the points

Jerry

On Tue, Dec 6, 2022 at 11:11 AM De Sa, Clecio <CDsSa@ci.boca-raton.fl.us> wrote:

Good morning Jerry,

I am following up if you had a chance to review my last email and we can we anticipate the requested information required to complete the FDOT railroad crossings opening/closure applications.

Please let me know if you have any additional questions/concerns.

Thank you,

Clecio De Sa, P.E. | Assistant City Engineer

From: De Sa, Clecio
Sent: Thursday, November 17, 2022 9:52 AM
To: Jerry Nyman <Jerry.nyman@palmbeachschools.org>; Michael Owens <michael.owens.1@palmbeachschools.org>
Cc: Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>
Subject: RE: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Jerry,

Please let me know if the information below works for you.

Name: NW 28th St Railroad Crossing (Closure)

Latitude: 26°22'33.90"N

Longitude: 80°52.24"W

Name: Jeffery St Railroad Crossing (Proposed Opening)

Latitude: 26°24'5.89"N

Longitude: 80°49'41"W

Should you have any questions or need additional information, please do not hesitate to contact me.

Regards,

Clecio De Sa, P.E. | Assistant City Engineer

From: Jerry Nyman <jerry.nyman@palmbeachschools.org>
Sent: Wednesday, November 16, 2022 12:01 PM
To: Michael Owens <michael.owens.1@palmbeachschools.org>
Cc: Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>; De Sa, Clecio <CDeSa@ci.boca-raton.fl.us>; Burack, Lauren <lburack@ci.boca-raton.fl.us>
Subject: [EXTERNAL] Re: FW: Jeffery Street - FEC Railroad Crossing Feasibility Study

Team,

Can you send coordinates for the two rail crossings?

Jerry

On Wed, Nov 16, 2022 at 11:53 AM Michael Owens <michael.owens.1@palmbeachschools.org> wrote:

Zachary:

Good morning. I am including Jerry Nyman from our Transportation Services Department for his input.

Michael C. Owens, MPA
Senior Planner, Planning & Intergovernmental Relations
Division of Facilities Management
School District of Palm Beach County - North County Support Center
3661 Interstate Park Road North, Suite 200
Riviera Beach, FL 33404
PHONE 561.882.1938 FAX 561.882.1942 CELLULAR 561.342.1608
Michael.Owens.1@palmbeachschools.org
www.palmbeachschools.org/planning

“Let us not be content to wait and see what will happen,
but give us the determination to make the right things happen”
— Horace Mann



Magna est veritas et prævalet

On Wed, Nov 16, 2022 at 11:43 AM Bihr, Zachary <ZBihr@ci.boca-raton.fl.us> wrote:

Michael,

Please let me know who at the School District I can coordinate with regard the Jeffery Street opening.

Thank you,

-Zach

From: De Sa, Clecio <CDeSa@ci.boca-raton.fl.us>
Sent: Friday, November 4, 2022 12:45 PM
To: Bihr, Zachary <ZBihr@ci.boca-raton.fl.us>
Cc: Burack, Lauren <lburack@ci.boca-raton.fl.us>
Subject: Jeffery Street - FEC Railroad Crossing Feasibility Study

Zach,

As we discussed the other day WGI is very close to finalize the feasibility study and traffic analysis reports evaluating the extension of Jeffery Street to Federal Highway which include a new at-grade crossing at the Florida East Coast

(FEC) Railroad. One of the last steps is to complete the FDOT applications for the opening/closure of the railroad crossings which require feedback from the school board and emergency services.

Lauren and I are already coordinating with emergency services for their feedback and responses.

Could you please route or provide me the contact information from the school board that I should send the specific questions (listed below) from the FDOT application.

I am attaching the conceptual design plans of Jeffery Street railroad crossing opening and NW 28th St railroad crossing closure in case you want to share with them.

Please also let me know if you would like me to schedule a short meeting with the school to go over the studies and any questions they might have.

Thank you,

Jeffery Street Rail Crossing Opening Question:

b-9. Will school buses use the crossing? unknown If so, how many school buses will use the crossing per day or week?

NW 28th Street Rail Crossing Closure Question:

b-8. How many school buses use the crossing daily?

Clecio De Sa, P.E. | Assistant City Engineer

City of Boca Raton, Municipal Services Department

201 W. Palmetto Park Road, Boca Raton, FL 33432

P 561-416-3429 | C 561-405-1672 | cdesa@myboca.us

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--

Jerry Nyman

IT Solutions Manager, Transportation Services

School District of Palm Beach County

2775 Homewood Road

West Palm Beach, FL 33406

Phone [561.742.8380](tel:561.742.8380)

Cell [561.876.9613](tel:561.876.9613)

Jerry.Nyman@palmbeachschools.org

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--

Jerry Nyman

IT Solutions Manager, Transportation Services

School District of Palm Beach County

2775 Homewood Road

West Palm Beach, FL 33406

Phone [561.742.8380](tel:561.742.8380)

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Jerry.Nyman@palmbeachschools.org

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--

Jerry Nyman

IT Solutions Manager, Transportation Services

School District of Palm Beach County

2775 Homewood Road

West Palm Beach, FL 33406

Phone [561.742.8380](tel:561.742.8380)

Cell [561.876.9613](tel:561.876.9613)

Jerry.Nyman@palmbeachschools.org

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www.palmbeachschools.org

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Jerry Nyman

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Cell [561.876.9613](tel:561.876.9613)

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Each year, the School District of Palm Beach County recycles enough paper and cardboard to save over 68,000 trees and 28 million gallons of water. You can help save even more by not printing this email.

Palm Beach County Schools
Rated "A" by the Florida Department of Education 2005-2011
Home of Florida's first [LEED](#) Gold Certified School
www.palmbeachschools.org

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Kind Regards,

Teliska Jackson-Wolliston, MS

Area Team Leader, South Facility

teliska.jackson-wolliston@palmbeachschools.org

Office Phone: (561)738-9202

District Cell:561-707-6092

"When you get, give! If you learn, teach!"

-Maya Angelou



SDPBCLeanSixSigma.org

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APPENDIX E:

Rail Crossing Inventory Reports and Utility Photographs

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) ____/____/____	B. Reporting Agency <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <input type="checkbox"/> Change in Data <input type="checkbox"/> New Crossing <input type="checkbox"/> Closed <input type="checkbox"/> Re-open <input type="checkbox"/> Date Change Only <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	D. DOT Crossing Inventory Number 272502L
---	---	--	---

Part I: Location and Classification Information

1. Primary Operating Railroad FLORIDA EAST COAST RAILWAY (FEC)		2. State FL	3. County Palm Beach		
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near Boca Raton	5. Street/Road Name & Block Number NW 28TH ST 25 (Street/Road Name) * (Block Number)		6. Highway Type & No. / / US 1		
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			
9. Railroad Division or Region <input checked="" type="checkbox"/> None	10. Railroad Subdivision or District <input type="checkbox"/> None FLAGLER	11. Branch or Line Name <input type="checkbox"/> None MAIN	12. RR Milepost ____ 322.790 ____ (prefix) (nnnn.nnn) (suffix)		
13. Line Segment *	14. Nearest RR Timetable Station * BOCA RATON	15. Parent RR (if applicable) <input type="checkbox"/> N/A RAIL AMERICA LIMITED	16. Crossing Owner (if applicable) <input checked="" type="checkbox"/> N/A		
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.	19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No	21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Transit <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Commuter <input type="checkbox"/> Tourist/Other	22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day ____
23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number ____			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial Date Established ____		
26. HSR Corridor ID ____ <input checked="" type="checkbox"/> N/A	27. Latitude in decimal degrees 26.3760748 (WGS84 std: nn.nnnnnnn)		28. Longitude in decimal degrees -80.083935 (WGS84 std: -nnn.nnnnnnn)		29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated
30.A. Railroad Use *			31.A. State Use *		
30.B. Railroad Use *			31.B. State Use *		
30.C. Railroad Use *			31.C. State Use *		
30.D. Railroad Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-342-1131, Ext. 2302		34. Railroad Contact (Telephone No.) 904-538-6100		35. State Contact (Telephone No.) 850-414-4907	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 27	1.B. Total Night Thru Trains (6 PM to 6 AM) 27	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day <input type="checkbox"/> How many trains per week? ____
2. Year of Train Count Data(YYYY) 2018		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 40 3.B. Typical Speed Range Over Crossing(mph) From 25 to 30		
4. Type and Count of Tracks Main 1 Siding ____ Yard ____ Transit ____ Industry ____				
5. Train Detection (Main Track only) <input checked="" type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.A. Event Recorder <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) ____/____/____		PAGE 2		D. DOT Crossing Inventory Number (7 char.) 272502L	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count) 0	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 1 <input checked="" type="checkbox"/> W10-3 1 <input type="checkbox"/> W10-11 0 <input checked="" type="checkbox"/> W10-2 2 <input type="checkbox"/> W10-4 0 <input type="checkbox"/> W10-12 0	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input checked="" type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2.J. Other MUTCD Signs <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Specify Type Do Not Stop on Tracks (R8-8) Count 1		Specify Type No Train Horn (plaque) (W10-9P) Count 4		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Specify Type _____ Count _____				2.L. LED Enhanced Signs (List types) 0	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 2 Pedestrian 3		3.B. Gate Configuration <input checked="" type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 1 <input checked="" type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input checked="" type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 4 <input type="checkbox"/> Incandescent <input checked="" type="checkbox"/> LED <input checked="" type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 13			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Installed on (MM/YYYY) ____/____/____		3.H. Highway Traffic Signals Controlling Crossing <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3.I. Bells (count) 4		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input checked="" type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count _____ Specify Type _____					
4.A. Does nearby Hwy Intersection have Traffic Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input checked="" type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input checked="" type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	
5. Highway Traffic Pre-Signals <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * 10 Stop Line Distance * 25		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input checked="" type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input checked="" type="checkbox"/> Two-way Traffic Number of Lanes 3 <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) _____ Width * 10 Length * 74 <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input checked="" type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) 55		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input checked="" type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input checked="" type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Highway Speed Limit 25 MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 2019 AADT 6100		8. Estimated Percent Trucks 4.5 %		9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day 9	
10. Emergency Services Route <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					



Rail Highway Crossing Inventory

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General

Crossing Number: 272502L - NW 28TH ST ▼
Railroad Operating Company: FLORIDA EAST COAST RAILWAY
Local Street Name: NW 28TH ST
Crossing Status: OPEN--TRACK ACTIVE

Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM
Safety Index Rank: 1397
Railroad Responsible FRA Field
RR Milepost: | 322.79 |

Signs

Signals

Gates

Vicinity

Data

Incident

Comments

Photos

Field Review

Crossing General

There are no log entries for this crossing.

Roadway Location

District 4 ▼
County Palm Beach ▼
City (I.4) Boca Raton ▼
☒ IN CITY
☐ NEAR CITY
State Route Number (I.6)
County Route Number (I.6)
U.S. Route Number (I.6) US 1
Local Street Name (I.5) NW 28TH ST
Railroad Local Street Name
Block Number (I.5) 25
FDOT Bridge Number
Latitude (I.27) 26.3760748
Longitude (I.28) -80.083935
[View location in Google Maps](#)
Latitude/Longitude Source (I.29) ☒ ACTUAL ☐ ESTIMATED
Is Crossing ID Posted? ☒ YES ☐ NO
Roadway ID Number 93 / 00021 / 3
Highway Milepoint 0.103
Railway ID Number 93 / 92901 / 5
FDOT GIS RR Milepoint 322.786
Parcel Number
Humped Crossing ☐

Roadway Ownership

Crossing Status
☒ OPEN--TRACK ACTIVE
☐ OPEN--TRACK INACTIVE
☐ CLOSED--TRACK REMOVED
☐ CLOSED--ROADWAY REMOVED
Crossing Type (I.17) ☒ PUBLIC ☐ PRIVATE
Public Access Allowed? (I.20) ☐ YES ☐ NO ☐ UNKNOWN
Crossing Purpose (I.18) Highway Vehicle ▼
Crossing Position vs. Highway (I.19) ☒ AT GRADE ☐ RR UNDER ☐ RR OVER
Maintenance Responsibility ☐ STATE ☐ COUNTY ☒ CITY ☐ PRIVATE
State Annual Maintenance Percentage ▼
Highway System (V.1)
☐ INTERSTATE NHS
☐ NATIONAL HIGHWAY SYSTEM
☒ FED AID HIGHWAY, NOT NHS
☐ NON FEDERAL AID
Functional Classification of Road at Crossing (V.2)
☐ Rural ☐ INTERSTATE
☒ Urban ☐ PA-OTHER FREEWAY/EXPRESSWAY
☐ PRINCIPAL ARTERIAL - OTHER
☐ MINOR ARTERIAL
☐ MAJOR COLLECTOR
☒ MINOR COLLECTOR
☐ LOCAL ACCESS
Is the crossing on the State Highway System? (V.3) ☐ YES ☒ NO
Regularly used by Hazmat Vehicles? ☐ NO ☒ YES
Regular Emergency Services Route? (V.10) ☒ NO ☐ YES
Is the crossing on the Strategic Intermodal System (SIS)? ☒ NO ☐ YES
Roadway Agency Contact Phone Number (I.35) 850-414-4907

Railroad Ownership

Railroad Operating Company FLORIDA EAST COAST RAILWAY
Parent Company RAIL AMERICA LIMITED
Crossing Owner
Railroad Contact Phone Number 904-538-6100
Railroad Emergency Contact 800-342-1131, Ext. 2302
Number

[Save](#) | [Cancel](#)

Henry Report

County	City	RR Company	Prefix	Milepost	Type	DOT #	Route	Street	Division	Subdivision	Highest Warning	FRA Cod	Main Track	Other Tracks	Spur	Status
PALM BEACH		FEC		322.79	PUB	272502L	US 1	NW 28TH ST		FLAGLER	CFL&G	8	1	0	No	OA

Henry Report

County	City	RR Company	Prefix	Milepost	Type	DOT #	Route	Street	Division	Subdivision	Highest Warning	FRA Cod	Main Track	Other Tracks	Spur	Status
--------	------	------------	--------	----------	------	-------	-------	--------	----------	-------------	-----------------	---------	------------	--------------	------	--------

Highest Warning & Warning Device Codes

9 - If 4 Quad OR Full Entrance Closure OR Full (Barrier) Resistance is 'checked' under Gate Configuration

8 -If 2 Quad OR 3 Quad OR Median Gates are 'checked' under Gate Configuration

7 - If Cantilevered Flashing Lights OR Post Mounted Flashing Lights have an entry or 'check'

6 - If Highway Signals Controlling Crossing OR Number of Bells OR Number of Wigwags has an entry

5 - If Special Active Warning Flagging/Flagman, Manually Operated Signals, Watchman, or Floodlighting has a 'Check

4 - If Number of Stop Signs has an entry

3 - If Number of Crossbuck Signs has an entry



Rail Highway Crossing Inventory

[Logout](#) | [Contact Support](#)

[Search](#) [Crossing](#) [Reports](#) [Reference](#)

General

Crossing Number: 272502L - NW 28TH ST
Railroad Operating Company: FLORIDA EAST COAST RAILWAY
Local Street Name: NW 28TH ST
Crossing Status: OPEN--TRACK ACTIVE

Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM
Safety Index Rank: 1397
Railroad Responsible FRA Field
RR Milepost: | 322.79 |

Railroad

Road

Signs

Signals

Gates

Vicinity

Data

Incident

Comments

Photos

Field Review

Crossing Railroad

[Railroad Location](#) [Railroad Traffic](#)

Railroad Milepost Prefix (I.12)

Railroad Milepost (I.12)

Railroad Milepost Suffix (I.12)

Line Segment (I.13)

Branch or Line Name (I.11)

Railroad Division (I.9)

Railroad Subdivision or District (I.10)

Nearest Timetable Station (I.14)

High Speed Rail Corridor Number (I.26)

Do Other Railroads Operate a Separate Track at Crossing? (I.7)

Multiple Forms Filed? (I.7)

322.79

MAIN

FLAGLER

BOCA RATON

☐ YES ☒ NO

☐ YES ☐ NO

Specify

RR

(I.7)

Do Other Railroads Operate over this Crossings Track? (I.8)

☐ YES ☒ NO

Specify

RR

(I.8)

Linear Referencing System (LRS Route ID) (V.5)

LRS Milepost (V.6)

Railroad Ownership

Railroad Operating Company (I.1)

Parent Company (I.15)

Railroad Contact Phone Number (I.34)

Railroad Emergency Contact Number (I.33)

Crossing Owner (I.16)

FLORIDA EAST COAST RAILWAY (FEC)

RAIL AMERICA LIMITED

904-538-6100

800-342-1131, Ext. 2302

[Save](#)

[Cancel](#)



Rail Highway Crossing Inventory

[Search](#) [Crossing](#) [Reports](#) [Reference](#)

General

Railroad

Road

Signs

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Comments

Photos

Field Review

Crossing Number:

Railroad Operating Company: FLORIDA EAST COAST RAILWAY

Local Street Name: NW 28TH ST

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Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM

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Railroad Responsible FRA Field

RR Milepost: | 322.79 |

Crossing Railroad

[Railroad Location](#) [Railroad Traffic](#)

Rail Traffic

Less Than One Train (II.1.E) ☐ YES ☒ NO

How many trains per week? (II.1.E)

Number of Daytime Thru Trains: (II.1.A)

Number of Nighttime Thru Trains: (II.1.B)

Number of Total Switching Trains: (II.1.C)

Number of Total Transit Trains: (II.1.D)

Total Trains: 54

Total Thru Trains: 54

Train Count Year (II.2)

Type of Train Service (I.21)
(check all that apply)

☒ Freight ☐ Transit

☐ Intercity Passenger ☐ Shared Use Transit

☐ Commuter ☐ Tourist/Other

Average Passenger Train Count Per Day (I.22) ☐ Less than one per day ☐ Number per day

Tracks

Typical Speed Range at Crossing (II.3.B) From To

Max Time Table Speed (II.3.A)

Number of Main Tracks (II.4)

Number of Siding Tracks (II.4)

Number of RR Yard Tracks (II.4)

Number of Transit Tracks (II.4)

Number of Industry Tracks (II.4)

Type of Other Tracks (Check all that apply)

☐ Spur/Lead ☐ Storage

☐ Wye ☐ Other

Does the track have train signals? (II.6) ☒ Yes ☐ No

Train Signal Proximity ☐ No ☒ Yes

Event Recorder Monitoring Device (II.7.A) ☒ Yes ☐ No

Remote Health Monitoring (II.7.B) ☐ Yes ☐ No

Train Detection (II.5)

|



Rail Highway Crossing Inventory

[Search](#) [Crossing](#) [Reports](#) [Reference](#)

General

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Road

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Incident

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Field Review

Crossing General

There are no log entries for this crossing.

Roadway Location

District 4 ▼
County Palm Beach ▼
City (I.4) Boca Raton ▼
☒ IN CITY
☐ NEAR CITY
State Route Number (I.6)
County Route Number (I.6)
U.S. Route Number (I.6) US 1
Local Street Name (I.5) NW 28TH ST
Railroad Local Street Name
Block Number (I.5) 25
FDOT Bridge Number
Latitude (I.27) 26.3760748
Longitude (I.28) -80.083935
[View location in Google Maps](#)
Latitude/Longitude Source (I.29) ☒ ACTUAL ☐ ESTIMATED
Is Crossing ID Posted? ☒ YES ☐ NO
Roadway ID Number 93 / 00021 / 3
Highway Milepoint 0.103
Railway ID Number 93 / 92901 / 5
FDOT GIS RR Milepoint 322.786
Parcel Number
Humped Crossing ☐

Roadway Ownership

Crossing Status
☒ OPEN--TRACK ACTIVE
☐ OPEN--TRACK INACTIVE
☐ CLOSED--TRACK REMOVED
☐ CLOSED--ROADWAY REMOVED
Crossing Type (I.17) ☒ PUBLIC ☐ PRIVATE
Public Access Allowed? (I.20) ☐ YES ☐ NO ☐ UNKNOWN
Crossing Purpose (I.18) Highway Vehicle ▼
Crossing Position vs. Highway (I.19) ☒ AT GRADE ☐ RR UNDER ☐ RR OVER
Maintenance Responsibility ☐ STATE ☐ COUNTY ☒ CITY ☐ PRIVATE
State Annual Maintenance Percentage ▼
Highway System (V.1)
☐ INTERSTATE NHS
☐ NATIONAL HIGHWAY SYSTEM
☒ FED AID HIGHWAY, NOT NHS
☐ NON FEDERAL AID
Functional Classification of Road at Crossing (V.2)
☐ Rural ☐ INTERSTATE
☒ Urban ☐ PA-OTHER FREEWAY/EXPRESSWAY
☐ PRINCIPAL ARTERIAL - OTHER
☐ MINOR ARTERIAL
☐ MAJOR COLLECTOR
☒ MINOR COLLECTOR
☐ LOCAL ACCESS
Is the crossing on the State Highway System? (V.3) ☐ YES ☒ NO
Regularly used by Hazmat Vehicles? ☐ NO ☒ YES
Regular Emergency Services Route? (V.10) ☒ NO ☐ YES
Is the crossing on the Strategic Intermodal System (SIS)? ☒ NO ☐ YES
Roadway Agency Contact Phone Number (I.35) 850-414-4907

Railroad Ownership

Railroad Operating Company FLORIDA EAST COAST RAILWAY
Parent Company RAIL AMERICA LIMITED
Crossing Owner
Railroad Contact Phone Number 904-538-6100
Railroad Emergency Contact 800-342-1131, Ext. 2302
Number

[Save](#) | [Cancel](#)

Crossing No: 272502L		Roadway: NW 28TH ST		RR Street:		District: 4		County: Palm Beach	
PUBLIC		HWY		AT GRADE		Commercial		City: IN CITY	
OPEN--TRACK ACTIVE									
Rank 2018: 1912		SR No.:		RR Company:		FEC		Date:	
Rank 2017: 1918		CR No.:		Division Name:				Team Members:	
Rank 2016:		US No.: US 1		Subdivision Name:		FLAGLER			
		Latitude: 26.376100		Branch Name:		MAIN			
		Longitude: -80.080000		RR Milepost:		322.79			
Field Review Comments:									
Team Recommendations:									
Highway Speed: 25		<input type="checkbox"/>		Train Speed Range: 25-30		<input type="checkbox"/>			
Crossing Angle: 60-90 DEG		<input type="checkbox"/>		Max Time Table Speed: 40		<input type="checkbox"/>			
AADT: 6100 (2019)		<input type="checkbox"/>		Day Thru/Switch: 27/		<input type="checkbox"/>			
Percent Trucks: 5 (2019)		<input type="checkbox"/>		Night Thru/Switch: 27/		<input type="checkbox"/>			
School Buses: 9 (2019)		<input type="checkbox"/>		Train Service: Freight		<input type="checkbox"/>			
Street Types: Divided Highway		<input type="checkbox"/>		Passenger Count/Day:		<input type="checkbox"/>			
Thru Lanes: 1		<input type="checkbox"/>		Train Count Date: 01/01/2018		<input type="checkbox"/>			
Aux Lanes: 2		<input type="checkbox"/>		Main Tracks: 1		<input type="checkbox"/>			
Hazmat Route? YES		<input type="checkbox"/>		Other Tracks:		<input type="checkbox"/>			
Emergency Services Route? NO		<input type="checkbox"/>				<input type="checkbox"/>			
Emergency Notification Signs: YES		<input type="checkbox"/>		Train Signals? YES		<input type="checkbox"/>			
Crossbuck(4x4 post): 0		<input type="checkbox"/>		Train Signal Proximity: YES		<input type="checkbox"/>			
Crossbuck Sign: 5		<input type="checkbox"/>		Train Detection: Constant Warning Time		<input type="checkbox"/>			
Stop Sign: 0		<input type="checkbox"/>		Event Recorder? Y		<input type="checkbox"/>			
Yield Sign: 0		<input type="checkbox"/>		Number of Bells: 4		<input type="checkbox"/>			
Low Ground Clearance Signs: 0		<input type="checkbox"/>		Post Mounted Flashing Lights: 4		<input type="checkbox"/>			
Exempt Signs: NO		<input type="checkbox"/>		Backlights, LED		<input type="checkbox"/>			
Trespass Signs: YES		<input type="checkbox"/>		Roadway Gate Count: 2		<input type="checkbox"/>			
W10-1 1		R10-6a 1		W8-1 0		Pedestrian Gate Count: 3		<input type="checkbox"/>	
W10-2 2		R11-2 0		W10-8 0		Gates: 2 Quad		<input type="checkbox"/>	
W10-3 1		R15-2P 4		W10-9 0		Cantilevered Flashing Over Traffic: 1		<input type="checkbox"/>	
W10-4 0		R15-6 0		W10-9P 4		Incandescent, LED		<input type="checkbox"/>	
W10-11 0		R15-6a 0		W10-11a 0		Cantilevered Flashing Not Over Traffic: 0		<input type="checkbox"/>	
W10-12 0		R15-7 0		W10-11b 0		Intersecting Roadway? YES		<input type="checkbox"/>	
R3-1a 0		R15-7a 0		W10-13P 0		Signalized? YES		<input type="checkbox"/>	
R3-2a 0		R15-8 0		W10-14P 0		Interconnection: For Traffic Signals		<input type="checkbox"/>	
R8-8 1		Pvt Crossing 0		W10-14aP 0		Traffic Signals Controlling? Y		<input type="checkbox"/>	
R8-9 0		Look Out 0		W10-15P 0		Preemption: SIMULTANEOUS PREEMPTION		<input type="checkbox"/>	
R8-10 0		R8-8 w/Beacon 0		Slow 0		Does traffic queue across the tracks? NO		<input type="checkbox"/>	
R8-10a 0		W3-1		W10-1w/Beacon 0		Traffic Pre-Signals? YES		<input type="checkbox"/>	
R10-6 0		W3-3		LED Signs 0		8" Count: 0		<input type="checkbox"/>	
Surface Installment Date:		<input type="checkbox"/>		12" Count: 13		<input type="checkbox"/>			
Surface Type: CONCRETE		<input type="checkbox"/>		LED Count: 0		<input type="checkbox"/>			
Pvmt Mrk:		<input type="checkbox"/>		Install - Upgrade: --		<input type="checkbox"/>			
Surface Condition: EXCELLENT		<input type="checkbox"/>		Maintenance Responsibility: CITY		<input type="checkbox"/>			
Approach: LOS A = Smooth		<input type="checkbox"/>		Roadway Paved: YES		<input type="checkbox"/>			
Vehicle Reaction: LOS A = No reaction		<input type="checkbox"/>		Tracks run down street? NO		<input type="checkbox"/>			
Driver Reaction: LOS A = No reaction		<input type="checkbox"/>		Sidewalks on Crossing Approach? YES		<input type="checkbox"/>			
Rail/Pad Movement: LOS A = Smooth		<input type="checkbox"/>		Sidewalks Thru Crossing? YES		<input type="checkbox"/>			
Incident History: 01/1997				Crossing illuminated? NO		<input type="checkbox"/>			
				Commerical Power? YES		<input type="checkbox"/>			
				Alternative Power? NO		<input type="checkbox"/>			
				Recommended Warning Device: CFL&G&P					



Rail Highway Crossing Inventory

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[Crossing](#)

[Reports](#)

[Reference](#)

General

Crossing Number: 272502L - NW 28TH ST ▼
Railroad Operating Company: FLORIDA EAST COAST RAILWAY
Local Street Name: NW 28TH ST
Crossing Status: OPEN--TRACK ACTIVE

Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM
Safety Index Rank: 1397
Railroad Responsible FRA Field
RR Milepost: | 322.79 |

Railroad

Road

Signs

Signals

Gates

Vicinity

Data

Incident

Comments

Photos

Field Review

Crossing Gates

Gates

Roadway Gate Count (III.3.A) 2

Pedestrian Gate Count (III.3.A) 3

Gate Configuration (III.3.B)

☒ 2 Quad

☐ 3 Quad

**Cannot select more than one quad gate type*

☐ 4 Quad

☐ Full (Barrier) Resistance

**Cannot select more than one full gate type*

☐ Full Entrance Closure

☐ Median Gates

**Cannot select Median Gate without a quad gate type*

Crossing Environment

Quiet Zone (I.25) ☒ No ☐ 24 hr ☐ Partial Date Established

Wayside Horn (III.3.G) ☐ Yes ☒ No Date Installed

Number of Wigwags (III.3.I) 0

Monitoring Devices (III.6)

☐ Photo Enforcement

☐ Vehicle Presence Detection

[Save](#)

[Cancel](#)



Rail Highway Crossing Inventory

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General

Crossing Number: 272502L - NW 28TH ST ▼

Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM

Railroad

Railroad Operating Company: FLORIDA EAST COAST RAILWAY

Safety Index Rank: 1397

Road

Local Street Name: NW 28TH ST

Railroad Responsible FRA Field

Crossing Status: OPEN--TRACK ACTIVE

RR Milepost: | 322.79 |

Signs

Signals

Gates

Vicinity

Data

Incident

Comments

Photos

Field Review

Crossing Vicinity

Vicinity Characteristics

Type of Land Development (I.23)

- ☐ Open Space ☐ Farm
☐ Residential ☒ Commercial
☐ Industrial ☐ Institutional
☐ Recreational ☐ RR Yard

Intersecting roadway within 500' (IV.6)

- ☐ No ☒ Yes

How many?

- ☐ 1 ☒ 2

Approximate Distance (IV.6)

55

Approximate Distance (IV.6)

275

Is the nearby Intersection signalized?
(III.4.A)

- ☒ YES ☐ NO ☐ N/A

Adequate Minimum Sight Distance (per
FHWA Handbook) (IV.9)

- ☐ No ☒ N/A (Gates are Present) ☐ Yes

Is the crossing illuminated? (IV.4)

- ☐ YES ☒ NO

Is commercial power available? (IV.8)

- ☒ YES ☐ NO

Is an alternative power source available?

- ☒ NO ☐ YES

Is there an adjacent crossing with a
separate crossing number within crossing
devices? (I.24)

- ☐ YES ☒ NO

Adjacent Crossing Number (I.24)

Is there a nearby crossing?

- ☐ YES ☒ NO

Nearby Crossing Number

Distance to Nearby Crossing

Is there a driveway entrance within 100 feet
of the crossing?

- ☒ YES ☐ NO

Does traffic queue across the tracks?

- ☐ YES ☒ NO ☐ UNKNOWN

[Save](#)

[Cancel](#)



Rail Highway Crossing Inventory

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General

Railroad

Road

Signs

Signals

Gates

Vicinity

Data

Incident

Comments

Photos

Field Review

Crossing Number:

Railroad Operating Company: FLORIDA EAST COAST RAILWAY

Local Street Name: NW 28TH ST

Crossing Status: OPEN--TRACK ACTIVE

Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM

Safety Index Rank: 1397

Railroad Responsible FRA Field

RR Milepost: | 322.79 |

Crossing Data

[Traffic Statistic](#) [Gaming](#)

Traffic Statistic

Traffic Statistic Year (V.7) AADT (V.7) School Bus Count (V.9) Percent Trucks (V.8)

	Traffic Statistic Year	AADT	School Bus Count	Percent Trucks
	2019	6100	9	4.5%
	2018	6100	6	4.5%
	2017	6100		4.6%
	2016	6000	4	4%
	2015	3500	3	7.1%
	2014	3500	5	7.3%
	2013	3500	59	7.4%
	2012	3500	5	6.4%
	2011	3500	3	5.1%
	2010		6	
	2009		6	0%
	2008	6889	6	
	2007			0%
	2003	6745		0%
	2000	6173		

Safety Index

Year	Safety Index	Safety Index Ranking
2021	72.4477	1397
2020	73.7813	1815
2019	73.7813	1815
2018	74.5120	1912
2017	74.512	1918
2015	74.116	1790
2013	69.116	954
2012	72.48	1734
2011		1980
2010		1740
2009		1772
2008		1844
2007		1825

Recommended Warning Device

Device
CFL&G&P



Rail Highway Crossing Inventory

[Logout](#) | [Contact Support](#)[Search](#)[Crossing](#)[Reports](#)[Reference](#)[General](#)[Railroad](#)[Road](#)[Signs](#)[Signals](#)[Gates](#)[Vicinity](#)[Data](#)[Incident](#)[Comments](#)[Photos](#)[Field Review](#)

Crossing Number: 272502L - NW 28TH ST ▼
Railroad Operating Company: FLORIDA EAST COAST RAILWAY
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Last Updated by Katie Langworthy on 7/28/2021 2:33:07 PM
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Railroad Responsible FRA Field
RR Milepost: | 322.79 |

Crossing Data

[Traffic Statistic](#) [Gaming](#)

Gaming

Incident Prediction

	Actual	"What if"
Total trains per day	54	
Number of highway vehicles per day(AADT)	6100	
Posted vehicle speed limit	25	
Maximum timetable speed	40	
Number of main line tracks	1	
Number of tracks other than main line	0	
Number of through traffic lanes	1	
Number of gates	2	
Number of flashing light units over traffic lanes	1	
Number of flashing light units not over traffic lanes	0	
Number of post mounted flashing lights	4	
Date of last signal upgrade		
Number of crashes	0	
Number of years of crash history	7	
Maximum value for crash prediction	0.748348777619308	
Number of school buses	9	

Final Safety Hazard Index

	Actual	"What if"
Index	72.4477	
Ranking	1397	

[Copy Data](#)[Clear Data](#)[Calculate](#)

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 04 / 21 / 2020	B. Reporting Agency <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> New Crossing <input type="checkbox"/> Closed <input type="checkbox"/> Re-Open <input type="checkbox"/> Date Change Only <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	D. DOT Crossing Inventory Number 272499F
---	--	--	--

Part I: Location and Classification Information

1. Primary Operating Railroad Florida East Coast Railway Company [FEC]		2. State FLORIDA		3. County PALM BEACH	
4. City / Municipality <input checked="" type="checkbox"/> In BOCA RATON <input type="checkbox"/> Near		5. Street/Road Name & Block Number W HIDDEN VALLEY BLVD 21 (Street/Road Name) * (Block Number)		6. Highway Type & No. US 1	
7. Do Other Railroads Operate a Separate Track at Crossing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR BLF			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input checked="" type="checkbox"/> None		10. Railroad Subdivision or District <input checked="" type="checkbox"/> None		11. Branch or Line Name <input type="checkbox"/> None MAIN	
12. RR Milepost 0319.85 (prefix) (nnnn.nnn) (suffix)		13. Line Segment *			
14. Nearest RR Timetable Station * west palm beach		15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input checked="" type="checkbox"/> N/A	
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No		21. Type of Train <input checked="" type="checkbox"/> Freight <input checked="" type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other	
22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 36					
23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			25. Quiet Zone (FRA provided) <input type="checkbox"/> No <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established 5/30/2018 12:00:0		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 26.41769720		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -80.07734440	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
30.A. Railroad Use *			31.A. State Use *		
30.B. Railroad Use *			31.B. State Use *		
30.C. Railroad Use *			31.C. State Use *		
30.D. Railroad Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-588-7223		34. Railroad Contact (Telephone No.) 800-588-7223		35. State Contact (Telephone No.) 850-414-4907	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 27	1.B. Total Night Thru Trains (6 PM to 6 AM) 27	1.C. Total Switching Trains 0	1.D. Total Transit Trains 54	1.E. Check if Less Than One Movement Per Day <input type="checkbox"/> How many trains per week?
2. Year of Train Count Data (YYYY) 2018		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 79 3.B. Typical Speed Range Over Crossing (mph) From 30 to 79		
4. Type and Count of Tracks Main 2 Siding 0 Yard 0 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input checked="" type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.A. Event Recorder <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 04/21/2020		PAGE 2		D. Crossing Inventory Number (7 char.) 272499F	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 6		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count) 0	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 3 <input type="checkbox"/> W10-3 0 <input type="checkbox"/> W10-11 0 <input checked="" type="checkbox"/> W10-2 2 <input type="checkbox"/> W10-4 0 <input type="checkbox"/> W10-12 0	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input checked="" type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input checked="" type="checkbox"/> All Approaches <input checked="" type="checkbox"/> Median <input type="checkbox"/> One Approach <input type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
2.J. Other MUTCD Signs Specify Type R10-6a Count 2 Specify Type W10-9 Count 3 Specify Type Count		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 6 Pedestrian 1		3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) <input type="checkbox"/> 3 Quad Resistance <input checked="" type="checkbox"/> 4 Quad <input checked="" type="checkbox"/> Median Gates		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 2 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input checked="" type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 6 <input type="checkbox"/> Incandescent <input checked="" type="checkbox"/> LED <input checked="" type="checkbox"/> Back Lights Included <input checked="" type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 16			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) 04 / 2018 <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____ <input checked="" type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3.I. Bells (count) 6		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input checked="" type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count 0 Specify type					
4.A. Does nearby Hwy Intersection have Traffic Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input checked="" type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input checked="" type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	
5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * Stop Line Distance *		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input checked="" type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes 5 <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input checked="" type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____ Width * 23 Length * 117 <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input checked="" type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify)			
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) 32		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input checked="" type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input checked="" type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 4. Highway Speed Limit 30 MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory 5. Linear Referencing System (LRS Route ID) * 93000192 6. LRS Milepost * 0.217	
7. Annual Average Daily Traffic (AADT) Year 2017 AADT 6600		8. Estimated Percent Trucks 5 %		9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day 2	
10. Emergency Services Route <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____ Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					



Jeffery Street looking west towards FEC RR at Communications Building



Service Vehicle Parking and Access to Communications Hub



Jeffery Street looking west across railroad tracks towards NW 2nd Avenue

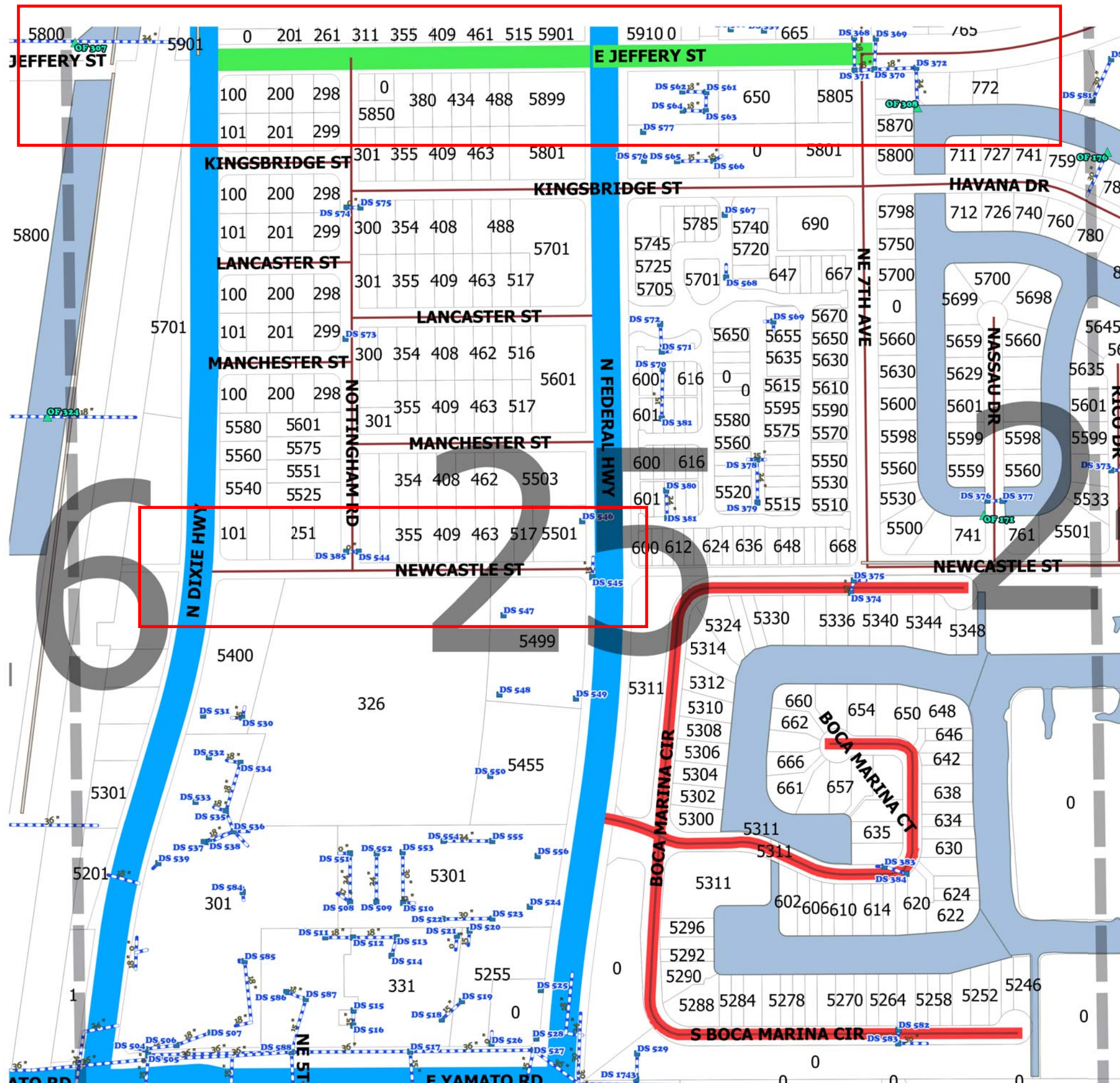


NE Corner of Jeffery Street at Dixie Highway - Utility Components



APPENDIX F:

Plats, Easements and Surveys



DS ID	Insp.	Cleaned	Comments
DS 370			
DS 371			
DS 372			
DS 374			
DS 375			
DS 376			
DS 377			
DS 378			
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DS 584			
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DS 587			
DS 588			

DS ID	Insp.	Cleaned	Comments
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OF ID	Insp.	Cleaned
OF 171		
OF 307		
OF 308		



A SUBDIVISION IN
SEC. 5 ~ T.47S., R.43E.
PALM BEACH COUNTY, FLA.
J.S. RHINE CIVIL ENGINEER
MARCH, 1924 SCALE 1"=150'

25

Being a Subdivision of the W 1/2 of E 1/2 of NE 1/4 of NE 1/4, and the W 1/2 of NE 1/4 of NE 1/4, and the E 1/2 of NW 1/4 of NE 1/4, and that part of the W 1/2 of NW 1/4 of NE 1/4, lying E of, the F.E.C.R.R. Right of Way, and W 1/2 of SE 1/4 of NE 1/4, and E 1/2 of SW 1/4 of NE 1/4, and W 1/2 of NE 1/4 of SE 1/4, and E 1/2 of NW 1/4 of SE 1/4 and all that part of W 1/2 of SW 1/4 of NE 1/4 lying E of the F.E.C.R.R. Right of Way. All the above property lying in Palm Beach County, Florida

S.P. 6 May
24 6
May 24 10
Plate 25
Pittsburg

Know All Men By These Presents:-
That Francis M. Miller, individually and as
trustee, and his wife Murtie C. Miller, owners of the
property described above, do hereby dedicate to the
perpetual use of the public all streets, Avenues, Boul-
evards and highways, as shown on the plat hereof attached.
In witness whereof, we have affixed our
hand and seal this 29th day of March, A.D. 1924.

Executing in the
presence of:

presence of:
Esq. A. J. Marriott Francis M. Miller Seal

... Rosa Caldwell

May 21st

On this 29th day of April, A.D. 1922,
Personally appeared before me, the undersigned
Notary Public for the County of Lincoln and
State of North Dakota, the property described herein and
who acknowledges having signed the instrument of
dedication hereon of his own free will and accord for
the intent and purposes set forth therein.

Eusebio A. Harrold
Notary Public
My Comm. Expires Aug 1st 1926



This is to certify that I, J.S. Eshine a registered engineer and surveyor drew this plat in accordance with surveys as made under my direction within the boundaries as shown hereon.

In testimony whereof, I have hereunto set my hand
and seal this 5th day of March A.D. 1922.

201 # 100 02

CA 02-07
SC 02-17

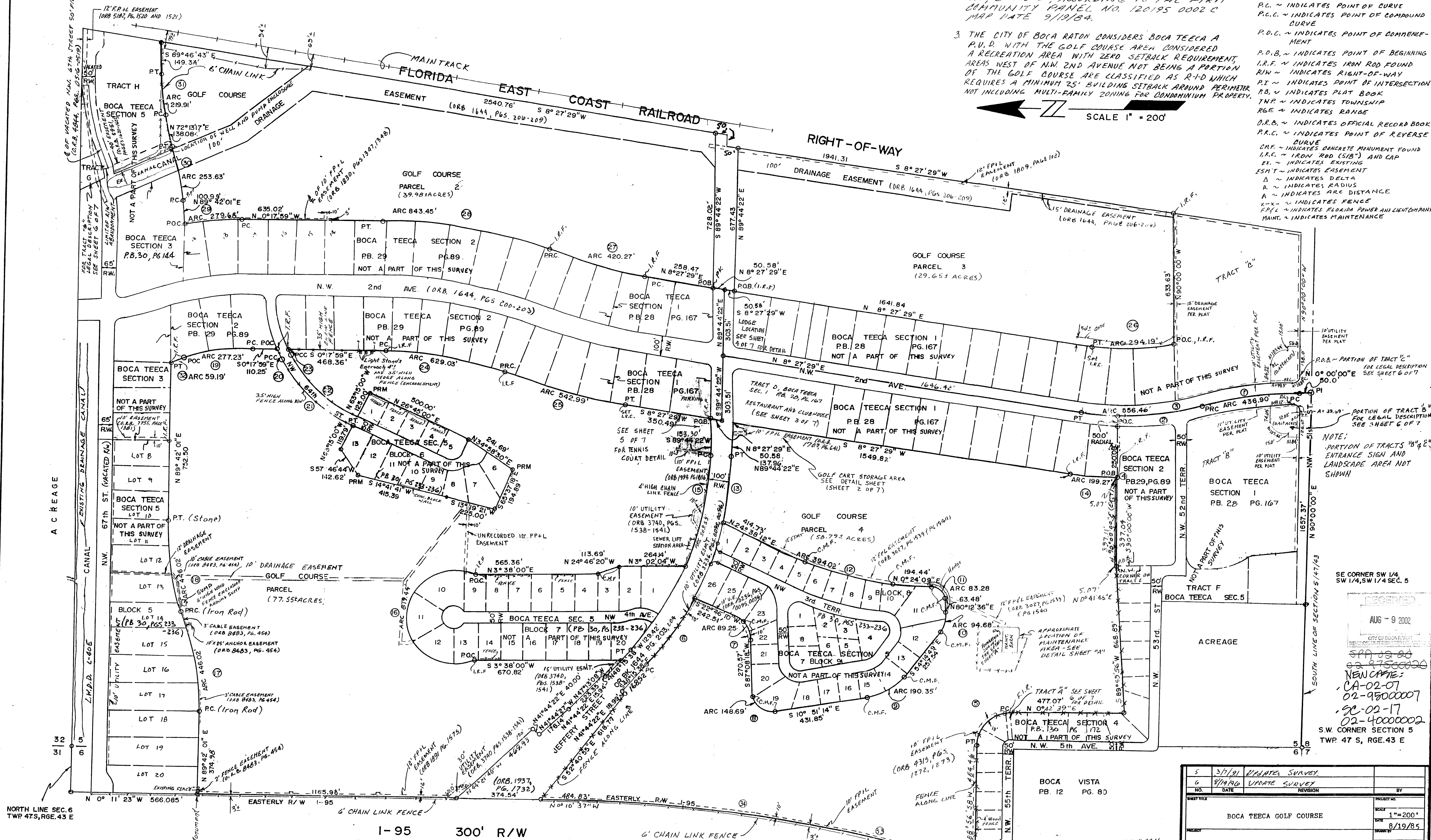
NOTES:

1. THIS SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS OF CHAPTER 21 H.F.-G.
2. THIS SURVEY IS LOCATED IN FLOOD ZONES "A7", "B" AND "C", ACCORDING TO THE FIRM COMMUNITY PANEL NO. 120195 0002 C MAP DATED 9/19/84.
3. THE CITY OF BOCA RATON CONSIDERS BOCA TEECA A P.U.D. WITH THE GOLF COURSE AREA CONSIDERED A RECREATION AREA WITH ZERO SETBACK REQUIREMENT. AREAS WEST OF N.W. 2ND AVENUE NOT BEING A PORTION OF THE GOLF COURSE ARE CLASSIFIED AS R-1D WHICH REQUIRES A MINIMUM 25' BUILDING SETBACK AROUND PERIMETER NOT INCLUDING MULTI-FAMILY ZONING FOR CONDOMINIUM PROPERTY.

LEGEND:

- P.R.M. ~ INDICATES PERMANENT REFERENCE MONUMENT
P.T. ~ INDICATES POINT OF TANGENT
P.C. ~ INDICATES POINT OF CURVE
P.C.C. ~ INDICATES POINT OF COMPOUND CURVE
P.O.C. ~ INDICATES POINT OF COMMENCEMENT
P.O.B. ~ INDICATES POINT OF BEGINNING
I.R.F. ~ INDICATES IRON ROD FOUND
R.W. ~ INDICATES RIGHT-OF-WAY
P.I. ~ INDICATES POINT OF INTERSECTION
P.B. ~ INDICATES PLAT BOOK
TWP. ~ INDICATES TOWNSHIP
RGE. ~ INDICATES RANGE
O.R.B. ~ INDICATES OFFICIAL RECORD BOOK
P.R.C. ~ INDICATES POINT OF REVERSE CURVE
C.M.F. ~ INDICATES CONCRETE MONUMENT FOUND
I.R.C. ~ INDICATES IRON ROD (5/8") AND CAP
E.X. ~ INDICATES EXISTING
E.S.H.T. ~ INDICATES EASEMENT
Δ ~ INDICATES DELTA
R ~ INDICATES RADIUS
A ~ INDICATES ARC DISTANCE
F.F.L. ~ INDICATES FENCE
F.P.L. ~ INDICATES FLORIDA POWER AND LIGHT COMPANY
M.AINT. ~ INDICATES MAINTENANCE

SCALE 1" = 200'



NOTE: EXISTING FENCES ALONG BLOCKS 6, 7, 8 AND 9 INSIDE PRIVATE PROPERTY (NOT SHOWN) WERE VERIFIED AS NON-ENCROACHING, EXCEPT AS INDICATED.

SE CORNER SW 1/4, SW 1/4 SEC. 5

RECEIVED

AUG - 9 2002

CITY OF BOCA RATON

SPD 03 84

02-97500000

NEW CARP:

CA-02-07

02-98000007

SC-02-17

02-40000002

S.W. CORNER SECTION 5

TWP. 47 S, RGE. 43 E

BOCA VISTA

PB. 12 PG. 80

REVISION: MAINTENANCE BARN AREA LOCATION: 3/17/97 (PARCEL 4 OF GOLF COURSE)

NO.	DATE	REVISION
1	9/16/85	ADD EASEMENTS TO SHOWN
2	1/27/86	UPDATE SURVEY
3	2/11/86	UPDATE SURVEY
4	2/13/89	UPDATE SURVEY

NO.	DATE	REVISION	BY
5	3/17/91	UPDATE SURVEY	
6	8/19/95	UPDATE SURVEY	
PROJECT: BOCA TEECA GOLF COURSE			
BOUNDARY SURVEY			
GENTRY ENGINEERING & LAND SURVEYING, INC.			
P. O. Box 243 DELRAY BEACH, FLORIDA 33444			
1 OF 2 SHEETS			



APPENDIX G:

Cost Estimates

Jeffery Street to Federal Highway FEC Railroad Crossing	
PLANNING LEVEL ESTIMATE OF CONSTRUCTION COSTS	
Description	Cost
Roadway New Construction* - NW 2nd Ave to US-1 - 0.50 miles @ \$11.2M per mile	\$5,600,000
Signalization - 1 new signal at Dixie Hwy, 2 signal replacements (US1, NW 2 nd Ave)	\$1,840,000
Railroad: new crossing at Jeffery Street	\$500,000
Railroad: remove crossing at NW 28th Street	\$276,000
Utility relocation	not included
Right of way acquisition	not included
Pond site and permitting	not included
Railroad siding track construction and signal flagman cost	not included
Note: Roadway cost based on FDOT Long Range Estimate Cost Per Mile Data for a four-lane urban roadway and includes cost to build typical section, signing, pavement markings, and lighting	
Subtotal =	\$8,216,000
INITIAL CONTINGENCY AMOUNT (20%)	\$1,643,200
LOCAL AGENCY INITIAL CONTINGENCY AMOUNT	\$100,000
Planning Estimate of Construction Costs	\$9,959,200

ROADWAY					
NW 28th Street FEC Railroad Crossing Closure					
Pay Item Number	Description	Unit	Quantity	Unit Cost	Cost
101-1	MOBILIZATION (8%)	LS	1	See Summary	-
102-1	MAINTENANCE OF TRAFFIC (10%)	LS	1	See Summary	-
104-18	INLET PROTECTION SYSTEM	EA	4	\$130.00	\$520.00
107-1	LITTER REMOVAL AND DISPOSAL	AC	1.000	\$200.00	\$200.00
107-2	MOWING	AC	1.000	\$200.00	\$200.00
110-1-1	CLEARING & GRUBBING	AC	0.600	\$36,000.00	\$21,600.00
110-4-10	REMOVAL OF EXISTING CONCRETE	SY	540	\$18.00	\$9,720.00
120-1	REGULAR EXCAVATION	CY	90	\$10.00	\$900.00
120-6	EMBANKMENT	CY	900	\$33.00	\$29,700.00
160-4	TYPE B STABILIZATION	SY	50	\$3.04	\$152.00
285-713	OPTIONAL BASE GROUP 13	SY	50	\$32.00	\$1,600.00
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	3,943	\$1.50	\$5,914.50
334-1-53	SUPERPAVE ASPHALTIC CONC, TRAFFIC C, PG 76-22	TN	4.125	\$157.90	\$651.34
337-7-82	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-9.5, PG 76-22	TN	216.865	\$164.05	\$35,576.70
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	792	\$24.00	\$19,008.00
570-1-2	PERFORMANCE TURF, SOD	SY	1,124	\$4.00	\$4,496.00
634-4-600	SPAN WIRE ASSEMBLY, REMOVE- POLES REMAIN	PI	1	\$8,000.00	\$8,000.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	6	\$900.00	\$5,400.00
639-1-60	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS	1	\$500.00	\$500.00
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- PEDESTAL/SERVICE POLE	EA	1	\$1,800.00	\$1,800.00
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- POLE 30' AND GREATER	EA	4	\$1,800.00	\$7,200.00
646-1-60	ALUMINUM SIGNALS POLE, REMOVE	AS	2	\$310.00	\$620.00
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1	\$1,000.00	\$1,000.00
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	6	\$400.00	\$2,400.00
700-1-12	SINGLE POST SIGN, F&I GROUND MOUNT, 12-20 SF	AS	2	\$1,250.00	\$2,500.00
700-1-60	SINGLE POST SIGN, REMOVE	AS	14	\$50.00	\$700.00
700-12-60	SIGN BEACON, REMOVE BEACON- SIGN TO REMAIN	AS	2	\$500.00	\$1,000.00
Subtotal =					\$161,358.54
101-1	MOBILIZATION	LS	1	10%	\$16,135.85
102-1	MAINTENANCE OF TRAFFIC	LS	1	10%	\$16,135.85
	CONTINGENCY	LS	1	20%	\$32,271.71
	FEC Rail Equipment	LS	1	15%	\$24,203.78
Total =					\$250,105.74
Total with 10% Cost Increase January 2023					\$275,116.31

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: NDUA4L-U-05-BB			Letting Date: 01/2099		
Description: New Construction, 4 11' Lanes Urban Arterial with 4' Bike Lanes and 22' Divided Median.					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost-Per-Mile Model					
Version 18-P Project Grand Total				\$11,162,530.09	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
102-1	MAINTENANCE OF TRAFFIC	7.00			\$657,298.81
101-1	MOBILIZATION	10.00			\$1,004,728.18
104-10-3	SEDIMENT BARRIER	10,560.00	LF	\$1.70	\$17,952.00
104-11	FLOATING TURBIDITY BARRIER	250.00	LF	\$12.00	\$3,000.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	250.00	LF	\$6.70	\$1,675.00
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,600.00	\$2,600.00
104-18	INLET PROTECTION SYSTEM	53.00	EA	\$160.00	\$8,480.00
107-1	LITTER REMOVAL	1.90	AC	\$30.00	\$57.00
107-2	MOWING	1.90	AC	\$46.00	\$87.40
110-1-1	CLEARING & GRUBBING	28.24	AC	\$23,000.00	\$649,520.00
120-1	REGULAR EXCAVATION	38,720.00	CY	\$9.50	\$367,840.00
120-6	EMBANKMENT	121,604.27	CY	\$14.00	\$1,702,459.78
160-4	TYPE B STABILIZATION	38,907.73	SY	\$5.90	\$229,555.61
285-709	OPTIONAL BASE,BASE GROUP 09	32,853.33	SY	\$20.00	\$657,066.60
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	5,420.80	TN	\$120.00	\$650,496.00
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,628.27	TN	\$140.00	\$367,957.80
425-1-351	INLETS, CURB, TYPE P-5,	36.00	EA	\$6,800.00	\$244,800.00
425-1-451	INLETS, CURB, TYPE J-5,	10.00	EA	\$12,000.00	\$120,000.00
425-1-521	INLETS, DT BOT, TYPE C,	5.00	EA	\$4,900.00	\$24,500.00
425-1-541	INLETS, DT BOT, TYPE D,	2.00	EA	\$6,200.00	\$12,400.00
425-2-41	MANHOLES, P-7,	5.00	EA	\$7,000.00	\$35,000.00
425-2-71	MANHOLES, J-7,	2.00	EA	\$10,000.00	\$20,000.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,648.00	LF	\$130.00	\$344,240.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	240.00	LF	\$220.00	\$52,800.00
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	112.00	LF	\$280.00	\$31,360.00
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,000.00	LF	\$330.00	\$1,650,000.00

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: NDUA4L-U-05-BB			Letting Date: 01/2099		
Description: New Construction, 4 11' Lanes Urban Arterial with 4' Bike Lanes and 22' Divided Median.					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost-Per-Mile Model					
Version 18-P Project Grand Total				\$11,162,530.09	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
430-175-154	PIPE CULV, OPT MATL, ROUND, 54"S/CD	400.00	LF	\$470.00	\$188,000.00
430-524-100	STRAIGHT CONC ENDW 24", SINGLE, 0 ROUND	2.00	EA	\$4,700.00	\$9,400.00
430-536-100	STRAIGHT CONC ENDW 36", SINGLE, 0 ROUND	2.00	EA	\$6,400.00	\$12,800.00
430-542-100	STRAIGHT CONC ENDW 42", SINGLE, 0 ROUND	2.00	EA	\$10,000.00	\$20,000.00
430-548-100	STRAIGHT CONC ENDW 48", SINGLE, 0 ROUND	2.00	EA	\$8,400.00	\$16,800.00
430-554-100	STRAIGHT CONC ENDW 54", SINGLE, 0 ROUND	2.00	EA	\$10,000.00	\$20,000.00
520-1-7	CONCRETE CURB & GUTTER, TYPE E	10,560.00	LF	\$32.00	\$337,920.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	10,560.00	LF	\$31.00	\$327,360.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	5,866.67	SY	\$53.00	\$310,933.51
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,360.00	LF	\$30.00	\$70,800.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00	EA	\$5,700.00	\$11,400.00
570-1-1	PERFORMANCE TURF	55,451.00	SY	\$1.50	\$83,176.50
570-1-2	PERFORMANCE TURF, SOD	37,840.00	SY	\$2.30	\$87,032.00
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,280.00	LF	\$14.00	\$73,920.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,048.00	LF	\$28.00	\$29,344.00
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24"	35.00	EA	\$950.00	\$33,250.00
700-1-11	SINGLE POST SIGN, F&I GM,	24.00	AS	\$440.00	\$10,560.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,400.00	\$2,800.00
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	\$8,300.00	\$16,600.00
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	\$13,000.00	\$26,000.00

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: NDUA4L-U-05-BB			Letting Date: 01/2099		
Description: New Construction, 4 11' Lanes Urban Arterial with 4' Bike Lanes and 22' Divided Median.					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost-Per-Mile Model					
Version 18-P Project Grand Total				\$11,162,530.09	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
706-1-3	RAISED PAVMT MARK, TYPE B	405.00	EA	\$3.80	\$1,539.00
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	4.00	GM	\$5,300.00	\$21,200.00
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.00	GM	\$1,700.00	\$3,400.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	19,284.00	LF	\$3.70	\$71,350.80
715-61-342	LIGHT POLE CMPLT,STD,F&I, 40'MH,12'ARM L	35.00	EA	\$11,000.00	\$385,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	35.00	EA	\$730.00	\$25,550.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	1.00	LS	\$110,520.10	\$110,520.10
Project Unknowns			0.00	%	\$0.00
Design/Build			0.00	%	\$0.00
Version 18-P Project Grand Total					\$11,162,530.09



APPENDIX H:

Conceptual Traffic Analysis Report



FINAL Conceptual Traffic Analysis Report

Jeffery Street to Federal Highway FEC Railroad Crossing

City of Boca Raton, Florida

Prepared by:

Wantman Group, Inc.

3230 W. Commercial Blvd., Suite 300

Fort Lauderdale, Florida 33309



April 2023



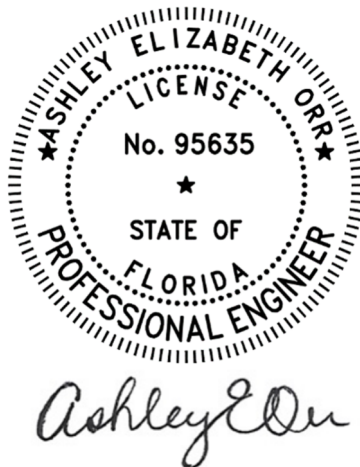
PROFESSIONAL ENGINEER CERTIFICATION

FINAL CONCEPTUAL TRAFFIC ANALYSIS REPORT

Project: Jeffery Street to Federal Highway FEC Railroad Crossing

This conceptual traffic analysis report contains engineering information related to the extension of Jeffery Street from NW 2nd Avenue to Federal Highway in the City of Boca Raton, Palm Beach County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Wantman Group Inc. (WGI Inc.) and that I have prepared or approved the evaluation, findings, opinions, conclusions or technical advice for this project.



This item has been digitally signed and sealed by [Ashley E. Orr, P.E.](#) 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.

April 12, 2023

Signature of Responsible Engineer/Submitter

Date of Submittal

Ashley E. Orr, P.E.
Engineer

WGI, Inc.
F-15085

Printed Name of Responsible Engineer/Submitter, P.E.

Firm Name



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EXECUTIVE SUMMARY

The City of Boca Raton City Council unanimously approved a new Brightline station in December 2019 with an anticipated operational opening date in late 2022. The station is to be built on a portion of City-owned property located at 400 NW 2nd Ave., just east of the Boca Raton Public Library, next to N. Dixie Highway. The opening and ongoing operation of the commuter rail station within the City of Boca Raton will provide a significant benefit to city residents and the surrounding communities. New traffic patterns and shifts in current transportation patterns will emerge as a new mode of travel comes on line. To address these changes in traffic and transportation patterns, the City has previously identified the need (2020 Comprehensive Plan) for extending Jeffery Street, which is the continuation of Clint Moore Road to the east of the I-95 bridge, to Federal Highway.

The roadway extension to Federal Highway improves the roadway grid within the northeast section of the City; creates opportunities for redevelopment; improves pedestrian circulation to access multimodal opportunities along Federal Highway and provides a continuous corridor between SR-7 and Federal Highway, which allows for future transit. The extension to Federal Highway requires a railroad crossing. As a result, the City reviewed the at-grade railroad crossings within City limits and the optimized configuration to best serve traffic circulation.

This report evaluates the existing and future traffic conditions resulting from the extension of Jeffery Street from NW 2nd Avenue to Dixie Highway with the addition of a railroad crossing at the Florida East Coast (FEC) railroad in Boca Raton, Florida. The proposed addition of the at-grade railroad crossing considers the closure of either one (1-1 condition) or two (2-1 condition) existing at-grade railroad crossings. Both proposed conditions include the closure of the existing railroad crossing at NW 28th Street/N Dixie Highway which is located within the city limits of Boca Raton. The closure of a secondary at-grade railroad crossing was analyzed at W Hidden Valley Boulevard and N Dixie Highway, which is also located in Boca Raton city limits. Four scenarios were evaluated, which included the Existing condition (2021), 2045 No Build condition, 2045 1-1 Build condition, and 2045 2-1 Build condition. The No-Build condition analyzed 2045 traffic volumes with the existing railroad crossing at NW 28th Street and no crossing at Jeffery Street. The Build condition assumes 2045 traffic conditions with the closure of either one railroad crossing at NW 28th Street, which is the 1-1 Build condition; and the closure of two crossings with the second closure at W Hidden Valley Blvd, which is the 2-1 Build condition.

For the existing condition, traffic counts from November of 2021 were applied along with FDOT Seasonal Factors to develop the traffic model. Traffic counts were supplemented with counts collected prior to 2021 to account for the construction project at the Clint Moore Road/Jeffery Street bridge over I-95, that was



closed for construction in November 2021. For the 2045 No Build condition an annual background growth of 1 percent was applied along with the projected site trips from 18-hole golf course at the Ocean Breeze site. For the 2045 Build conditions, the analysis considered opening a railroad crossing at Jeffery St/N Dixie Hwy and either closing just the railroad crossing at NW 28th Street/N Dixie Hwy (1-1 Build scenario) or both railroad crossings at NW 28th Street and W Hidden Valley Boulevard (2-1 Build scenario). Traffic was reassigned based on existing travel patterns, the shortest/easiest path of travel, land uses in the area, and engineering judgement.

Based on the future projects, it is recommended that four lanes are provided along Jeffery Street between NW 2nd Avenue and US-1. In addition to the necessary gates, signage, striping, and lighting improvements needed at the Jeffery Street railroad crossing, traffic improvements are recommended at three consecutive intersections on Jeffery Street, which are, NW 2nd Ave, N Dixie Hwy, and N Federal Hwy to offset the increased traffic associated with the new extension of Jeffery Street. The intersection of Jeffery St at NW 2nd Ave requires additional turn lanes to meet the required Level of Service D standard to operate acceptably. The eastbound dual left turn lanes require two receiving lanes headed northbound on NW 2nd Avenue, and the northbound through lanes take advantage of the condition. The two northbound receiving lanes continue for a short distance and drop one lane to match the existing two-lane roadway on NW 2nd Avenue. The project will comply with the Boca Raton Comprehensive plan that restricts the number of travel lanes to two (2) lanes between Yamato Road and the northern city limit. The intersection of Jeffery Street and Dixie Highway will require signalization that is coordinated with the railroad crossing. The figure below shows the recommended roadway improvements.

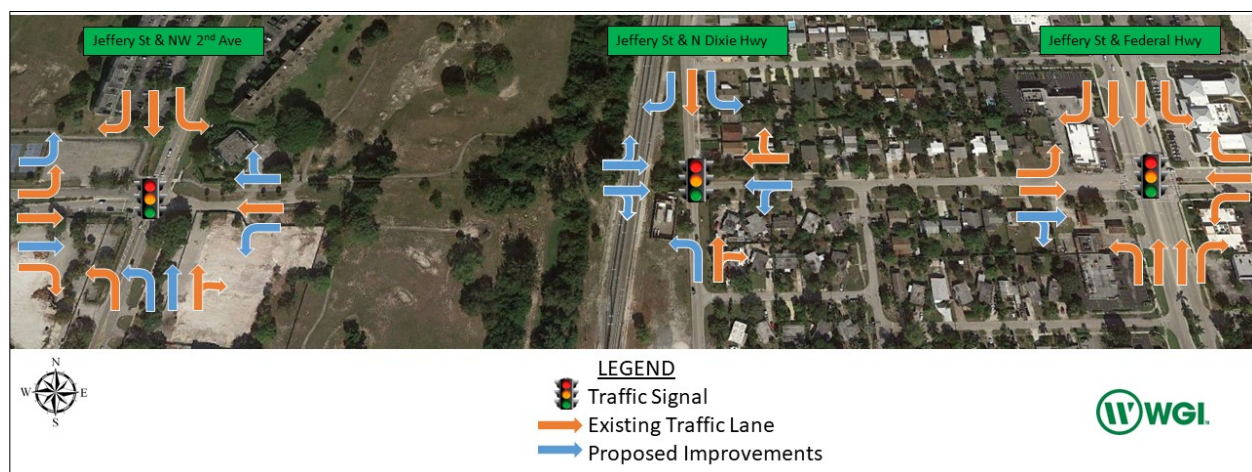


Figure ES-1: Conceptual Schematics Showing the Existing and Proposed Lane Configurations

A crash analysis was conducted for the study area which shows crashes are most frequent along Yamato Road and at the intersection of Clint Moore Road and Congress Avenue. The addition of a new railroad



crossing at Jeffery Street is projected to reduce daily traffic on Yamato Road, a major east-west arterial in the City, by approximately 10%. This will result in significant reduction in traffic congestion and improves safety and mobility of all modes of transportation on Yamato Road, which would otherwise experience over-saturated conditions in the year 2045.

There are many benefits associated with replacing the existing railroad crossing on NW 28th Street with the proposed crossing on Jeffery Street, including: serving a substantially greater number of drivers, providing better east-west network connectivity, redistribution of approximately 10% of traffic on Yamato Road and a much more balanced east-west roadway connectivity within the City by providing access for the motorists traveling from the northwestern portion of the City to Dixie Highway and US-1. The new roadway link reduces a single round trip by two miles, potentially saving 40,000 vehicle miles per day for the projected 20,000 approximate vehicles traveling along the new Jeffery Street. Most of the crashes in the study area occur at two intersections along Yamato Road. The addition of the Jeffery Street railroad crossing will help reduce traffic on Yamato Road and improve safety caused by congestion and frustrated drivers. It is recommended that only one railroad crossing is eliminated, which is at NW 28th Street.

Eliminating the second FEC railway crossing at W Hidden Valley Boulevard will have negative impacts on traffic in the area, including:

- Causing the intersection of NW 2nd Avenue and Jeffery Street to operate at an unacceptable condition even with the suggested improvements,
- Increase congestion on north-south arterials, Dixie Highway and Federal Highway,
- Add substantial traffic on local roads at the Lindell Boulevard crossing in Delray Beach,
- Add traffic onto NW 2nd Avenue, which is already operating at capacity, and
- Reduce access for local residents to commercial centers east of the railway.

It is suggested that the Jeffery Street railroad crossing is implemented with the recommended traffic improvements and the closure of only one existing railway crossing at NW 28th Street.



1. PROJECT SUMMARY

INTRODUCTION

This report outlines the traffic analysis related to the proposed project to extend Jeffery Street approximately 1,200 feet, from NW 2nd Avenue to Dixie Highway in the City of Boca Raton, Florida (City). Jeffery Street is also known as Clint Moore Road west of NW 2nd Avenue. The analysis includes the addition of a new Florida East Coast (FEC) railroad crossing at Jeffery Street.

PROJECT BACKGROUND

The City of Boca Raton City Council unanimously approved a new Brightline station in December 2019 with an anticipated operational opening date in late 2022. The station is to be built on a portion of City-owned property located at 400 NW 2nd Ave., just east of the Boca Raton Public Library, next to N. Dixie Highway. The opening and ongoing operation of the commuter rail station within the City of Boca Raton will provide a significant benefit to city residents and the surrounding communities. New traffic patterns and shifts in current transportation patterns will emerge as a new mode of travel comes on line. To address these changes in traffic and transportation patterns, the City has previously identified the need (2020 Comprehensive Plan) for extending Jeffrey Street, which is the continuation of Clint Moore Road to the east of the I-95 bridge, to Federal Highway.

The roadway extension to Federal Highway improves the roadway grid within the northeast section of the City; creates opportunities for redevelopment; improves pedestrian circulation to access multimodal opportunities along Federal Highway and provides a continuous corridor between SR-7 and Federal Highway, which allows for future transit. The extension to Federal Highway requires a railroad crossing. As a result, the City reviewed the at-grade railroad crossings within City limits and the optimized configuration to best serve traffic circulation.

The FEC Railway and Florida Department of Transportation (FDOT) require at least one and up to two existing railroad crossings to be closed when a new railroad crossing is opened. Included in the traffic evaluation is the analysis to close the FEC railroad crossing at NW 28th Street and N Dixie Highway. The analysis looks at the proposed changes to the street network with regards to mobility and safety. The elimination of a second FEC railroad crossing at W Hidden Valley Boulevard and N Dixie Highway was also considered and analyzed as part of the study. A comparison of the impact on traffic in the area was



conducted regarding closing either one or two existing railroad crossings with the addition of a new railroad crossing at Jeffery Street.

PROJECT DESCRIPTION

The project proposes to extend Jeffery Street between NW 2nd Avenue and Dixie Highway as a new four lane roadway, approximately 1,200 feet in length. A new railroad crossing is required at the FEC Railway, which parallels Dixie Highway. The project will complete a missing link to the 8.5 mile east-west corridor known as Clint Moore Road, providing connectivity from US-1 in eastern Boca Raton to US-441 in western Boca Raton.

PROJECT PURPOSE

The purpose of this project is to improve local and regional mobility within the northern portion of the City of Boca Raton. Of all the existing seven (7) arterial roadways in Boca Raton that cross I-95, Clint Moore Road/Jeffery Street is the only roadway that does not also cross the FEC railway. Providing a new railroad crossing at Jeffery Street creates a new connection between the east and west sides of Boca Raton that would connect activity from the neighborhoods and commercial activity off US-1 to the land uses west of the FEC railway and I-95. The addition of an at-grade railroad crossing on an arterial that extends west of I-95 between US-441 and US-1 will help distribute traffic and alleviate traffic congestion on the other east-west arterials in the area.

The northern Boca Raton community utilizes two arterial roadways to travel east and west of I-95, which are Yamato Road and Spanish River Boulevard. The next major arterial that connects east of the FEC railway and west of I-95 is Linton Boulevard which is 3.11 miles north of Yamato Road and is located in Delray Beach. Adding a new roadway connection north of Yamato Road that connects both east of the FEC railway and west of I-95 will help reduce driver frustration and congestion on Yamato Road and improve connectivity. Both NW 28th Street and W Hidden Valley Boulevard do not connect across I-95, and NW 28th Street doesn't provide a direct connection to US-1 without having to make multiple turns.



PURPOSE AND NEED

City of Boca Raton, Comprehensive Plan – Transportation Element

The City of Boca Raton Comprehensive Plan Transportation Element identifies several goals, objectives and policies that support the project purpose to provide a safe, efficient, convenient, and economical transportation circulation system.

- **Policy Tran.1.2.3:** Proposed shared use pathways and wide sidewalks provide safe pedestrian and bicycle mobility, and the roadway link aides in connecting to Tri-Rail by linking US 1 Federal Highway with Congress Avenue and the Boca Raton Tri-Rail station via the Jeffery Street extension.
- **Policy Tran.1.2.4:** Increased street connectivity to reduces vehicle trip lengths and creates a more walkable system along a minor collector roadway.
- **Policy Tran.1.3.1:** The project proposes a needed roadway that reduces delay and congestion on the existing City roadways.
- **Policy Tran.2.1.5:** The layout of the Jeffery Street extension establishes a new street connection to existing adjacent streets and creates a US-1 to US-441 local roadway connection for improved regional City mobility.
- **Policy Tran.2.2.1:** The project supports the strategy to minimize any degradation to the operation conditions of the Strategic Intermodal System (SIS) roadways. Yamato Road is an SIS Connector to the Boca Raton Tri-Rail station. This project reduces the travel demand and intersection delay on Yamato Road which is a nearby and parallel roadway to Jeffery Street.
- **Policy Tran.2.3.1:** The project reduces the need for a future expansion of Yamato Road which could result in environmental and economic impact to the local community.
- **Policy Tran.2.3.3:** The project optimizes the use of City assets as the Jeffery Street alignment falls within the City of Boca Raton dedicated right of way.
- **Policy Tran.2.4.4:** The project supports the policy to keep NW 2nd Avenue a 2-lane undivided constrained facility, from Yamato Road to the northern City limit, to maintain the residential character by allowing traffic to redistribute to Jeffery Street, Dixie Highway and US 1.
- **Policy Tran.3.1.3:** The project supports the construction of bicycle and pedestrian facilities on the proposed Jeffery Street corridor with a new 8-foot shared-use walkway.
- **Policy Tran.3.2.4:** Crosswalks and upgraded pedestrian signals at NW 2nd Avenue, Dixie Highway and US 1 are included in the project, which will improve pedestrian safety.
- **Policy Tran.5.5.1** Future Boca Raton shuttle systems could use Clint Moore Road/Jeffery Street to connect between the major land uses and residential areas located both east and west of I-95 and



the FEC railway, instead of a relying on Yamato Road, a principle arterial, which is less connected to residential neighborhoods.

Transportation Travel Demand

The local project area has two existing roadways that connect east of I-95 and extend far west of I-95. These are Yamato Road, a principle arterial, 0.5 miles south of Jeffery Street; and Linton Boulevard, a minor arterial, located 2.6 miles to the north in the City of Delray Beach. Only Yamato Road extends west of the Florida Turnpike.

The Jeffery Street/Clint Moore Road corridor has a functional classification as a major collector from NW 2nd Avenue to Congress Avenue, and a minor arterial functional classification from Congress Avenue to US 441. With an added FEC railway crossing it would have an uninterrupted connection between US-441 and US-1, like Yamato Road.

The United States Census data indicates the City's population grew 1.3% annually from 84,392 (2010) to an estimated 95,787 (2021). FDOT population growth estimates (County by City/Place Population Estimates 4/1/2020) show the City of Boca Raton grew 12.7% from 2010 to 2020 with a recent one-year growth of 0.7% from 2019 to 2020. Palm Beach County grew 11.1% between 2010 and 2020 and 1.3% from 2019 to 2020. With the continued growth and constrained roadway network, roadway improvements that improve mobility with low impact are a priority need.

The existing traffic volumes in the project study area are predicted to grow approximately 27% over twenty-four years from 2021 to 2045, with an average annual growth rate of 1%. The forecasted growth is expected to lead to increased delay, congestion and increased crash rates as roadways become more heavily traveled. Roadway improvements are needed to reduce total vehicle miles traveled, delay and emissions.

Roadway Network Connectivity

The Jeffery Street project creates a new network link between NW 2nd Avenue and US-1 that supports local community mobility and east-west mobility across the City of Boca Raton. The new link reduces a single round trip by two miles, potentially saving 40,000 vehicle miles per day for the projected 20,000 approximate vehicles traveling along the new Jeffery Street.

An FEC railway crossing at Clint Moore Road/Jeffery Street would provide a more convenient connection for substantially more drivers than along NW 28th Street, as there is substantially less daily traffic on NW 28th Street (6,100 AADT) compared to Clint Moore Road (33,500 AADT).

Mobility



The Jeffery Street connection improves mobility for pedestrians and bicyclists between the residential area west of the FEC Railroad and the retail businesses along the US-1 corridor. Additional opportunities for the Boca Shuttle and Palm Tran bus service could also utilize the new connection.



2. DATA COLLECTION AND EXISTING ROADWAY NETWORK

This chapter describes the data collection conducted as part of the traffic study and the existing conditions of the roadway facilities in the study area.

TRAFFIC STUDY AREA

The study area shown in **Figure 1** includes intersections from NW 76th Street (W Hidden Valley Boulevard) to the north and NW 20th Street to the south. The study area extends west to Congress Avenue, and eastward to North Federal Highway. The proposed extension of Jeffery Street, which will include a new FEC railroad crossing is shown in green. The existing railroad crossings on NW 28th Street and W Hidden Valley Boulevard which would potentially be closed are shown with a red star. The study intersections and roadway links where traffic data was collected are identified in the figure. The 24-hour traffic counts were conducted at seven (7) locations, as shown in **Figure 1**.

The traffic analysis evaluated the existing condition for year 2021 and No Build alternative for the design year 2045. The Build Alternatives were evaluated for the design year 2045. The intersection analyses were conducted for the morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods. Roadway link traffic data was collected over a 24-hour period during a typical weekday.

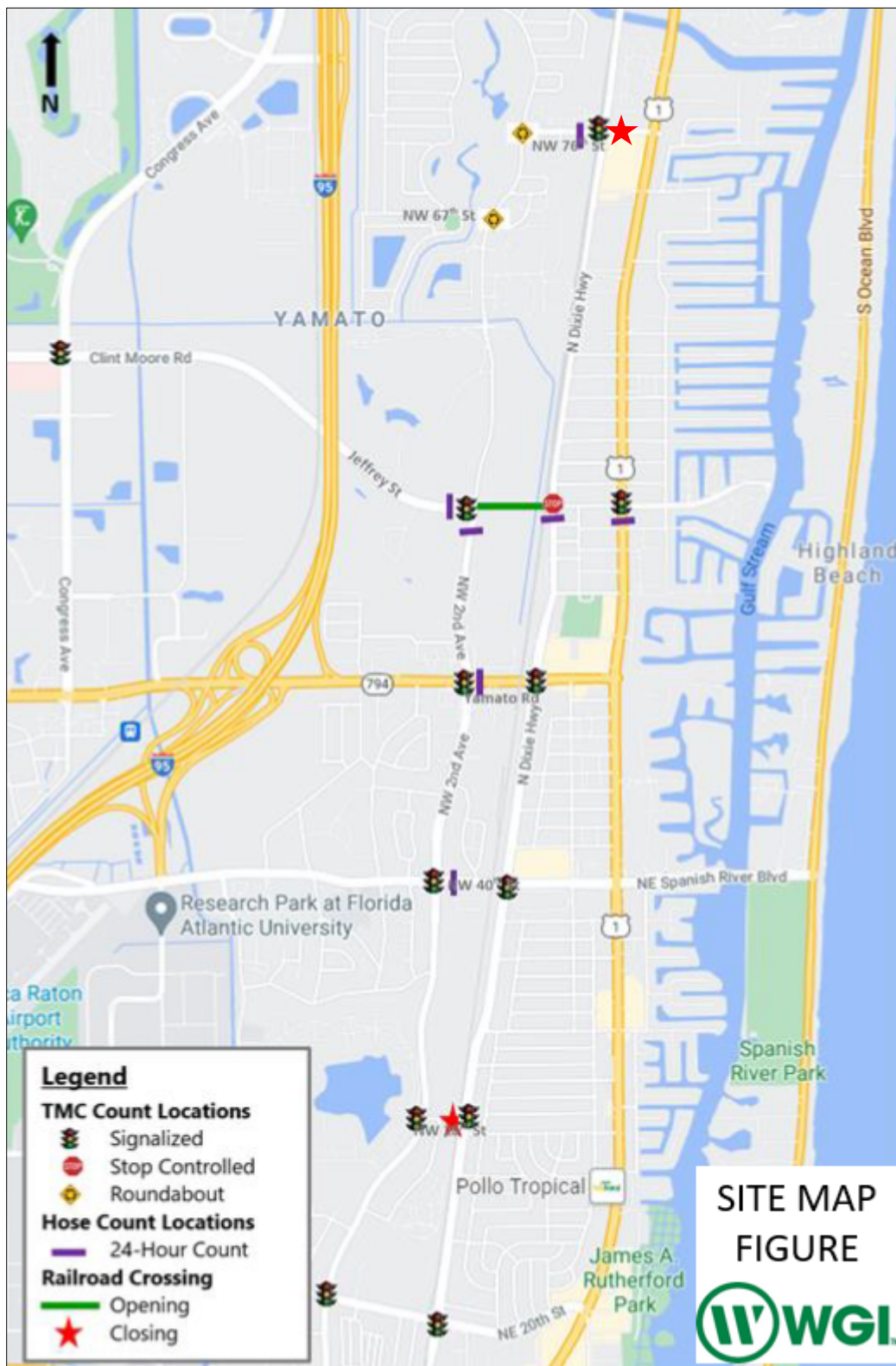


Figure 1: Study Area and Traffic Data Collection Sites



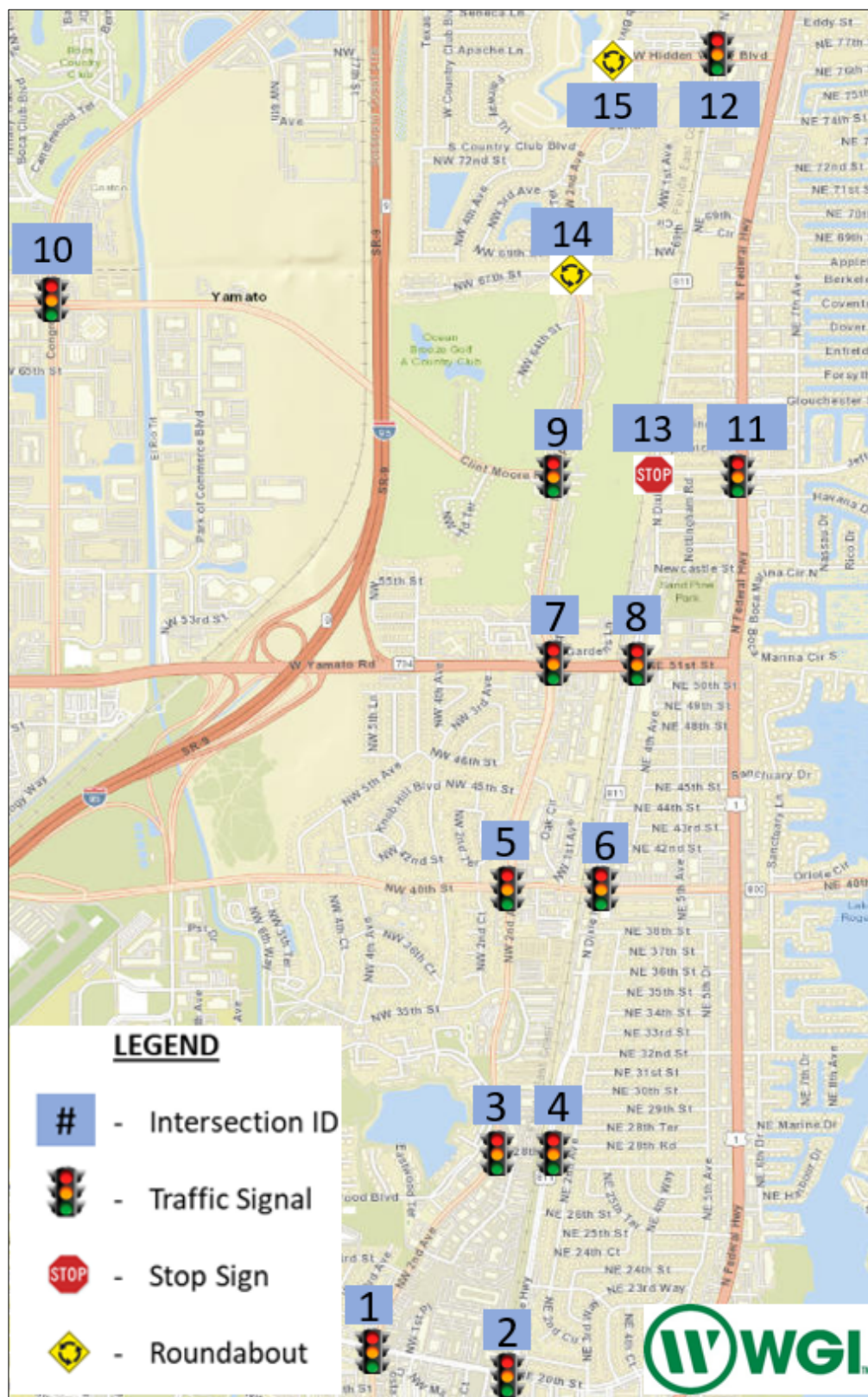
TRAFFIC COUNTS AND FDOT SEASONAL FACTOR

Peak period turning movement traffic counts and 24-hour volume counts were conducted on November 18, 2021. Prior traffic data was also used for specific intersections to reflect typical conditions in the area as the bridge on Clint Moore Road/Jeffery Street over I-95 was closed for construction when the traffic counts were conducted on November 18, 2021. Prior peak period turning movement traffic data was used for the following intersections: Yamato Road and NW 2nd Ave (12/12/2019), Clint Moore Road and Congress Avenue (04/25/2018), Yamato Road and Congress Avenue (05/01/2018), and Jeffery Street and NW 2nd Avenue (08/31/2016).

The Florida Department of Transportation (FDOT) seasonal factors were applied based on when the traffic counts were conducted. The seasonal factor normalizes traffic for the specific time of the year and applies a factor to reduce impacts of increased or decreased traffic based on seasons. The table showing the seasonal factor can be found in **Appendix A**.

EXISTING PEAK HOUR TRAFFIC AND LANE CHARACTERISTICS

Weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection turning movement counts were conducted at the fifteen (15) study intersections. The traffic counts are included in **Appendix B**, for reference. The hours with the highest traffic volumes throughout the study area were identified in each individual count, which can be found in the **Appendix B**. The peak hour factor was calculated and applied for each intersection. Existing lane configurations and signal controls were obtained through field observations. **Appendix C** includes the traffic signal timing sheets for each signalized intersection in the study area. During data collection, queue lengths, traffic circulation, and traffic issues were observed. **Figure 2** shows the location and numbering ID where intersection traffic counts were conducted in the study area, which matches the intersection numbers in the following traffic volume figures. Peak hour traffic volumes are presented in **Figure 3** with the existing lane configurations and traffic control devices (stop signs or traffic signals).



Jeffery Street - Conceptual Traffic Analysis Report

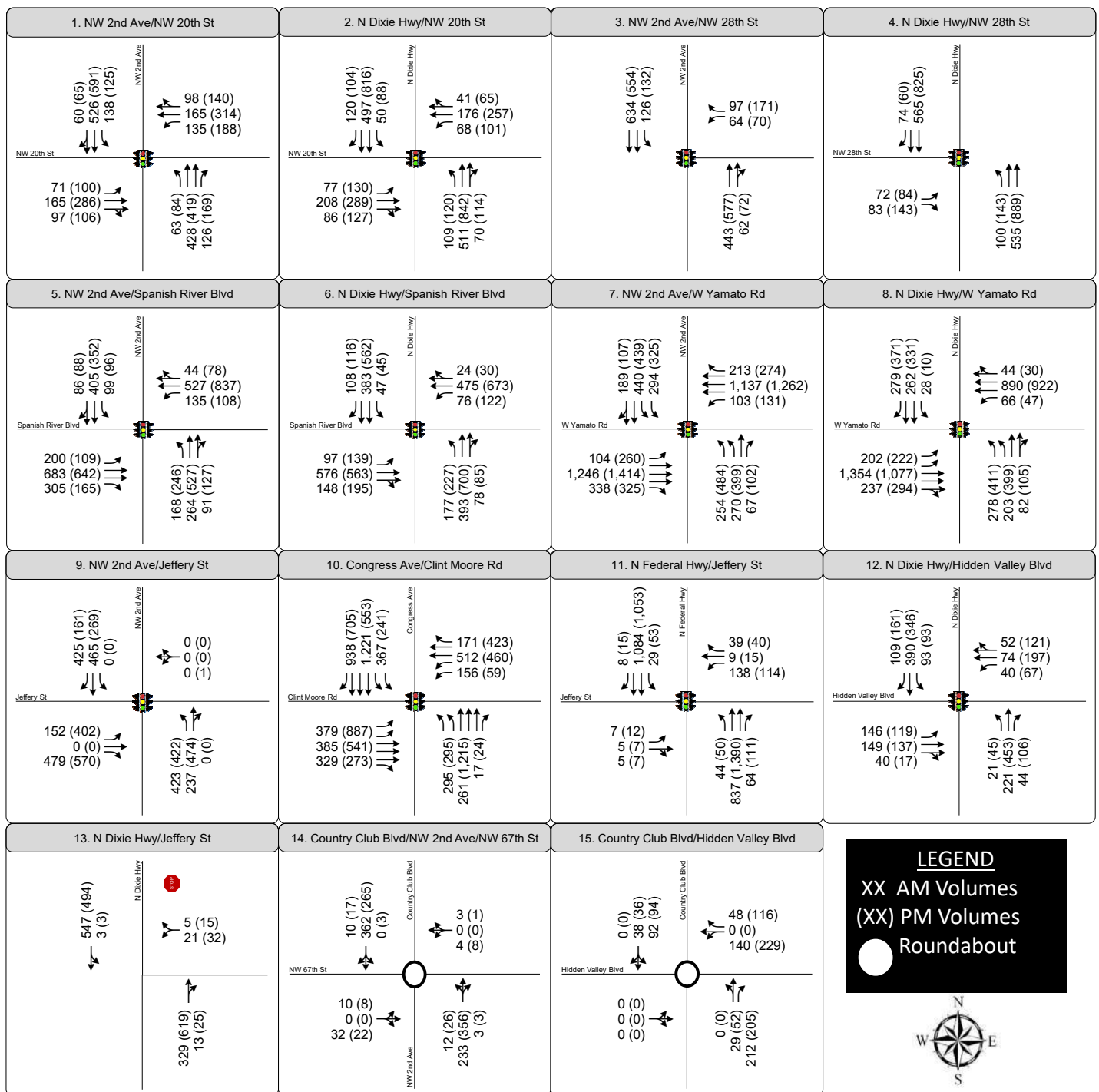


Figure 3
Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes
2021 Existing Conditions



3. CRASH ANALYSIS

Crashes in the study area have been examined from 2016-2020. Crash data was extracted from Signal Four Analytics. A summary of different safety performance metrics (i.e., crashes distributed by intersection and crash type) can be found in **Table 1**. The intersection with the most crashes was Yamato Rd. and NW 2nd Ave. at 25 crashes per year. The most common crash type was rear end, accounting for 291 of the 651 crashes in the study area over the five-year period.

The crash rate was calculated per million vehicles entering the intersection, which is a recommended practice for normalizing crash data according to the Federal Highways Administration (FHWA). In this analysis, the K factor of 9% was applied to estimate daily traffic volumes. To calculate the crash rate, the total number of crashes at the intersection was multiplied by 1 million, then divided by the total number of trips in the study period over a 5-year period (assuming the daily traffic in Table 2).

Through both methods of analyzing crash frequency (crashes per year and crashes per million entering vehicles), the intersections of Yamato Rd at NW 2nd Ave and at N Dixie Hwy, and the intersection of Clint Moore Rd and Congress Ave have the three (3) highest crash rates in the study area. Based on crashes per million vehicles, Yamato Rd, NW 20th St, and Spanish River Blvd experience the highest crash rates in the study area, which all have railroad crossings. The intersection of Clint Moore Rd and Congress Ave may experience a high number of crashes per year but experiences an average number of crashes per the number of vehicles served. Full details on crashes by intersection and crash type can be found in **Table 1**.

Visual representation of the crashes over a 5-year period in the study area (crash point overview) can also be found in **Figure 4**. This figure shows that a substantial number of crashes are occurring along Yamato Rd, Spanish River Boulevard, 20th Street, Dixie Hwy, and US-1.

Traffic going to/from I-95 in the area will continue to use Yamato Rd, but substantial traffic to/from US-1 will redistribute to the proposed railroad crossing at Jeffery Street. The addition of a railroad crossing on Jeffery Street will help reduce the amount of traffic on Yamato Road and potentially help reduce congestion and frustrated drivers which can lead to crashes.



Table 1: Crash Analysis Summary

Intersection	Crashes per			Crashes/ Year	Animal	Backed Into	Bicycle	Head On	Left Entering	Left Leaving	Left Rear	Opposing Sideswipe	Parked Vehicle	Off Road	Other Pedestrian	Rear End	Right Angle	Right/ Left	Right/ Through	Rollover	Same Direction Sideswipe	Single Vehicle	Unknown	
	Daily Trips	Million	Grand Total																					
NW 2nd Ave & NW 20th St	32444	1.03	61	12.2	N/A	1	N/A	1	7	N/A	1	N/A	N/A	2	6	N/A	21	8	N/A	3	1	6	2	2
NW 20th St & N Dixie Hwy	38289	1.04	73	14.6	1	1	2	N/A	12	N/A	5	N/A	N/A	N/A	4	2	22	3	N/A	3	4	9	2	3
NW 2nd Ave & NW 28th St	19756	0.17	6	1.2	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A	1	N/A	N/A	N/A	1	N/A	N/A	1
NW 28th St & N Dixie Hwy	26889	0.18	9	1.8	N/A	1	1	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	N/A	N/A	1	2	N/A	1
NW 2nd Ave & Spanish River Blvd	42344	0.69	53	10.6	N/A	2	3	N/A	3	N/A	1	N/A	N/A	1	1	N/A	30	2	N/A	N/A	2	7	1	N/A
N Dixie Hwy & Spanish River Blvd	43356	0.92	73	14.6	N/A	1	2	2	12	1	2	N/A	N/A	4	3	N/A	30	2	N/A	1	N/A	11	N/A	2
Yamato Rd & NW 2nd Ave	64600	1.07	126	25.2	N/A	N/A	1	1	12	N/A	2	N/A	N/A	1	6	N/A	58	10	N/A	2	5	23	3	2
Yamato Rd & N Dixie Hwy	52922	1.05	101	20.2	N/A	N/A	N/A	1	1	3	1	2	1	2	1	N/A	50	3	1	1	3	28	1	2
Jeffery St & NW 2nd Ave	28267	0.31	16	3.2	N/A	1	N/A	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	1	1		1	2	1	1
Clint Moore Rd & Congress Ave	104600	0.57	108	21.6	N/A	N/A	1	N/A	3	1	N/A	N/A	N/A	1	5	N/A	61	3	1	2	N/A	24	2	4
N Dixie Hwy & Jeffery St	14911	0.18	5	1.0	N/A	N/A	N/A	N/A	N/A	1	N/A	1	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N Federal Hwy & Jeffery St	35989	0.29	19	3.8	N/A	N/A	N/A	1	2	N/A	1	N/A	N/A	2	2	N/A	7	1	N/A	N/A	3	N/A	N/A	N/A
East Country Club & Hidden Valley Blvd	9244	0.06	1	0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Totals			651	130.2	1	7	10	7	54	6	14	4	2	14	28	2	291	33	3	12	21	112	12	18

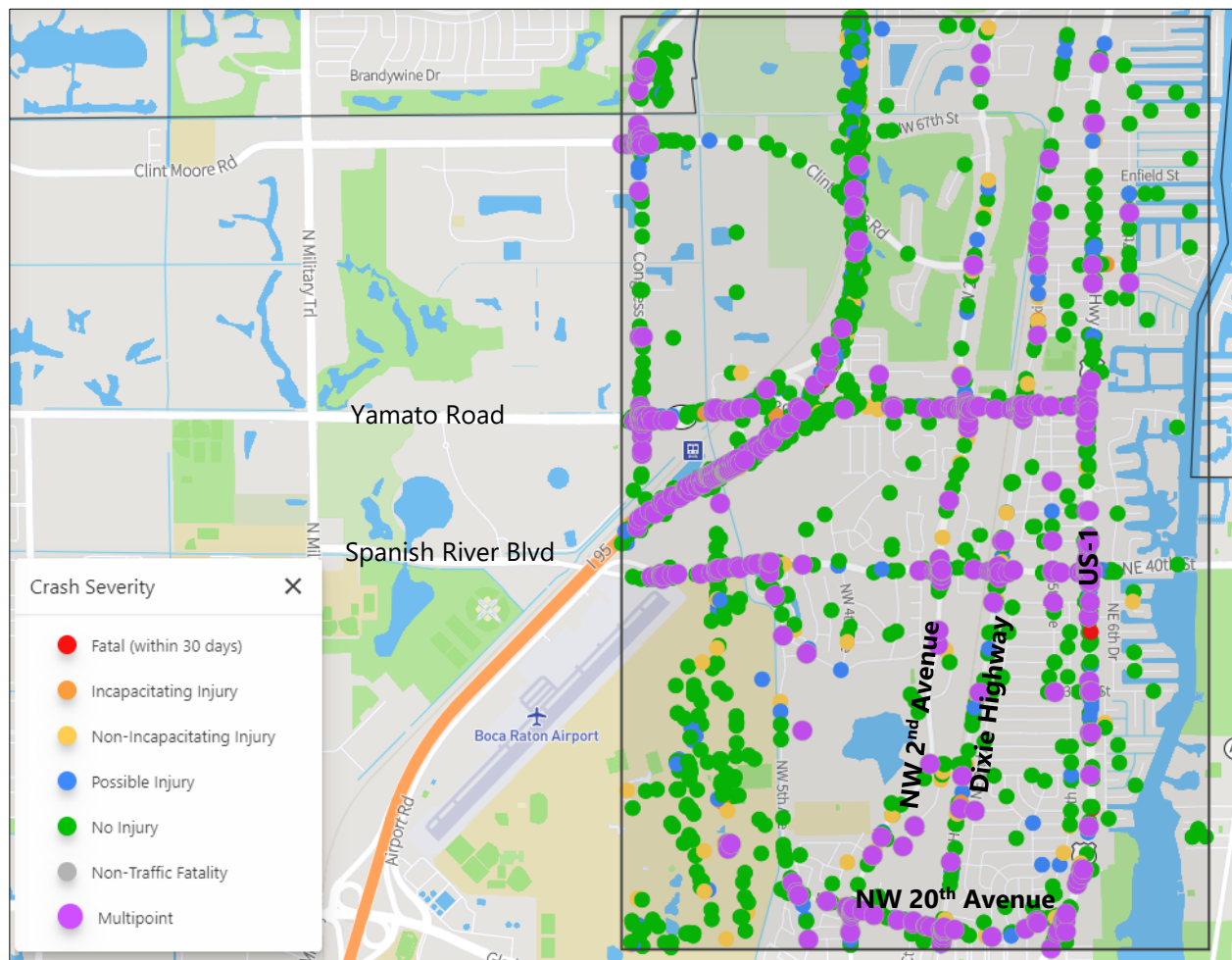


Figure 4: Study Area Crash Locations Over a 5-Year Period (2016-2020)



4. METHODOLOGY

The traffic study analyzed the Existing 2021, Future 2045 No Build, Future 2045 1-1 Build, and Future 2045 2-1 Build scenarios. Below is a summary of the traffic analysis scenarios.

TRAFFIC ANALYSIS SCENARIOS

The operations of the study intersections were evaluated during the weekday morning (AM) and weekday evening (PM) peak hours and the daily roadway capacity for the following scenarios:

Existing:	Existing volumes obtained from traffic counts collected in 2021 and prior to the closure of the Clint Moore Rd bridge over I-95 for select intersections that were heavily impacted by this road closure. Seasonal factors were also added to the existing volumes based on when the traffic counts were conducted.
Future No Build:	Existing condition volumes plus traffic from growth through 2045 and generated trips from the former golf course site.
Future 1-1 Build:	The 1-1 Build scenario (1-closure, 1-opening) modifies the <i>No Build</i> traffic volumes with traffic reassignment from the closure of the railroad crossing at NW 28 th Street and N Dixie Highway, and the new opening of a railroad crossing at Jeffery Street and N Dixie Highway.
Future 2-1 Build:	The 2-1 Build scenario (2-closures, 1-opening) is an adaptation of the 1-1 Build scenario with one additional railroad crossing closure at W Hidden Valley Boulevard.



5. TRAFFIC FORECAST

This chapter presents the projected traffic volumes for the No Build and Build Conditions (i.e. 1-1 and 2-1). The traffic volume estimation for year 2045 was performed consistent with the general practices outlined in the FDOT Traffic Forecasting Handbook. No Build Conditions are defined as 2045 traffic conditions with the existing traffic network and added traffic from background growth, which includes traffic from all developments in the study area. The Build conditions include the traffic reassignment from the construction of the Jeffery Street railroad crossing and either the elimination of one or two existing railroad crossings. The traffic volumes from the Excel spreadsheets used for the calculations are included in **Appendix D**, for reference.

TRIP GENERATION ANALYSIS

Based on conversations with the City of Boca Raton, proposed developments were identified in the study area to estimate future traffic conditions. Trip generation for the 18-hole golf course was added to reflect the potential for restoration of the former Ocean Breeze golf course located between I-95 and the railroad tracks north of Yamato Road. While the exact plans for the land were still undetermined at the time of the analysis, a golf course is the approved zoning for the property.

The Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition was applied for the trip generation analysis because of its widely accepted methodology.

Table 2 summarizes the estimated trip generation for the proposed project for a typical weekday and the AM and PM peak hours. As shown in **Table 2**, an 18-hole golf course is estimated to generate 547 daily vehicle trips, with 32 trips occurring during the AM peak hour and 52 trips occurring during the PM peak hour. Overall, the golf course will generate minimal traffic to the study area. The trip assignment of the golf course traffic is included in **Appendix E**, for reference.

Table 2: Trip Generation Summary

Land Use	ITE Code	Units	Daily Total	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Golf Course	430	18 Holes	547	25	7	32	28	25	52

Note: Used the ITE Trip Generation, 11th Ed. ITE Code 430 for Golf Course



GROWTH FACTORS

A background growth factor was calculated based on existing traffic volumes in the study area to calculate the 2045 No Build traffic volumes. **Table 3** shows the calculated growth rate for the analyzed roadways in the study area. To generate the background growth factor, each roadway's AADT growth rate was calculated yearly from 2016 to 2019. The calculations determined a 0.89 percent annual growth for main streets and 3.33 percent for side streets in the study area. When the NW 28th Street and Jeffery Street/Clint Moore Road traffic data is screened out, which appear to be outliers, there was only a 1.33 percent annual growth for the side streets. After coordination with the City it was determined that a 1 percent annual growth rate should be applied for all streets in the study area, which reflects a consistent practice in similar projects. These calculations and the meeting notes with the City of Boca Raton can be found in **Appendix F**.

Table 3: Historic Traffic Growth Summary

Roadway Name	Annual Background Growth	Average	No. of Years of AADT	AADT Source
Main Streets				
N Dixie Hwy	1.16%	0.89%	4	FDOT
Spanish River Blvd	0.74%		4	FDOT
Yamato Rd	1.07%		N/A	CUBE (District 4 Model)
N Federal Hwy	0.84%		15	FDOT
Congress Ave	0.64%		4	FDOT
Side Streets				
NW 2nd Ave	0.29%	3.33%	4	FDOT
NW 20th St	6.34%		4	FDOT
NW 28th St	0.48%		4	FDOT
Jeffery St/Clint Moore Rd	6.29%		4	FDOT
Hidden Valley Blvd	3.22%		4	FDOT
Overall				
NW 2nd Ave	0.29%	2.11%	4	FDOT
N Dixie Hwy	1.16%		4	FDOT
NW 20th St	6.34%		4	FDOT
NW 28th St	0.48%		4	FDOT
Spanish River Blvd	0.74%		4	FDOT
Yamato Rd	1.07%		N/A	CUBE (District 4 Model)
Jeffery St/Clint Moore Rd	6.29%		4	FDOT
Hidden Valley Blvd	3.22%		4	FDOT
N Federal Hwy	0.84%		15	FDOT
Congress Ave	0.64%		4	FDOT

Note: For Side Streets without the streets NW 20th St and Jeffery St/Clint Moore Rd the average is 1.33%

The No Build 2045 traffic volumes shown in **Figure 5** were forecasted based on the existing traffic, projected site trips to the proposed golf course, and annual traffic growth projections.



It is important to note that Palm Beach County has plans to widen Dixie Highway from Yamato Road to Linton Boulevard from two travel lanes to two travel lanes with a center two-way left turn lane. The Construction is funded for 2024 and therefore in the No Build and Build 2045 conditions, Dixie Highway was modeled as having a three lane section.

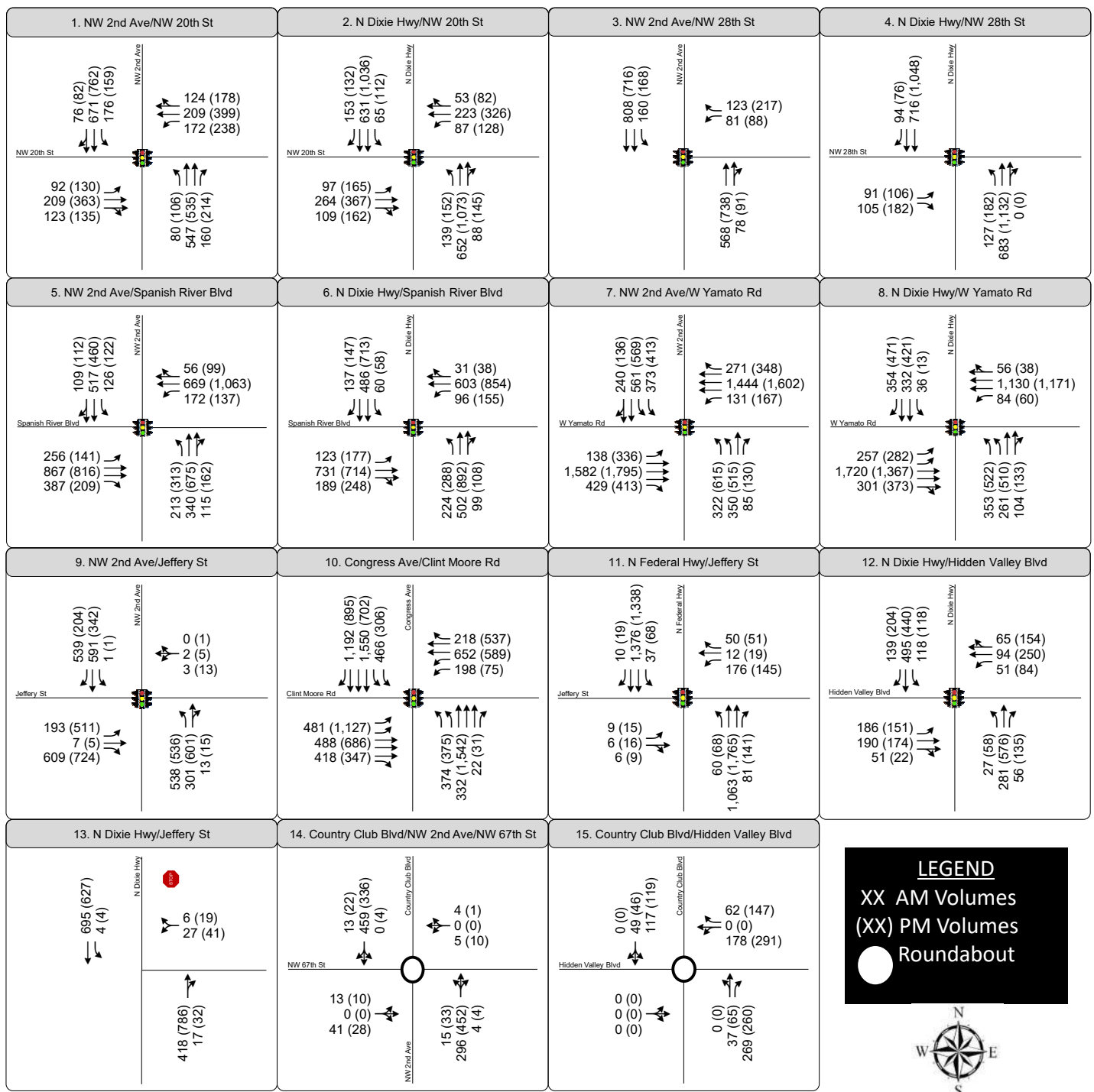


Figure 5
Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes
2045 No Build Conditions



2045 BUILD PEAK HOUR VOLUMES

Network traffic was reassigned to reflect the added railroad crossing at Jeffrey Street for the Build Scenarios. For the 1-1 Build scenario, it was assumed the existing railroad crossing at NW 28th Street would be closed per FDOT railroad closure/opening policy. **Figure 6** shows the AM and PM peak hour volumes at each intersection in the study area for the future (2045) 1-1 Build Scenario. **Figure 7** shows the AM and PM peak hour volumes for the future (2045) 2-1 Build Scenario, which assumed that two railroad crossings would be closed at NW 28th Street and W Hidden Valley Boulevard. A list of redistribution strategies were considered in the reassignment of vehicle trips, which can be found in **Appendix G** for both scenarios. The traffic reassignment is based on the easiest path of travel, the existing distribution of traffic, and the land uses in the area. While reassigning traffic, the balance of traffic conditions was also considered between Jeffery Street and Yamato Road, as traffic conditions typically normalize to a balanced level of service condition. Traffic tends to naturally balance, especially since drivers have easily accessible real-time traffic information through apps (i.e., Waze and Google Maps).

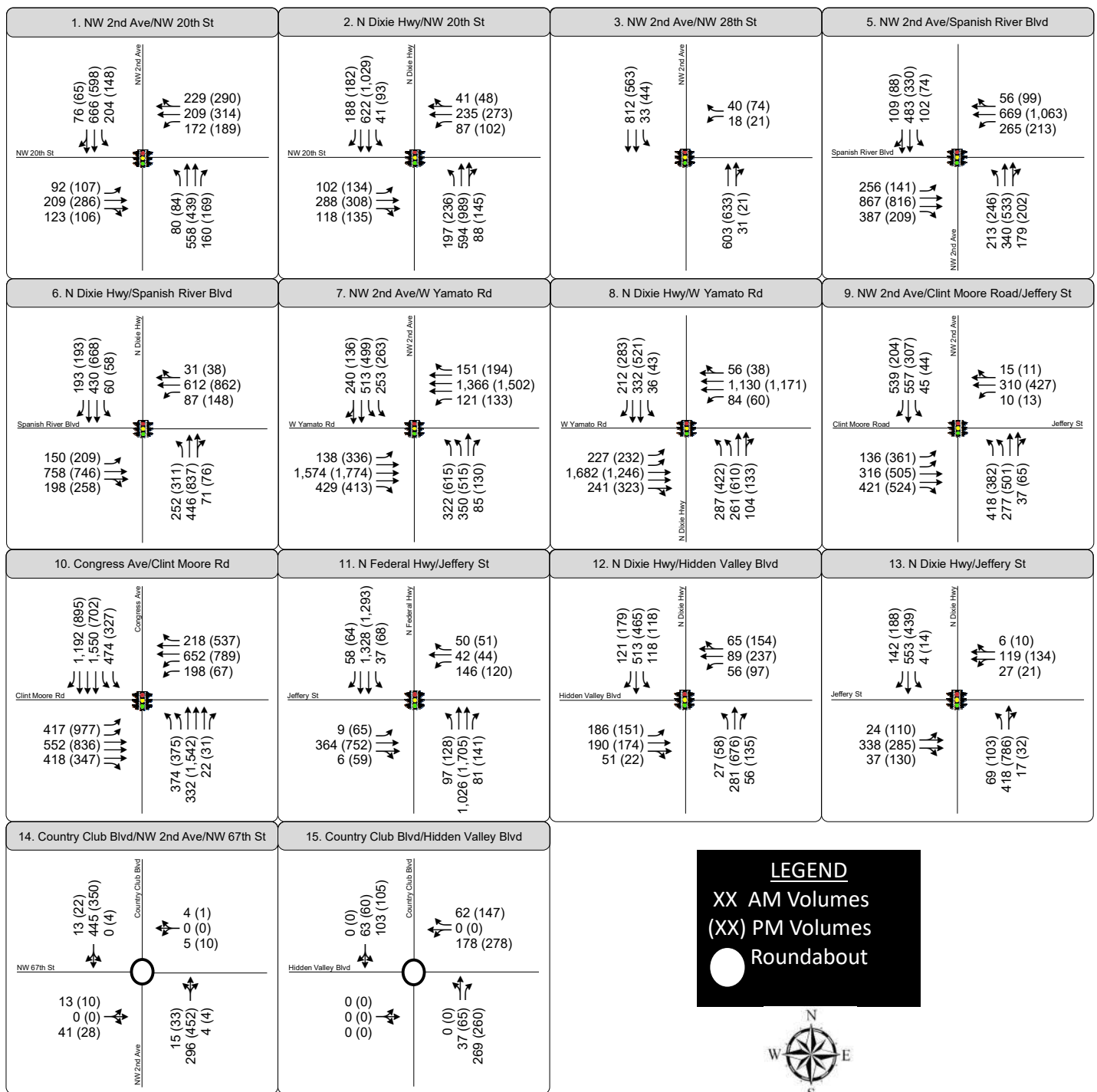


Figure 6
 Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes
 2045 Build Conditions 1:1 Closure

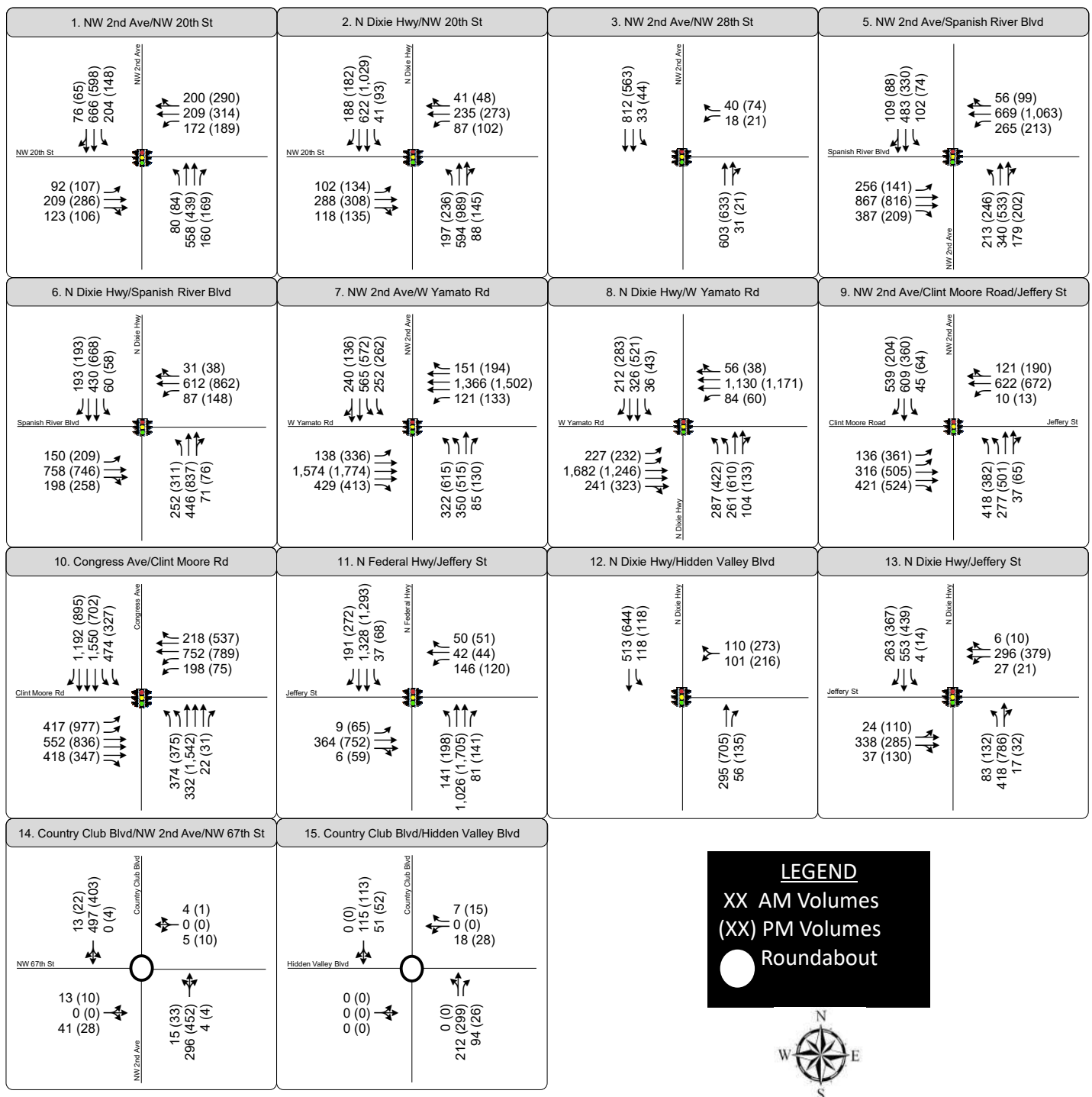


Figure 7
 Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes
 2045 Build Conditions 2:1 Closure



6. TRAFFIC OPERATIONAL ANALYSIS

The Conceptual Traffic Analysis Report (CTAR) identifies potential impacts of the addition of a new railroad crossing on Jeffery Street and closure of one or two existing railroad crossings on the traffic network in the study area.

The operational traffic analyses consider both the impact at intersections and roadway segments. The operational performance of an intersection or roadway is commonly described with the term "Level of Service" (LOS). LOS is a qualitative description of operating conditions, ranging from LOS A (free flow traffic conditions with little or no delay) to LOS F (oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). The LOS analysis methods outlined in the 6th edition of the *Highway Capacity Manual* (Transportation Research Board, 2016) were used in this study. The *HCM* methods for calculating LOS for signalized and unsignalized intersections are described below.

UNSIGNALIZED INTERSECTIONS

In Chapters 19 and 20 of the Transportation Research Board's 2016 *Highway Capacity Manual*, 6th Edition (*HCM 6*), the LOS for unsignalized intersections (roundabout, two-way stop, or all-way stop controlled intersections) are also defined by the average control delay per vehicle (measured in seconds). The control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side-street stop-controlled intersections, delay is calculated for each stop-controlled movement and for the uncontrolled left turns, if any, from the main street.

The delay and LOS for the intersection as a whole and for the worst approach are reported for side-street stop intersections. **Table 4** summarizes the relationship between delay and LOS for unsignalized intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections as drivers expect less delay at unsignalized intersections.

**Table 4: Unsignalized Intersection Level of Service Definitions**

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delay	≤ 10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2016.

SIGNALIZED INTERSECTIONS

Traffic operations at signalized intersections were evaluated using the LOS method described in Chapter 18 of the HCM 6. The Synchro 11 software package was used to model traffic conditions throughout the project study area. Synchro is a macroscopic simulation tool that uses deterministic equations to evaluate operations at an intersection. Please note that HCM 6 has limitations for certain intersections; for any intersections unable to be analyzed by HCM 6, HCM 2000 was used. **Table 5** shows the list of intersections that were analyzed by HCM 6 for Existing, No Build, and Build Conditions:

Table 5: List of Study Intersections

Study Area Intersections	
NW 20 th St. & NW 2 nd Ave. (Signalized)	Clint Moore Rd. & NW 2 nd Ave. (Signalized)
NW 20 th St. & N Dixie Hwy. (Signalized)	Clint Moore Rd. & Congress Ave. (Signalized)
NW 28 th St. & NW 2 nd Ave. (Signalized)	Jeffery St. & N Federal Hwy. (Signalized)
NW 28 th St. & N Dixie Hwy. (Signalized)	Hidden Valley Blvd. & N Dixie Hwy. (Signalized)
Spanish River Blvd. & NW 2 nd Ave. (Signalized)	Jeffery St. & N Dixie Hwy. (Unsignalized)
Spanish River Blvd. & N Dixie Hwy. (Signalized)	NW 67 th St. & NW 2 nd Ave. (Roundabout)
W Yamato Rd. & NW 2 nd Ave. (Signalized)	Hidden Valley Blvd. & Country Club Blvd. (Roundabout)
W Yamato Rd. & N Dixie Hwy. (Signalized)	



EXISTING AND NO BUILD INTERSECTION PERFORMANCE

The results of the intersection capacity analyses for the 2021 Existing, 2045 No Build, and 2045 Build with mitigations conditions are provided in **Table 6**. The Synchro output sheets, which show the delay and corresponding LOS, volume-to-capacity (v/c) ratio, and 95th percentile queue length for each movement are presented in **Appendix H and Appendix I** for 2021 Existing & 2045 No Build conditions, respectively. The results of the capacity analyses indicate that the following intersections operate at an unacceptable LOS in the existing condition:

- (#7) W Yamato Rd. and NW 2nd Ave.
- (#8) W Yamato Rd. and N Dixie Highway
- (#10) Clint Moore Rd. and Congress Ave.

In 2045, assuming 1 percent annual traffic growth and the development of a golf course, the following intersections operate at an unacceptable LOS in the No Build condition:

- (#5) Spanish River Blvd. and NW 2nd Ave.
- (#6) Spanish River Blvd. and N Dixie Highway
- (#7) W Yamato Rd. and NW 2nd Ave.
- (#8) W Yamato Rd. and N Dixie Highway
- (#10) Clint Moore Rd. and Congress Ave.
- (#11) Jeffery St. and N Federal Highway

These intersections operate at either LOS of E or F during one of or both of the peak hours. This analysis shows that the Spanish River Boulevard, Yamato Road, and Clint Moore Road/Jeffery Street corridors operate poorly. This analysis shows that there is substantial roadway capacity adjacent to the NW 28th Street railroad crossing. However, the roadways adjacent to the proposed Jeffery Street extension and railroad crossing are currently or projected to operate at unacceptable conditions. The Build scenarios traffic analyses will determine if the proposed addition of a new railroad connection and improvements along Jeffery Street will help improve traffic in this area.



ROADWAY BUILD IMPROVEMENTS

Roadway mitigations were developed for the three project intersections along Jeffery Street including:

- (#9) Jeffery St./NW 2nd Ave
- (#11) Jeffery St./N Dixie Hwy
- (#13) Jeffery St./N Federal Hwy.

These intersection improvements are needed to allow the intersections along Jeffery Street to operate at acceptable conditions. **Figure 8** shows the recommended traffic mitigation improvements at the three intersections along Jeffery Street in the study area. **Appendix J** includes a concept plan of the proposed traffic layout along Jeffery Street between NW 2nd Avenue and US-1.

It is understood that there is a requirement to maintain only one lane in each direction on NW 2nd Avenue. The short dual thru lanes on NW 2nd Avenue will be limited to the intersection and merge into the existing two lane roadway just beyond the intersection, similar in distance to a right or left-turn lane. A potential phased intersection could be developed without constructing the second lane until future traffic growth requires opening the lane. Below is a summary of the proposed traffic improvements along Jeffery Street:

Jeffery Street and NW 2nd Avenue

- Create a four-lane roadway along Jeffery Street between NW 2nd Avenue and N Dixie Highway.
- Add EB left-turn lane to create double left-turn lanes and provide additional receiving lane on the north leg of NW 2nd Avenue.
- Add WB left-turn lane on Jeffery Street.
- Add NB left-turn lane on NW 2nd Avenue to create a double left-turn and add a NB thru/right-turn lane on NW 2nd Avenue.

Jeffery Street and Dixie Highway

- Add a traffic signal at the intersection that is coordinated with the railroad crossing.
- Add an east leg with a shared thru/right-turn lane and shared thru/left-turn lane on Jeffery Street.
- Add a NB left-turn lane on Dixie Highway.
- Add a shared thru/left-turn lane on Jeffery Street.
- Add a SB right-turn lane on Dixie Highway.



- Add in a split phase for eastbound and westbound movements in order to safely allow shared thru/right and thru/left traffic to pass through intersection.

Jeffery Street and N Federal Highway

- Add an EB shared thru/right-turn lane on Jeffery Street.
- Adjust Signal Timings in PM peak hour



Figure 8: Visual Representation of Mitigations on Jeffery Street

BUILD SCENARIOS INTERSECTION PERFORMANCE

The addition of the Jeffery Street extension and railroad crossing causes approximately 10% of the traffic on Yamato Road to redistribute onto Jeffery Street. This redistribution of traffic allows Yamato Road to operate with less delay compared to the No Build condition (**Table 6**). With the addition of the Jeffery Street crossing, it is projected that the delays at the intersections of Yamato Road/NW 2nd Avenue and Yamato Road/N Dixie Hwy will decrease by approximately 30 and 15 seconds, respectively, during the PM peak hour for both the Build 1-1 closure and Build 2-1 closure conditions. The v/c ratio in the PM peak hour is projected to decrease at the intersection of Yamato Road/N Dixie by approximately 0.34 in the Build 2-1 and Build 1-1 closure. The v/c ratio at Yamato Road/NW 2nd Avenue stays consistent between the No Build and the Build 1-1 and 2-1 closure.

For both build scenarios, all other intersections in the northern part of the study area are projected to operate at approximately the same level of service or better than the No Build condition. The Synchro



output sheets, which show the delay and corresponding LOS, volume-to-capacity (v/c) ratio, and 95th percentile queue length for each movement is presented in **Appendix K** for 2045 Build conditions for 1-1 closure and in **Appendix L** for 2045 Build conditions for 2-1 closure.

Based on the capacity analyses shown in **Table 6** below, the 2-1 Build scenario causes the intersection of Jeffery Street and NW 2nd Avenue to operate at an unacceptable level during both the AM and PM peak hours even with the substantial traffic mitigations suggested. The intersection operates at an acceptable level in the 1-1 Build scenario and it is essential that this intersection operate at an acceptable level to make this new railroad crossing an attractive alternative route for drivers. The analysis also shows that traffic conditions during the AM and PM peak hour at Jeffery St. and N Dixie Highway with the 2-1 scenario will be problematic compared to the 1-1 Build scenario. It is also important to note that substantial mitigations are proposed at the intersection of Jeffery Street and N Dixie Highway, and despite these mitigations the intersection still operates at an unacceptable condition in the PM peak hour for the Build 2-1 condition.

Table 6 shows the capacity analyses results for all scenarios, which includes the proposed intersection improvements along Jeffery Street and these intersections are highlighted below. It is important to note that since the HCM 6th edition was used for all intersections that were not railroad crossings, no overall V/C ratio was determined for the intersection. The V/C ratio presented in **Table 6** below is the V/C ratio for the worst movement at that particular intersection. It is also important to note that in the Build 1-1 and Build 2-1 conditions, intersection four does not have an output because this intersection is proposed to be closed in both scenarios. Additionally, since intersection thirteen is proposed to be signalized in the build condition, it is evaluated as an unsignalized intersection in the Existing and No Build condition, and analyzed as a signalized intersection in the Build conditions.



Table 6: Intersection Capacity Analyses Results

Summary Table																									
Intersection ID	Intersection Name	2021 Existing Conditions						2045 No-Build Conditions						2045 Build Conditions 1-1 Closure						2045 Build Conditions 2-1 Closure					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
1	NW 20th St. & NW 2nd Ave. (Signalized)	C	27.70	0.65	C	33.90	0.78	C	29.90	0.72	D	42.90	1.00	C	31.30	0.79	D	38.00	0.91	C	31.40	0.71	D	38.00	0.91
2	NW 20th St. & N Dixie Hwy. (Signalized)	C	28.60	0.71	D	43.40	0.79	C	30.60	0.82	D	54.20	1.01	C	32.00	0.87	D	46.00	0.85	C	32.20	0.88	D	46.00	0.85
3	NW 28th St. & NW 2nd Ave. (Signalized)	B	10.70	0.37	B	12.40	0.57	B	11.80	0.49	B	14.30	0.72	A	7.80	0.38	A	9.40	0.39	A	7.80	0.38	A	9.40	0.39
4	NW 28th St. & N Dixie Hwy. (Signalized)	B	11.00	0.37	B	12.10	0.63	B	12.20	0.48	B	13.80	0.80	-	-	-	-	-	-	-	-	-	-	-	-
5	Spanish River Blvd. & NW 2nd Ave. (Signalized)	D	35.60	0.88	D	46.50	0.98	D	43.40	1.07	E	58.00	1.18	D	43.70	1.04	D	47.20	0.93	D	44.10	1.07	D	47.10	0.95
6	Spanish River Blvd. & N Dixie Hwy. (Signalized)	D	44.60	0.93	D	51.70	0.93	D	51.50	0.99	E	65.90	1.09	E	56.10	1.03	E	68.30	1.16	E	56.10	1.03	E	68.20	1.16
7	W Yamato Rd. & NW 2nd Ave. (Signalized)	D	44.10	0.92	E	55.30	0.93	E	60.80	1.04	F	117.50	1.36	E	55.30	0.99	F	80.30	1.35	E	58.30	1.05	F	84.00	1.35
8	W Yamato Rd. & N Dixie Hwy. (Signalized)	D	46.90	0.92	E	56.20	0.98	F	80.90	1.13	E	70.30	1.25	D	46.80	0.87	D	55.00	0.91	D	46.50	0.88	D	55.00	0.91
9	Jeffery St. & NW 2nd Ave. (Signalized)	C	28.90	0.93	C	22.90	0.83	E	61.60	1.20	D	45.50	1.15	D	51.20	1.01	D	44.80	0.94	F	132.70	1.78	F	94.90	1.42
10	Clint Moore Rd. & Congress Ave. (Signalized)	F	107.70	1.51	F	138.90	1.81	F	191.90	2.36	F	230.00	2.30	F	188.80	2.36	F	232.50	2.30	F	191.00	2.36	F	232.10	2.30
11	Jeffery St. & N Federal Hwy. (Signalized)	B	13.80	0.66	D	36.30	0.87	B	16.90	0.71	E	66.50	1.11	C	26.60	0.85	E	69.60	1.12	C	26.80	0.85	E	76.10	1.14
12	Hidden Valley Blvd. & N Dixie Hwy. (Signalized)	D	45.80	1.30	C	28.60	0.90	D	39.60	1.19	D	42.80	1.29	D	41.00	1.22	D	50.80	1.44	B	12.80	0.80	E	66.90	1.35
13	Jeffery St. & N Dixie Hwy. (Unsignalized to Signalized)	A	0.50	0.09	A	1.10	0.26	A	0.80	0.17	A	2.30	0.52	C	26.70	0.82	D	52.20	1.12	D	45.00	1.33	E	62.20	1.16
14	NW 67th St. & NW 2nd Ave. (Roundabout)	A	5.00	0.32	A	5.10	0.32	A	5.90	0.40	A	6.00	0.40	A	5.80	0.39	A	6.10	0.40	A	6.20	0.44	A	6.30	0.40
15	Hidden Valley Blvd. & Country Club Blvd. (Roundabout)	A	3.90	0.11	A	4.30	0.20	A	4.40	0.15	A	4.90	0.26	A	4.30	0.15	A	4.80	0.24	A	3.90	0.17	A	4.60	0.27

Note: LOS - Level of Service; V/C - Volume to Capacity Ratio
Jeffery Street intersections with proposed improvements are highlighted
V/C ratio shown for worst movement



ROADWAY LINK LEVEL OF SERVICE ANALYSIS

The roadway capacity analysis was conducted for the peak hour two-way and annual average daily traffic conditions. The maximum service volumes (MSV) are from the FDOT's *2020 Quality/Level of Service Handbook*. To generate daily volumes on Jeffery Street, a K-factor was applied to the PM peak hour counts. The referenced K-factor for the area is from the *FDOT Traffic Online* website for the area. A K-factor of 9% was applied, which means that, on average, the peak traffic accounts for 9% of the daily traffic volumes. The resulting numbers were used in the analysis as the Average Annual Daily Traffic (AADT). For the other streets (US-1, Dixie Highway, and NW 2nd Avenue) the referenced 2021 AADT from the *FDOT Traffic Online* website was applied.

Table 7 shows the roadway capacity analysis for Jeffery Street, NW 2nd Avenue, Dixie Highway, Yamato Road, and US-1. The analysis shows that 4 lanes are needed on Jeffery Street west of NW 2nd Avenue, which is the current number of lanes provided. Jeffery Street between NW 2nd Avenue and Dixie Highway would operate at an acceptable condition (LOS D) with 4 lanes. Jeffery Street is projected to operate at an acceptable condition (LOS C) with 4 through lanes between Dixie Highway and US-1. It is suggested that due to the limited distance between US-1 and N Dixie Highway, four lanes are required to sufficiently serve the turning movement volumes and the local residential driveways along that roadway segment.

Currently, NW 2nd Avenue operates at an unacceptable LOS of E with only 2 lanes and additional lanes are needed to support existing and future traffic volumes. However, it is understood that NW 2nd Avenue is restricted to only 2 lanes in this area north of Yamato Road. It is suggested that additional capacity is provided at the intersections but not throughout the NW 2nd Avenue corridor.

**Table 7: Roadway Link Analysis**

Roadway	Functional Classification (# of Lanes, Posted Speed)	Direction	Roadway Capacity at LOS D	2021 AADTs	Existing Level of Service** (Year 2021)	2045 AADTs with Jeffery Street RR Crossing	Future Level of Service
Jeffery Street (West of NW 2nd Ave.)	Major Collector (4L, 35 mph)	East-West	29,160	15,106	LOS D	24,114	LOS D
Jeffery Street (East of NW 2nd Ave.)	Major Collector (4L, 35 mph)	East-West	29,160	-	-	13,061	LOS C
Jeffery Street (East of Dixie Hwy.)	Major Collector (4L, 25 mph)	East-West	29,160	864	LOS C	5,864	LOS C
NW 2nd Avenue***	Major Collector (2L, 30 mph)	North-South	14,800	15,200 *	LOS E	22,100	LOS E
Yamato Road	Major Arterial (6L, 45 mph)	East-West	59,900	37,000 *	LOS B	44,901	LOS B
Dixie Highway	Major Collector (2L, 40 mph)	North-South	17,700	11,900 *	LOS C	25,300	LOS E
US-1	Minor Arterial (4L, 45 mph)	North-South	39,800	27,026 *	LOS B	35,100	LOS C

*Reference: FDOT Traffic Online Portal. **Generalized LOS Tables

*** NW 2nd Avenue is restricted to remain as a 2-lane roadway north of Yamato Road

BENEFITS FOR CLOSING NW 28TH STREET RAILROAD CROSSING

This analysis considers replacing the existing railroad crossing at NW 28th Street with a new crossing at Jeffery Street. The following sections compare the 1-1 Build scenario (which includes only closing the NW 28th Street railroad crossing) and the 2-1 Build scenario (which includes closing the NW 28th Street railroad crossing and the Hidden Valley Boulevard crossing).

BUILD 1-1 SCENARIO

There are several benefits to locate a railroad crossing at Jeffery Street as opposed to NW 28th Street. Below is a summary of the benefits associated with replacing the NW 28th Street railroad crossing with the proposed crossing at Jeffery Street.

NW 28th Avenue:

- Lowest volume of daily traffic (6,100 daily vehicles) of all the railroad crossings in Boca Raton;



- Does not provide a continuous connection between NW 2nd Avenue and US-1, as the intersection with Dixie Highway is a "T" or three leg intersection;
- It is a short, 1,000 foot long two lane east-west roadway serving a limited set of local trips within the immediate area
- Located less than half a mile between the railroad crossings north and south of NW 28th Street, which include NE 20th Street and Spanish River Boulevard.

The roadway network around NW 28th Street is more established compared to the Jeffery Street corridor making it easier for traffic to enter/exit the area from other directions. Below are some examples of how the roadway network adjacent to the NW 28th Street corridor is more robust and provides greater mobility options compared to the Jeffery Street corridor.

- The following describes the configuration of NW 2nd Avenue throughout the study area and it is important to note that at all sections of NW 2nd Avenue provide good local and regional mobility around NW 28th Street.
 - NW 2nd Ave. between Palmetto Park Road and Glades Road: 4LD
 - NW 2nd Ave. between Glades Road and Spanish River Boulevard: 5L
 - NW 2nd Ave. between Spanish River Boulevard and Yamato Road: 4LD
- The roadway network around NW 28th Street has numerous local streets and collector roadways to distribute traffic volumes and provide access.
 - NW 5th Avenue is 0.5 miles west of NW 2nd Avenue and provides network linkage between NW 20th Street and NW 40th Street (Spanish River Blvd).
 - Windwood community residents have roadway links between NW 5th Avenue and NW 2nd Avenue for local and regional mobility.
 - NW 23rd Street and NW 35th Street provide connections between NW 2nd Avenue and NW 5th Avenue that creates a local street network.

The proposed Jeffery Street railroad crossing provides a number of benefits including:



- Improved east-west connectivity for a substantially greater volume of drivers compared to NW 28th Street (33,500 daily vehicles versus only 6,100 daily vehicles);
- Continuous connectivity between US-1 and US-441;
- Provides access east and west of I-95, unlike NW 28th Street;
- Redistribute approximately 10% of traffic from Yamato Road, which is currently operating at capacity at the intersections in the study area; and
- Provides a more convenient FEC railway crossing as the next crossing north of Yamato Road (W Hidden Valley Boulevard) is more than 1.6 miles away.

1-1 BUILD SCENARIO VERSUS 2-1 BUILD SCENARIO

As part of this analysis there was a comparison of eliminating one or two existing railroad crossings with the addition of a railroad crossing at Jeffery Street. Eliminating two railroad crossings will have a greater negative impact on traffic in the area compared to only eliminating one railroad crossing since it reduces access, connectivity, and convenience. However, it is important to understand the level of impact associated with eliminating the additional railroad crossing at W Hidden Valley Boulevard.

Below is a summary of the negative impacts associated with eliminating the additional railroad crossing at W Hidden Valley Boulevard.

- Causes the intersection of NW 2nd Avenue and Jeffery Street to operate at an unacceptable condition (LOS F) even with the extensive traffic mitigations recommended as part of adding the Jeffery Street crossing.
- Adds substantial traffic onto the railroad crossing at Lindell Boulevard which is a 2-lane local road west of the FEC railway.
- Adds substantial traffic turning left off Lindell Boulevard, which will delay westbound through traffic on Lindell Boulevard and add traffic onto neighborhood roads with a 20-mph speed limit and traffic calming features.
- Reduces access for residents from the Boca Lake Estates community to the Boca Valley Plaza shopping mall located east of N Dixie Highway.
- Reduces access to and from the commercial corridor along US-1 for residents in the area and requires traffic to use local roads or NW 2nd Avenue, which is currently operating at capacity with only two lanes.
- Adds traffic onto the primary north/south arterial Dixie Highway and results in significant traffic congestion and safety concerns.



7. CONCLUSION

The City has identified the benefit of extending Jeffery Street to Federal Highway to support a shift in travel patterns with the recent approval of a new Brightline station in December 2019 with an anticipated operational opening date in late 2022 to be located at 400 NW 2nd Avenue. The extension of the road to Federal Highway improves the roadway grid within the northeast section of the City; creates opportunities for redevelopment; improves pedestrian circulation to access multimodal opportunities along Federal Highway; provides an open corridor between SR-7 and Federal Highway, which allows for future transit. Continuation or extension of Jeffery Street to Federal Highway requires a railroad crossing.

This report presents the results of the transportation analysis for the proposed Jeffrey Street railroad crossing in Boca Raton, Florida. The analysis examines impacts of the opening of a new railroad crossing at Jeffrey Street along with closing the existing crossings at NW 28th Street and W Hidden Valley Boulevard. The study considered the impact of eliminating only one railroad crossing at NW 28th Street or two crossings with the additional closure at W Hidden Valley Boulevard. Background traffic growth till the year 2045 and the construction of an 18-hole golf course in the study area was applied in estimating future traffic conditions.

The traffic analysis shows that substantial traffic mitigations improvements are needed along Jeffery Street to support projected traffic volumes. It is suggested that four lanes are provided along Jeffery Street between NW 2nd Avenue and US-1. The intersection of Jeffery Street and Dixie Highway will require signalization that is coordinated with the railroad crossing. Substantial intersection improvements are needed at the intersection of NW 2nd Avenue and Jeffery Street including adding thru lanes on NW 2nd Avenue that promptly merge down to one lane as it is understood there is a requirement to maintain a two-lane roadway on NW 2nd Avenue north of Yamato Road. With the addition of the Jeffery Street crossing, it is projected that the delays at the intersections of Yamato Road/NW 2nd Avenue and Yamato Road/N Dixie Hwy will decrease by approximately 30 and 15 seconds, respectively, during the PM peak hour for the 2045 Build conditions. The v/c ratio in the PM peak hour is projected to decrease at the intersection of Yamato Road/N Dixie by approximately 0.34 in the Build 2-1 and Build 1-1 closure. The v/c ratio at Yamato Road/NW 2nd Avenue stays consistent between the No Build and the Build 1-1 and 2-1 closure.

There are many additional benefits associated with replacing the existing railroad crossing on NW 28th Street with the proposed crossing on Jeffery Street, including: potentially serving a substantially greater number of drivers, providing better east-west connectivity, redistributing traffic from a congested Yamato Road, and providing a more easily accessible and convenient FEC railway crossing. With the addition of the Jeffery



Street crossing, it is projected that the delay and v/c ratio at the intersection of Yamato Road and NW 2nd Avenue will decrease from approximately 117 seconds to 80 seconds, and from 1.36 to 1.35 during the PM peak hour for the 2045 Build conditions. Yamato Road also experiences the highest number of crashes per year and per traffic volume, so helping to redistribute the traffic onto Jeffery Street by providing an adjacent railway crossing will alleviate congestion and driver frustration, which will improve safety.

It is suggested that only one railroad crossing is eliminated at NW 28th Street. Eliminating the FEC railway crossing at W Hidden Valley Boulevard will have negative impacts on traffic in the area, including:

- Causing the intersection of NW 2nd Avenue and Jeffery Street to operate at an unacceptable condition even with the suggested improvements
- Add substantial traffic on local roads from the Lindell Boulevard crossing
- Add traffic onto NW 2nd Avenue which is already operating at capacity
- Reduce access for local residents to commercial centers east of the railway.

It is suggested that the Jeffery Street railroad crossing is implemented with the suggested traffic mitigations and the closure of only one existing railway crossing at NW 28th Street.



8. APPENDICES



APPENDIX A: SEASONAL FACTORS

2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 9300 EAST- A1A TO US1

WEEK	DATES	SF	MOCF: 0.91 PSCF
1	01/01/2016 - 01/02/2016	0.98	1.08
2	01/03/2016 - 01/09/2016	0.96	1.05
3	01/10/2016 - 01/16/2016	0.95	1.04
* 4	01/17/2016 - 01/23/2016	0.93	1.02
* 5	01/24/2016 - 01/30/2016	0.92	1.01
* 6	01/31/2016 - 02/06/2016	0.91	1.00
* 7	02/07/2016 - 02/13/2016	0.90	0.99
* 8	02/14/2016 - 02/20/2016	0.89	0.98
* 9	02/21/2016 - 02/27/2016	0.89	0.98
*10	02/28/2016 - 03/05/2016	0.89	0.98
*11	03/06/2016 - 03/12/2016	0.90	0.99
*12	03/13/2016 - 03/19/2016	0.90	0.99
*13	03/20/2016 - 03/26/2016	0.91	1.00
*14	03/27/2016 - 04/02/2016	0.92	1.01
*15	04/03/2016 - 04/09/2016	0.93	1.02
*16	04/10/2016 - 04/16/2016	0.94	1.03
17	04/17/2016 - 04/23/2016	0.96	1.05
18	04/24/2016 - 04/30/2016	0.98	1.08
19	05/01/2016 - 05/07/2016	1.00	1.10
20	05/08/2016 - 05/14/2016	1.02	1.12
21	05/15/2016 - 05/21/2016	1.04	1.14
22	05/22/2016 - 05/28/2016	1.04	1.14
23	05/29/2016 - 06/04/2016	1.05	1.15
24	06/05/2016 - 06/11/2016	1.05	1.15
25	06/12/2016 - 06/18/2016	1.06	1.16
26	06/19/2016 - 06/25/2016	1.06	1.16
27	06/26/2016 - 07/02/2016	1.06	1.16
28	07/03/2016 - 07/09/2016	1.06	1.16
29	07/10/2016 - 07/16/2016	1.06	1.16
30	07/17/2016 - 07/23/2016	1.07	1.18
31	07/24/2016 - 07/30/2016	1.07	1.18
32	07/31/2016 - 08/06/2016	1.08	1.19
33	08/07/2016 - 08/13/2016	1.09	1.20
34	08/14/2016 - 08/20/2016	1.10	1.21
35	08/21/2016 - 08/27/2016	1.10	1.21
36	08/28/2016 - 09/03/2016	1.11	1.22
37	09/04/2016 - 09/10/2016	1.12	1.23
38	09/11/2016 - 09/17/2016	1.13	1.24
39	09/18/2016 - 09/24/2016	1.11	1.22
40	09/25/2016 - 10/01/2016	1.10	1.21
41	10/02/2016 - 10/08/2016	1.08	1.19
42	10/09/2016 - 10/15/2016	1.07	1.18
43	10/16/2016 - 10/22/2016	1.06	1.16
44	10/23/2016 - 10/29/2016	1.05	1.15
45	10/30/2016 - 11/05/2016	1.04	1.14
46	11/06/2016 - 11/12/2016	1.03	1.13
47	11/13/2016 - 11/19/2016	1.02	1.12
48	11/20/2016 - 11/26/2016	1.01	1.11
49	11/27/2016 - 12/03/2016	1.00	1.10
50	12/04/2016 - 12/10/2016	0.99	1.09
51	12/11/2016 - 12/17/2016	0.98	1.08
52	12/18/2016 - 12/24/2016	0.96	1.05
53	12/25/2016 - 12/31/2016	0.95	1.04

* PEAK SEASON

24-APR-2017 11:01:10

830UPD

4_9300_PKSEASON.TXT

2018 Peak Season Factor Category Report - Report Type: ALL
Category: 9301 CEN.-W OF US1 TO SR7

			MOCF: 0.95	
Week	Dates	SF	PSCF	
=====				
1	01/01/2018 - 01/06/2018	1.00	1.05	
2	01/07/2018 - 01/13/2018	1.00	1.05	
3	01/14/2018 - 01/20/2018	0.99	1.04	
* 4	01/21/2018 - 01/27/2018	0.98	1.03	
* 5	01/28/2018 - 02/03/2018	0.96	1.01	
* 6	02/04/2018 - 02/10/2018	0.95	1.00	
* 7	02/11/2018 - 02/17/2018	0.94	0.99	
* 8	02/18/2018 - 02/24/2018	0.94	0.99	
* 9	02/25/2018 - 03/03/2018	0.94	0.99	
*10	03/04/2018 - 03/10/2018	0.94	0.99	
*11	03/11/2018 - 03/17/2018	0.95	1.00	
*12	03/18/2018 - 03/24/2018	0.95	1.00	
*13	03/25/2018 - 03/31/2018	0.96	1.01	
*14	04/01/2018 - 04/07/2018	0.96	1.01	
*15	04/08/2018 - 04/14/2018	0.97	1.02	
*16	04/15/2018 - 04/21/2018	0.97	1.02	
17	04/22/2018 - 04/28/2018	0.99	1.04	
18	04/29/2018 - 05/05/2018	1.01	1.06	
19	05/06/2018 - 05/12/2018	1.02	1.07	
20	05/13/2018 - 05/19/2018	1.04	1.09	
21	05/20/2018 - 05/26/2018	1.04	1.09	
22	05/27/2018 - 06/02/2018	1.04	1.09	
23	06/03/2018 - 06/09/2018	1.04	1.09	
24	06/10/2018 - 06/16/2018	1.04	1.09	
25	06/17/2018 - 06/23/2018	1.05	1.11	
26	06/24/2018 - 06/30/2018	1.06	1.12	
27	07/01/2018 - 07/07/2018	1.06	1.12	
28	07/08/2018 - 07/14/2018	1.07	1.13	
29	07/15/2018 - 07/21/2018	1.08	1.14	
30	07/22/2018 - 07/28/2018	1.06	1.12	
31	07/29/2018 - 08/04/2018	1.05	1.11	
32	08/05/2018 - 08/11/2018	1.04	1.09	
33	08/12/2018 - 08/18/2018	1.02	1.07	
34	08/19/2018 - 08/25/2018	1.03	1.08	
35	08/26/2018 - 09/01/2018	1.03	1.08	
36	09/02/2018 - 09/08/2018	1.03	1.08	
37	09/09/2018 - 09/15/2018	1.04	1.09	
38	09/16/2018 - 09/22/2018	1.03	1.08	
39	09/23/2018 - 09/29/2018	1.02	1.07	
40	09/30/2018 - 10/06/2018	1.01	1.06	
41	10/07/2018 - 10/13/2018	1.00	1.05	
42	10/14/2018 - 10/20/2018	1.00	1.05	
43	10/21/2018 - 10/27/2018	1.00	1.05	
44	10/28/2018 - 11/03/2018	1.00	1.05	
45	11/04/2018 - 11/10/2018	1.00	1.05	

2019 Peak Season Factor Category Report - Report Type: ALL
Category: 9301 CEN.-W OF US1 TO SR7

			MOCF: 0.97	
Week	Dates	SF	PSCF	
=====				
1	01/01/2019 - 01/05/2019	1.00	1.03	
2	01/06/2019 - 01/12/2019	1.00	1.03	
3	01/13/2019 - 01/19/2019	1.00	1.03	
4	01/20/2019 - 01/26/2019	0.99	1.02	
* 5	01/27/2019 - 02/02/2019	0.98	1.01	
* 6	02/03/2019 - 02/09/2019	0.97	1.00	
* 7	02/10/2019 - 02/16/2019	0.96	0.99	
* 8	02/17/2019 - 02/23/2019	0.96	0.99	
* 9	02/24/2019 - 03/02/2019	0.96	0.99	
*10	03/03/2019 - 03/09/2019	0.96	0.99	
*11	03/10/2019 - 03/16/2019	0.96	0.99	
*12	03/17/2019 - 03/23/2019	0.96	0.99	
*13	03/24/2019 - 03/30/2019	0.96	0.99	
*14	03/31/2019 - 04/06/2019	0.97	1.00	
*15	04/07/2019 - 04/13/2019	0.97	1.00	
*16	04/14/2019 - 04/20/2019	0.97	1.00	
*17	04/21/2019 - 04/27/2019	0.98	1.01	
18	04/28/2019 - 05/04/2019	0.99	1.02	
19	05/05/2019 - 05/11/2019	0.99	1.02	
20	05/12/2019 - 05/18/2019	1.00	1.03	
21	05/19/2019 - 05/25/2019	1.01	1.04	
22	05/26/2019 - 06/01/2019	1.02	1.05	
23	06/02/2019 - 06/08/2019	1.02	1.05	
24	06/09/2019 - 06/15/2019	1.03	1.06	
25	06/16/2019 - 06/22/2019	1.04	1.07	
26	06/23/2019 - 06/29/2019	1.04	1.07	
27	06/30/2019 - 07/06/2019	1.05	1.08	
28	07/07/2019 - 07/13/2019	1.05	1.08	
29	07/14/2019 - 07/20/2019	1.06	1.09	
30	07/21/2019 - 07/27/2019	1.05	1.08	
31	07/28/2019 - 08/03/2019	1.04	1.07	
32	08/04/2019 - 08/10/2019	1.03	1.06	
33	08/11/2019 - 08/17/2019	1.03	1.06	
34	08/18/2019 - 08/24/2019	1.03	1.06	
35	08/25/2019 - 08/31/2019	1.04	1.07	
36	09/01/2019 - 09/07/2019	1.05	1.08	
37	09/08/2019 - 09/14/2019	1.05	1.08	
38	09/15/2019 - 09/21/2019	1.06	1.09	
39	09/22/2019 - 09/28/2019	1.05	1.08	
40	09/29/2019 - 10/05/2019	1.03	1.06	
41	10/06/2019 - 10/12/2019	1.02	1.05	
42	10/13/2019 - 10/19/2019	1.00	1.03	
43	10/20/2019 - 10/26/2019	1.00	1.03	
44	10/27/2019 - 11/02/2019	1.00	1.03	
45	11/03/2019 - 11/09/2019	1.00	1.03	

46	11/10/2019 - 11/16/2019	1.00	1.03
47	11/17/2019 - 11/23/2019	1.00	1.03
48	11/24/2019 - 11/30/2019	1.00	1.03
49	12/01/2019 - 12/07/2019	1.00	1.03
50	12/08/2019 - 12/14/2019	1.00	1.03
51	12/15/2019 - 12/21/2019	1.00	1.03
52	12/22/2019 - 12/28/2019	1.00	1.03
53	12/29/2019 - 12/31/2019	1.00	1.03

* Peak Season

14-Feb-2020 15:39:27

830UPD

4_9301_PKSEASON.TXT

46	11/11/2018 - 11/17/2018	1.00	1.05
47	11/18/2018 - 11/24/2018	1.00	1.05
48	11/25/2018 - 12/01/2018	1.00	1.05
49	12/02/2018 - 12/08/2018	1.00	1.05
50	12/09/2018 - 12/15/2018	1.00	1.05
51	12/16/2018 - 12/22/2018	1.00	1.05
52	12/23/2018 - 12/29/2018	1.00	1.05
53	12/30/2018 - 12/31/2018	0.99	1.04

* Peak Season

25-Feb-2019 16:26:26

830UPD

4_9301_PKSEASON.TXT

2021 Peak Season Factor Category Report - Report Type: ALL
Category: 9301 CEN.-W OF US1 TO SR7

			MOCF: 0.96	
Week	Dates	SF	PSCF	
=====				
1	01/01/2021 - 01/02/2021	1.01	1.05	
2	01/03/2021 - 01/09/2021	1.05	1.09	
3	01/10/2021 - 01/16/2021	1.10	1.15	
4	01/17/2021 - 01/23/2021	1.08	1.13	
5	01/24/2021 - 01/30/2021	1.06	1.10	
6	01/31/2021 - 02/06/2021	1.04	1.08	
7	02/07/2021 - 02/13/2021	1.02	1.06	
8	02/14/2021 - 02/20/2021	1.00	1.04	
9	02/21/2021 - 02/27/2021	0.99	1.03	
10	02/28/2021 - 03/06/2021	0.98	1.02	
11	03/07/2021 - 03/13/2021	0.97	1.01	
*12	03/14/2021 - 03/20/2021	0.96	1.00	
*13	03/21/2021 - 03/27/2021	0.96	1.00	
*14	03/28/2021 - 04/03/2021	0.96	1.00	
*15	04/04/2021 - 04/10/2021	0.96	1.00	
*16	04/11/2021 - 04/17/2021	0.96	1.00	
*17	04/18/2021 - 04/24/2021	0.96	1.00	
*18	04/25/2021 - 05/01/2021	0.96	1.00	
*19	05/02/2021 - 05/08/2021	0.96	1.00	
*20	05/09/2021 - 05/15/2021	0.96	1.00	
*21	05/16/2021 - 05/22/2021	0.96	1.00	
*22	05/23/2021 - 05/29/2021	0.97	1.01	
*23	05/30/2021 - 06/05/2021	0.97	1.01	
*24	06/06/2021 - 06/12/2021	0.97	1.01	
25	06/13/2021 - 06/19/2021	0.98	1.02	
26	06/20/2021 - 06/26/2021	0.99	1.03	
27	06/27/2021 - 07/03/2021	1.00	1.04	
28	07/04/2021 - 07/10/2021	1.01	1.05	
29	07/11/2021 - 07/17/2021	1.03	1.07	
30	07/18/2021 - 07/24/2021	1.03	1.07	
31	07/25/2021 - 07/31/2021	1.02	1.06	
32	08/01/2021 - 08/07/2021	1.02	1.06	
33	08/08/2021 - 08/14/2021	1.02	1.06	
34	08/15/2021 - 08/21/2021	1.02	1.06	
35	08/22/2021 - 08/28/2021	1.03	1.07	
36	08/29/2021 - 09/04/2021	1.03	1.07	
37	09/05/2021 - 09/11/2021	1.04	1.08	
38	09/12/2021 - 09/18/2021	1.05	1.09	
39	09/19/2021 - 09/25/2021	1.03	1.07	
40	09/26/2021 - 10/02/2021	1.02	1.06	
41	10/03/2021 - 10/09/2021	1.01	1.05	
42	10/10/2021 - 10/16/2021	0.99	1.03	
43	10/17/2021 - 10/23/2021	1.00	1.04	
44	10/24/2021 - 10/30/2021	1.00	1.04	
45	10/31/2021 - 11/06/2021	1.01	1.05	

46	11/07/2021 - 11/13/2021	1.01	1.05
47	11/14/2021 - 11/20/2021	1.01	1.05
48	11/21/2021 - 11/27/2021	1.01	1.05
49	11/28/2021 - 12/04/2021	1.01	1.05
50	12/05/2021 - 12/11/2021	1.01	1.05
51	12/12/2021 - 12/18/2021	1.01	1.05
52	12/19/2021 - 12/25/2021	1.05	1.09
53	12/26/2021 - 12/31/2021	1.10	1.15

* Peak Season

08-Mar-2022 12:36:27

830UPD

4_9301_PKSEASON.TXT

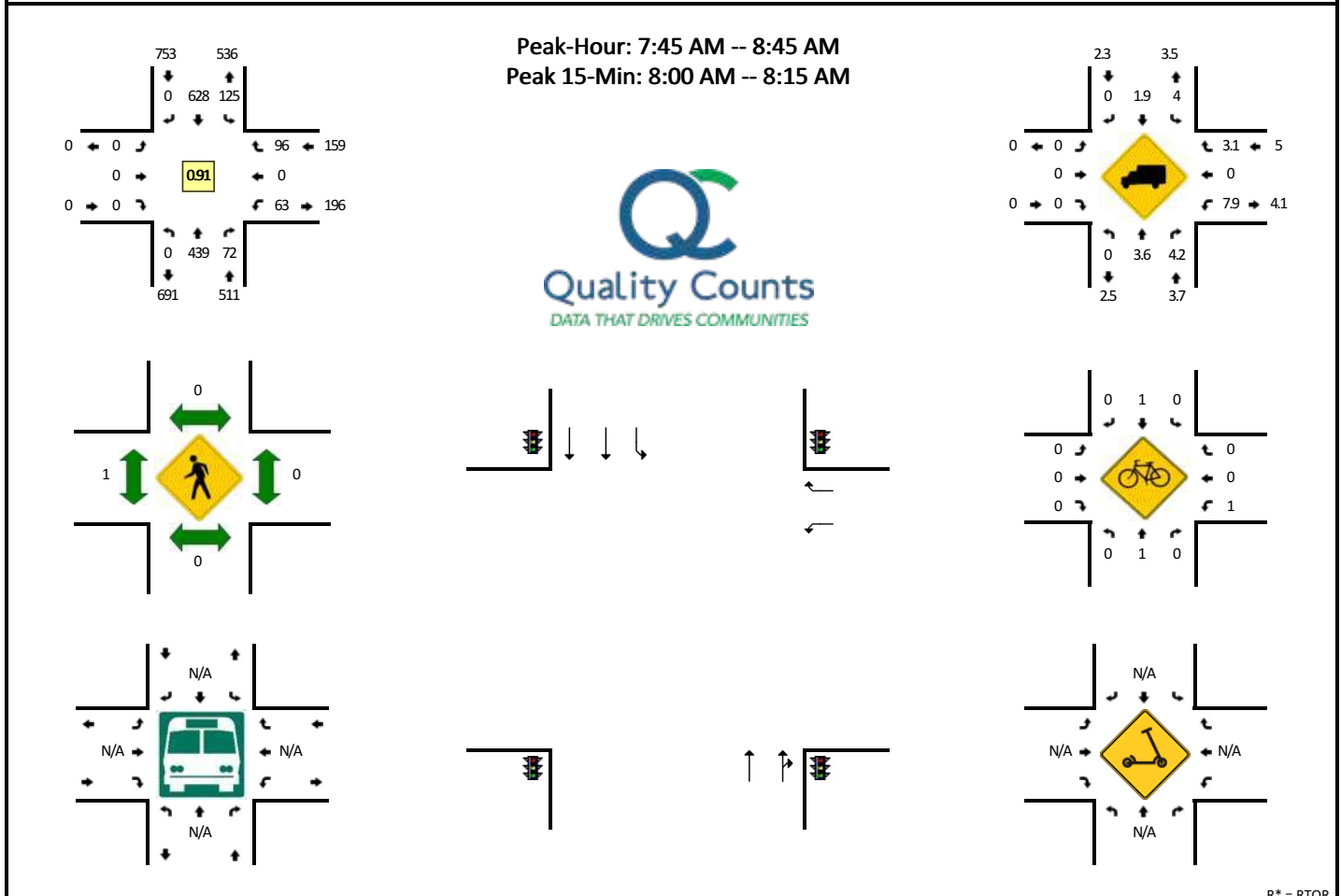


APPENDIX B:

TRAFFIC COUNTS

LOCATION: NW 2nd Ave/Boca Raton Blvd -- NW 28th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550523
DATE: Thu, Nov 18 2021



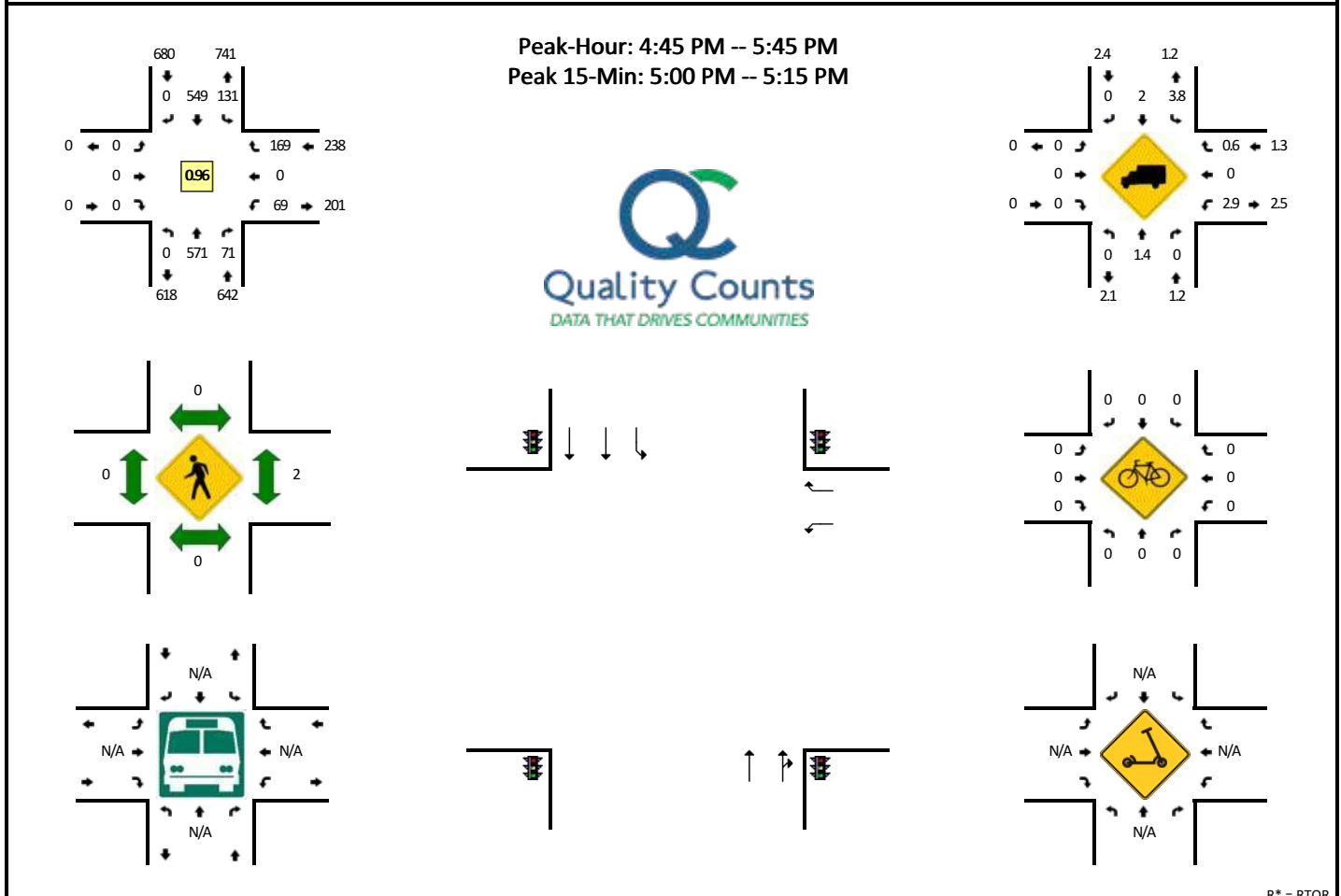
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave/Boca Raton Blvd (Northbound)					NW 2nd Ave/Boca Raton Blvd (Southbound)					NW 28th St (Eastbound)					NW 28th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	0	13	3	0	0	4	16	0	0	0	0	0	0	0	0	0	0	6	0	1	43	332 437 578 794 1004 1249 1400 1423 1392
6:15 AM	0	15	1	0	0	8	29	0	0	0	0	0	0	0	0	4	0	2	0	0	59	
6:30 AM	0	16	2	0	1	14	37	0	0	0	0	0	0	0	0	2	0	5	0	2	79	
6:45 AM	0	30	9	0	0	31	60	0	0	0	0	0	0	0	0	8	0	10	0	3	151	
7:00 AM	0	48	6	0	2	19	55	0	0	0	0	0	0	0	0	2	0	11	0	5	148	
7:15 AM	0	40	4	0	1	16	87	0	0	0	0	0	0	0	0	20	0	20	0	12	200	
7:30 AM	0	70	9	0	0	38	141	0	0	0	0	0	0	0	0	15	0	9	0	13	295	
7:45 AM	0	95	16	0	4	33	159	0	0	0	0	0	0	0	0	28	0	11	0	15	361	
8:00 AM	0	124	21	0	2	46	165	0	1	0	0	0	0	0	0	11	0	11	0	12	393	
8:15 AM	0	102	14	0	4	34	157	0	0	0	0	0	0	0	0	18	0	5	0	17	351	
8:30 AM	0	118	10	0	1	11	147	0	0	0	0	0	0	0	0	6	0	11	0	14	318	
8:45 AM	0	101	17	0	2	34	131	0	0	0	0	0	0	0	0	15	0	7	0	23	330	
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	0	496	92	0	8	184	660	0	4	0	0	0	0	0	0	44	0	92	0	48	1628	
Heavy Trucks	0	28	8			0	20	0			0	0	0			0	0	4			60	
Buses																						
Pedestrians		0					0					4					0				4	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

LOCATION: NW 2nd Ave/Boca Raton Blvd -- NW 28th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550524
DATE: Thu, Nov 18 2021



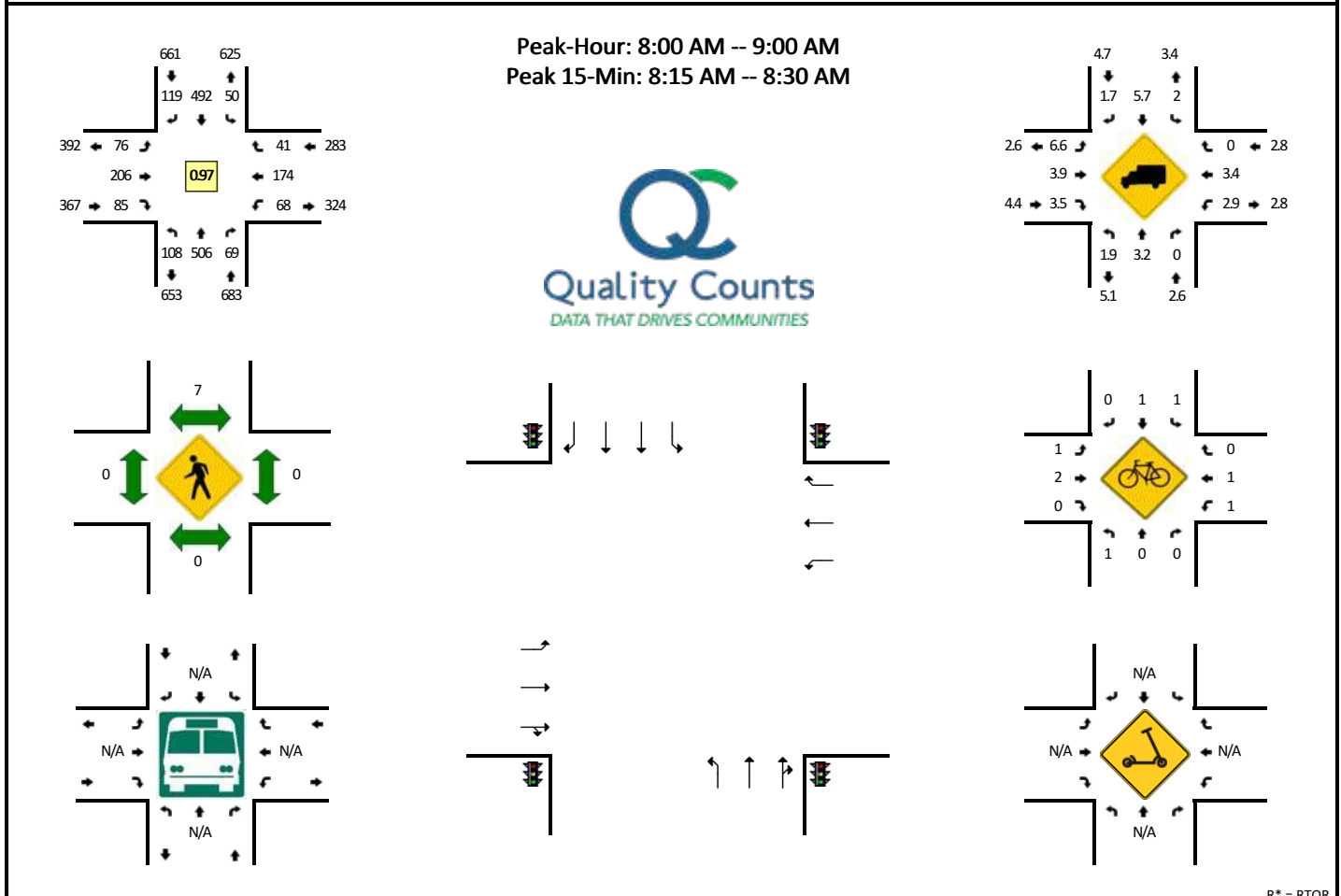
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave/Boca Raton Blvd (Northbound)					NW 2nd Ave/Boca Raton Blvd (Southbound)					NW 28th St (Eastbound)					NW 28th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	144	24	1	3	27	139	0	0	0	0	0	0	0	0	19	0	16	0	15	388	
4:15 PM	0	125	14	0	3	25	119	0	0	0	0	0	0	0	0	15	0	16	0	20	337	
4:30 PM	0	167	21	0	0	36	100	0	0	0	0	0	0	0	0	13	0	12	0	20	369	
4:45 PM	0	157	15	0	1	25	141	0	0	0	0	0	0	0	0	18	0	13	0	26	396	1490
5:00 PM	0	149	24	0	1	37	137	0	0	0	0	0	0	0	0	13	0	21	0	23	405	1507
5:15 PM	0	141	14	0	2	29	140	0	1	0	0	0	0	0	0	14	0	16	0	29	386	1556
5:30 PM	0	124	14	0	0	39	131	0	0	0	0	0	0	0	0	24	0	23	0	18	373	1560
5:45 PM	0	128	11	0	1	27	125	0	0	0	0	0	0	0	0	14	0	14	0	20	340	1504
6:00 PM	0	108	6	0	3	21	101	0	0	0	0	0	0	0	0	9	0	10	0	13	271	1370
6:15 PM	0	64	4	0	2	20	123	0	0	0	0	0	0	0	0	14	0	9	0	4	240	1224
6:30 PM	0	64	10	0	4	21	115	0	0	0	0	0	0	0	0	25	0	11	0	9	259	1110
6:45 PM	0	70	8	0	0	20	125	0	0	0	0	0	0	0	0	14	0	7	0	12	256	1026
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	0	596	100	0	4	148	548	0	0	0	0	0	0	0	0	52	0	176	0	92	1716	
Heavy Trucks	0	8	0			16	24	0			0	0	0			0	0	0			48	
Buses																						
Pedestrians		0					0					0					4				4	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

LOCATION: N Dixie Hwy -- 20th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550529
DATE: Thu, Nov 18 2021

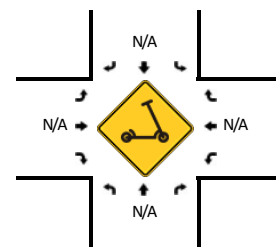
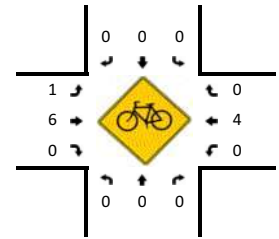
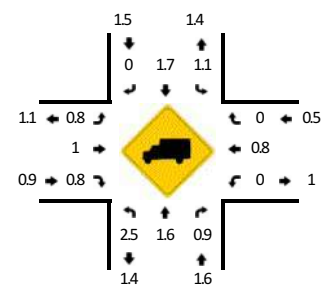


R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					20th St (Eastbound)					20th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	6	18	0	0	2	1	21	8	0	3	0	9	3	0	1	3	6	1	0	1	83	
6:15 AM	4	20	1	1	0	7	33	6	0	5	2	9	0	0	1	4	4	2	1	0	100	
6:30 AM	6	40	2	0	4	2	31	5	0	10	1	6	4	0	1	5	14	6	0	1	138	
6:45 AM	8	52	6	0	2	7	31	6	0	9	9	20	8	0	2	4	19	2	0	0	185	506
7:00 AM	20	48	3	0	6	9	61	16	0	6	6	13	5	0	0	10	18	3	0	1	225	648
7:15 AM	23	82	7	0	2	9	69	8	0	10	16	27	7	0	0	14	42	3	0	2	321	869
7:30 AM	19	110	12	1	4	13	118	16	0	12	14	28	18	0	3	10	46	5	1	3	433	1164
7:45 AM	37	112	12	1	2	13	119	11	0	19	11	51	11	0	3	14	50	4	2	1	473	1452
8:00 AM	13	127	14	3	5	5	135	12	1	14	17	52	16	0	2	18	40	7	0	0	481	1708
8:15 AM	31	115	12	2	5	19	126	17	0	25	20	46	18	0	1	20	42	9	0	5	513	1900
8:30 AM	28	140	15	0	1	10	118	11	0	16	22	50	26	0	0	16	41	5	0	6	505	1972
8:45 AM	27	124	14	4	3	14	113	10	1	14	17	58	20	0	2	13	51	7	1	2	495	1994
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	124	460	68	8	20	76	504	168	0	100	80	184	76	0	4	80	168	56	0	20	2196	
Heavy Trucks	0	32	0			4	20	4			4	16	8			0	4	0			92	
Buses																						
Pedestrians		0					12					0					0				12	
Bicycles	4	0	0			4	4	0			0	4	0			0	0	0			16	
Scoters																						

Comments:

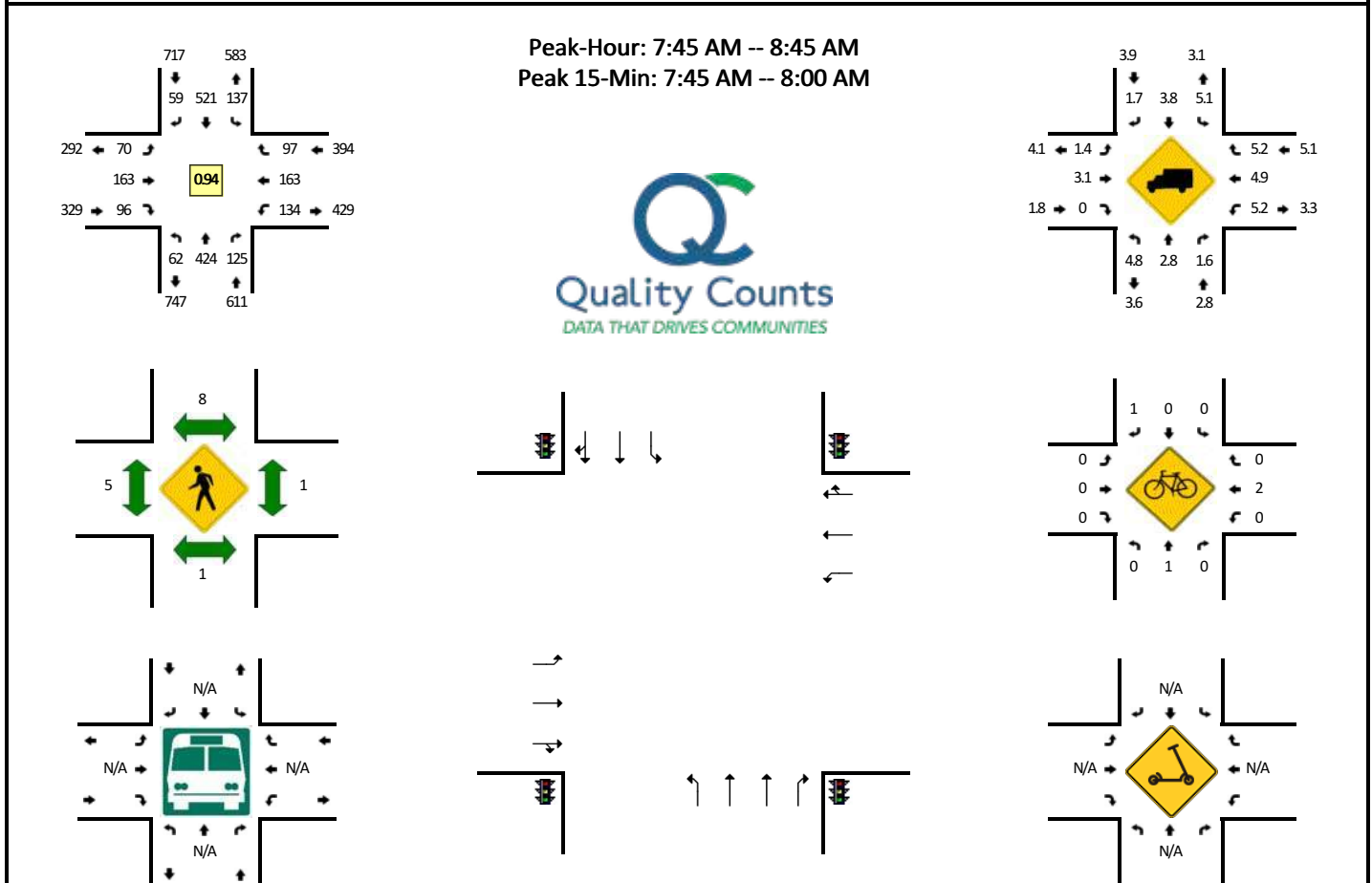
QC JOB #: 15550530
DATE: Thu, Nov 18 2021

[illegible]

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: NW 2nd Ave/Boca Raton Blvd -- NW 20th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550527
DATE: Thu, Nov 18 2021



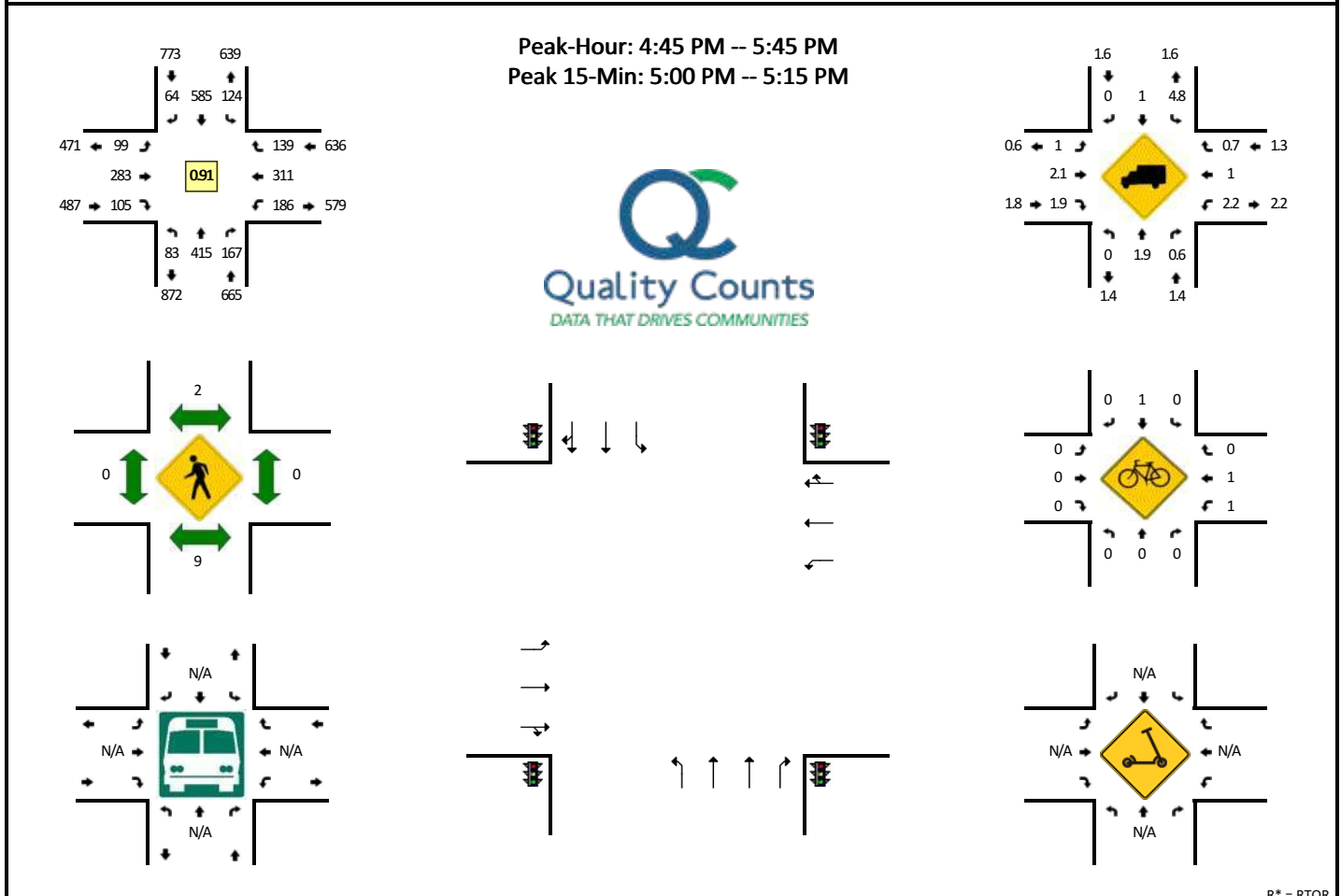
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave/Boca Raton Blvd (Northbound)					NW 2nd Ave/Boca Raton Blvd (Southbound)					NW 20th St (Eastbound)					NW 20th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	3	17	2	0	5	5	14	2	0	1	0	8	1	0	3	11	6	1	1	3	83	
6:15 AM	6	31	4	0	3	8	28	4	0	0	4	8	3	0	4	6	5	1	0	1	116	
6:30 AM	4	36	3	0	12	9	30	2	0	0	2	12	7	0	5	17	10	1	0	4	154	
6:45 AM	4	60	12	0	8	17	48	4	0	1	6	24	9	0	8	14	19	2	0	5	241	594
7:00 AM	3	38	10	0	14	15	49	1	0	1	3	24	6	0	9	17	23	8	2	8	231	742
7:15 AM	12	46	7	0	13	28	67	5	0	1	6	37	6	0	2	20	49	9	1	5	314	940
7:30 AM	15	83	13	0	8	31	106	19	0	7	6	25	7	0	12	38	54	16	0	2	442	1228
7:45 AM	23	110	11	0	14	37	126	15	0	7	15	41	12	2	9	32	66	19	1	3	543	1530
8:00 AM	12	117	14	0	23	36	148	12	0	1	16	40	9	2	15	25	34	13	2	7	526	1825
8:15 AM	9	85	10	0	16	32	126	14	0	0	12	40	19	3	8	36	36	21	1	11	479	1990
8:30 AM	18	112	19	0	18	32	121	9	0	1	19	42	15	1	9	37	27	15	0	8	503	2051
8:45 AM	10	97	16	0	13	35	92	9	0	2	16	46	16	4	14	29	41	19	0	9	468	1976
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	92	440	100	0	56	148	504	88	0	28	60	164	84	8	36	128	264	88	4	12	2304	
Heavy Trucks	4	24	4			4	20	0			0	4	0			0	12	8			80	
Buses																						
Pedestrians		4					16					4					4				28	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

LOCATION: NW 2nd Ave/Boca Raton Blvd -- NW 20th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550528
DATE: Thu, Nov 18 2021



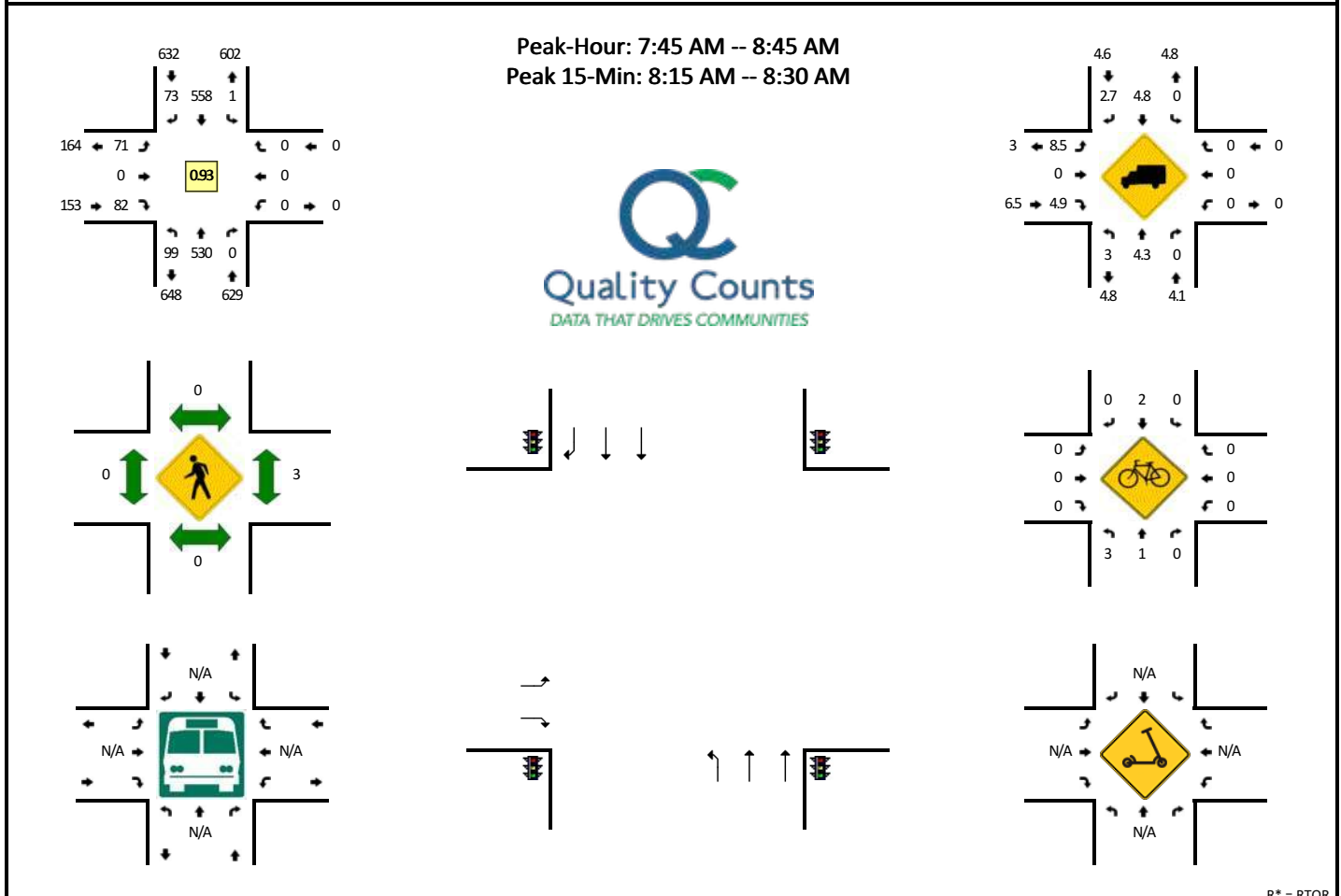
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave/Boca Raton Blvd (Northbound)					NW 2nd Ave/Boca Raton Blvd (Southbound)					NW 20th St (Eastbound)					NW 20th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	18	100	10	0	21	36	129	15	0	3	21	51	9	4	5	33	73	20	0	7	555	2289 2441
4:15 PM	17	96	20	0	16	29	108	6	0	4	18	58	10	0	7	42	67	23	1	10	532	
4:30 PM	24	136	22	0	23	27	125	11	0	2	15	56	16	0	9	35	54	27	1	11	594	
4:45 PM	19	93	21	0	15	29	123	12	0	3	25	78	15	3	10	48	84	24	0	6	608	
5:00 PM	18	132	23	1	17	39	178	18	0	1	18	76	22	4	4	42	75	26	1	12	707	
5:15 PM	25	89	26	0	19	24	117	11	0	1	24	69	23	3	8	55	88	24	3	12	621	2530
5:30 PM	20	101	24	0	22	32	167	15	0	3	18	60	11	4	12	36	64	26	1	9	625	2561
5:45 PM	32	73	13	0	17	23	109	14	0	0	17	59	10	2	6	40	83	15	0	7	520	2473
6:00 PM	18	83	17	0	20	20	111	6	0	1	8	54	16	5	3	39	57	15	0	5	478	2244
6:15 PM	12	48	13	0	18	20	104	7	0	2	9	50	8	0	10	44	64	12	2	4	427	2050
6:30 PM	12	49	11	0	15	19	74	6	0	4	13	53	15	0	5	39	60	16	2	3	396	1821
6:45 PM	9	48	12	0	10	19	64	3	0	1	3	46	10	1	12	36	44	6	0	18	342	1643
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	72	528	160	4	68	156	712	76	0	4	72	304	104	16	16	168	300	152	4	48	2964	64 0 4
Heavy Trucks	0	16	4			12	16	0			0	8	4			0	0	4				
Buses																						
Pedestrians		0					0					0					0					
Bicycles Scooters	0	0	0			0	0	0			0	0	0			4	0	0				

Comments:

LOCATION: N Dixie Hwy -- NW 28th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550525
DATE: Thu, Nov 18 2021



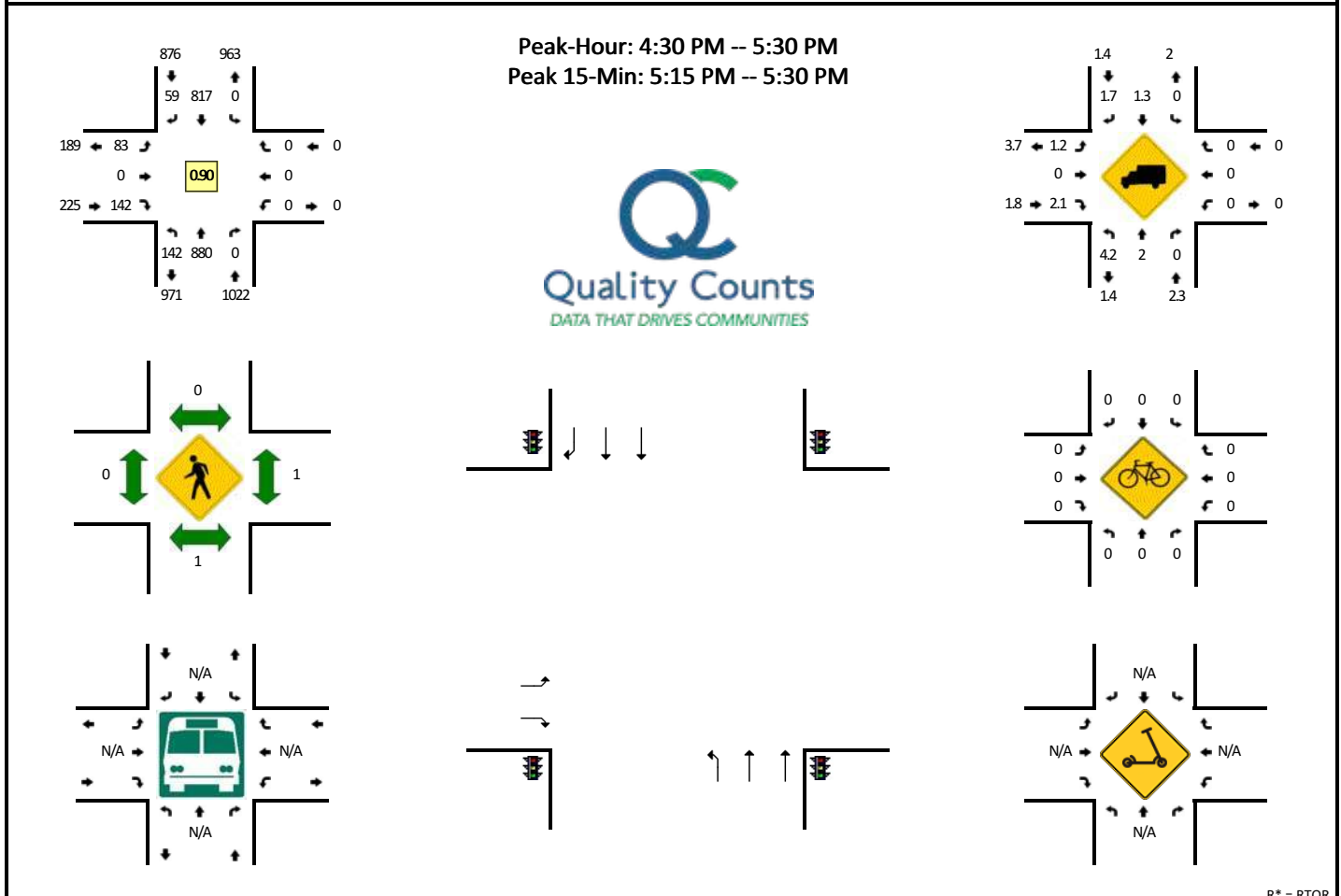
R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					NW 28th St (Eastbound)					NW 28th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	7	13	0	0	0	0	26	2	0	1	3	0	2	0	0	0	0	0	0	0	54	
6:15 AM	6	21	0	0	0	0	44	5	1	3	2	0	1	0	0	0	0	0	0	0	83	
6:30 AM	12	43	0	0	0	0	33	8	0	0	4	0	2	0	0	0	0	0	0	0	102	
6:45 AM	11	62	0	0	0	0	44	9	0	6	4	0	10	0	0	0	0	0	0	0	146	385
7:00 AM	18	48	0	0	0	0	52	3	0	1	9	0	12	0	1	0	0	0	0	0	144	475
7:15 AM	27	81	0	0	0	0	64	11	0	5	5	0	13	0	2	0	0	0	0	0	208	600
7:30 AM	35	119	0	1	0	0	115	8	0	6	11	0	26	0	0	0	0	0	0	0	321	819
7:45 AM	21	120	0	2	0	0	150	13	1	11	24	0	14	0	3	0	0	0	0	0	359	1032
8:00 AM	19	109	0	3	0	0	123	10	0	15	19	0	26	0	3	0	0	0	0	0	327	1215
8:15 AM	27	147	0	0	0	0	147	12	0	4	21	0	19	0	4	0	0	0	0	0	381	1388
8:30 AM	24	154	0	3	0	0	138	7	0	1	7	0	10	0	3	0	0	0	0	0	347	1414
8:45 AM	24	120	0	3	0	0	114	14	0	2	17	0	21	0	2	0	0	0	0	0	317	1372
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	108	588	0	0	0	0	588	64	0	16	84	0	92	0	16	0	0	0	0	0	1556	
Heavy Trucks	8	24	0			0	20	4			12	0	8			0	0	0			76	
Buses																					0	
Pedestrians		0					0					0					0				0	
Bicycles	4	0	0			0	4	0			0	0	0			0	0	0			8	
Scooters																						

Comments:

LOCATION: N Dixie Hwy -- NW 28th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550526
DATE: Thu, Nov 18 2021



R* = RTOR

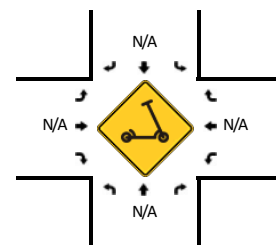
15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					NW 28th St (Eastbound)					NW 28th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	22	153	0	3	0	0	146	6	1	4	27	0	21	0	5	0	0	0	0	0	388	
4:15 PM	23	197	0	1	0	0	150	12	0	9	19	0	23	0	2	0	0	0	0	0	436	
4:30 PM	26	199	0	5	0	0	178	4	0	15	24	0	31	0	3	0	0	0	0	0	485	
4:45 PM	32	196	0	2	0	0	193	6	0	9	15	0	23	0	9	0	0	0	0	0	485	1794
5:00 PM	31	228	0	3	0	0	219	4	0	10	24	0	39	0	6	0	0	0	0	0	564	1970
5:15 PM	41	257	0	2	0	0	227	6	0	5	20	0	29	0	2	0	0	0	0	0	589	2123
5:30 PM	39	178	0	3	0	0	186	8	0	14	13	0	34	0	7	0	0	0	0	0	482	2120
5:45 PM	23	190	0	2	0	0	206	10	0	7	10	0	21	0	2	0	0	0	0	0	471	2106
6:00 PM	17	194	0	5	0	0	177	2	1	5	14	0	18	0	1	0	0	0	0	0	434	1976
6:15 PM	12	156	0	3	0	0	161	4	0	5	4	0	23	0	2	0	0	0	0	0	370	1757
6:30 PM	14	112	0	3	0	0	109	5	1	4	13	0	16	0	7	0	0	0	0	0	284	1559
6:45 PM	11	99	0	2	0	0	90	0	0	2	8	0	14	0	1	0	0	0	0	0	227	1315
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	164	1028	0	8	0	0	908	44	0	20	80	0	124	0	8	0	0	0	0	0	2384	
Heavy Trucks	4	12	0			0	20	0			0	0	0			0	0	0			36	
Buses																						
Pedestrians		4					0					0					4				8	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

Report generated on 12/6/2021 2:44 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

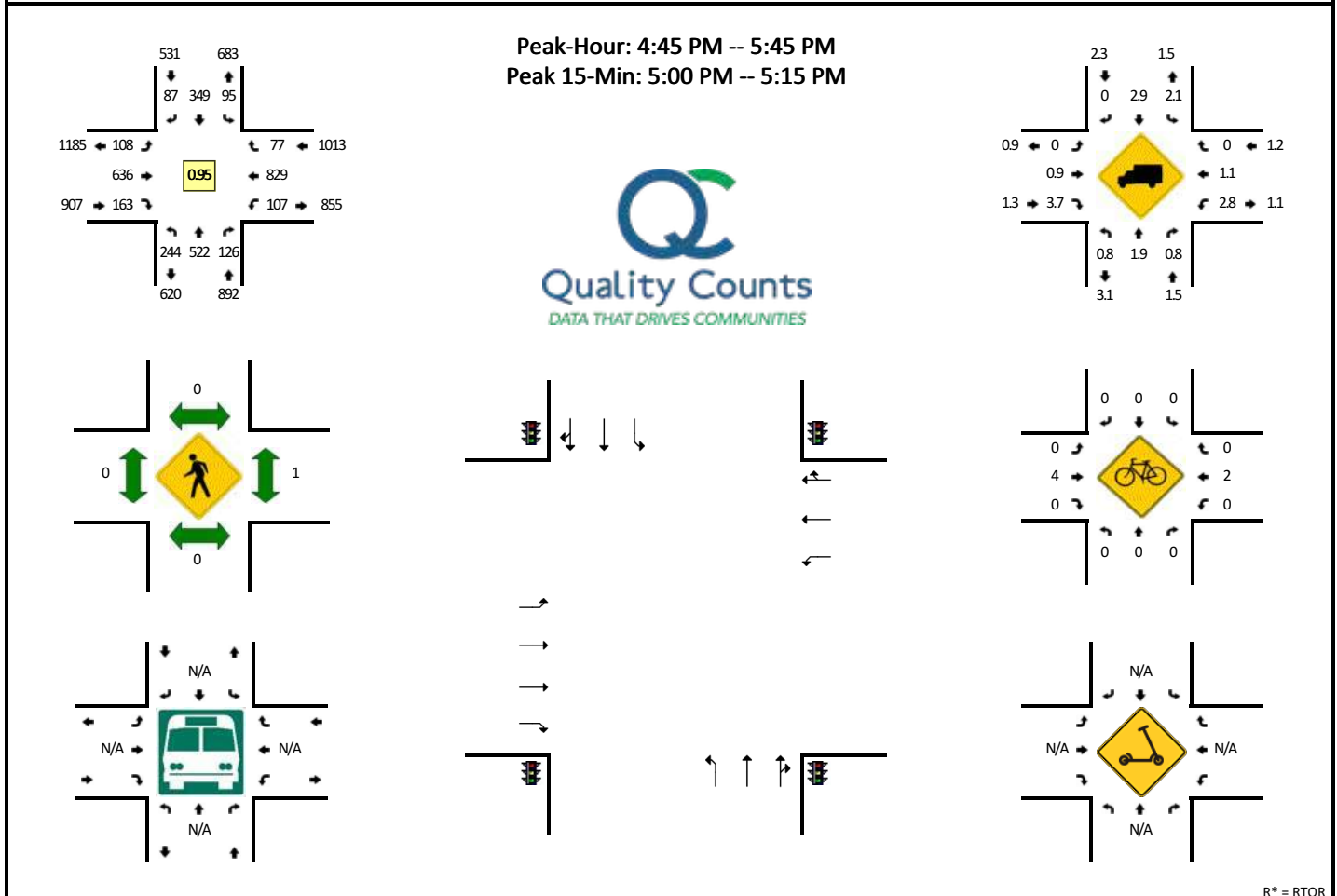
QC JOB #: 15550519
DATE: Thu, Nov 18 2021

[illegible]

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: NW 2nd Ave -- NW 40th St/Spanish River Blvd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550520
DATE: Thu, Nov 18 2021



R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave (Northbound)					NW 2nd Ave (Southbound)					NW 40th St/Spanish River Blvd (Eastbound)					NW 40th St/Spanish River Blvd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	57	120	24	1	3	26	80	11	0	1	17	131	20	8	28	29	150	9	0	5	720	
4:15 PM	47	90	26	0	5	30	63	8	0	14	10	105	17	9	25	27	174	19	0	3	672	
4:30 PM	44	130	25	0	7	22	52	14	0	4	22	172	19	3	24	19	182	18	0	2	759	
4:45 PM	66	134	35	0	6	21	106	15	0	4	14	127	19	4	22	25	164	14	0	2	778	2929
5:00 PM	56	135	18	0	9	24	67	13	0	4	24	206	26	5	20	31	225	14	0	5	882	3091
5:15 PM	58	121	28	0	1	28	90	27	2	1	17	167	23	9	10	28	239	18	0	4	871	3290
5:30 PM	63	132	17	1	12	20	86	22	0	1	27	136	20	8	23	23	201	19	0	1	812	3343
5:45 PM	37	80	21	0	5	25	82	9	0	2	21	188	27	9	17	17	152	16	0	2	710	3275
6:00 PM	47	94	22	0	2	12	59	18	0	4	14	145	8	1	22	14	143	7	1	0	613	3006
6:15 PM	23	54	10	0	4	16	64	12	0	2	17	158	22	3	15	19	161	4	0	2	586	2721
6:30 PM	27	42	16	0	6	8	37	6	0	6	11	130	16	5	9	19	124	8	0	1	471	2380
6:45 PM	35	45	7	0	2	13	48	10	0	2	10	131	8	3	10	17	87	8	0	0	436	2106
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	224	540	108	0	36	96	268	68	0	16	96	824	184	20	80	124	900	76	0	20	3680	
Heavy Trucks	4	16	0			4	20	0			0	12	4			8	4	0			72	
Buses																						
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	4	0			0	4	0			8	
Scooters																						

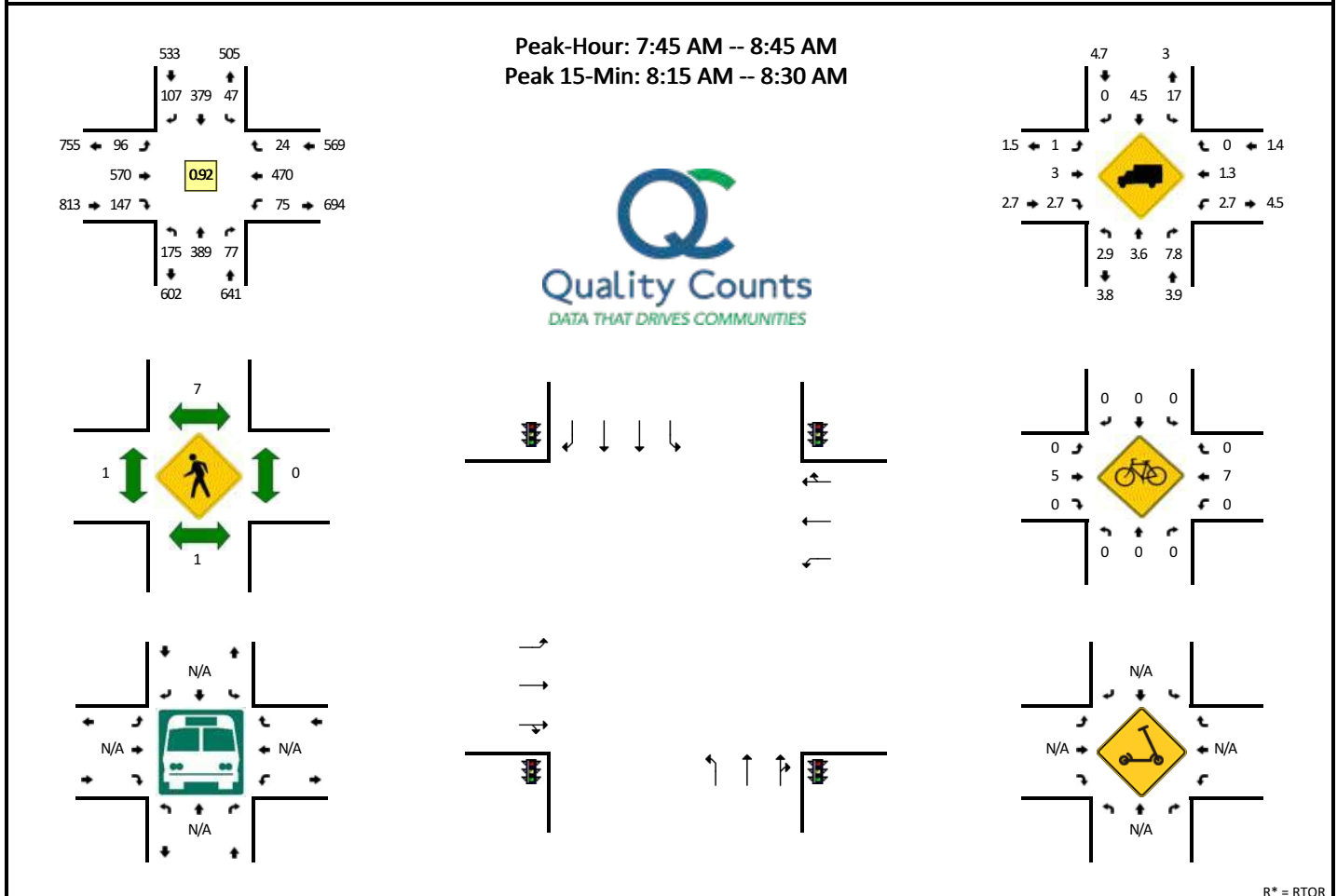
Comments:

Report generated on 12/6/2021 2:44 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: N Dixie Hwy -- NW 40th St/NE Spanish River Blvd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550521
DATE: Thu, Nov 18 2021



R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					NW 40th St/NE Spanish River Blvd (Eastbound)					NW 40th St/NE Spanish River Blvd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	7	11	4	0	0	3	20	2	0	0	1	23	6	0	1	3	30	1	0	1	113	
6:15 AM	9	16	3	0	2	2	30	5	0	0	1	23	3	0	1	5	23	1	0	0	124	
6:30 AM	14	39	1	0	0	1	32	11	0	4	3	38	8	0	1	4	45	1	0	2	204	
6:45 AM	30	42	6	0	5	4	34	4	0	8	5	42	2	0	4	3	50	0	0	3	242	683
7:00 AM	24	34	5	0	3	3	29	0	0	12	12	61	16	0	4	5	49	0	0	1	258	828
7:15 AM	28	57	7	0	3	5	49	4	1	14	15	66	14	0	2	14	108	3	0	2	392	1096
7:30 AM	37	75	9	0	1	6	77	7	0	20	21	114	38	0	5	20	100	1	0	1	532	1424
7:45 AM	37	96	9	0	4	9	99	4	0	28	24	130	42	2	7	16	119	7	0	1	634	1816
8:00 AM	37	74	15	0	7	9	83	11	0	20	20	145	20	0	7	26	98	4	0	0	576	2134
8:15 AM	52	112	19	0	2	15	109	11	0	10	25	144	34	0	2	22	126	6	0	3	692	2434
8:30 AM	48	107	14	1	7	14	88	8	0	15	23	151	20	2	15	11	127	3	0	0	654	2556
8:45 AM	22	100	15	1	5	8	87	12	0	16	20	128	23	0	8	16	89	1	0	2	553	2475
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	208	448	84	0	8	60	436	84	0	40	100	576	144	0	8	88	504	36	0	12	2836	
Heavy Trucks	8	12	8			12	24	0			4	20	8			0	4	0			100	
Buses																						
Pedestrians		0					16					0					0				16	
Bicycles	0	0	0			0	0	0			0	8	0			0	12	0			20	
Scooters																						

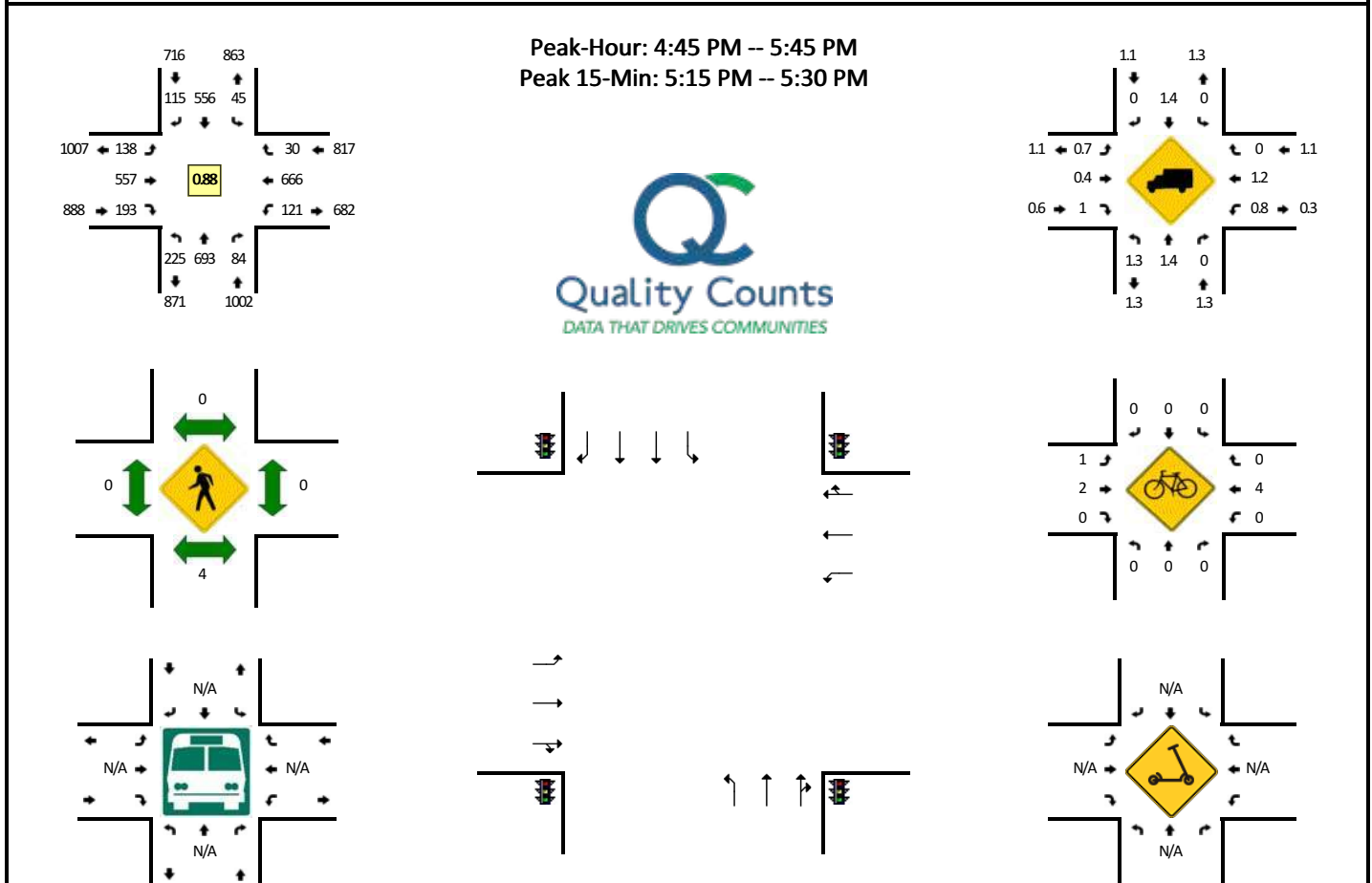
Comments:

Report generated on 12/6/2021 2:44 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: N Dixie Hwy -- NW 40th St/NE Spanish River Blvd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550522
DATE: Thu, Nov 18 2021



R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					NW 40th St/NE Spanish River Blvd (Eastbound)					NW 40th St/NE Spanish River Blvd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	42	121	11	0	9	10	90	6	1	15	22	124	36	1	5	29	141	11	0	2	676	
4:15 PM	50	159	19	0	1	11	119	6	0	23	19	121	32	0	7	30	147	7	0	3	754	
4:30 PM	45	138	12	1	6	5	111	13	2	10	38	150	48	3	4	33	166	3	0	0	788	
4:45 PM	56	166	16	0	5	12	132	8	2	17	35	127	33	1	7	38	125	9	0	0	789	3007
5:00 PM	56	177	19	0	4	10	131	9	0	20	33	140	48	1	8	23	187	7	0	0	873	3204
5:15 PM	54	209	21	0	2	7	160	22	1	12	42	160	54	0	6	27	189	5	0	1	972	3422
5:30 PM	58	141	15	1	2	12	133	15	1	12	26	130	32	0	5	33	165	6	0	2	789	3423
5:45 PM	36	129	23	0	4	6	121	3	0	18	23	154	53	2	7	37	117	4	0	3	740	3374
6:00 PM	39	140	12	1	5	10	106	7	2	15	24	124	40	0	13	22	107	4	0	1	672	3173
6:15 PM	38	109	20	0	6	8	105	8	0	11	15	126	40	1	11	17	127	1	0	1	644	2845
6:30 PM	30	70	16	0	6	2	72	1	1	14	12	125	24	0	5	11	111	3	0	0	503	2559
6:45 PM	26	75	12	1	1	6	63	4	0	11	9	107	31	0	6	11	77	2	0	0	442	2261
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	216	836	92	0	8	28	640	136	4	48	168	640	240	0	24	108	756	24	0	4	3972	
Heavy Trucks	0	4	0			0	16	0			0	0	0			0	8	0			28	
Buses																						
Pedestrians		16					0					0					0				16	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

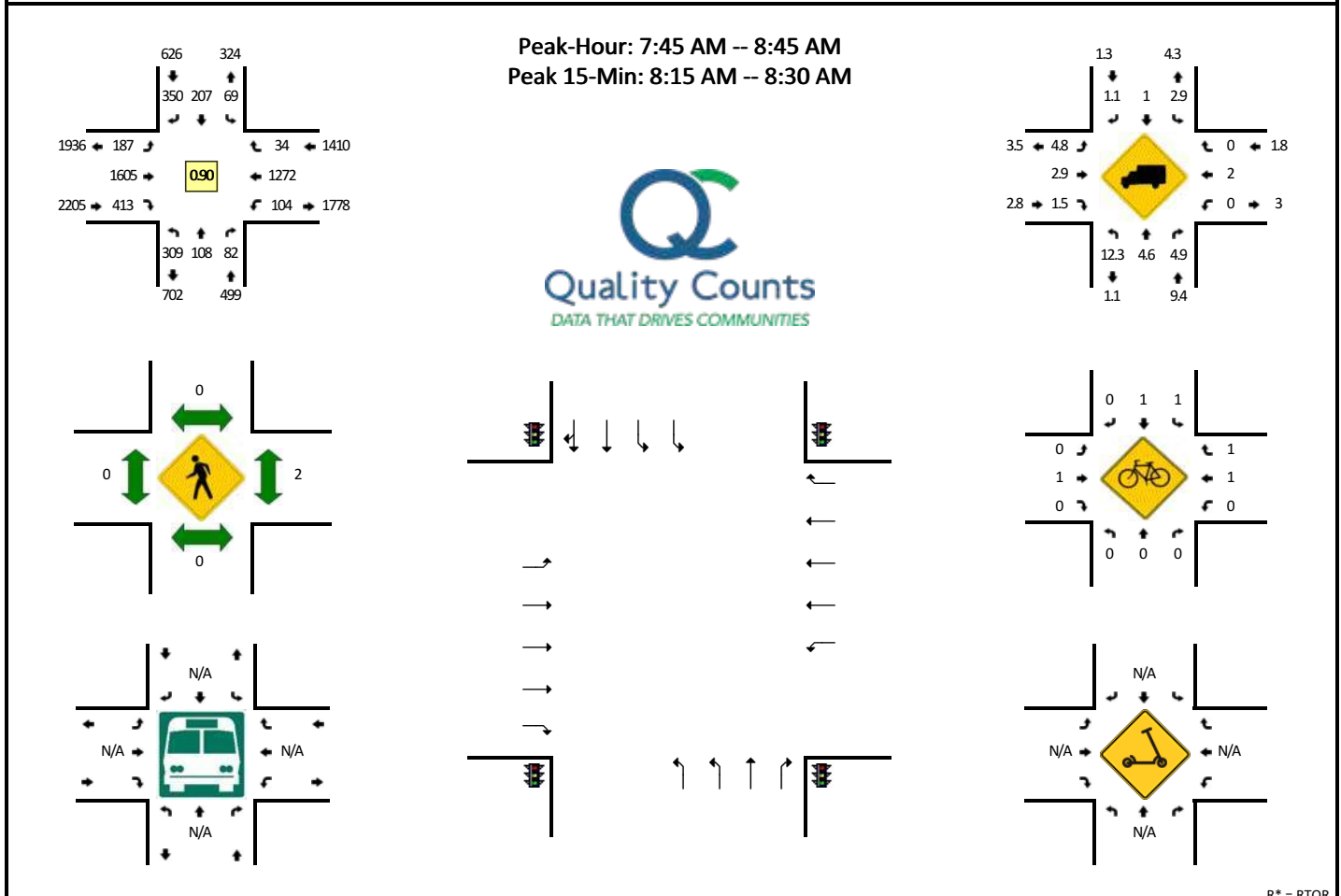
Comments:

Report generated on 12/6/2021 2:44 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: NW 2nd Ave -- W Yamato Rd
CITY/STATE: Boca Raton, FL

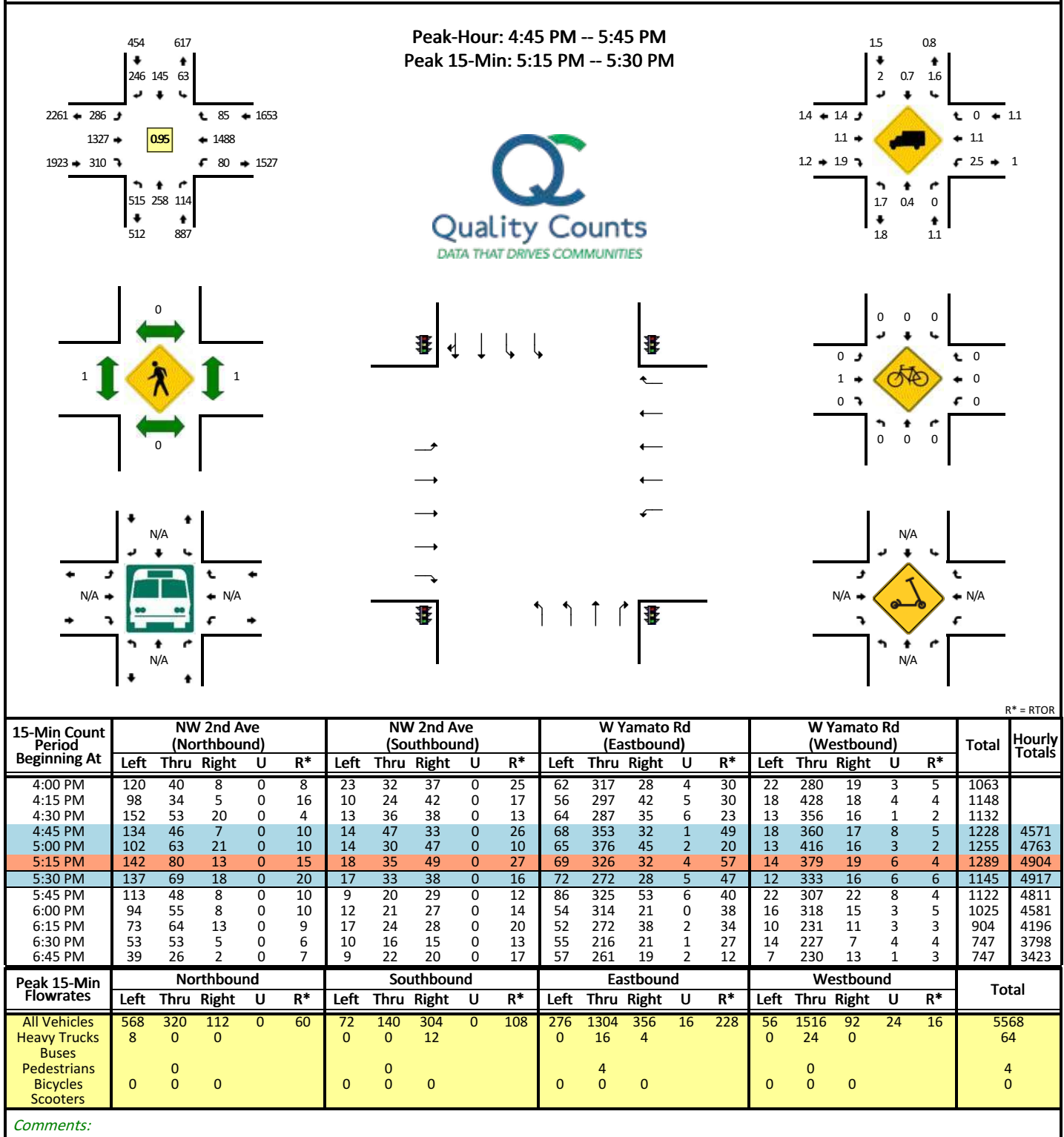
QC JOB #: 15550515
DATE: Thu, Nov 18 2021



R* = RTOR

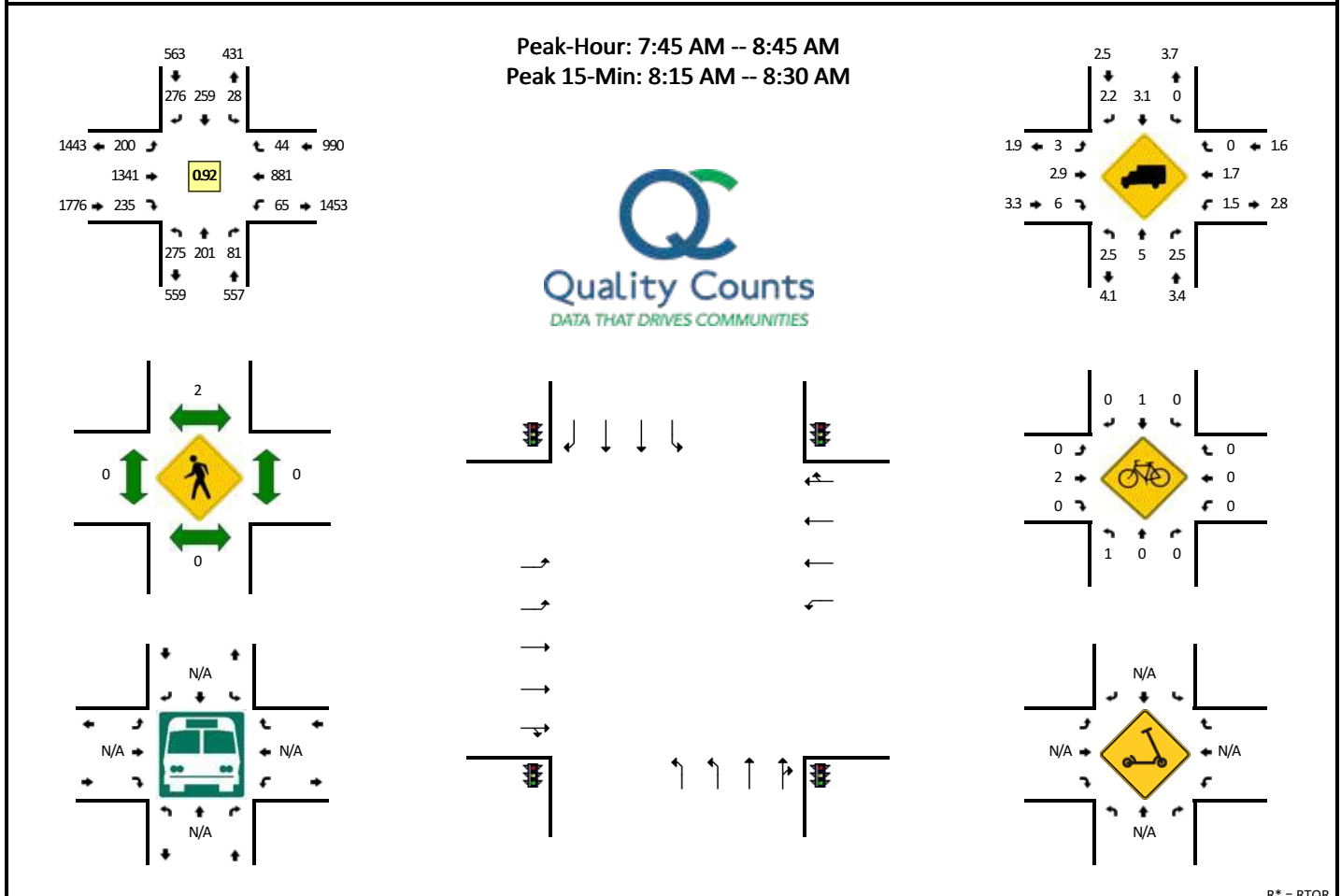
15-Min Count Period Beginning At	NW 2nd Ave (Northbound)					NW 2nd Ave (Southbound)					W Yamato Rd (Eastbound)					W Yamato Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	6	6	3	0	0	7	5	12	0	12	7	46	16	2	2	1	51	4	2	0	182	
6:15 AM	7	5	0	0	1	7	9	13	0	16	10	83	19	0	8	4	59	1	2	0	244	
6:30 AM	9	3	0	0	2	9	15	16	0	37	5	112	32	2	17	5	122	3	3	1	393	
6:45 AM	38	2	0	0	5	15	31	20	0	35	10	122	36	0	32	11	141	2	1	2	503	1322
7:00 AM	35	5	3	0	5	14	29	49	0	48	22	176	32	2	25	16	140	4	4	3	612	1752
7:15 AM	49	16	1	0	3	9	40	46	0	52	25	231	42	6	30	19	230	6	2	0	807	2315
7:30 AM	50	8	3	0	8	26	60	72	1	33	31	347	54	5	42	20	267	7	2	2	1038	2960
7:45 AM	84	28	5	0	13	24	57	57	0	45	46	380	53	1	66	26	296	6	5	1	1193	3650
8:00 AM	54	28	4	0	17	11	56	56	0	41	59	352	54	2	47	23	263	4	6	2	1079	4117
8:15 AM	70	23	9	0	12	12	46	46	0	27	40	484	61	2	37	15	422	9	6	1	1322	4632
8:30 AM	101	29	15	0	7	22	48	54	0	24	37	389	43	0	52	18	291	9	5	2	1146	4740
8:45 AM	64	22	10	0	17	17	66	56	1	34	31	324	38	2	54	19	208	3	6	3	975	4522
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	280	92	84	0	48	48	184	292	0	108	160	1936	392	8	148	60	1688	40	24	4	5596	
Heavy Trucks	24	0	16			0	0	4			4	68	4			0	32	0			152	
Buses																						
Pedestrians	0	0	0			0	0	0			0	4	0			0	0	0			0	
Bicycles	0	0	0			0	0	0			0	4	0			0	0	0			4	
Scooters																						

Comments:

LOCATION: NW 2nd Ave -- W Yamato Rd**CITY/STATE:** Boca Raton, FL**QC JOB #:** 15550516**DATE:** Thu, Nov 18 2021

LOCATION: N Dixie Hwy -- Yamato Rd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550517
DATE: Thu, Nov 18 2021



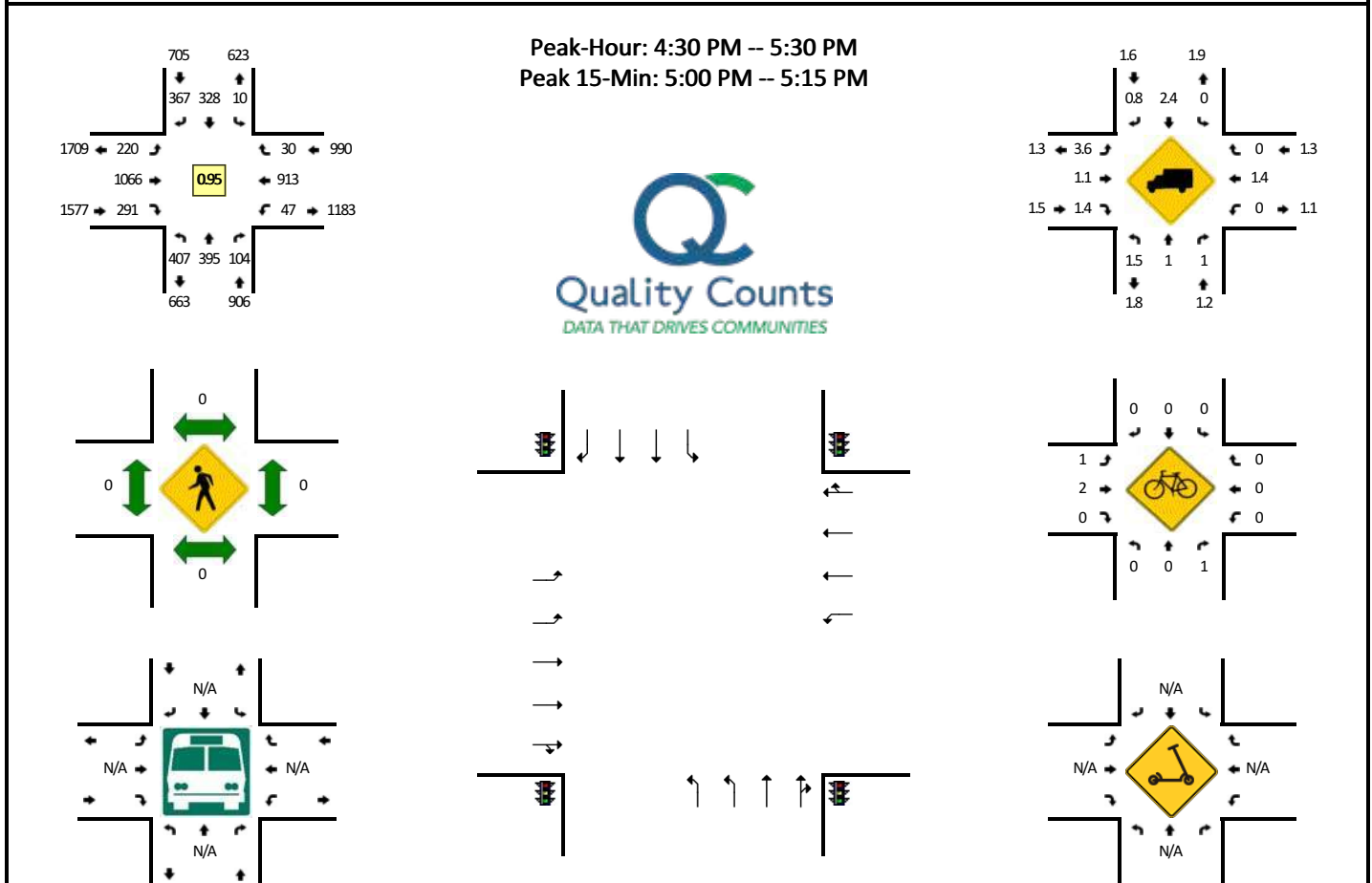
R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					Yamato Rd (Eastbound)					Yamato Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	8	6	0	0	1	1	15	4	0	14	8	36	13	0	2	3	36	1	0	1	149	
6:15 AM	6	5	2	0	2	0	23	5	0	15	9	48	9	2	0	3	39	0	0	0	168	
6:30 AM	18	17	4	0	2	0	24	3	0	31	11	99	20	0	0	6	74	2	0	2	313	
6:45 AM	26	17	3	0	3	0	28	10	0	39	16	99	24	4	3	8	86	0	0	2	368	998
7:00 AM	29	17	3	1	3	4	27	15	0	25	17	129	25	0	4	2	113	7	0	2	423	1272
7:15 AM	29	18	6	0	3	3	35	7	0	41	32	166	40	0	4	5	171	10	3	0	573	1677
7:30 AM	56	51	16	2	9	2	46	13	0	46	33	283	58	0	4	9	172	11	2	2	815	2179
7:45 AM	81	56	21	3	14	13	72	27	0	43	30	328	67	5	5	13	197	13	0	7	995	2806
8:00 AM	52	46	6	3	7	6	62	41	0	36	43	289	47	5	4	16	201	9	2	0	875	3258
8:15 AM	74	52	13	0	3	4	52	14	1	44	53	392	54	4	4	18	260	8	4	2	1056	3741
8:30 AM	62	47	14	0	3	2	73	24	2	47	57	332	51	3	3	12	223	5	0	0	960	3886
8:45 AM	35	65	12	0	3	5	67	13	1	41	46	285	26	1	9	13	173	4	3	0	802	3693
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	296	208	64	0	12	16	208	232	4	176	212	1568	232	16	16	72	1040	40	16	8	4436	
Heavy Trucks	8	20	0			0	12	4			4	68	16			4	12	0			148	
Buses																						
Pedestrians		0					4					0					0				4	
Bicycles	0	0	0			0	0	0			0	4	0			0	0	0			4	
Scoters																						

Comments:

LOCATION: N Dixie Hwy -- Yamato Rd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550518
DATE: Thu, Nov 18 2021



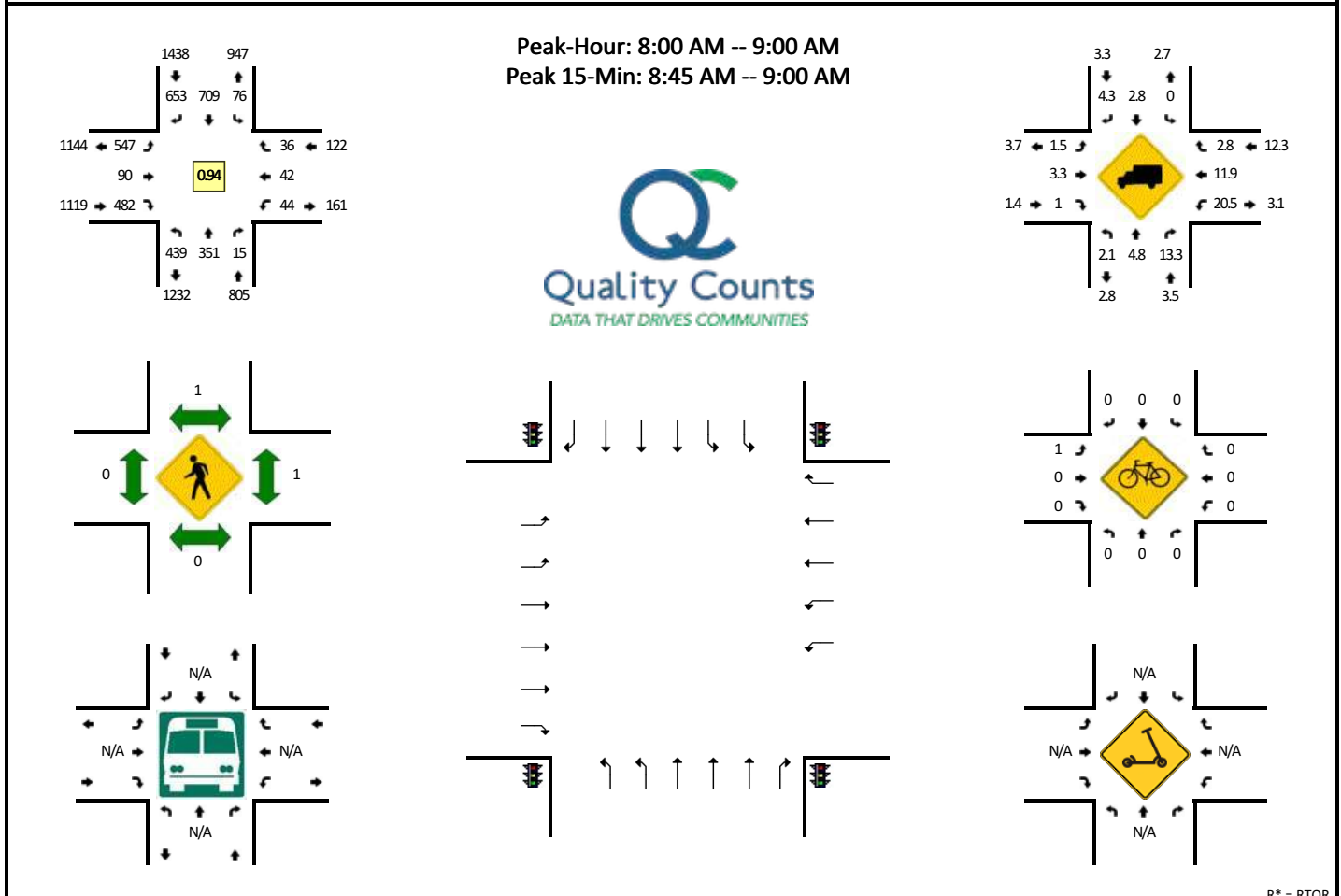
R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					Yamato Rd (Eastbound)					Yamato Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	57	74	14	0	3	4	57	30	0	53	49	236	41	10	7	14	209	6	0	0	864	
4:15 PM	82	95	16	0	4	3	66	46	1	22	35	207	49	1	1	20	266	6	1	0	921	
4:30 PM	103	90	24	0	4	2	62	38	0	41	31	258	65	5	10	5	243	4	0	0	985	
4:45 PM	93	82	28	0	2	2	86	41	0	52	59	265	61	7	8	13	224	4	0	3	1030	3800
5:00 PM	81	117	19	0	3	5	87	49	0	47	60	278	61	8	9	16	250	7	0	2	1099	4035
5:15 PM	130	106	20	0	4	1	93	64	0	35	48	265	67	2	10	10	196	9	3	1	1064	4178
5:30 PM	94	94	13	0	0	6	90	47	0	20	45	204	49	2	9	16	207	7	0	0	903	4096
5:45 PM	70	84	12	0	1	3	57	34	0	42	56	241	66	9	9	19	182	5	6	3	899	3965
6:00 PM	80	81	12	0	7	3	54	35	0	37	22	207	63	3	9	10	204	6	1	1	835	3701
6:15 PM	66	65	12	0	3	0	58	17	1	26	45	253	54	1	6	10	143	10	1	0	771	3408
6:30 PM	39	47	6	0	3	1	33	13	0	48	55	169	36	4	0	15	160	3	0	2	634	3139
6:45 PM	28	44	5	1	3	0	32	6	0	45	22	208	45	2	3	4	139	7	0	0	594	2834
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	324	468	88	0	12	20	348	384	0	188	240	1112	280	32	36	64	1000	36	0	8	4640	
Heavy Trucks	4	4	0			0	0	4			8	12	4			0	8	0			44	
Buses																						
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			4	4	0			0	0	0			8	
Scooters																						

Comments:

LOCATION: Congress Ave -- Clint Moore Rd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550507
DATE: Thu, Nov 18 2021



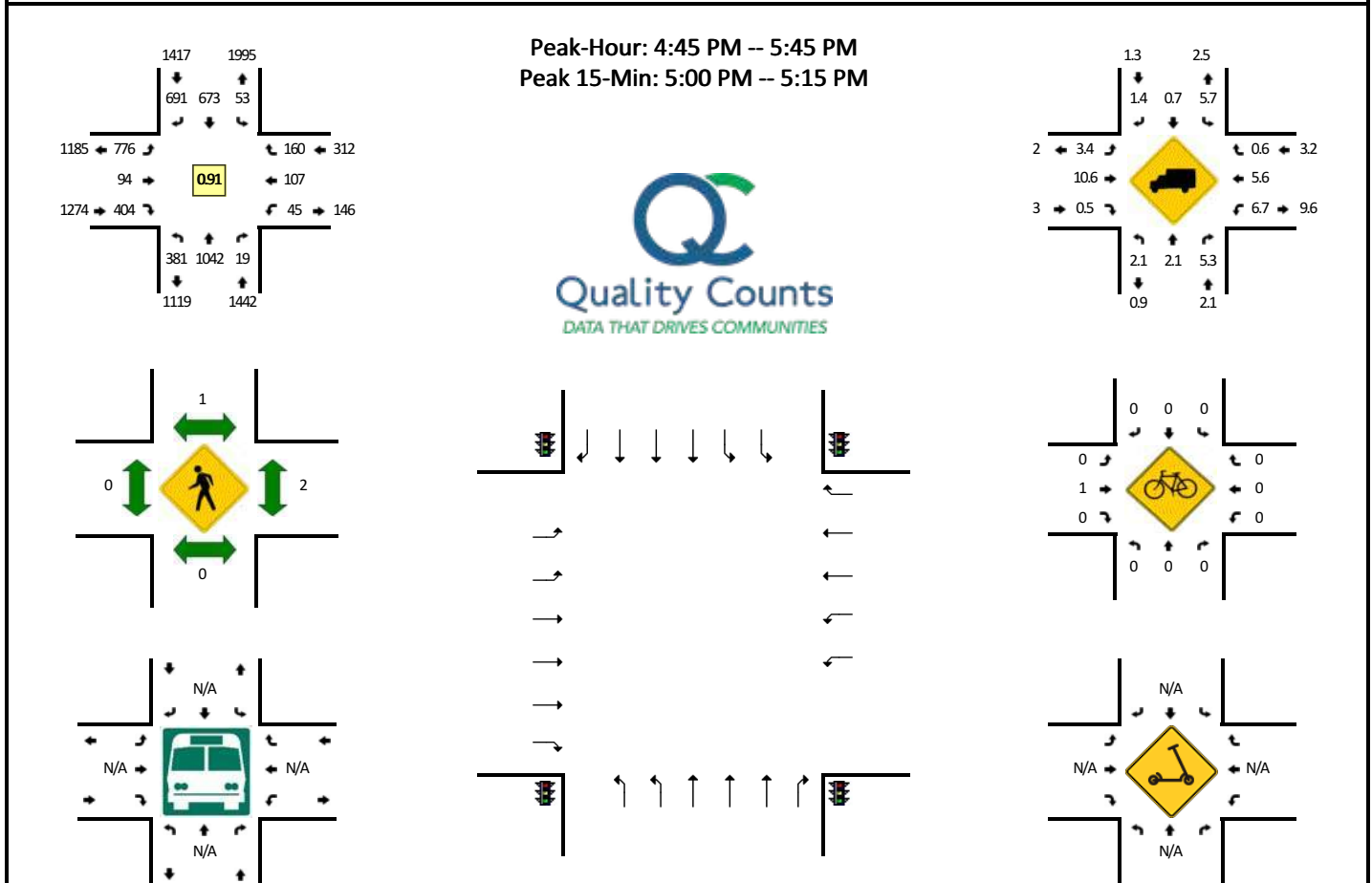
R* = RTOR

15-Min Count Period Beginning At	Congress Ave (Northbound)					Congress Ave (Southbound)					Clint Moore Rd (Eastbound)					Clint Moore Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	24	12	0	0	2	9	36	21	1	26	12	5	4	0	14	1	5	1	0	0	173	
6:15 AM	33	23	0	0	1	11	29	20	3	37	24	9	7	0	10	2	7	3	1	4	224	
6:30 AM	47	25	1	0	5	15	51	18	2	53	34	14	12	0	13	4	5	1	1	9	310	
6:45 AM	85	38	2	0	1	19	67	49	4	72	42	21	4	0	31	2	8	4	2	4	455	1162
7:00 AM	55	48	1	0	2	11	66	73	1	42	68	13	9	0	47	2	13	8	0	5	464	1453
7:15 AM	102	57	1	0	3	12	118	81	0	55	102	15	21	0	54	10	15	0	0	11	657	1886
7:30 AM	100	73	1	0	3	11	132	94	3	59	111	11	33	0	68	5	10	1	2	7	724	2300
7:45 AM	128	88	1	0	6	17	178	97	2	79	97	23	31	0	61	7	7	1	1	8	832	2677
8:00 AM	106	75	2	0	0	17	147	84	4	64	114	27	36	2	88	7	11	1	2	5	792	3005
8:15 AM	107	85	3	0	2	16	168	88	6	80	142	21	43	1	64	12	12	3	0	5	858	3206
8:30 AM	110	107	1	0	1	11	195	104	5	65	134	19	46	3	78	12	7	0	1	12	911	3393
8:45 AM	116	84	0	0	6	9	199	104	8	64	147	23	65	4	62	10	12	5	0	5	923	3484
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	464	336	24	0	24	36	796	672	32	256	588	92	508	16	248	40	48	40	0	20	4240	
Heavy Trucks	12	12	0			0	20	20			12	4	4			8	8	4			104	
Buses																						
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			4	0	0			0	0	0			4	
Scooters																						

Comments:

LOCATION: Congress Ave -- Clint Moore Rd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550508
DATE: Thu, Nov 18 2021



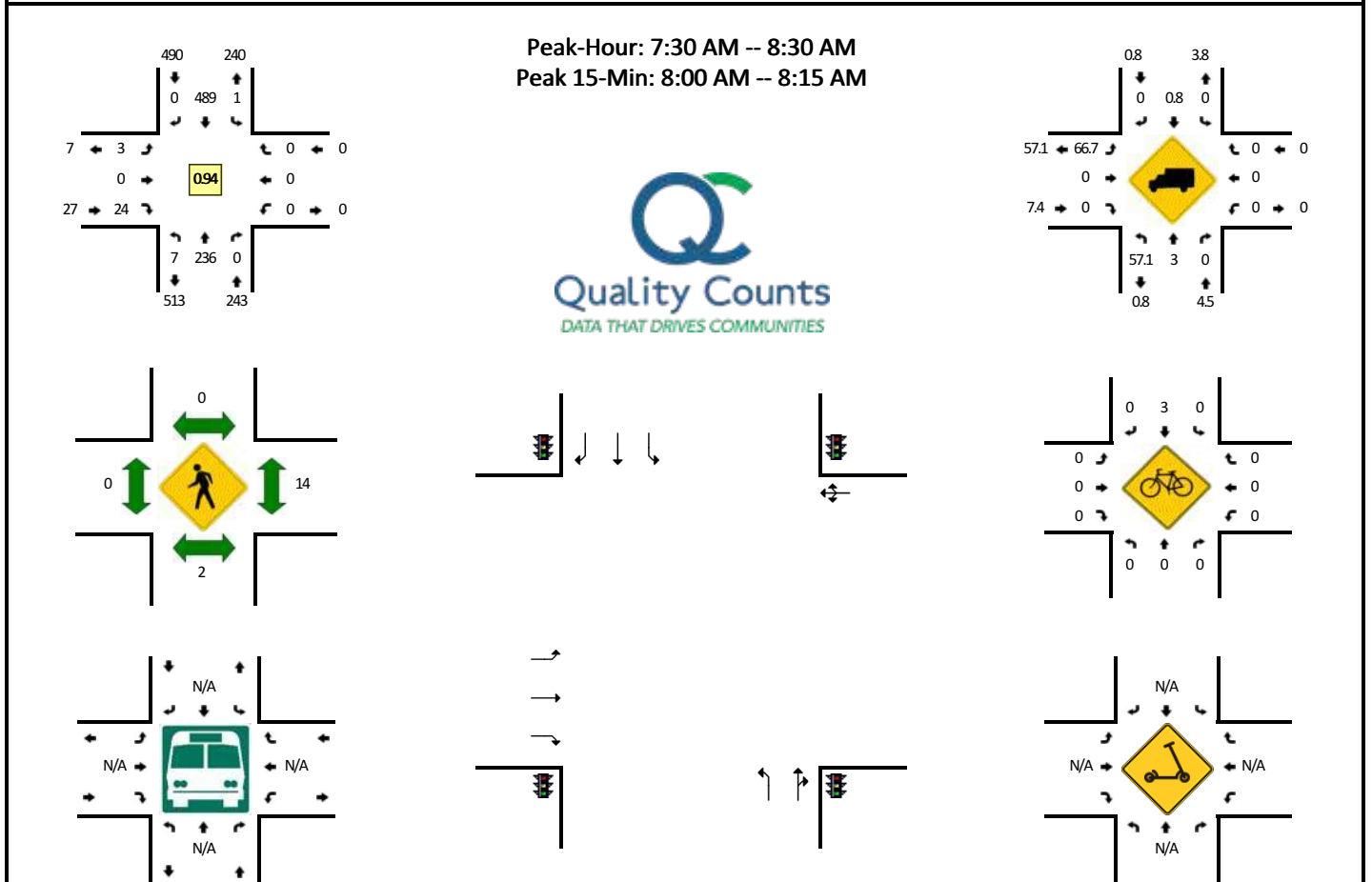
R* = RTOR

15-Min Count Period Beginning At	Congress Ave (Northbound)					Congress Ave (Southbound)					Clint Moore Rd (Eastbound)					Clint Moore Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	97	195	2	0	3	5	120	81	4	80	175	23	41	1	63	11	15	4	0	27	947	
4:15 PM	86	172	2	0	5	6	116	74	7	78	183	19	41	2	70	10	19	9	0	13	912	
4:30 PM	86	262	3	0	2	7	134	69	5	72	135	13	46	3	60	14	27	20	0	27	985	
4:45 PM	94	210	3	0	4	4	161	77	8	78	195	27	64	1	51	12	21	9	0	20	1039	3883
5:00 PM	104	284	4	0	1	8	164	107	6	74	205	27	65	2	60	12	44	24	0	35	1226	4162
5:15 PM	106	282	0	0	3	6	160	85	4	79	198	25	31	2	43	5	22	11	3	32	1097	4347
5:30 PM	77	266	0	0	4	12	188	77	5	114	172	15	45	1	45	13	20	14	0	15	1083	4445
5:45 PM	102	228	2	0	4	6	173	83	8	88	132	11	31	2	42	3	18	4	0	16	953	4359
6:00 PM	95	239	4	0	1	4	126	43	8	80	82	45	25	0	50	10	16	8	2	40	878	4011
6:15 PM	61	182	2	0	2	3	97	31	1	90	131	25	35	1	25	10	15	15	0	9	735	3649
6:30 PM	43	138	2	0	1	4	82	75	3	47	110	6	14	0	35	8	18	3	0	11	600	3166
6:45 PM	51	120	1	0	1	2	83	60	3	40	94	4	6	0	26	3	6	5	0	11	516	2729
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	416	1136	20	0	4	32	656	724	24	296	820	108	500	8	240	48	176	236	0	140	5584	
Heavy Trucks	4	8	0			4	4	8			32	12	0			0	12	0			84	
Buses																						
Pedestrians	0					0					0					0					0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

LOCATION: NW 2nd Ave -- Jeffery St**CITY/STATE:** Boca Raton, FL**QC JOB #:** 15550509**DATE:** Thu, Nov 18 2021

Peak-Hour: 7:30 AM -- 8:30 AM
 Peak 15-Min: 8:00 AM -- 8:15 AM



R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave (Northbound)					NW 2nd Ave (Southbound)					Jeffery St (Eastbound)					Jeffery St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	1	15	0	0	0	0	22	0	0	0	1	0	0	0	0	0	0	0	0	0	39	
6:15 AM	1	9	1	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	1	54	
6:30 AM	1	7	0	1	0	0	52	0	0	0	0	0	0	0	2	0	0	0	0	0	63	
6:45 AM	0	15	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	81	237
7:00 AM	1	21	0	0	0	0	117	1	0	0	0	0	0	0	1	0	0	0	0	0	141	339
7:15 AM	3	40	2	0	0	0	118	0	0	0	0	0	0	0	3	0	1	0	0	0	167	452
7:30 AM	2	38	0	0	0	0	139	0	1	0	1	0	0	0	6	0	0	0	0	0	187	576
7:45 AM	2	61	0	0	0	0	125	0	0	0	1	0	1	0	6	0	0	0	0	0	196	691
8:00 AM	2	76	0	0	0	0	119	0	0	0	0	0	0	0	6	0	0	0	0	0	203	753
8:15 AM	1	61	0	0	0	0	106	0	0	0	1	0	0	0	5	0	0	0	0	0	174	760
8:30 AM	5	57	0	0	0	0	112	3	0	1	0	0	3	0	3	0	0	0	0	0	184	757
8:45 AM	2	54	1	0	0	0	121	0	0	0	0	0	0	0	8	0	0	0	0	0	186	747
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	8	304	0	0	0	0	476	0	0	0	0	0	24	0	24	0	0	0	0	0	836	
Heavy Trucks	8	16	0			0	12	0			0	0	0			0	0	0			36	
Buses																						
Pedestrians		0					0					0					12				12	
Bicycles	0	0	0			0	4	0			0	0	0			0	0	0			4	
Scooters																						

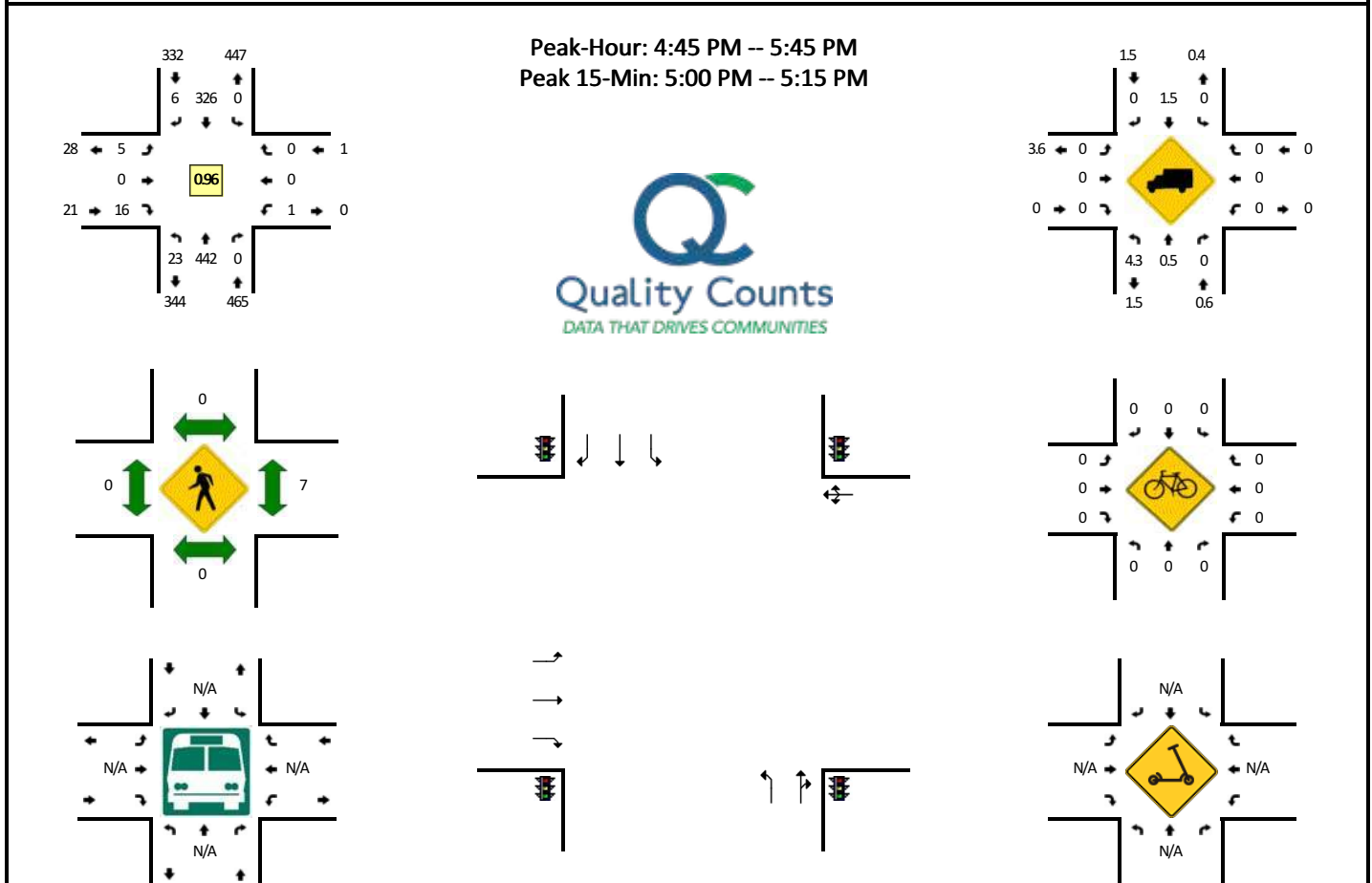
Comments:

Report generated on 12/6/2021 2:44 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: NW 2nd Ave -- Jeffery St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550510
DATE: Thu, Nov 18 2021



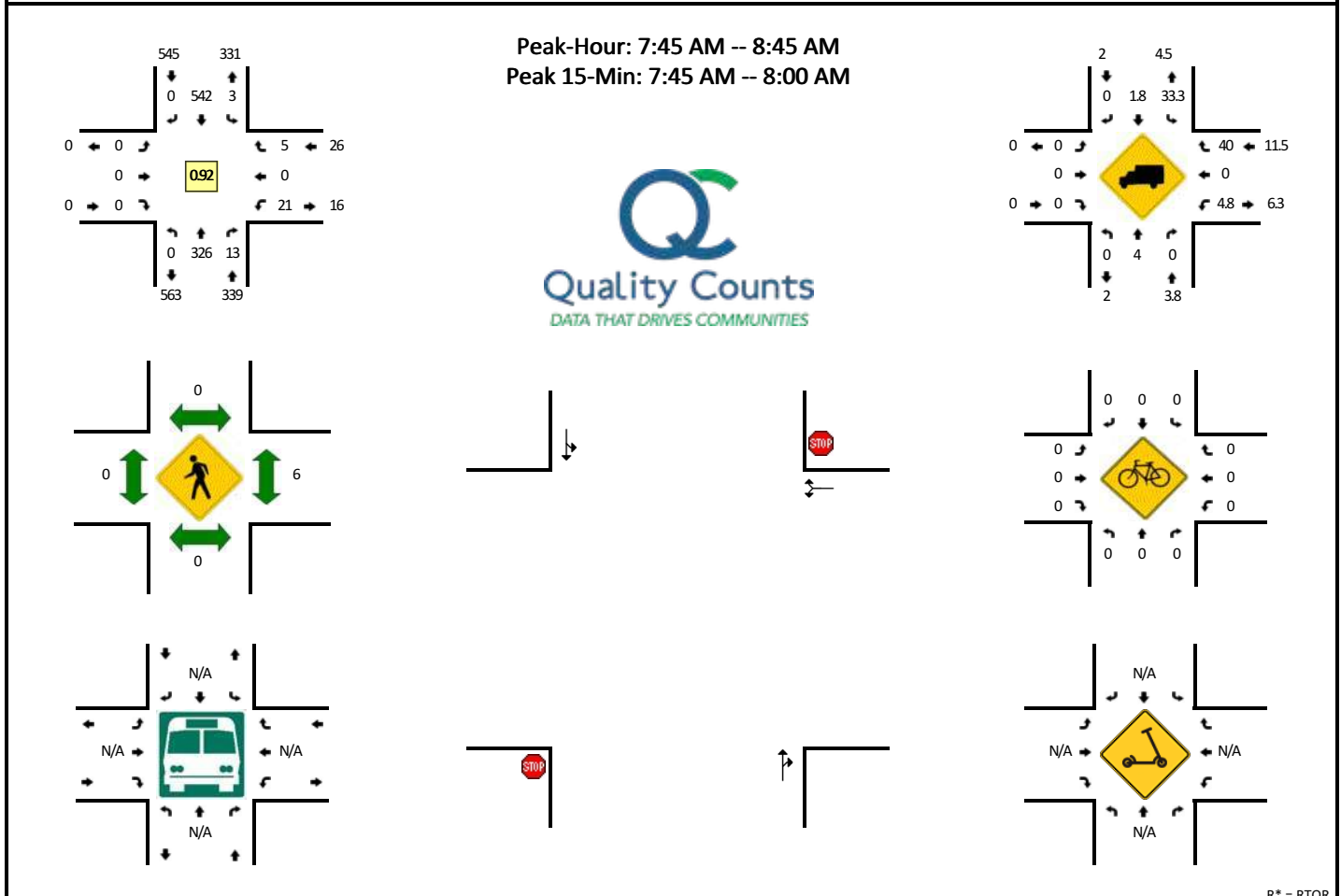
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave (Northbound)					NW 2nd Ave (Southbound)					Jeffery St (Eastbound)					Jeffery St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	8	85	0	0	0	0	77	0	0	0	1	0	0	0	7	0	0	0	0	0	178	
4:15 PM	5	84	0	0	0	0	83	0	0	0	1	0	0	0	6	0	0	0	0	0	179	
4:30 PM	7	105	0	0	0	0	68	3	0	0	1	0	0	0	5	0	0	0	0	0	189	
4:45 PM	8	95	0	1	0	0	83	1	0	0	1	0	0	0	5	1	0	0	0	0	195	741
5:00 PM	1	122	0	0	0	0	87	1	0	0	1	0	0	0	2	0	0	0	0	0	214	777
5:15 PM	6	114	0	0	0	0	82	0	0	1	3	0	1	0	3	0	0	0	0	0	210	808
5:30 PM	7	111	0	0	0	0	74	1	0	2	0	0	2	0	3	0	0	0	0	0	200	819
5:45 PM	4	105	1	1	0	0	61	0	0	0	0	0	0	0	2	1	0	0	0	0	175	799
6:00 PM	4	92	1	0	0	0	57	1	0	0	1	0	1	0	0	1	0	0	0	0	158	743
6:15 PM	4	95	0	0	0	0	56	1	0	0	1	0	0	0	3	0	0	0	0	0	160	693
6:30 PM	1	83	0	0	0	0	41	2	0	0	1	0	0	0	4	0	0	0	0	0	132	625
6:45 PM	2	76	0	0	0	0	47	1	0	0	0	0	0	0	2	0	0	0	0	0	128	578
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	4	488	0	0	0	0	348	4	0	0	4	0	8	0	8	0	0	0	0	0	864	
Heavy Trucks	0	4	0			0	12	0			0	0	0			0	0	0			16	
Buses																						
Pedestrians		0					0					0					4				4	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

LOCATION: N Dixie Hwy -- Jeffery St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550511
DATE: Thu, Nov 18 2021



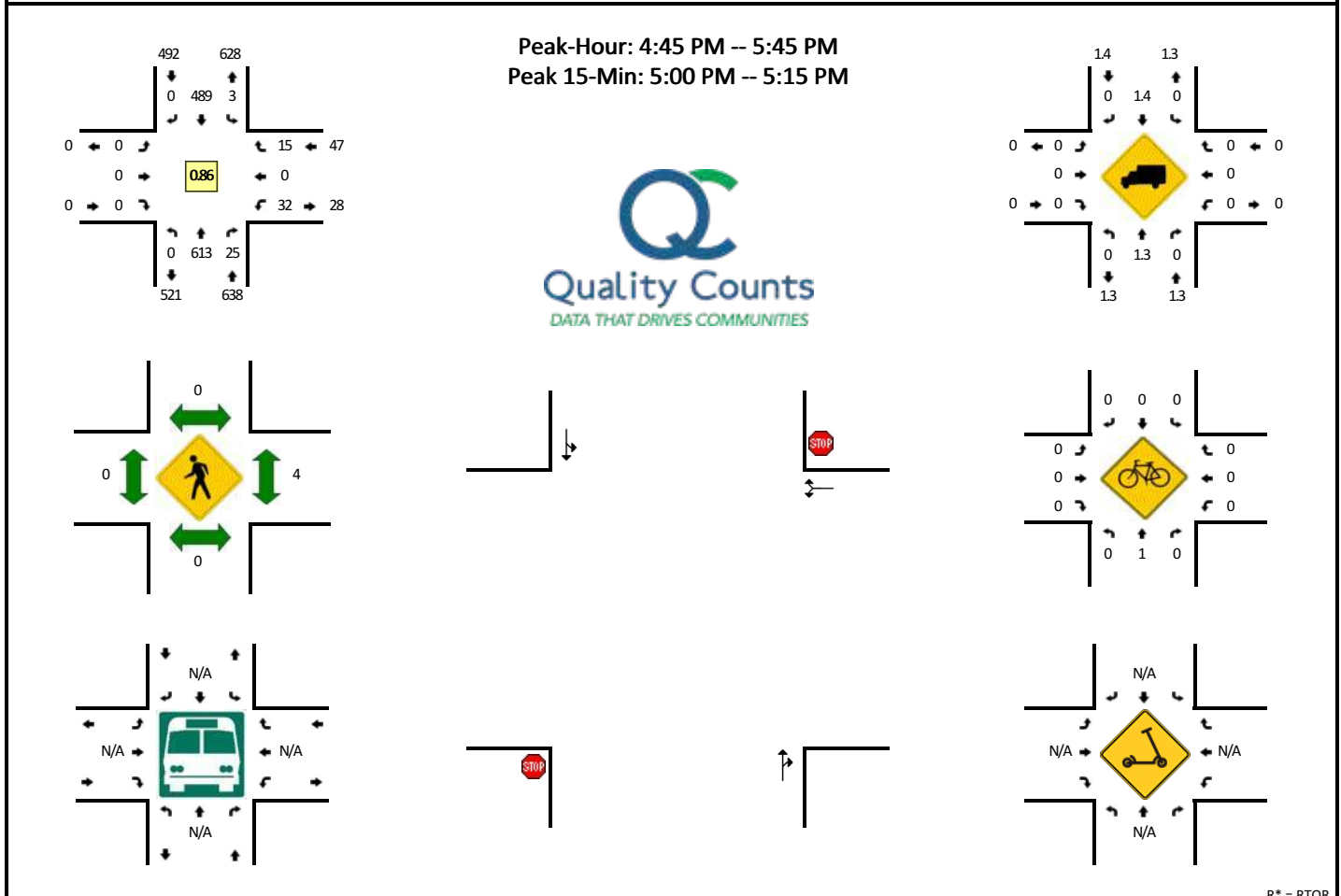
R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					Jeffery St (Eastbound)					Jeffery St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	0	14	0	0	0	1	30	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
6:15 AM	0	17	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	0	0	0	65	
6:30 AM	0	23	1	0	0	1	55	0	0	0	0	0	0	0	0	2	0	0	0	0	82	
6:45 AM	0	27	1	0	0	0	69	0	0	0	0	0	0	0	0	7	0	1	0	0	105	297
7:00 AM	0	36	1	0	0	0	57	0	0	0	0	0	0	0	0	7	0	0	0	0	101	353
7:15 AM	0	43	0	1	0	1	91	0	0	0	0	0	0	0	0	5	0	0	0	0	141	429
7:30 AM	0	77	4	0	0	2	97	0	0	0	0	0	0	0	0	7	0	0	0	0	187	534
7:45 AM	0	84	5	0	0	0	149	0	0	0	0	0	0	0	0	7	0	2	0	0	247	676
8:00 AM	0	78	3	0	0	1	132	0	0	0	0	0	0	0	0	8	0	0	0	0	222	797
8:15 AM	0	86	3	0	0	1	108	0	0	0	0	0	0	0	0	1	0	3	0	0	202	858
8:30 AM	0	78	2	0	0	1	153	0	0	0	0	0	0	0	0	5	0	0	0	0	239	910
8:45 AM	0	79	1	0	0	1	115	0	0	0	0	0	0	0	0	4	0	2	0	0	202	865
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	0	336	20	0	0	0	596	0	0	0	0	0	0	0	0	28	0	8	0	0	988	
Heavy Trucks	0	16	0			0	8	0			0	0	0			0	0	4			28	
Buses																						
Pedestrians		0					0					0					8				8	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

LOCATION: N Dixie Hwy -- Jeffery St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550512
DATE: Thu, Nov 18 2021



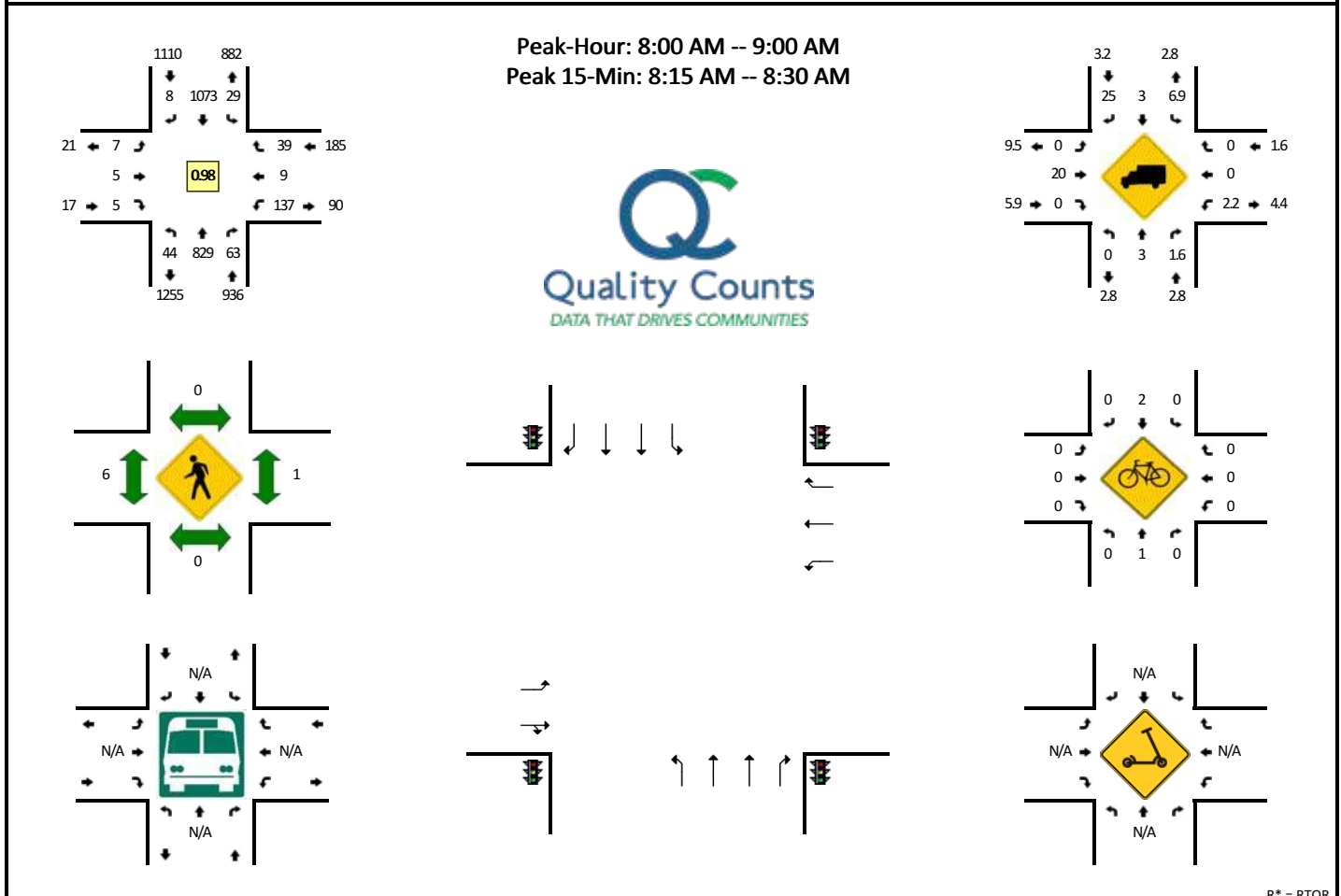
R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					Jeffery St (Eastbound)					Jeffery St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	120	7	0	0	1	112	0	0	0	0	0	0	0	0	11	0	4	0	0	255	
4:15 PM	0	126	9	0	0	0	110	0	0	0	0	0	0	0	0	7	0	3	0	0	255	
4:30 PM	0	113	4	0	0	1	126	0	0	0	0	0	0	0	0	1	0	3	0	0	248	
4:45 PM	0	130	3	0	0	0	124	0	0	0	0	0	0	0	0	8	0	4	0	0	269	1027
5:00 PM	0	180	10	0	0	0	143	0	0	0	0	0	0	0	0	6	0	2	0	0	341	1113
5:15 PM	0	163	8	0	0	0	124	0	0	0	0	0	0	0	0	10	0	7	0	0	312	1170
5:30 PM	0	140	4	0	0	3	98	0	0	0	0	0	0	0	0	8	0	2	0	0	255	1177
5:45 PM	0	139	1	0	0	1	108	0	0	0	0	0	0	0	0	7	0	4	0	0	260	1168
6:00 PM	0	97	4	0	0	2	95	0	0	0	0	0	0	0	0	5	0	1	1	0	205	1032
6:15 PM	0	103	2	0	0	2	85	0	0	0	0	0	0	0	0	0	0	1	0	0	193	913
6:30 PM	0	97	3	0	0	0	62	0	0	0	0	0	0	0	0	7	0	4	0	0	173	831
6:45 PM	0	65	3	0	0	2	63	0	0	0	0	0	0	0	0	5	0	3	0	0	141	712
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	0	720	40	0	0	0	572	0	0	0	0	0	0	0	0	24	0	8	0	0	1364	
Heavy Trucks	0	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Scooters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

LOCATION: US-1 -- Jeffery St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550513
DATE: Thu, Nov 18 2021



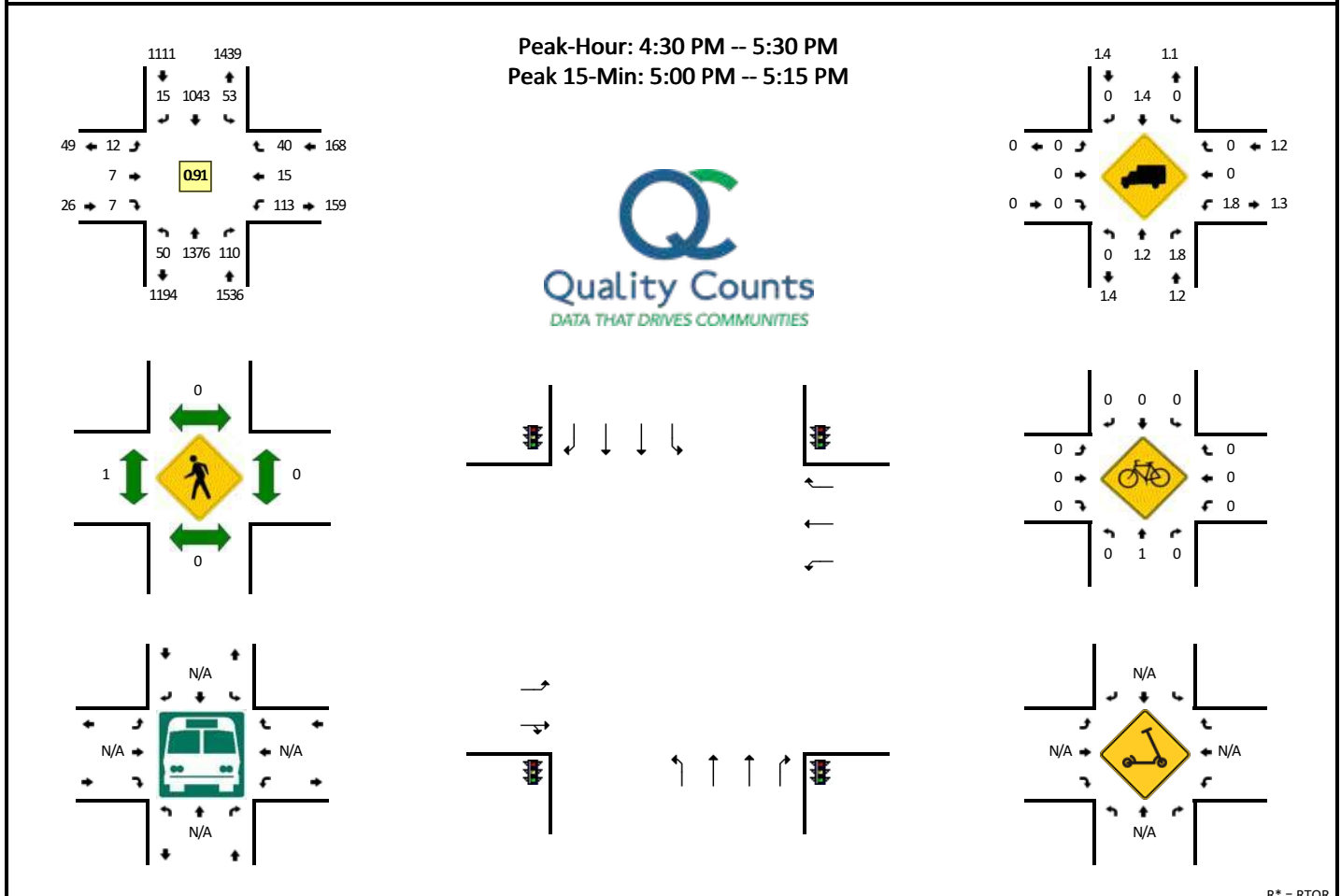
R* = RTOR

15-Min Count Period Beginning At	US-1 (Northbound)					US-1 (Southbound)					Jeffery St (Eastbound)					Jeffery St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	0	30	2	0	1	1	35	0	1	0	0	0	1	0	0	5	0	4	0	0	80	
6:15 AM	0	30	2	3	1	1	46	0	1	0	0	0	0	0	0	10	0	2	0	1	97	
6:30 AM	0	48	1	2	1	0	78	0	1	0	1	0	0	0	0	13	1	4	0	1	151	
6:45 AM	1	76	5	4	0	2	101	1	0	1	1	1	0	0	0	17	1	1	0	3	215	543
7:00 AM	4	100	1	6	2	3	135	3	2	0	0	0	0	0	0	17	0	1	0	4	278	741
7:15 AM	2	112	5	9	3	2	176	0	0	1	1	0	0	0	0	27	2	2	0	2	344	988
7:30 AM	3	149	13	8	3	4	237	1	0	0	0	1	2	0	0	30	1	2	0	4	458	1295
7:45 AM	1	206	11	7	2	5	258	2	1	0	3	0	0	0	1	30	5	1	0	7	540	1620
8:00 AM	2	193	8	11	6	3	276	1	0	0	3	2	1	0	1	39	5	2	0	4	557	1899
8:15 AM	0	218	9	15	4	6	280	2	4	1	2	1	0	0	1	22	1	1	0	7	574	2129
8:30 AM	2	196	14	6	6	7	268	1	3	0	1	2	0	0	2	33	1	1	0	12	555	2226
8:45 AM	0	222	11	8	5	6	249	2	0	1	1	0	0	0	0	43	2	3	0	9	562	2248
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	0	872	52	60	16	24	1120	12	16	4	8	4	4	0	4	88	4	32	0	28	2348	
Heavy Trucks	0	40	0			0	24	4			0	4	0			0	0	0			72	
Buses																						
Pedestrians	0					0					4					0					4	
Bicycles	0	0	0			0	4	0			0	0	0			0	0	0			4	
Scoters																						

Comments:

LOCATION: US-1 -- Jeffery St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550514
DATE: Thu, Nov 18 2021



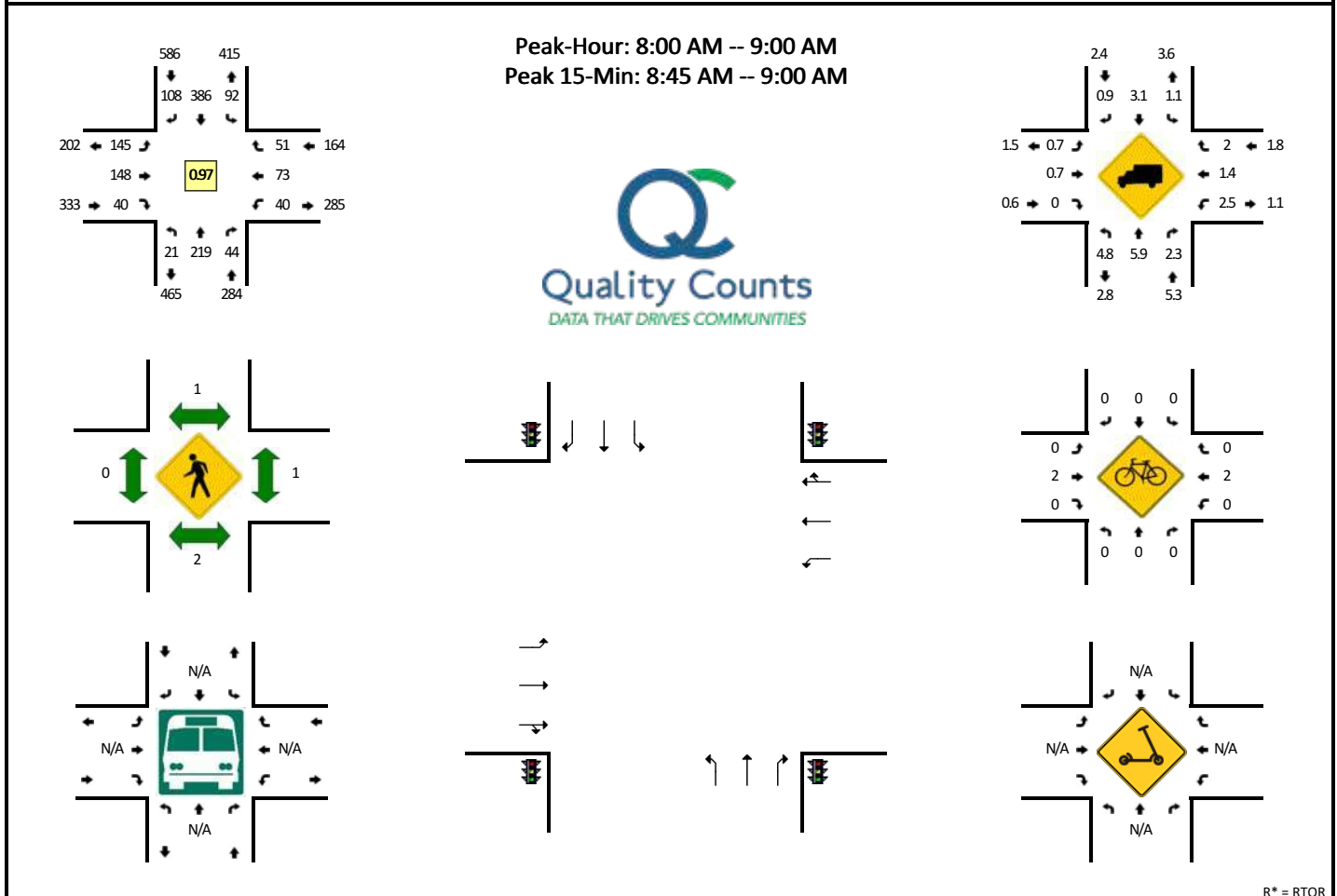
R* = RTOR

15-Min Count Period Beginning At	US-1 (Northbound)					US-1 (Southbound)					Jeffery St (Eastbound)					Jeffery St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	2	276	16	7	3	14	242	5	6	1	4	1	0	0	1	32	5	3	0	6	624	
4:15 PM	5	311	26	10	3	11	251	1	1	2	3	2	0	0	6	21	3	2	0	6	664	
4:30 PM	5	303	25	6	2	11	257	2	3	0	0	2	0	0	0	26	3	2	0	10	657	
4:45 PM	6	329	23	9	1	10	235	1	3	1	2	1	0	0	3	38	6	5	0	6	679	2624
5:00 PM	1	380	25	11	0	11	303	4	1	0	6	3	2	0	0	24	2	4	0	3	780	2780
5:15 PM	7	364	33	5	1	10	248	6	4	1	4	1	1	0	1	25	4	4	0	6	725	2841
5:30 PM	4	340	22	0	1	7	229	3	2	0	5	1	2	0	2	25	4	4	0	5	656	2840
5:45 PM	3	326	23	8	4	17	230	5	2	0	2	4	1	0	0	23	4	1	0	3	656	2817
6:00 PM	4	295	14	12	0	5	213	1	5	0	5	1	1	0	2	35	1	4	0	7	605	2642
6:15 PM	2	286	21	5	0	11	209	1	1	0	2	1	1	0	0	14	1	2	0	7	564	2481
6:30 PM	3	222	18	10	0	8	210	4	0	0	2	1	2	0	1	14	2	0	0	7	504	2329
6:45 PM	6	211	15	13	3	7	155	1	4	1	0	1	2	0	1	22	0	1	0	5	448	2121
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	4	1520	100	44	0	44	1212	16	4	0	24	12	8	0	0	96	8	28	0	12	3132	
Heavy Trucks	0	12	4			0	28	0			0	0	0			0	0	0			44	
Buses																						
Pedestrians	0					0					0					0					0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

LOCATION: N Dixie Hwy -- W Hidden Valley Blvd/NW 76th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550503
DATE: Thu, Nov 18 2021



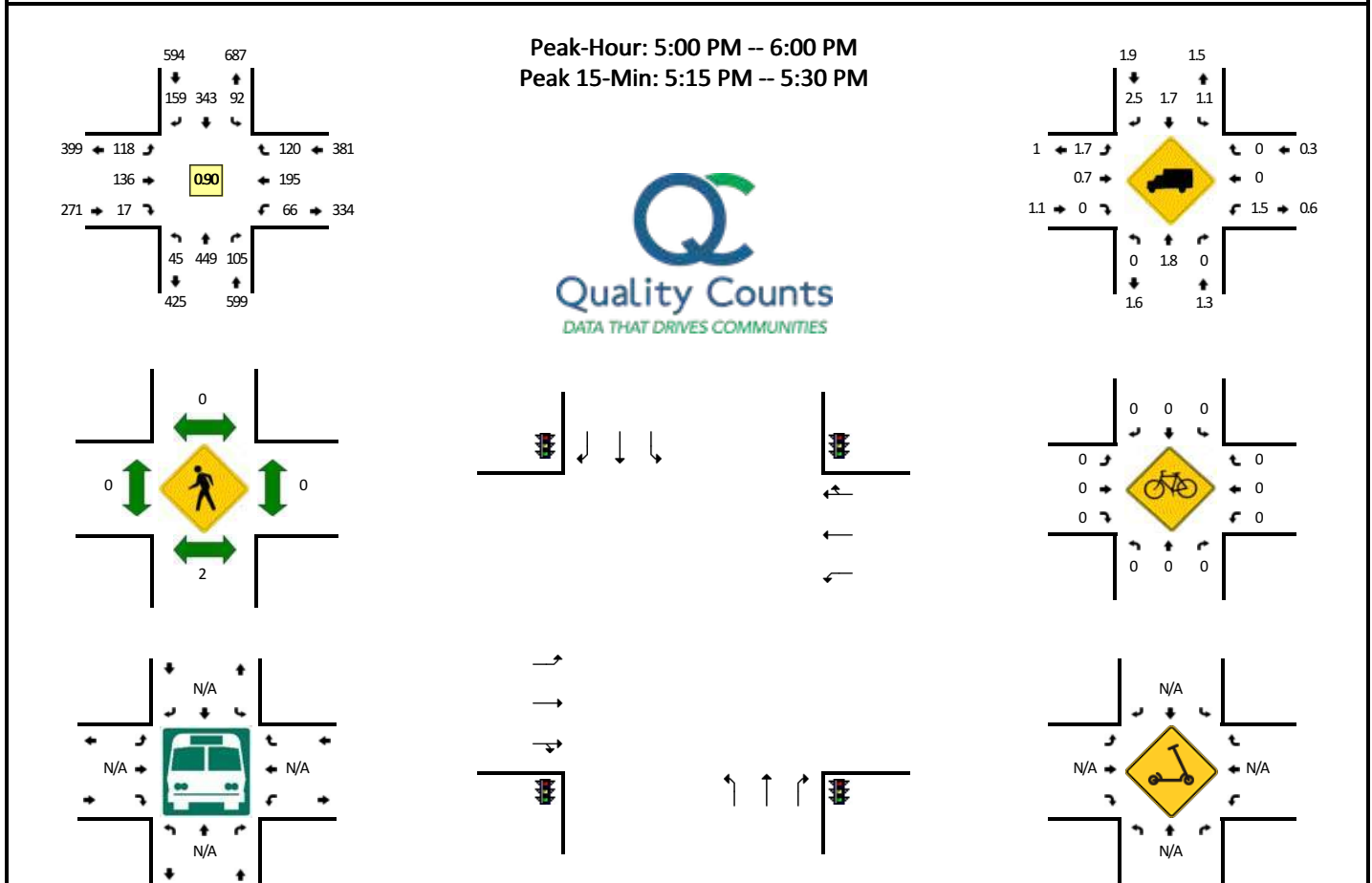
R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					W Hidden Valley Blvd/NW 76th St (Eastbound)					W Hidden Valley Blvd/NW 76th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	0	15	0	0	0	5	29	3	0	0	7	4	1	0	0	0	4	0	0	0	68	
6:15 AM	2	11	2	0	1	2	36	8	0	1	8	1	0	0	1	1	7	0	0	3	84	
6:30 AM	1	20	3	0	1	3	37	4	0	8	17	4	3	0	1	4	6	1	0	2	115	
6:45 AM	4	17	1	0	0	12	51	7	0	4	18	10	3	0	0	3	6	1	0	3	140	407
7:00 AM	0	33	2	0	3	15	53	6	0	4	20	18	3	0	1	4	9	2	0	4	177	516
7:15 AM	3	29	1	0	1	7	70	6	0	5	39	17	4	0	0	2	9	0	0	2	195	627
7:30 AM	1	55	3	0	4	12	76	12	0	8	34	24	5	0	2	8	10	3	0	5	262	774
7:45 AM	4	66	8	0	9	15	109	13	0	7	31	19	13	0	2	11	27	4	0	7	345	979
8:00 AM	11	46	5	0	9	20	95	15	0	21	38	27	8	0	1	9	12	1	0	6	324	1126
8:15 AM	3	59	3	0	6	21	83	13	0	20	40	41	11	0	0	10	23	4	0	7	344	1275
8:30 AM	4	56	7	0	5	22	113	13	0	11	34	31	11	0	2	12	14	4	0	7	346	1359
8:45 AM	3	58	4	0	5	29	95	6	0	9	33	49	6	0	1	8	24	16	1	6	353	1367
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	12	232	36	0	20	116	380	60	0	36	132	196	28	0	4	32	96	88	4	24	1496	
Heavy Trucks	0	8	4			4	8	0			0	0	0			0	0	0			24	
Buses																						
Pedestrians	0	0	0			0	0	0			0	0	0			0	0	0			0	
Bicycles	0	0	0			0	0	0			0	8	0			0	0	0			8	
Scooters																						

Comments:

LOCATION: N Dixie Hwy -- W Hidden Valley Blvd/NW 76th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550504
DATE: Thu, Nov 18 2021



R* = RTOR

15-Min Count Period Beginning At	N Dixie Hwy (Northbound)					N Dixie Hwy (Southbound)					W Hidden Valley Blvd/NW 76th St (Eastbound)					W Hidden Valley Blvd/NW 76th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	12	61	13	0	7	22	66	13	0	20	30	29	7	0	0	18	32	13	0	4	347	
4:15 PM	5	109	6	0	6	8	77	14	0	14	28	36	3	0	2	13	38	11	1	8	379	
4:30 PM	9	101	7	0	7	22	100	13	0	21	35	37	2	0	1	18	45	16	0	4	438	
4:45 PM	5	75	6	0	7	12	95	17	0	19	32	34	7	0	1	8	43	12	0	7	380	1544
5:00 PM	13	121	6	0	14	25	103	25	0	25	38	34	4	0	0	23	38	21	0	14	504	1701
5:15 PM	15	119	7	0	32	24	85	22	0	20	35	47	4	0	0	16	54	24	1	6	511	1833
5:30 PM	11	116	8	0	15	26	85	26	0	15	17	32	5	0	0	14	52	14	0	10	446	1841
5:45 PM	6	93	13	0	10	17	70	19	0	7	28	23	3	0	1	12	51	22	0	9	384	1845
6:00 PM	13	89	11	0	6	14	72	23	0	11	27	32	2	1	0	7	37	5	0	13	363	1704
6:15 PM	4	89	5	0	5	16	69	23	0	12	28	39	3	0	0	5	33	14	0	10	355	1548
6:30 PM	5	74	9	0	7	10	40	11	0	17	27	24	1	0	1	9	40	7	0	11	293	1395
6:45 PM	7	54	2	0	5	10	50	14	0	11	31	18	3	0	0	4	28	7	0	4	248	1259
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	60	476	156	0	128	96	340	168	0	80	140	188	16	0	0	64	216	120	4	24	2276	
Heavy Trucks	0	8	0			0	8	4			0	0	0			0	0	0			20	
Buses																						
Pedestrians	0	0	0			0	0	0			0	0	0			0	0	0			0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

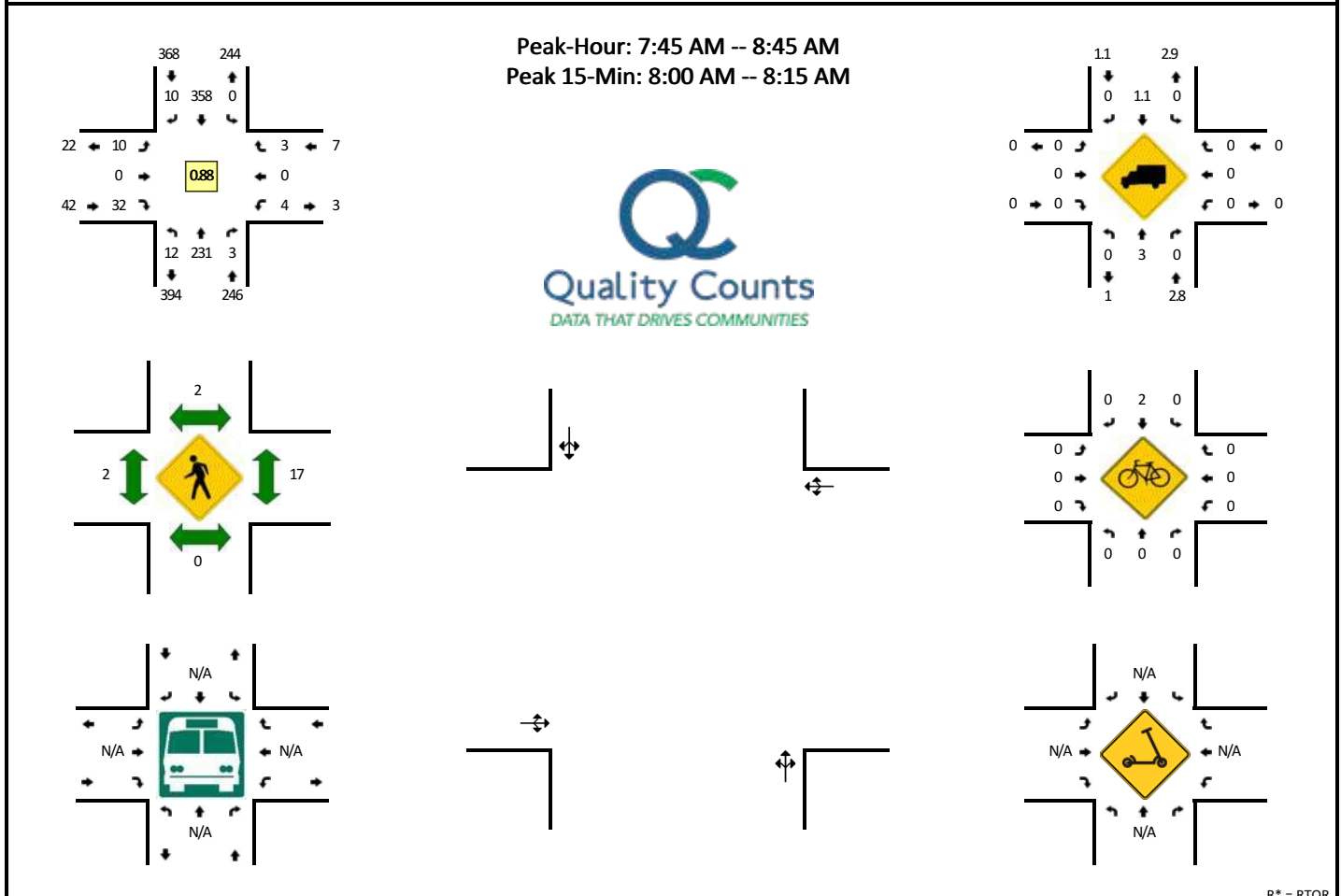
Comments:

Report generated on 12/6/2021 2:44 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: NW 2nd Ave -- NW 67th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550505
DATE: Thu, Nov 18 2021



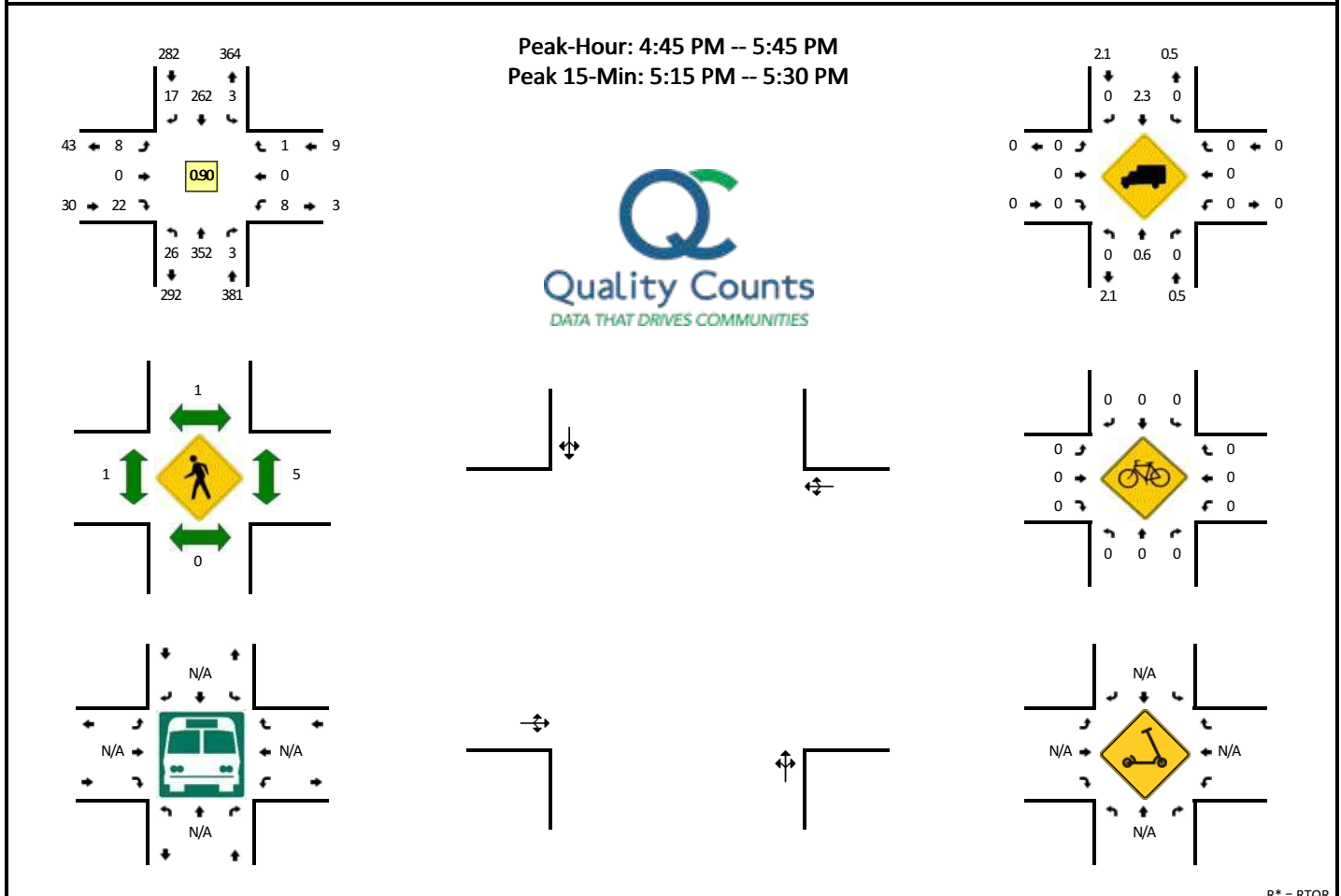
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave (Northbound)					NW 2nd Ave (Southbound)					NW 67th St (Eastbound)					NW 67th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
6:00 AM	1	8	0	0	0	0	20	1	0	0	0	0	2	0	0	2	0	0	0	0	34	
6:15 AM	1	8	1	0	0	0	26	0	0	0	0	0	6	0	0	0	0	1	0	0	43	
6:30 AM	1	5	0	0	0	0	36	0	0	0	0	0	7	0	0	0	0	0	0	0	49	
6:45 AM	0	12	0	1	0	1	52	1	0	0	1	1	6	0	0	1	0	0	0	0	76	202
7:00 AM	0	16	2	0	0	0	92	1	0	0	5	0	5	0	0	3	0	0	0	0	124	292
7:15 AM	2	30	4	0	0	0	105	2	0	0	2	0	8	0	0	3	0	1	0	0	157	406
7:30 AM	4	27	0	0	0	0	90	1	0	0	2	0	11	0	0	2	0	0	0	0	137	494
7:45 AM	5	60	1	0	0	0	94	4	0	0	6	0	9	0	0	0	0	0	0	0	179	597
8:00 AM	5	68	1	0	0	0	99	4	0	0	1	0	9	0	0	1	0	1	0	0	189	662
8:15 AM	1	53	1	0	0	0	79	1	0	0	2	0	4	0	0	0	0	1	0	0	142	647
8:30 AM	1	50	0	0	0	0	86	1	0	0	1	0	10	0	0	3	0	1	0	0	153	663
8:45 AM	3	54	0	0	0	0	91	0	0	0	6	0	6	1	0	1	0	0	0	0	162	646
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	20	272	4	0	0	0	396	16	0	0	4	0	36	0	0	4	0	4	0	0	756	
Heavy Trucks	0	12	0			0	8	0			0	0	0			0	0	0			20	
Buses																						
Pedestrians		0					4					0					20				24	
Bicycles	0	0	0			0	4	0			0	0	0			0	0	0			4	
Scooters																						

Comments:

LOCATION: NW 2nd Ave -- NW 67th St
CITY/STATE: Boca Raton, FL

QC JOB #: 15550506
DATE: Thu, Nov 18 2021



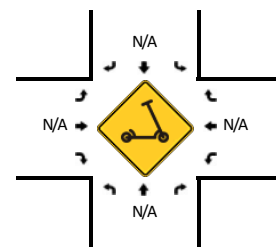
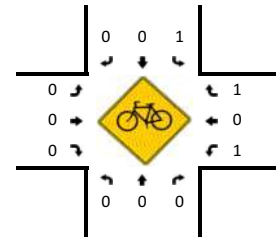
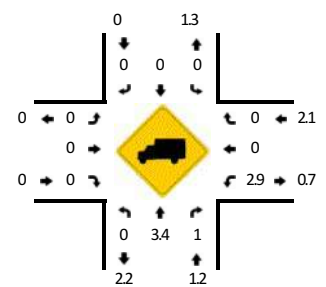
R* = RTOR

15-Min Count Period Beginning At	NW 2nd Ave (Northbound)					NW 2nd Ave (Southbound)					NW 67th St (Eastbound)					NW 67th St (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	3	60	0	0	0	2	56	6	0	0	1	0	3	0	0	2	0	0	0	0	133	
4:15 PM	6	56	0	0	0	0	62	2	0	0	3	0	7	0	0	1	0	0	0	0	137	
4:30 PM	7	84	2	0	0	0	55	4	1	0	4	0	2	0	0	1	0	1	0	0	161	
4:45 PM	6	78	2	0	0	0	60	5	1	0	1	0	8	0	0	3	0	1	0	0	165	596
5:00 PM	5	87	0	0	0	0	76	3	1	0	2	0	4	0	0	0	0	0	0	0	178	641
5:15 PM	6	103	1	0	0	0	72	2	1	0	3	0	3	0	0	3	0	0	0	0	194	698
5:30 PM	9	84	0	0	0	0	54	7	0	0	2	0	7	0	0	2	0	0	0	0	165	702
5:45 PM	6	76	0	0	0	0	55	0	0	0	2	0	6	0	0	2	0	1	0	0	148	685
6:00 PM	8	70	1	0	0	1	46	4	1	0	2	0	5	0	0	1	0	0	0	0	139	646
6:15 PM	6	65	4	0	0	1	38	7	0	0	2	0	4	0	0	2	0	0	0	0	129	581
6:30 PM	11	60	2	0	0	0	37	3	0	0	2	0	2	0	0	0	0	0	0	0	117	533
6:45 PM	3	56	1	1	0	0	37	0	0	0	1	0	7	0	0	1	0	0	0	0	107	492
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	24	412	4	0	0	0	288	8	4	0	12	0	12	0	0	12	0	0	0	0	776	
Heavy Trucks	0	4	0			0	4	0			0	0	0			0	0	0			8	
Buses																						
Pedestrians		0					0					4					8				12	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

QC JOB #: 15550501

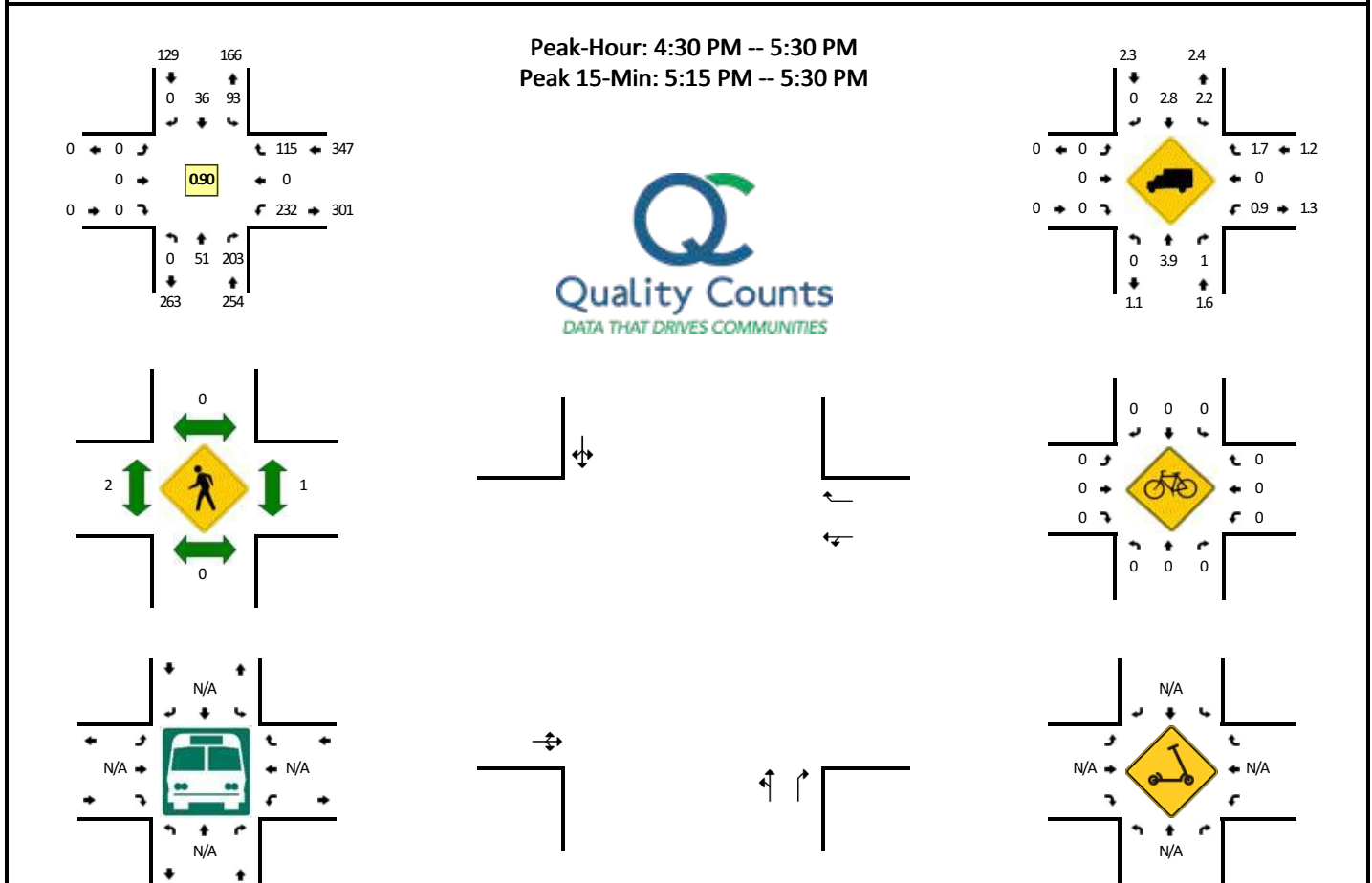
DATE: Thu, Nov 18 2021

[illegible]

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: E Country Club Blvd -- W Hidden Valley Blvd
CITY/STATE: Boca Raton, FL

QC JOB #: 15550502
DATE: Thu, Nov 18 2021



R* = RTOR

15-Min Count Period Beginning At	E Country Club Blvd (Northbound)					E Country Club Blvd (Southbound)					W Hidden Valley Blvd (Eastbound)					W Hidden Valley Blvd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	4	42	0	0	16	5	0	0	0	0	0	0	0	0	39	0	28	0	0	134	
4:15 PM	0	5	52	1	0	19	10	0	0	0	0	0	0	0	0	47	0	14	0	0	148	
4:30 PM	0	10	51	0	0	21	7	0	0	0	0	0	0	0	0	63	0	22	2	0	176	
4:45 PM	0	15	43	0	0	22	8	0	0	0	0	0	0	0	0	45	0	28	0	0	161	619
5:00 PM	0	14	47	0	0	25	12	0	0	0	0	0	0	0	0	58	0	33	1	0	190	675
5:15 PM	0	12	62	0	0	25	9	0	0	0	0	0	0	0	0	61	0	32	2	0	203	730
5:30 PM	0	9	45	0	0	15	4	0	0	0	0	0	0	0	0	63	0	32	0	0	168	722
5:45 PM	0	9	37	0	0	13	7	0	0	0	0	0	0	0	0	48	0	20	0	0	134	695
6:00 PM	0	12	46	0	0	20	9	0	0	0	0	0	0	0	0	48	0	32	0	0	167	672
6:15 PM	0	7	47	0	0	13	14	0	0	0	0	0	0	0	0	40	0	33	0	0	154	623
6:30 PM	0	5	30	0	0	17	5	0	0	0	0	0	0	0	0	50	0	22	2	0	131	586
6:45 PM	0	5	36	0	0	14	4	0	0	0	0	0	0	0	0	40	0	15	1	0	115	567
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
All Vehicles	0	48	248	0	0	100	36	0	0	0	0	0	0	0	0	244	0	128	8	0	812	
Heavy Trucks	0	0	0			0	4	0			0	0	0			0	0	4			8	
Buses																						
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

CLINT MOORE ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180077
Start Date: 04/25/18
File I.D. : CLINCONG
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ALL VEHICLES

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ALL VEHICLES

CONGRESS AVENUE From North					CLINT MOORE ROAD From East				CONGRESS AVENUE From South				CLINT MOORE ROAD From West				Total
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right		
Date 04/25/18																	
07:00	1	33	124	127	2	12	61	27	5	34	46	4	1	63	42	48	630
07:15	2	39	132	152	3	15	78	27	0	34	42	3	3	83	63	51	727
07:30	6	66	231	175	1	17	142	33	5	57	54	7	0	74	84	48	1000
07:45	8	97	293	222	1	33	136	38	4	44	64	7	1	90	74	63	1175
Hr Total	17	235	780	676	7	77	417	125	14	169	206	21	5	310	263	210	3532
08:00	3	91	278	197	3	35	113	36	6	50	52	4	1	79	121	64	1133
08:15	1	101	340	221	1	45	123	39	6	74	80	5	1	82	90	97	1306
08:30	3	81	285	265	0	37	132	49	7	59	50	6	3	120	98	82	1277
08:45	3	77	294	237	1	31	134	44	9	79	74	2	0	86	68	80	1219
Hr Total	10	350	1197	920	5	148	502	168	28	262	256	17	5	367	377	323	4935
* BREAK *																	
16:00	5	41	89	168	1	7	115	66	11	47	142	0	5	167	95	75	1034
16:15	8	43	112	144	4	13	77	81	9	76	179	7	2	179	101	75	1110
16:30	7	33	72	132	1	18	102	91	7	72	225	8	3	229	118	85	1203
16:45	5	56	139	178	0	14	133	118	2	67	178	17	6	213	93	73	1292
Hr Total	25	173	412	622	6	52	427	356	29	262	724	32	16	788	407	308	4639
17:00	11	48	143	195	3	11	95	115	9	69	380	16	0	246	181	100	1622
17:15	5	50	130	162	2	15	123	101	5	63	285	5	0	243	158	62	1409
17:30	11	60	139	158	0	13	122	116	4	58	307	3	2	196	120	68	1377
17:45	2	49	130	176	1	13	111	83	6	76	219	0	0	183	71	38	1158
Hr Total	29	207	542	691	6	52	451	415	24	266	1191	24	2	868	530	268	5566
TOTAL																	
81	965	2931	2909	24	329	1797	1064	95	959	2377	94	28	2333	1577	1109	18672	

CLINT MOORE ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561) 272-3255

Site Code : 00180077
Start Date: 04/25/18
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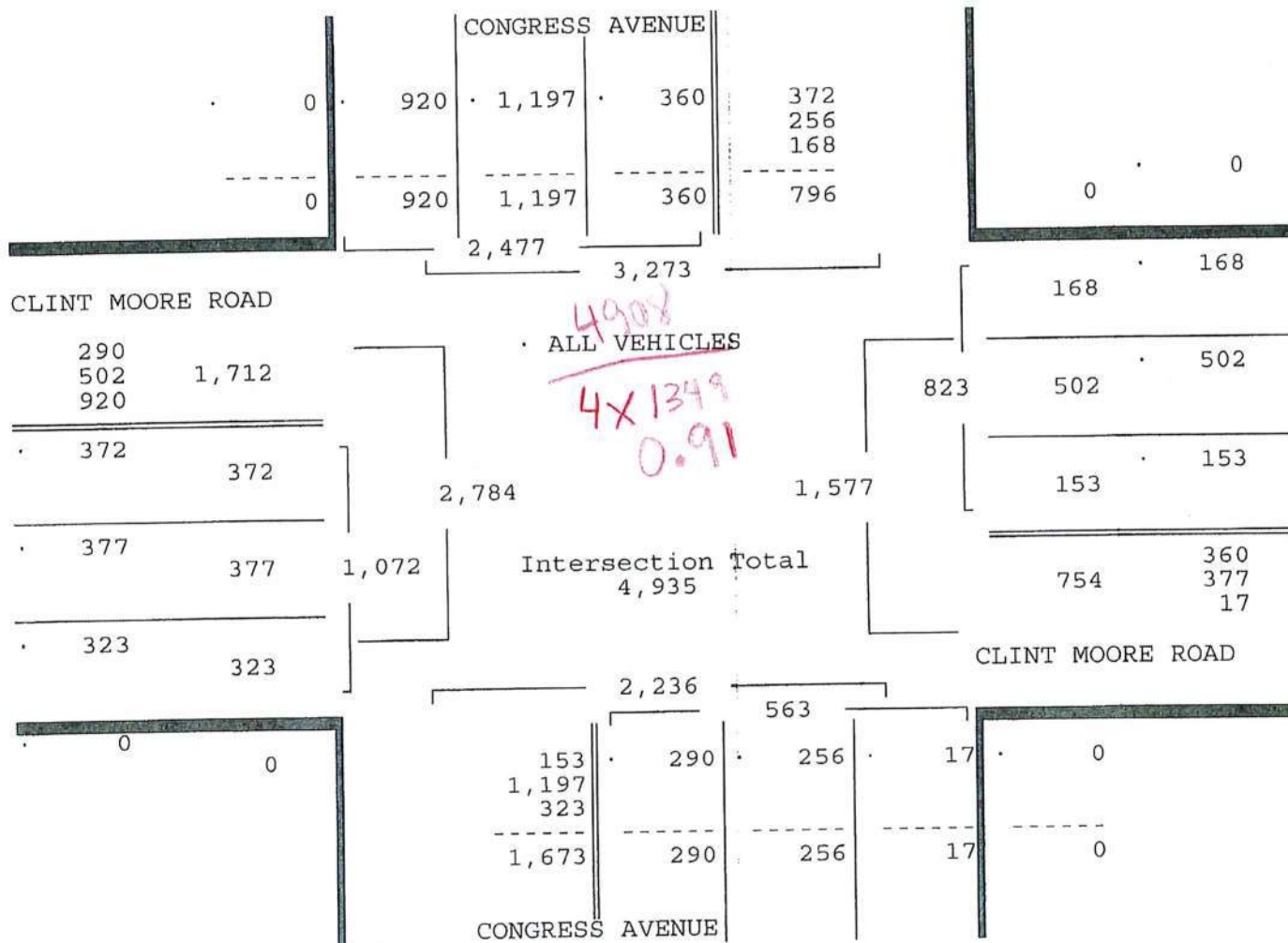
ALL VEHICLES

CONGRESS AVENUE From North				CLINT MOORE ROAD From East				CONGRESS AVENUE From South				CLINT MOORE ROAD From West				Total
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	

Date 04/25/18

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/25/18

Peak start 08:00				08:00				08:00				08:00				
Volume	10	350	1197	920	5	148	502	168	28	262	256	17	5	367	377	323
Percent	0%	14%	48%	37%	1%	18%	61%	20%	5%	47%	45%	3%	0%	34%	35%	30%
Pk total	2477				823				563				1072			
Highest	08:15				08:30				08:15				08:30			
Volume	1	101	340	221	0	37	132	49	6	74	80	5	3	120	98	82
Hi total	663				218				165				303			
PHF	.93				.94				.85				.88			



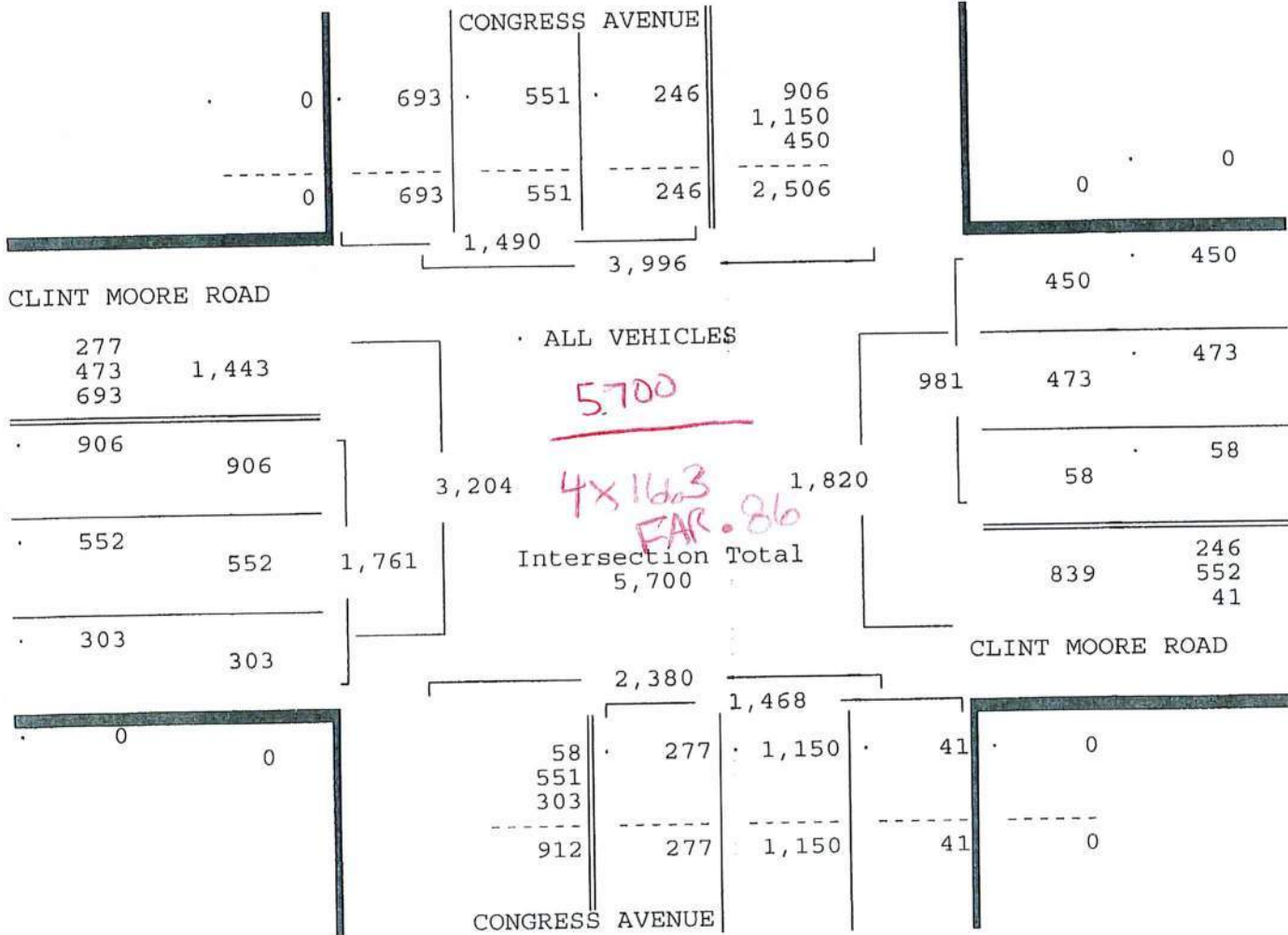
CLINT MOORE ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180077
Start Date: 04/25/18
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ALL VEHICLES

CONGRESS AVENUE From North				CLINT MOORE ROAD From East				CONGRESS AVENUE From South				CLINT MOORE ROAD From West				Total
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	
Date 04/25/18																
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/25/18																
Peak start 16:45				16:45				16:45				16:45				
Volume	32	214	551	693	5	53	473	450	20	257	1150	41	8	898	552	303
Percent	2%	14%	37%	47%	1%	5%	48%	46%	1%	18%	78%	3%	0%	51%	31%	17%
Pk total	1490				981				1468				1761			
Highest	17:00				16:45				17:00				17:00			
Volume	11	48	143	195	0	14	133	118	9	69	380	16	0	246	181	100
Hi total	397				265				474				527			
PHF	.94				.93				.77				.84			



CLINT MOORE ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180077
Start Date: 04/25/18
File I.D. : CLINCONG
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PEDESTRIANS & BIKES

	CONGRESS AVENUE From North				CLINT MOORE ROAD From East				CONGRESS AVENUE From South				CLINT MOORE ROAD From West				
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/25/18																	
07:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
07:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Hr Total	0	3	0	1	0	1	0	0	0	2	0	0	0	0	0	0	7
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
08:30	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hr Total	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	3
* BREAK *																	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	3
17:30	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	1	0	0	0	2	0	2	0	1	0	0	0	0	0	0	6
TOTAL	0	4	0	3	0	4	0	2	0	5	0	0	0	1	0	0	19

YAMATO ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: A. JOHNSON & R. MENDEZ
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180070
Start Date: 05/01/18
File I.D. : YAMACONG
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ALL VEHICLES

CONGRESS AVENUE From North					YAMATO ROAD From East					TECHNOLOGY WAY From South					YAMATO ROAD From West					
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total				
Date 05/01/18																				
07:00	6	63	29	40	24	37	159	104	2	28	27	21	2	43	192	49	826			
07:15	1	69	38	62	27	77	169	134	0	33	37	12	5	73	211	49	997			
07:30	1	60	47	50	15	58	206	154	1	31	39	18	5	84	234	29	1032			
07:45	0	45	52	65	13	69	195	149	1	34	54	24	4	106	264	49	1124			
Hr Total	8	237	166	217	79	241	729	541	4	126	157	75	16	306	901	176	3979			
08:00	0	50	67	82	16	98	182	151	2	21	72	33	8	120	219	35	1156			
08:15	0	50	55	69	15	63	250	166	0	29	73	19	2	140	248	45	1224			
08:30	0	59	70	64	12	67	175	118	2	25	56	28	6	110	283	43	1118			
08:45	1	69	68	73	19	65	255	181	0	27	71	25	4	114	238	51	1261			
Hr Total	1	228	260	288	62	293	862	616	4	102	272	105	20	484	988	174	4759			
* BREAK *																				
16:00	2	116	41	82	31	25	147	69	0	40	50	70	4	46	230	27	980			
16:15	1	112	40	70	34	30	168	91	1	33	40	63	13	74	238	21	1029			
16:30	2	159	47	120	25	32	195	69	1	33	45	83	4	68	249	32	1164			
16:45	2	131	48	110	35	35	212	66	2	46	53	56	6	61	276	39	1178			
Hr Total	7	518	176	382	125	122	722	295	4	152	188	272	27	249	993	119	4351			
17:00	0	184	58	163	67	15	207	38	1	32	69	90	7	73	346	30	1380			
17:15	2	154	70	127	32	31	197	43	3	27	81	85	11	79	277	41	1260			
17:30	0	153	39	146	37	36	201	55	1	36	73	51	3	67	285	31	1214			
17:45	0	148	52	132	44	28	166	63	1	50	70	60	9	60	215	16	1114			
Hr Total	2	639	219	568	180	110	771	199	6	145	293	286	30	279	1123	118	4968			
TOTAL	18	1622	821	1455	446	766	3084	1651	18	525	910	738	93	1318	4005	587	18057			

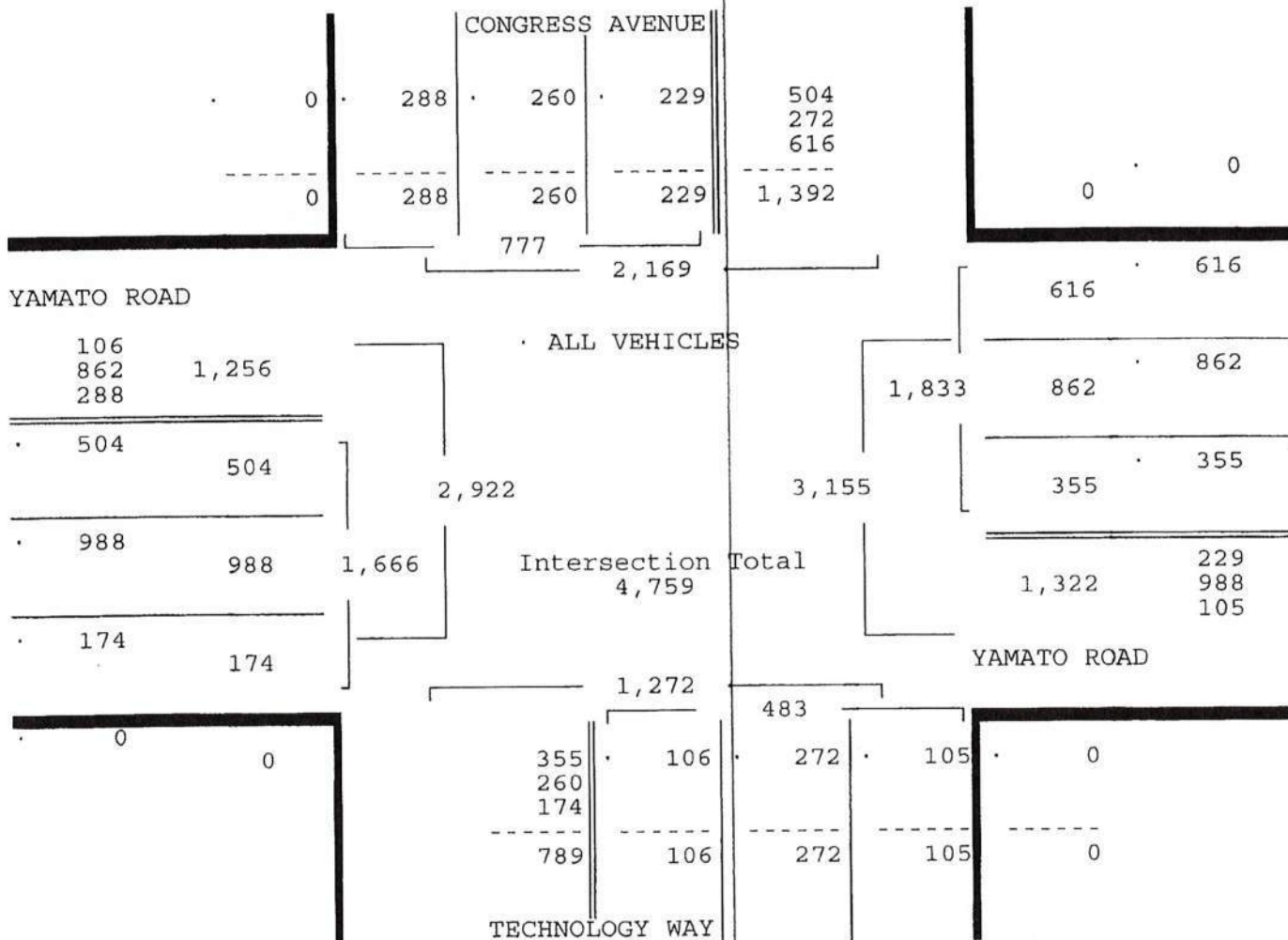
YAMATO ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: A. JOHNSON & R. MENDEZ
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561) 272-3255

Site Code : 00180070
Start Date: 05/01/18
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ALL VEHICLES

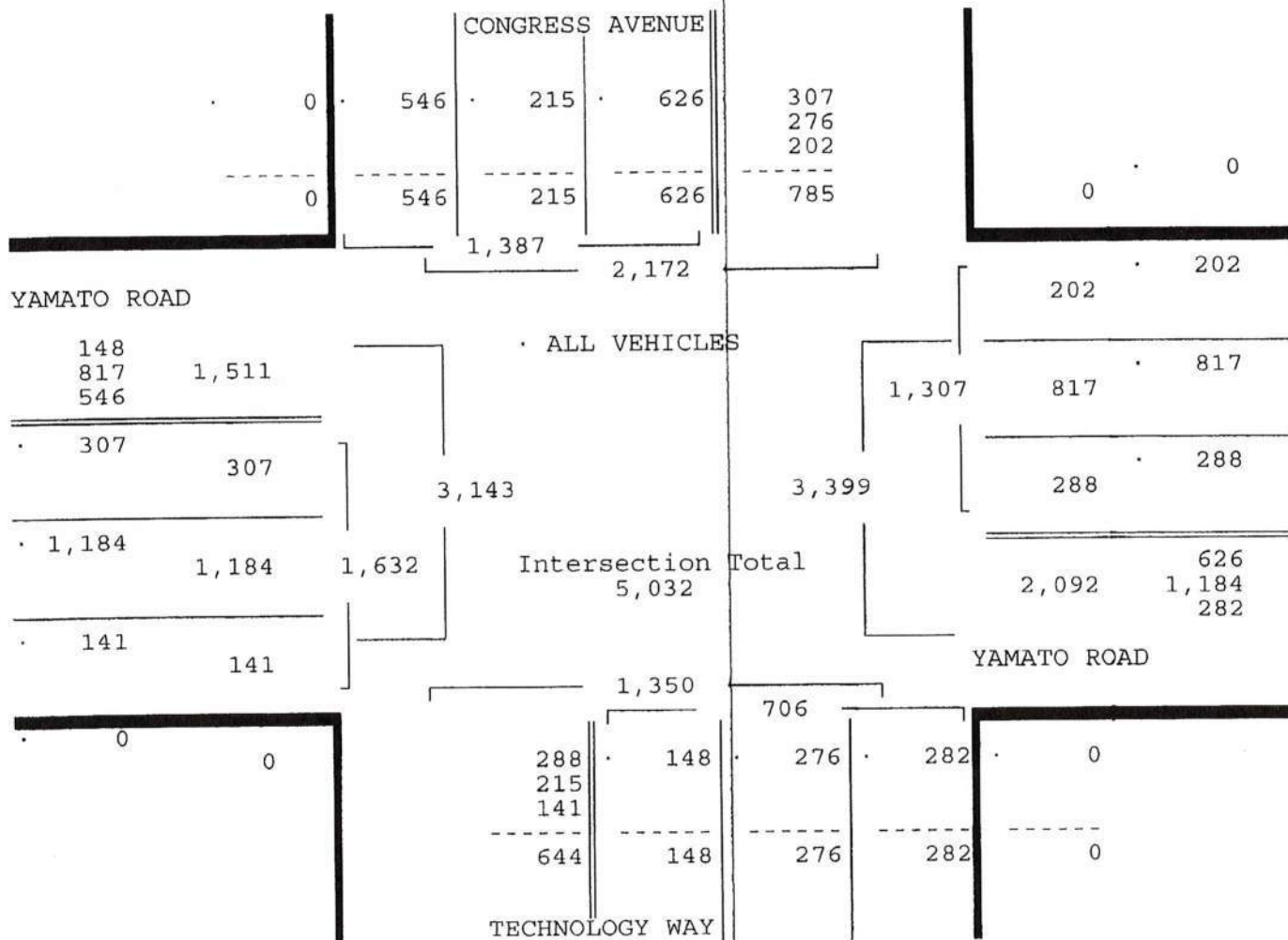
CONGRESS AVENUE From North				YAMATO ROAD From East				TECHNOLOGY WAY From South				YAMATO ROAD From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/01/18																
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 05/01/18																
Peak start 08:00				08:00				08:00				08:00				
Volume	1	228	260	288	62	293	862	616	4	102	272	105	20	484	988	174
Percent	0%	29%	33%	37%	3%	16%	47%	34%	1%	21%	56%	22%	1%	29%	59%	10%
Pk total	777				1833				483				1666			
Highest	08:45				08:45				08:00				08:30			
Volume	1	69	68	73	19	65	255	181	2	21	72	33	6	110	283	43
Hi total	211				520				128				442			
PHF	.92				.88				.94				.94			



Site Code : 00180070
Start Date: 05/01/18
File I.D. : YAMACONG
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ALL VEHICLES

CONGRESS AVENUE From North					YAMATO ROAD From East				TECHNOLOGY WAY From South				YAMATO ROAD From West						
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right	Total
Date 05/01/18																			
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 05/01/18																			
Peak start 16:45					16:45				16:45				16:45						
Volume	4	622	215	546	171	117	817	202	7	141	276	282	27	280	1184	141			
Percent	0%	45%	16%	39%	13%	9%	63%	15%	1%	20%	39%	40%	2%	17%	73%	9%			
Pk total	1387				1307				706				1632						
Highest	17:00				16:45				17:15				17:00						
Volume	0	184	58	163	35	35	212	66	3	27	81	85	7	73	346	30			
Hi total	405				348				196				456						
PHF	.86				.94				.90				.89						



YAMATO ROAD & CONGRESS AVENUE
BOCA RATON, FLORIDA
COUNTED BY: A. JOHNSON & R. MENDEZ
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180070
Start Date: 05/01/18
File I.D. : YAMACONG
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PEDESTRIANS & BIKES

CONGRESS AVENUE From North				YAMATO ROAD From East				TECHNOLOGY WAY From South				YAMATO ROAD From West				Total
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	
Date 05/01/18																
07:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4
07:15	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3
07:30	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	4
07:45	0	1	0	0	0	0	0	0	0	1	0	3	0	0	0	12
Hr Total	0	1	0	0	0	0	0	0	0	3	0	7	0	2	0	23
08:00	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	5
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3
08:30	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5
08:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Hr Total	0	0	0	0	0	0	0	0	0	4	0	2	0	2	0	14
* BREAK *																
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	1	0	5	0	2	0	10
Hr Total	0	0	0	0	0	0	0	0	0	2	0	5	0	2	0	14
17:00	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	7
17:15	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	4
17:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7
17:45	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	9
Hr Total	0	0	0	0	0	0	0	0	0	1	0	9	0	3	0	27
TOTAL	0	1	0	0	0	0	0	0	0	10	0	23	0	9	0	78

Manual Traffic Count - All Traffic
NW 2nd Avenue and Jeffery Street
Boca Raton, FL

File Name : NW2nd
Site Code : LDS1612
Start Date : 8/31/2016
Page No : 1

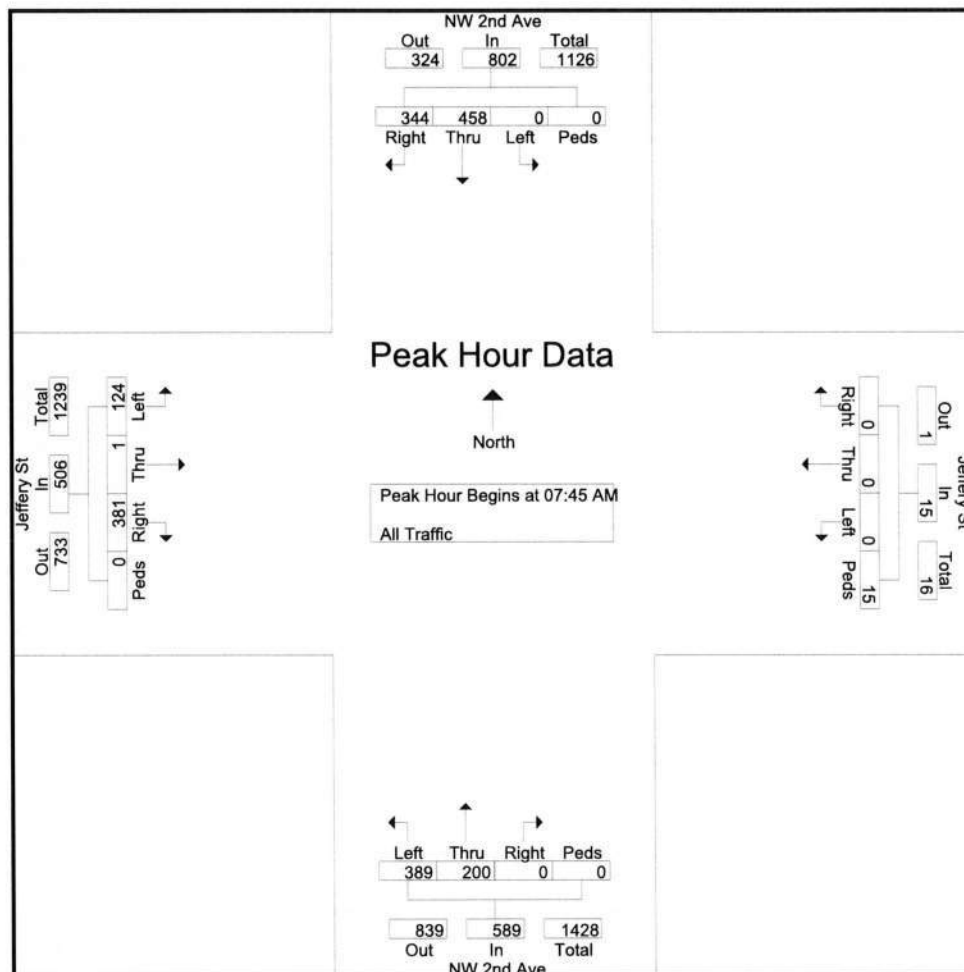
Groups Printed- All Traffic

Start Time	NW 2nd Ave Northbound					NW 2nd Ave Southbound					Jeffery St Eastbound					Jeffery St Westbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	17	32	0	49	46	72	0	0	118	26	0	9	0	35	0	0	0	3	3	205
07:15 AM	0	17	63	0	80	70	88	0	0	158	38	0	13	0	51	0	0	0	4	4	293
07:30 AM	0	32	101	0	133	73	118	0	0	191	60	0	17	0	77	0	0	0	6	6	407
07:45 AM	0	38	103	0	141	80	143	0	0	223	82	0	28	0	110	0	0	0	8	8	482
Total	0	104	299	0	403	269	421	0	0	690	206	0	67	0	273	0	0	0	21	21	1387
08:00 AM	0	66	103	0	169	87	114	0	0	201	99	1	39	0	139	0	0	0	3	3	512
08:15 AM	0	44	93	0	137	76	84	0	0	160	100	0	28	0	128	0	0	0	3	3	428
08:30 AM	0	52	90	0	142	101	117	0	0	218	100	0	29	0	129	0	0	0	1	1	490
08:45 AM	0	41	77	0	118	100	84	0	0	184	112	1	34	0	147	0	0	1	2	3	452
Total	0	203	363	0	566	364	399	0	0	763	411	2	130	0	543	0	0	1	9	10	1882
*** BREAK ***																					
04:00 PM	0	91	69	0	160	25	39	0	0	64	64	0	67	0	131	0	0	0	2	2	357
04:15 PM	0	90	70	0	160	25	47	0	0	72	75	0	58	0	133	0	0	0	0	0	365
04:30 PM	2	101	78	0	181	38	54	0	0	92	94	0	57	0	151	0	0	1	1	2	426
04:45 PM	0	117	86	0	203	32	57	0	0	89	112	0	69	0	181	0	0	0	1	1	474
Total	2	399	303	0	704	120	197	0	0	317	345	0	251	0	596	0	0	1	4	5	1622
05:00 PM	0	97	92	0	189	32	56	0	0	88	104	0	83	0	187	0	0	0	1	1	465
05:15 PM	0	107	100	0	207	36	52	0	0	88	152	0	105	0	257	0	0	0	1	1	553
05:30 PM	0	102	102	0	204	29	53	0	0	82	134	0	97	0	231	0	0	0	2	2	519
05:45 PM	0	100	68	1	169	41	70	0	0	111	99	0	60	0	159	0	0	0	0	0	439
Total	0	406	362	1	769	138	231	0	0	369	489	0	345	0	834	0	0	0	4	4	1976
Grand Total	2	1112	1327	1	2442	891	1248	0	0	2139	1451	2	793	0	2246	0	0	2	38	40	6867
Apprch %	0.1	45.5	54.3	0		41.7	58.3	0	0		64.6	0.1	35.3	0		0	0	5	95		
Total %	0	16.2	19.3	0	35.6	13	18.2	0	0	31.1	21.1	0	11.5	0	32.7	0	0	0	0.6	0.6	

Manual Traffic Count - All Traffic
 NW 2nd Avenue and Jeffery Street
 Boca Raton, FL

File Name : NW2nd
 Site Code : LDS1612
 Start Date : 8/31/2016
 Page No : 2

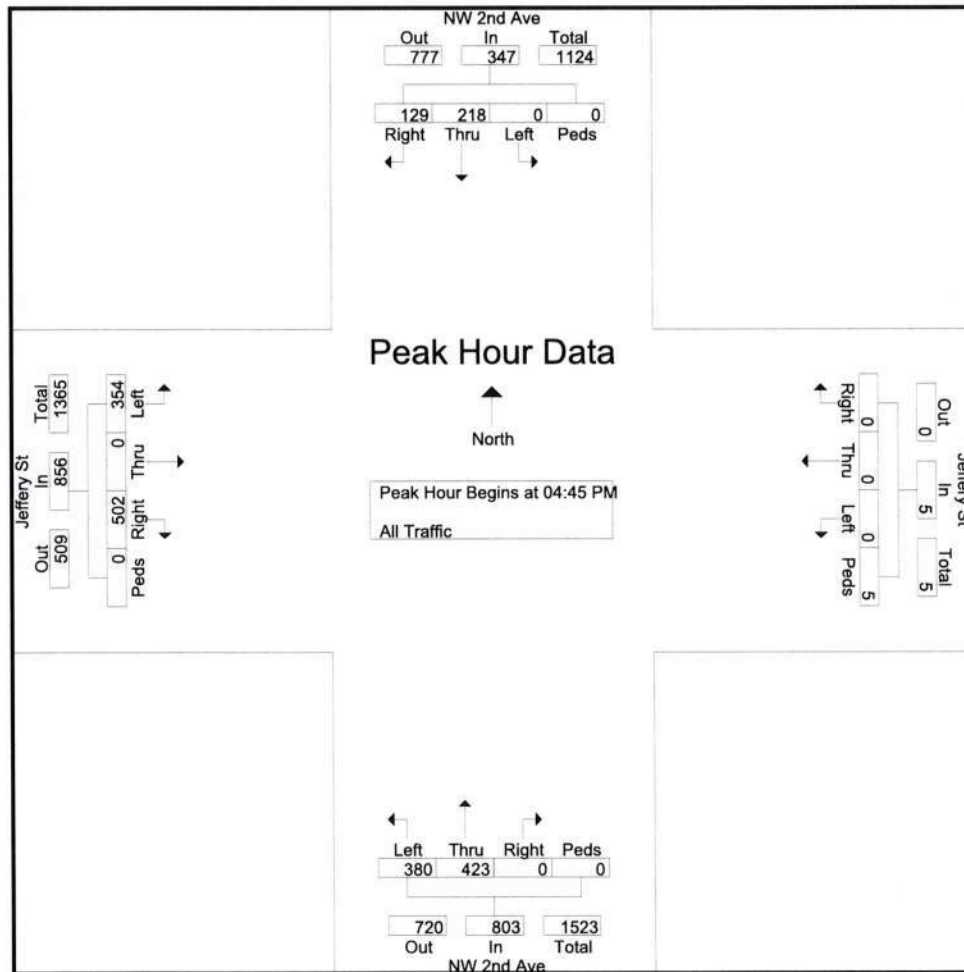
	NW 2nd Ave Northbound					NW 2nd Ave Southbound					Jeffery St Eastbound					Jeffery St Westbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	38	103	0	141	80	143	0	0	223	82	0	28	0	110	0	0	0	8	8	482
08:00 AM	0	66	103	0	169	87	114	0	0	201	99	1	39	0	139	0	0	0	3	3	512
08:15 AM	0	44	93	0	137	76	84	0	0	160	100	0	28	0	128	0	0	0	3	3	428
08:30 AM	0	52	90	0	142	101	117	0	0	218	100	0	29	0	129	0	0	0	1	1	490
Total Volume	0	200	389	0	589	344	458	0	0	802	381	1	124	0	506	0	0	0	15	15	1912
% App. Total	0	34	66	0		42.9	57.1	0	0		75.3	0.2	24.5	0		0	0	0	100		
PHF	.000	.758	.944	.000	.871	.851	.801	.000	.000	.899	.953	.250	.795	.000	.910	.000	.000	.000	.469	.469	.934



Manual Traffic Count - All Traffic
 NW 2nd Avenue and Jeffery Street
 Boca Raton, FL

File Name : NW2nd
 Site Code : LDS1612
 Start Date : 8/31/2016
 Page No : 3

	NW 2nd Ave Northbound					NW 2nd Ave Southbound					Jeffery St Eastbound					Jeffery St Westbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	117	86	0	203	32	57	0	0	89	112	0	69	0	181	0	0	0	1	1	474
05:00 PM	0	97	92	0	189	32	56	0	0	88	104	0	83	0	187	0	0	0	1	1	465
05:15 PM	0	107	100	0	207	36	52	0	0	88	152	0	105	0	257	0	0	0	1	1	553
05:30 PM	0	102	102	0	204	29	53	0	0	82	134	0	97	0	231	0	0	0	2	2	519
Total Volume	0	423	380	0	803	129	218	0	0	347	502	0	354	0	856	0	0	0	5	5	2011
% App. Total	0	52.7	47.3	0		37.2	62.8	0	0		58.6	0	41.4	0		0	0	0	100		
PHF	.000	.904	.931	.000	.970	.896	.956	.000	.000	.975	.826	.000	.843	.000	.833	.000	.000	.000	.625	.625	.909



YAMATO ROAD & NW 2ND AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190203
Start Date: 12/12/19
File I.D. : YAM_2AVE
Page : 1

ALL VEHICLES

NW 2ND AVENUE From North					YAMATO ROAD From East				NW 2ND AVENUE From South				YAMATO ROAD From West				
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/12/19																	
07:00	0	16	35	53	1	17	130	8	0	24	31	5	3	9	145	60	537
07:15	0	41	78	45	3	22	185	31	1	30	32	6	3	10	219	60	766
07:30	1	43	113	58	3	17	253	42	0	39	39	17	1	13	264	62	965
07:45	0	60	150	75	2	23	257	57	1	57	70	20	4	21	297	113	1207
Hr Total	1	160	376	231	9	79	825	138	2	150	172	48	11	53	925	295	3475
08:00	1	67	106	58	10	18	299	56	0	61	80	21	3	23	302	98	1203
08:15	0	86	108	44	4	21	304	47	1	54	76	20	4	22	305	85	1181
08:30	0	72	123	46	3	22	279	50	3	67	52	10	4	24	310	79	1144
08:45	0	62	94	37	3	20	233	56	0	63	57	15	3	19	304	69	1035
Hr Total	1	287	431	185	20	81	1115	209	4	245	265	66	14	88	1221	331	4563
* BREAK *																	
16:00	0	82	126	30	2	22	307	45	0	99	72	20	5	50	287	54	1201
16:15	0	61	73	35	4	21	268	47	1	112	88	16	0	39	264	66	1095
16:30	0	56	86	25	4	19	311	58	1	90	83	22	3	48	320	66	1192
16:45	0	67	77	25	6	25	295	77	1	105	91	18	3	60	309	70	1229
Hr Total	0	266	362	115	16	87	1181	227	3	406	334	76	11	197	1180	256	4717
17:00	0	71	123	26	3	32	325	64	1	147	106	26	4	47	280	55	1310
17:15	0	99	121	25	4	39	333	56	2	103	89	22	4	61	393	107	1448
17:30	1	75	100	24	6	25	327	82	1	126	94	28	2	55	382	72	1400
17:45	0	83	86	30	2	18	252	67	1	94	102	24	1	81	331	85	1257
Hr Total	1	318	430	105	15	114	1237	269	5	470	391	100	11	244	1386	319	5415
TOTAL	3	1031	1599	636	60	361	4358	843	14	1271	1162	290	47	582	4712	1201	18170

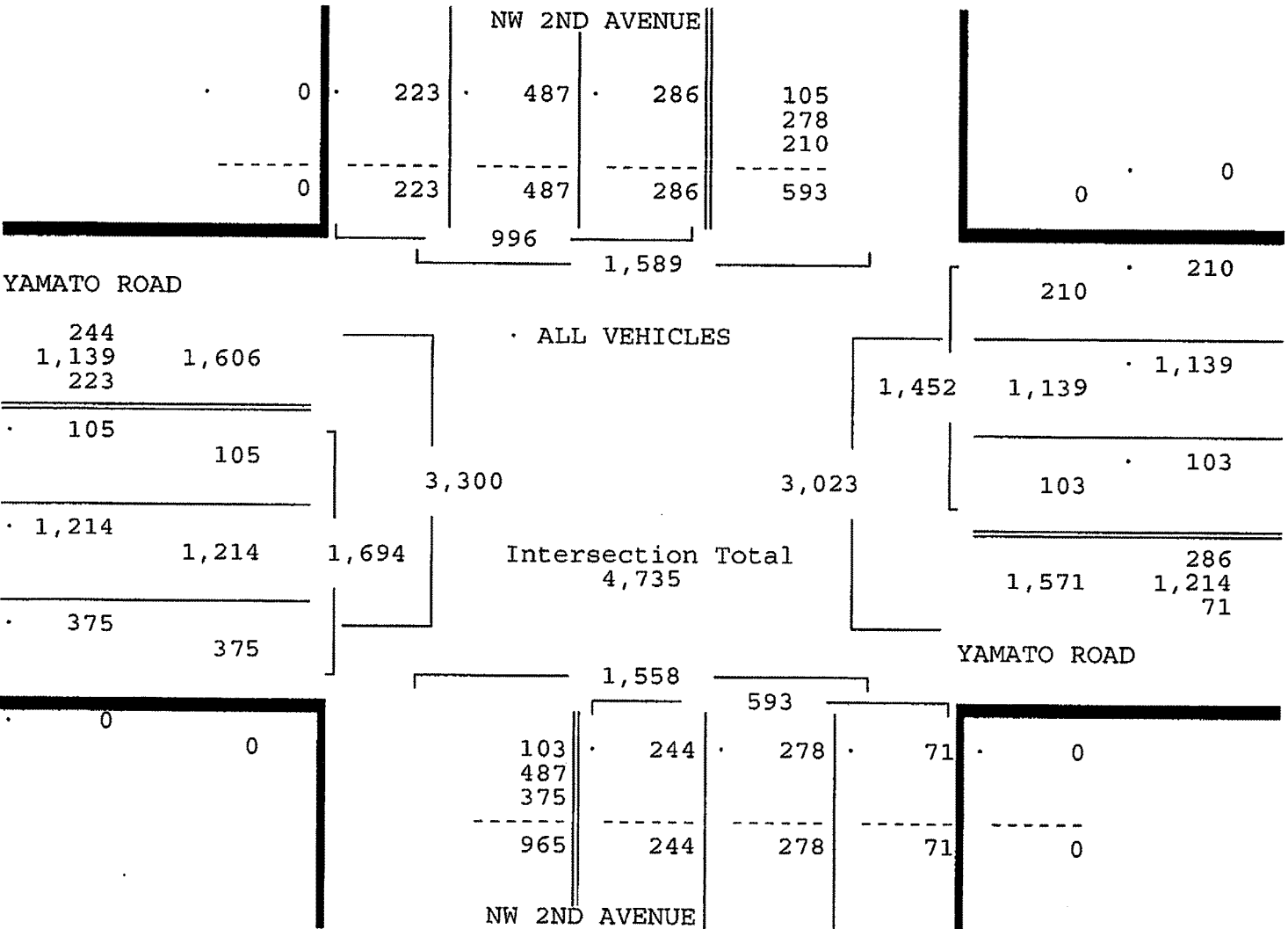
YAMATO ROAD & NW 2ND AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190203
Start Date: 12/12/19
File I.D. : YAM_2AVE
Page : 2

ALL VEHICLES

NW 2ND AVENUE From North					YAMATO ROAD From East				NW 2ND AVENUE From South				YAMATO ROAD From West							
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		Total
Date 12/12/19 -----																				
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 12/12/19																				
Peak start 07:45					07:45				07:45				07:45							
Volume	1	285	487	223		19	84	1139	210		5	239	278	71		15	90	1214	375	
Percent	0%	29%	49%	22%		1%	6%	78%	14%		1%	40%	47%	12%		1%	5%	72%	22%	
Pk total	996					1452					593					1694				
Highest	07:45					08:00					08:00					07:45				
Volume	0	60	150	75		10	18	299	56		0	61	80	21		4	21	297	113	
Hi total	285					383					162					435				
PHF	.87					.95					.92					.97				



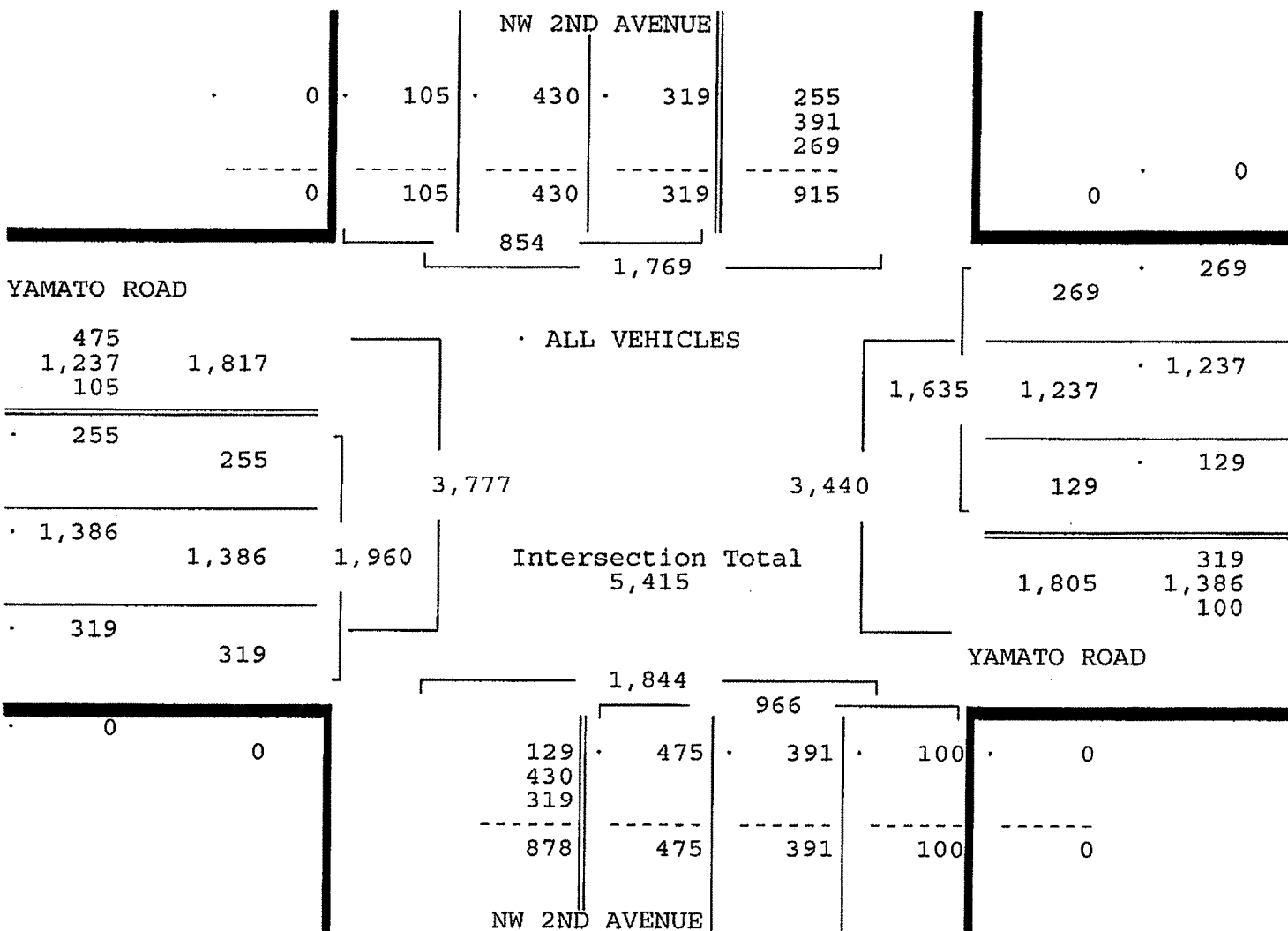
YAMATO ROAD & NW 2ND AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190203
Start Date: 12/12/19
File I.D. : YAM_2AVE
Page : 3

ALL VEHICLES

NW 2ND AVENUE				YAMATO ROAD				NW 2ND AVENUE				YAMATO ROAD				
From North				From East				From South				From West				
UTurn Left Thru Right				UTurn Left Thru Right				UTurn Left Thru Right				UTurn Left Thru Right				
Date 12/12/19																
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/12/19																
Peak start 17:00				17:00				17:00				17:00				
Volume	1	318	430	105	15	114	1237	269	5	470	391	100	11	244	1386	319
Percent	0%	37%	50%	12%	1%	7%	76%	16%	1%	49%	40%	10%	1%	12%	71%	16%
Pk total	854			1635				966				1960				
Highest	17:15			17:30				17:00				17:15				
Volume	0	89	121	25	6	25	327	82	1	147	106	26	4	61	393	107
Hi total	235			440				280				565				
PHF	.91			.93				.86				.87				



TRAFFIC SURVEY SPECIALISTS, INC.

YAMATO ROAD & NW 2ND AVENUE
BOCA RATON, FLORIDA
COUNTED BY: R. MARTINEZ & S. SALVO
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190203
Start Date: 12/12/19
File I.D. : YAM_2AVE
Page : 1

PEDESTRIANS & BIKES

	NW 2ND AVENUE From North				YAMATO ROAD From East				NW 2ND AVENUE From South				YAMATO ROAD From West				Total
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	
Date 12/12/19																	
07:00	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
07:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
07:30	0	0	0	1	0	0	0	1	0	1	0	2	0	0	0	0	5
07:45	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	4
Hr Total	0	1	0	2	0	1	0	3	0	1	0	5	0	0	0	0	13
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	3
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
Hr Total	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	2	6
* BREAK *																	
16:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3
16:15	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	4
16:30	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	1	5
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	2	0	0	0	0	0	1	0	2	0	2	0	1	0	4	12
17:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	7
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	6
17:45	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3	5
Hr Total	0	4	0	0	0	0	0	1	0	0	0	5	0	0	0	8	18
TOTAL	0	7	0	3	0	2	0	6	0	3	0	13	0	1	0	14	49



APPENDIX C:

TRAFFIC SIGNAL TIMING SHEETS



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name	NW 20 ST & NW 2 AVE	Mod. No.	6	Initial Operation Date	12/26/97
Intersection	28	Mod. Date	02/02/18		

Part I Actuated Timing Information

Non-coordinated Operation										
Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB		
Initial	5	18	5	12	5	18	5	12		
Passage	1.8	2.0	1.8	2.0	1.0	2.0	1.8	2.0		
Max1	20.0	45.0	20.0	30.0	15.0	45.0	15.0	30.0		
Max2										
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Red	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Walk		7.0		7.0		7.0		7.0		
Ped Clear		23.0		28.0		25.0		23.0		
Recall		Min				Min				
LT Type	5-Sect	Perm	5-Sect	Perm	5-Sect	Perm	5-Sect			
Detect Type										

Pre-emption

3M Opticom	<input checked="" type="checkbox"/> Active	RailRoad Pre-Emption	<input type="checkbox"/> Active	Fire Station Pre-emption	<input type="checkbox"/> Active
Bridge	<input type="checkbox"/> Active				

Part II Coordinated Timing Information

Pattern Tables										
PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	13	40	13	34	11	42	11	36	100	18
Split Pat 2	13	40	13	34	11	42	11	36	100	15
Split Pat 3	13	40	13	34	11	42	11	36	100	16
Split Pat 4	15	46	15	34	11	50	11	38	110	22
Split Pat 5	18	50	18	34	13	55	11	41	120	5
Split Pat 6	18	50	18	34	13	55	17	35	120	9

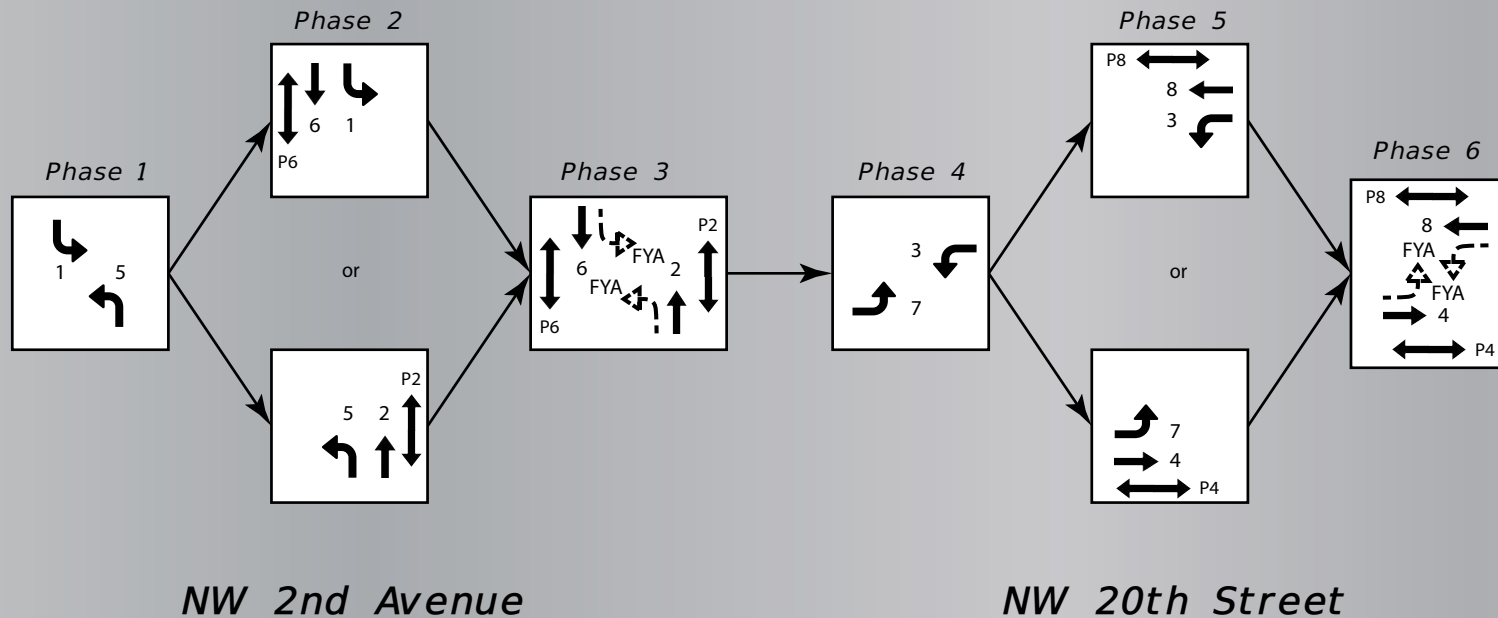
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:30	50	0:00	7:30	50			
	7:30	9:00	5	7:30	8:00	100			
	9:00	16:00	4	8:00	9:00	3			
	16:00	18:00	6	9:00	18:00	2			
	18:00	19:30	26	18:00	19:00	28			
	19:30	0:00	50	19:00	0:00	50			

Part III Notes and Comments

1. Updated pedestrian signal timings. Phases 2, 4, 6 & 8.

SOP 10



Intersection Notes:

WEEKDAY

07:30 - 19:30 Coordination Mode

19:30 - 07:30 Free Mode

WEEKEND

07:30 - 19:30 Coordination Mode

19:30 - 07:30 Free Mode

All Patterns = Normal Sequence

Legend

- = Permissive Left Turn
- X = Phase Number
- PX = Pedestrian Phase Number
- FYA = Flashing Yellow Arrow



**City of Boca Raton
Municipal Services
Traffic Engineering**

**Standard Signal
Operating Plan
(SOP)**

Designed By:
TNP
Date: 06/2020

028
NW 2nd Avenue
@
NW 20th Street



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name	DIXIE HWY & NW 20 ST	Mod. No.	7	Initial Operation Date	12/26/1997
Intersection	22	Mod. Date	02/28/18		

Part I Actuated Timing Information

Non-coordinated Operation										
Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB		
Initial	5	18	5	12	5	18	5	12		
Passage	1.8	2.0	1.8	2.0	1.8	2.0	1.8	2.0		
Max1	15.0	40.0	15.0	25.0	15.0	40.0	15.0	25.0		
Max2	15.0	40.0	20.0	30.0	0.0	40.0	20.0	30.0		
Yellow	4.4	4.4	4.0	4.0	4.4	4.4	4.0	4.0		
Red	2.0	2.0	2.5	2.5	2.0	2.0	2.5	2.5		
Walk		7.0		7.0				7.0		
Ped Clear		29.0		28.0				32.0		
Recall		Min				Min				
LT Type	5-Sect		5-Sect		5-Sect		5-Sect			
Detect Type										

Pre-emption

3M Opticom	<input checked="" type="checkbox"/> Active	RailRoad Pre-Emption	<input checked="" type="checkbox"/> Active	Fire Station Pre-emption	<input checked="" type="checkbox"/> Active
Bridge	<input type="checkbox"/> Active				

Part II Coordinated Timing Information

Pattern Tables										
PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	20	70	20	40	20	70	17	43	150	25
Split Pat 2	24	71	25	30	24	71	15	40	150	34
Split Pat 3	20	85	22	33	20	85	25	30	160	15
Split Pat 4	24	51	25	30	24	51	15	40	130	24
Split Pat 5	24	71	25	30	24	71	15	40	150	34
Split Pat 6	24	74	23	29	24	74	18	34	150	115

Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	8:30	50			
	7:00	9:30	1	8:30	11:00	4			
	9:30	15:00	2	11:00	18:00	5			
	15:00	18:00	3	18:00	20:00	30			
	18:00	19:00	28	20:00	22:00	29			
	19:00	22:00	29	22:00	0:00	50			
	22:00	0:00	50						

Part III Notes and Comments

1. Retiming



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name NW 2 AVE & NW 28 ST Mod. No. 4 Initial Operation Date 3/4/03
Intersection 97 Mod. Date 02/02/18

Part I

Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	SBLT	NB				SB		WB		
Initial	5	18				18		12		
Passage	1.8	2.0				2.0		2.0		
Max1	15.0	45.0				45.0		30.0		
Max2										
Yellow	4.0	4.0				4.0		4.0		
Red	2.0	2.0				2.0		3.0		
Walk		7.0						7.0		
Ped Clear		18.0						18.0		
Recall		Min				Min				
LT Type	5-Sect									
Detect Type										

Pre-emption

3M Opticom ☐ Active

RailRoad Pre-Emption ☐ Active

Fire Station Pre-emption ☐ Active

Bridge ☐ Active

Part II

Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1		30		20		30		20	50	40
Split Pat 2		30		20		30		20	50	33
Split Pat 3		30		20		30		20	50	40
Split Pat 4	15	71		24		86		24	110	89
Split Pat 5	10	31		19		41		19	60	10
Split Pat 6	10	31		19		41		19	60	18

Schedule Implementation

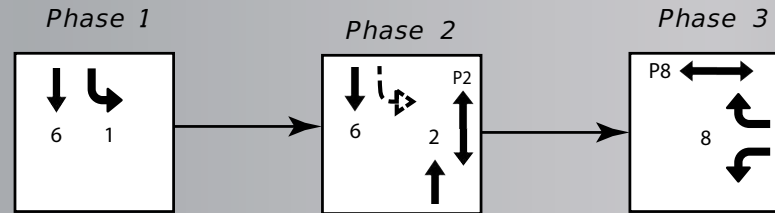
Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:30	50	0:00	8:00	50			
	7:30	8:00	30	8:00	9:00	3			
	8:00	9:00	5	9:00	18:00	2			
	9:00	16:00	4	18:00	19:00	3			
	16:00	18:00	6	19:00	19:30	28			
	18:00	19:00	1	19:30	0:00	50			
	19:00	19:30	26						
	19:30	0:00	50						

Part III

Notes and Comments

1. Updated pedestrian signal timings. Phases 2 & 8.

SOP 12



NW 2nd Avenue

NW 28th Street

Intersection Notes:

WEEKDAY

07:30 - 19:30 Coordination Mode

19:30 - 07:30 Free Mode

WEEKEND

07:30 - 19:30 Coordination Mode

19:30 - 07:30 Free Mode

All Patterns = Normal Sequence

Legend



= Permissive Left Turn

X = Phase Number

PX = Pedestrian Phase Number

OLX = Overlap Phase



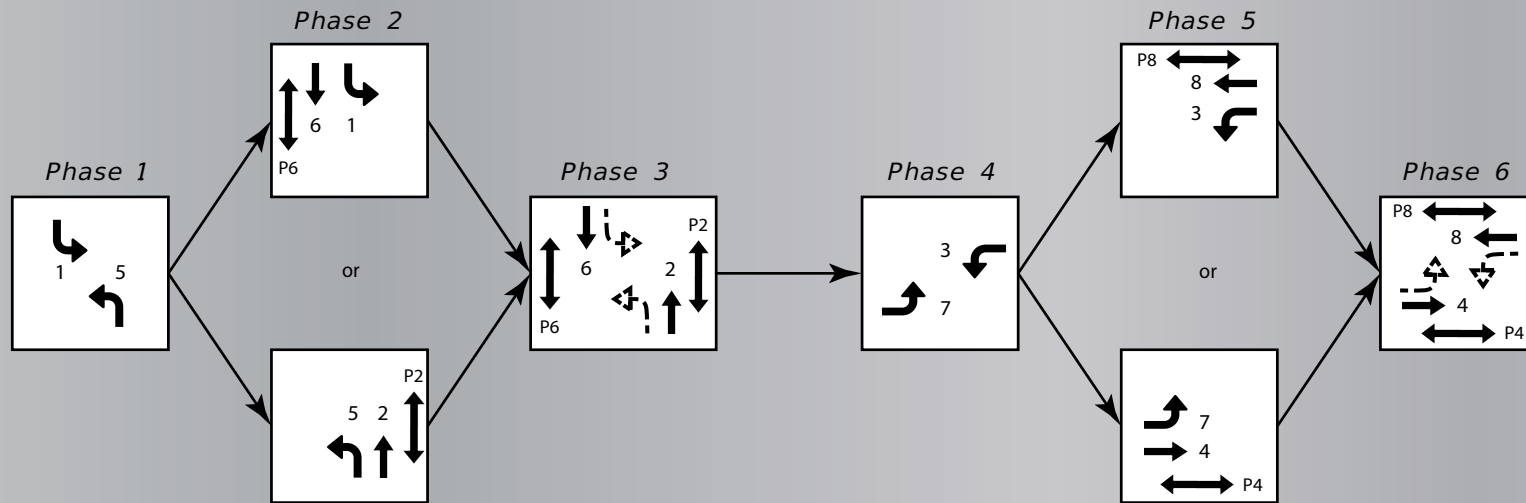
City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

097
NW 2nd Avenue
@
NW 28th Street

SOP 10



Dixie Highway

NE 20th Street

Intersection Notes:

WEEKDAY

07:00 - 22:00 Coordination Mode

22:00 - 07:00 Free Mode

WEEKEND

08:00 - 22:00 Coordination Mode

22:00 - 08:00 = Free Mode

All Patterns = Normal Sequence

Legend



= Permissive Left Turn

X = Phase Number

PX = Pedestrian Phase Number

OLX = Overlap Phase



*City of Boca Raton
Municipal Services
Traffic Engineering*

*Standard Signal
Operating Plan
(SOP)*

*Designed By:
TNP
Date: 06/2020*

*022
Dixie Highway
@
NE 20th Street*



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name DIXIE HWY & NW 28 ST Mod. No. 7 Initial Operation Date 12/26/97
Intersection 47 Mod. Date 02/08/16

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach		NB		EB	NBLT	SB				
Initial		18		12	5	18				
Passage		2.0		2.0	1.8	2.0				
Max1		45.0		25.0	15.0	45.0				
Max2										
Yellow		4.4		4.0	4.4	4.4				
Red		2.0		4.0	2.0	2.0				
Walk				7.0						
Ped Clear				22.0						
Recall		Min				Min				
LT Type					5-Sect					
Detect Type										

Pre-emption

3M Opticom ☐ Active

RailRoad Pre-Emption ☐ Active

Fire Station Pre-emption ☐ Active

Bridge ☐ Active

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 11		37		18	14	23			55	44
Split Pat 12		37		18	14	23			55	54
Split Pat 13		39		26	16	23			65	26
Split Pat 14		40		30	15	25			70	12
Split Pat 15		40		30	15	25			70	55
Split Pat 16		45		30	15	30			75	11

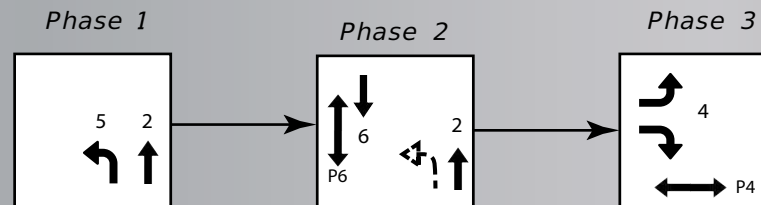
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	7:30	50			
	7:00	8:30	14	7:30	18:00	100			
	8:30	11:00	13	18:00	0:00	50			
	11:00	15:30	15						
	15:30	18:00	16						
	18:00	22:00	41						
	22:00	0:00	50						

Part III Notes and Comments

1. Updated pedestrian signal timings. Phase 4.

SOP 12



Dixie Highway

NE 28th Street

Intersection Notes:

WEEKDAY


00:00 - 24:00 Free Mode

WEEKEND

00:00 - 24:00 = Free Mode

All Patterns = Normal Sequence

Legend

-  = Permissive Left Turn
- X = Phase Number
- PX = Pedestrian Phase Number
- OLX = Overlap Phase



City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

047
Dixie Highway
@
NE 28th Street



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name NW 2 AVE & SPANISH RIVER BLVD Mod. No. 6 Initial Operation Date 12/26/97
Intersection 27 Mod. Date 02/28/18

Part I Actuated Timing Information

Non-coordinated Operation										
Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	EBLT	WB	SBLT	NB	WBLT	EB	NBLT	SB		
Initial	5	12	5	18	5	12	5	18		
Passage	1.8	2.0	1.8	2.0	1.8	2.0	1.8	2.0		
Max1	35.0	60.0	15.0	40.0	20.0	60.0	15.0	40.0		
Max2	25.0	60.0	15.0	40.0	20.0	60.0	25.0	40.0		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Red	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		
Walk		7.0		4.0		7.0		4.0		
Ped Clear		22.0		21.0		23.0		29.0		
Recall		Min				Min				
LT Type	5-Sect		5-Sect		5-Sect		5-Sect			
Detect Type										

Pre-emption

3M Opticom ☒ Active Railroad Pre-emption ☐ Active Fire Station Pre-emption ☐ Active
Bridge ☐ Active

Part II Coordinated Timing Information

Pattern Tables										
PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	30	49	18	53	20	59	18	53	150	39
Split Pat 2	28	57	25	40	20	65	25	40	150	142
Split Pat 3	40	48	22	50	24	64	22	50	160	145
Split Pat 4	30	45	25	30	25	50	25	30	130	77
Split Pat 5	28	57	25	40	20	65	25	40	150	142
Split Pat 6	16	56	20	58	16	56	20	58	150	36
Split Pat 7										

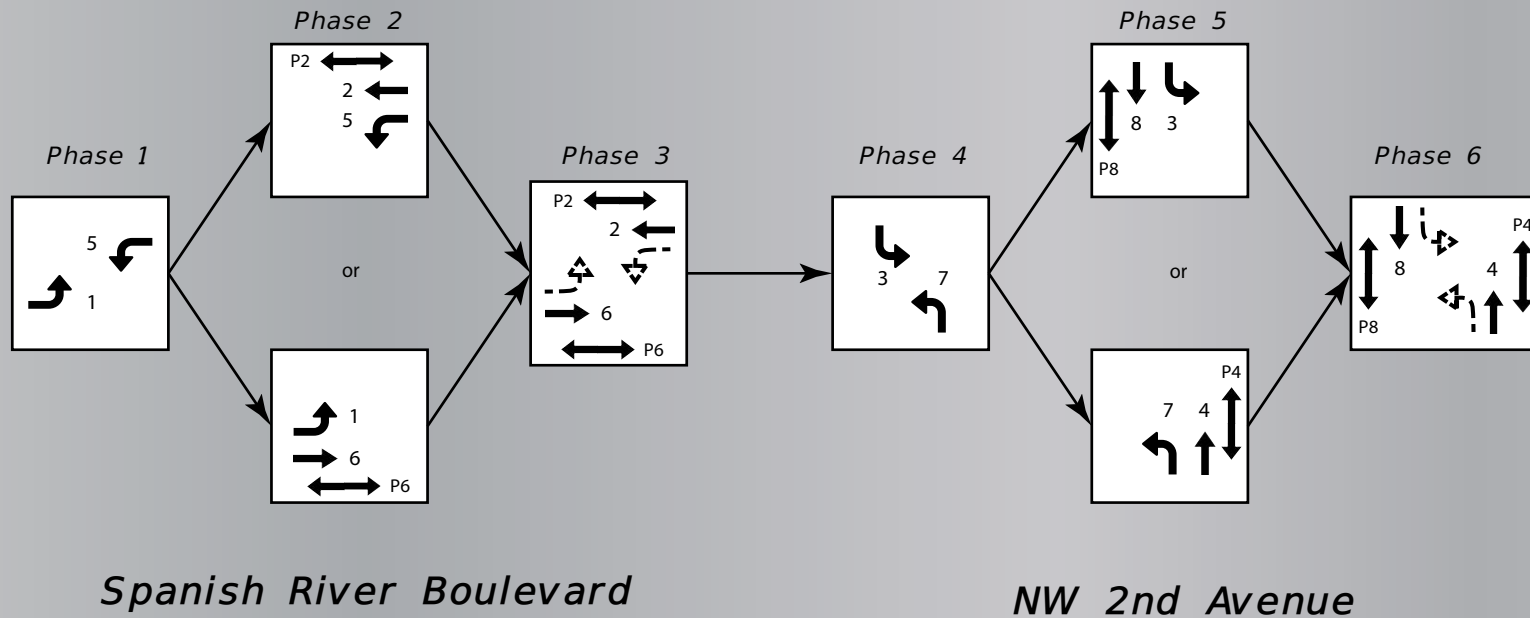
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	8:00	50			
	7:00	9:30	1	8:00	11:00	4			
	9:30	15:00	2	11:00	18:00	5			
	15:00	18:00	3	18:00	20:00	30			
	18:00	19:00	28	20:00	22:00	29			
	19:00	22:00	29	22:00	0:00	50			
	22:00	0:00	50						

Part III Notes and Comments

1. Retiming

SOP 10



Intersection Notes:

WEEKDAY

07:00 - 22:00 Coordination Mode

22:00 - 07:00 Free Mode


WEEKEND

08:00 - 22:00 Coordination Mode

22:00 - 08:00 = Free Mode

All Patterns = Normal Sequence

Legend

-  = Permissive Left Turn
- X = Phase Number
- PX = Pedestrian Phase Number
- OLX = Overlap Phase



**City of Boca Raton
Municipal Services
Traffic Engineering**

**Standard Signal
Operating Plan
(SOP)**

Designed By:
TNP
Date: 06/2020

027
**Spanish River Boulevard
@
NW 2nd Avenue**



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name **DIXIE HWY & SPANISH RIVER BLVD** Mod. No. **8** Initial Operation Date **12/26/97**
Intersection **21** Mod. Date **02/28/18**

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB		
Initial	5	18	5	12	5	18	5	12		
Passage	1.8	2.0	1.8	2.0	1.8	2.0	1.8	2.0		
Max1	15.0	45.0	15.0	45.0	15.0	45.0	15.0	45.0		
Max2										
Yellow	4.4	4.4	4.0	4.0	4.4	4.4	4.0	4.0		
Red	2.0	2.0	2.5	2.5	2.0	2.0	2.5	2.5		
Walk		7.0		4.0		7.0		4.0		
Ped Clear		24.0		24.0		23.0		24.0		
Recall				Min				Min		
LT Type	5-Sect		5-Sect		5-Sect		5-Sect			
Detect Type										

Pre-emption

3M Opticom ☒ Active

RailRoad Pre-Emption ☒ Active

Fire Station Pre-emption ☐ Active

Bridge ☐ Active

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	15	64	21	50	28	51	28	43	150	35
Split Pat 2	17	54	25	54	25	46	25	54	150	133
Split Pat 3	15	64	22	59	23	56	22	59	160	150
Split Pat 4	17	44	25	44	25	36	25	44	130	85
Split Pat 5	17	54	25	54	25	46	25	54	150	133
Split Pat 6	15	64	23	48	22	57	23	48	150	113

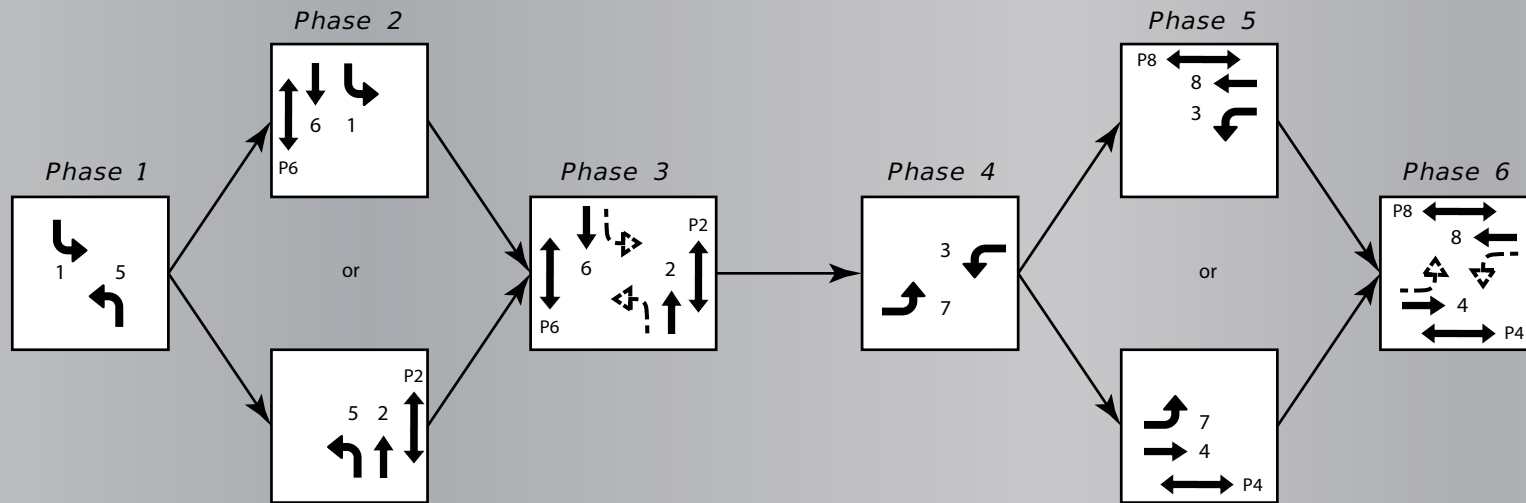
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	8:00	50			
	7:00	9:30	1	8:00	11:00	4			
	9:30	15:00	2	11:00	18:00	5			
	15:00	18:00	3	18:00	20:00	30			
	18:00	19:00	28	20:00	22:00	29			
	19:00	22:00	29	22:00	0:00	50			
	22:00	0:00	50						

Part III Notes and Comments

1. Retiming

SOP 10



Dixie Highway

Spanish River Boulevard

Intersection Notes:

WEEKDAY

07:00 - 22:00 Coordination Mode

22:00 - 07:00 Free Mode

WEEKEND

08:00 - 22:00 Coordination Mode

22:00 - 08:00 = Free Mode

All Patterns = Normal Sequence

Legend



= Permissive Left Turn

X = Phase Number

PX = Pedestrian Phase Number

OLX = Overlap Phase



**City of Boca Raton
Municipal Services
Traffic Engineering**

**Standard Signal
Operating Plan
(SOP)**

Designed By:
TNP
Date: 06/2020

**021
Dixie Highway
@
Spanish River Boulevard**



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name YAMATO RD & NW 2 AVE Mod. No. 9 Initial Operation Date 12/26/1997
Intersection 26 Mod. Date 02/28/18

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	EBLT	WB	SBLT	NB	WBLT	EB	NBLT	SB		
Initial	5	18	7	12	5	18	7	12		
Passage	1.8	2.0	1.8	2.5	1.8	2.0	2.5	2.5		
Max1	20.0	50.0	20.0	40.0	20.0	50.0	40.0	40.0		
Max2										
Yellow	4.8	4.8	4.0	4.0	4.8	4.8	4.0	4.0		
Red	2.0	2.0	3.0	3.0	2.0	2.0	2.0	3.0		
Walk		7.0		4.0		7.0		4.0		
Ped Clear		24.0		31.0		27.0		30.0		
Recall		Min				Min				
LT Type	5-Sect		Prot		5-Sect		Prot			
Detect Type										

Pre-emption

3M Opticom ☒ Active Railroad Pre-Emption ☐ Active Fire Station Pre-emption ☐ Active
Bridge ☐ Active

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	19	56	35	40	19	56	31	44	150	14
Split Pat 2	22	52	30	46	22	52	35	41	150	45
Split Pat 3	26	50	28	56	26	50	48	36	160	50
Split Pat 4	22	47	25	36	22	47	30	31	130	115
Split Pat 5	22	57	25	46	22	57	35	36	150	45
Split Pat 6	26	48	28	48	22	52	35	41	150	115
Split Pat 7										

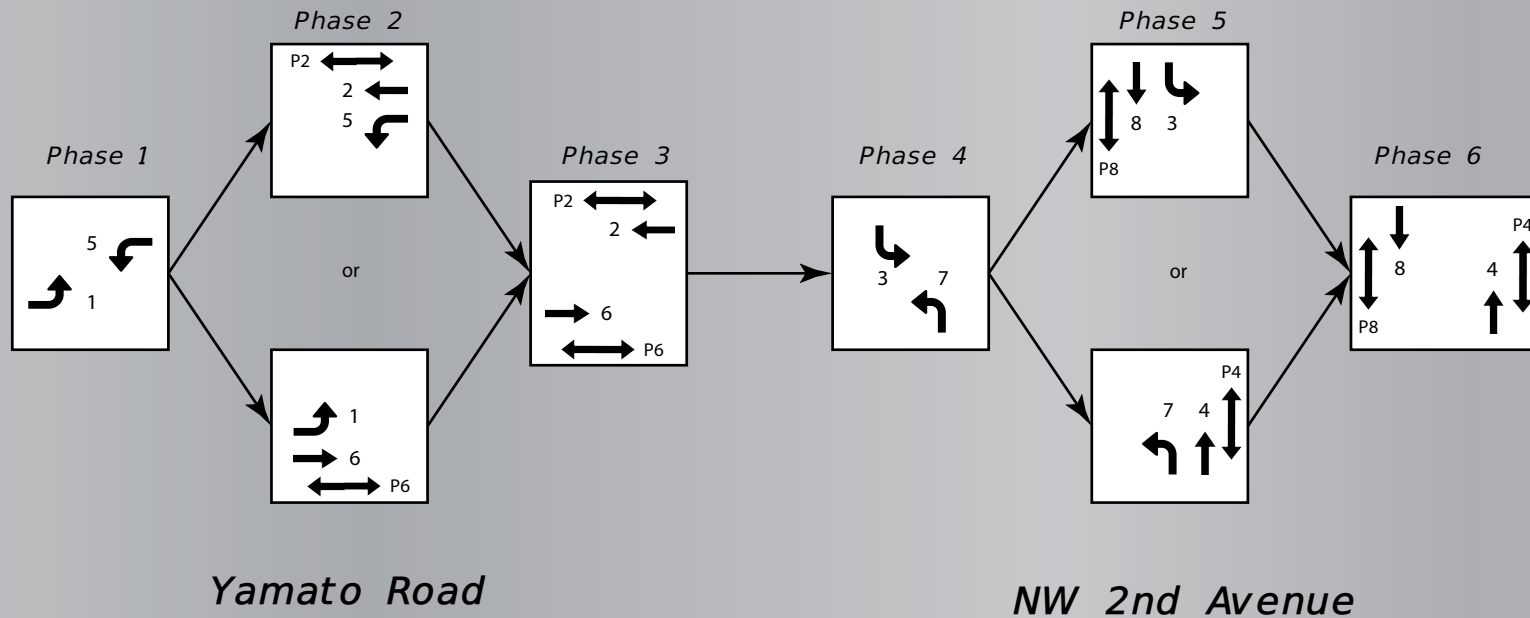
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	8:00	50			
	7:00	9:30	1	8:00	11:00	4			
	9:30	15:00	2	11:00	18:00	5			
	15:00	18:00	3	18:00	20:00	30			
	18:00	19:00	28	20:00	22:00	29			
	19:00	22:00	29	22:00	0:00	50			
	22:00	0:00	50						

Part III Notes and Comments

1. Retiming

SOP 10



Intersection Notes:

WEEKDAY

07:00 - 22:00 Coordination Mode

22:00 - 07:00 Free Mode

WEEKEND

08:00 - 22:00 Coordination Mode

22:00 - 08:00 = Free Mode

Pattern 1,2,4,5 & 6 = Normal Sequence

Pattern 3 = SB Lead (3) NB Lag Sequence (7)

Legend



= Permissive Left Turn

X

= Phase Number

PX

= Pedestrian Phase Number

OLX

= Overlap Phase



City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

026
Yamato Road
@
NW 2nd Avenue



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name **YAMATO RD & DIXIE HWY** Mod. No. **5** Initial Operation Date **12/26/97**
Intersection **20** Mod. Date **02/28/18**

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	EBLT	WB	SBLT	NB	WBLT	EB	NBLT	SB		
Initial	7	18	5	12	5	18	7	12		
Passage	1.8	2.0	1.8	2.0	1.8	2.0	1.8	2.0		
Max1	20.0	50.0	30.0	35.0	15.0	50.0	20.0	35.0		
Max2	20.0	50.0	15.0	35.0	30.0	50.0	20.0	35.0		
Yellow	4.8	4.8	4.4	4.4	4.8	4.8	4.4	4.4		
Red	2.0	2.0	2.0	2.5	2.0	2.0	2.0	2.5		
Walk		7.0		7.0		7.0		7.0		
Ped Clear		28.0		33.0		28.0		31.0		
Recall		Min				Min				
LT Type	Prot		Prot		Prot		Prot			
Detect Type										

Pre-emption

3M Opticom	<input checked="" type="checkbox"/> Active	RailRoad Pre-Emption	<input checked="" type="checkbox"/> Active	Fire Station Pre-emption	<input type="checkbox"/> Active
Bridge	<input type="checkbox"/> Active				

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	25	56	23	46	22	59	25	44	150	26
Split Pat 2	26	54	23	47	22	58	26	44	150	60
Split Pat 3	25	55	21	59	20	60	33	47	160	71
Split Pat 4	26	44	23	37	22	48	26	34	130	0
Split Pat 5	26	54	23	47	22	58	26	44	150	60
Split Pat 6	24	69	15	42	21	72	27	30	150	113

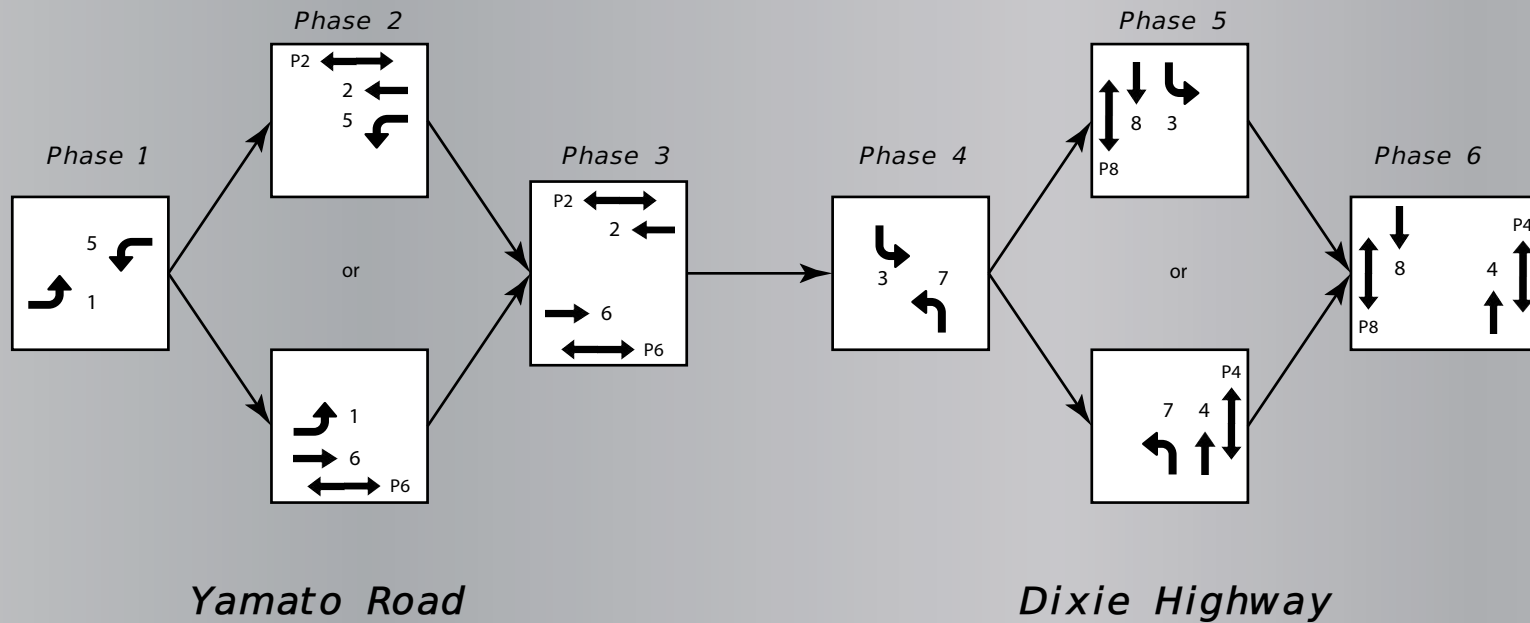
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	8:00	50			
	7:00	9:30	1	8:00	11:00	4			
	9:30	15:00	2	11:00	18:00	5			
	15:00	18:00	3	18:00	20:00	30			
	18:00	19:00	28	20:00	22:00	29			
	19:00	22:00	29	22:00	0:00	50			
	22:00	0:00	50						

Part III Notes and Comments

1. Retiming

SOP 10



Intersection Notes:

WEEKDAY

07:00 - 22:00 Coordination Mode

22:00 - 07:00 Free Mode

WEEKEND

08:00 - 22:00 Coordination Mode

22:00 - 08:00 = Free Mode

Patterns 1,3 & 6 = Normal Sequence

Patterns 2,4 & 5 = WB Lead (5) EB Lag Sequence (1)

Legend



= Permissive Left Turn

X = Phase Number

PX = Pedestrian Phase Number

OLX = Overlap Phase



City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

020
Yamato Road
@
Dixie Highway



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name	NW 2 AVE & JEFFERY ST	Mod. No.	6	Initial Operation Date	10/26/97
Intersection	78	Mod. Date	01/09/18		

Part I Actuated Timing Information

Non-coordinated Operation												
Phase	1	2	3	4	5	6	7	8	9	Sp(A)	Sp(B)	
Approach		NB		EB	NBLT	SB		WB	EXCLPED			
Initial		18		12	5	18		12				
Passage		3.5		2.0	1.8	3.5		2.0				
Max1		40.0		30.0	30.0	75.0		20.0				
Max2												
Yellow		4.0		4.0	4.0	4.0		4.0	3.0			
Red		3.0		2.5	3.0	3.0		2.5				
Walk									7.0			
Ped Clear									24.0			
Recall		Min				Min						
LT Type				Perm	5-sect	Perm		Perm				
Detect Type	Loop	Loop	Loop	Loop	Loop	Loop	Loop	Loop				
Pre-emption												
3M Opticom		<input checked="" type="checkbox"/> Active	RailRoad Pre-Emption				<input type="checkbox"/> Active	Fire Station Pre-emption				<input type="checkbox"/> Active
Bridge		<input type="checkbox"/> Active										

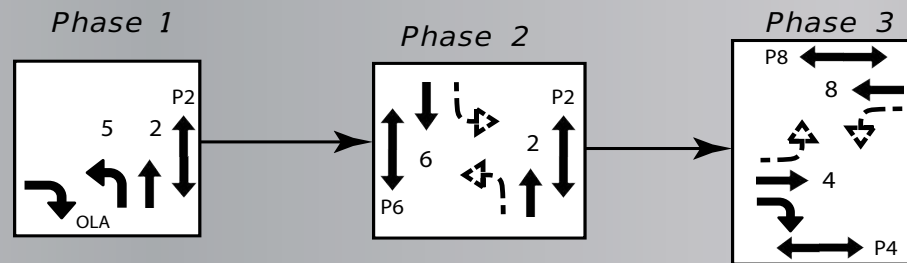
Part II Coordinated Timing Information

Pattern Tables											
PHASE	1	2	3	4	5	6	7	8		Cycle	Offset
Split Pat 1											
Split Pat 2											
Split Pat 3											
Split Pat 4											
Split Pat 5											
Split Pat 6											
Schedule Implementation											
Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)				
	Start	End	Split	Start	End	Split					
	0:00	0:00	Free	0:00	0:00	Free					

Part III Notes and Comments

1. Updated pedestrian signal timings.

SOP 2



NW 2nd Avenue

Jeffrey Street

Intersection Notes:

WEEKDAY

00:00 - 24:00 Free Mode

WEEKEND

00:00 - 24:00 Free Mode

All Patterns = Normal Sequence

Legend

- = Permissive Left Turn
- X = Phase Number
- PX = Pedestrian Phase Number
- OLX = Overlap Phase



City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

078
NW 2nd Avenue
@
Jeffrey Street



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name CONGRESS AVE & CLINT MOORE RD Mod. No. 10 Initial Operation Date 12/26/97
Intersection 62 Mod. Date 02/12/19

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB		
Initial	7	18	7	12	7	18	7	12		
Passage	1.8	2.0	1.8	2.0	1.8	2.0	1.8	2.0		
Max1	15.0	50.0	20.0	45.0	25.0	50.0	40.0	45.0		
Max2	15.0	60.0	20.0	30.0	25.0	60.0	40.0	30.0		
Yellow	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8		
All Red	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Walk		7.0		4.0		7.0		4.0		
Ped Clear		35.0		38.0		36.0		37.0		
Recall		Min				Min				
LT Type	Prot		Prot		Prot		Prot			
Detect Type										

Pre-emption

3M Opticom <input checked="" type="checkbox"/> Active	RailRoad Pre-Emption <input type="checkbox"/> Active	Fire Station Pre-emption <input type="checkbox"/> Active
Bridge <input type="checkbox"/> Active		

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 1	17	43	15	25	20	40*	20	20	100	43
Split Pat 2	22	44	21	33	22	44*	33	21	120	40
Split Pat 3	30	48	20	42	23	55*	35	27	140	39
Split Pat 4	22	58	15	65	25	55*	45	35	160	125
Split Pat 5	25	44	20	31	25	44*	30	21	120	40
Split Pat 6 AM	44	53	24	59	32	65	40	43	180	110
Split Pat 7 PM	28	63	20	69	35	56	46	43	180	88
Split Pat 8 MD	21	44	24	59	28	39	38	45	150	68
Split Pat 9 PM	28	60	20	72	32	56	55	37	180	88

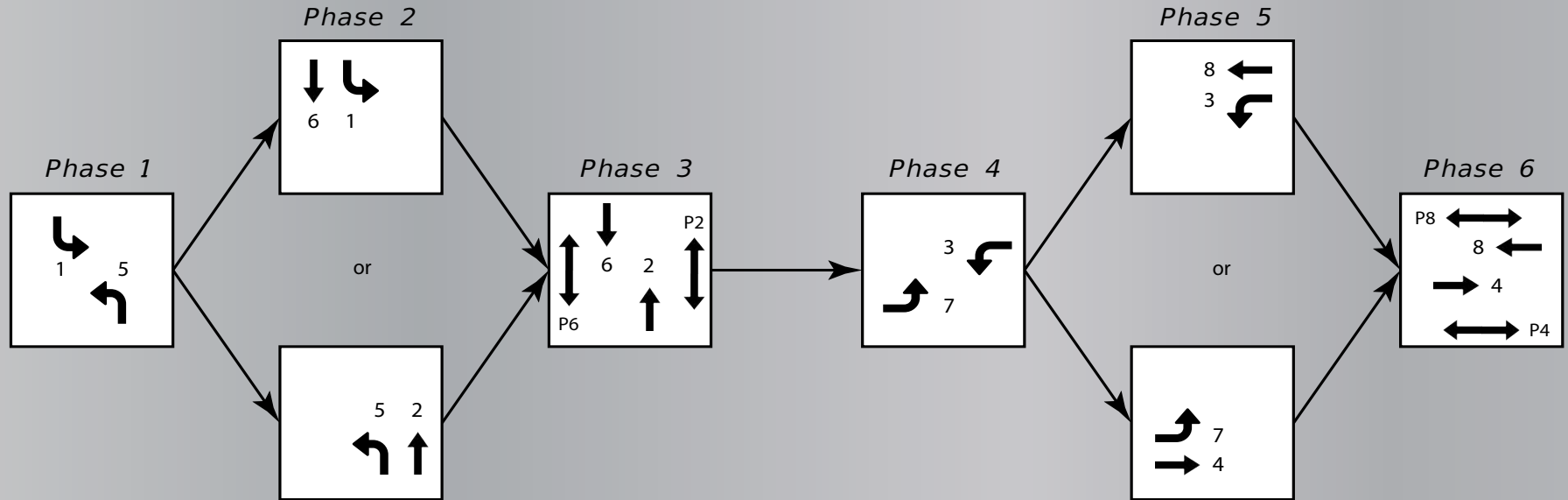
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	7:30	50			
	7:00	7:30	31	7:30	10:00	100			
	7:30	9:30	6	10:00	18:00	5			
	9:30	16:50	8	18:00	0:00	50			
	16:50	17:20	9						
	17:20	18:00	7						
	18:00	18:30	32						
	18:30	20:00	26						
	20:00	0:00	50						

Part III Notes and Comments

1. Implemented new Coordination Patterns, Cycles, Offsets and Splits.

SOP 10



Congress Avenue

Clint Moore Road

Intersection Notes:

WEEKDAY

07:00 - 20:00 Coordination Mode

20:00 - 07:00 Free Mode

WEEKEND

10:00 - 18:00 Coordination Mode

18:00 - 10:00 Free Mode

Patterns 5 & 8 = SB Lead (1) NB Lag (5) Sequence

Patterns 7 & 9 = NB Lead (5) SB Lag (1) WB Lead (3) EB Lag (7) Sequence

Pattern 6 = NB Lead (5) SB Lag (1) Sequence

Legend

- = Permissive Left Turn
- X = Phase Number
- PX = Pedestrian Phase Number
- OLX = Overlap Phase



**City of Boca Raton
Municipal Services
Traffic Engineering**

**Standard Signal
Operating Plan
(SOP)**

Designed By:
TNP
Date: 06/2020

**062
Congress Avenue
@
Clint Moore Road**



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name FEDERAL HWY & JEFFERY ST Mod. No. 4 Initial Operation Date 12/26/97
Intersection 5 Mod. Date 07/07/17

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8	Sp(A)	Sp(B)
Approach	SBLT	NB		EB	NBLT	SB		WB		
Initial	5	18		12	5	18		12		
Passage	1.8	2.0		2.0	1.8	2.0		2.0		
Max1	20.0	50.0		30.0	20.0	50.0		30.0		
Max2										
Yellow	4.8	4.8		3.4	4.8	4.8		3.4		
Red	2.0	2.0		4.5	2.0	2.0		4.5		
Walk		7.0		4.0		7.0		4.0		
Ped Clear		25.0		29.0		15.0		27.0		
Recall		Min				Min				
LT Type	5-Sect			Perm	5-sect			Perm		
Detect Type	VDS	VDS		VDS	VDS	VDS		VDS		

Pre-emption

3M Opticom ☒ Active

RailRoad Pre-Emption ☐ Active

Fire Station Pre-emption ☐ Active

Bridge ☐ Active

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pat 13	25	75		40	25	75		40	140	89
Split Pat 16	30	80		40	30	80		40	150	5

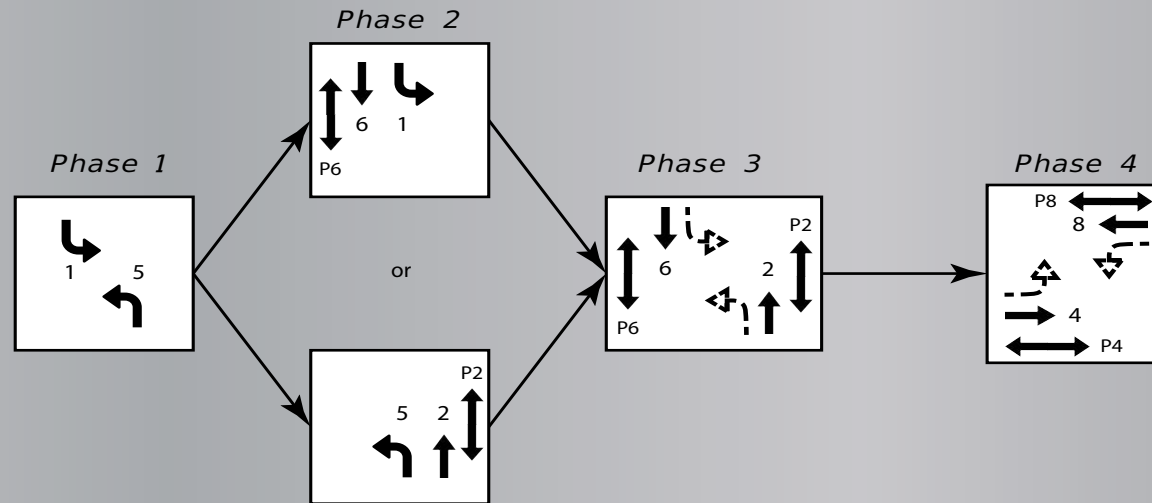
Schedule Implementation

Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
	Start	End	Split	Start	End	Split			
	0:00	7:00	50	0:00	7:30	50			
	7:00	7:30	100	7:00	17:30	100			
	7:30	9:00	13	17:30	0:00	50			
	9:00	15:30	100						
	15:30	18:00	16						
	18:00	0:00	50						

Part III Notes and Comments

1. Updated coordination parameters.

SOP 7



Federal Highway

Jeffrey Street

Intersection Notes:

WEEKDAY

07:00 - 22:00 Coordination Mode

22:00 - 07:00 Free Mode

All Patterns = Normal Sequence

WEEKEND

08:00 - 22:00 Coordination Mode

22:00 - 08:00 = Free Mode

Legend



= Permissive Left Turn

X = Phase Number

PX = Pedestrian Phase Number

OLX = Overlap Phase



City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

005
Federal Highway (US 1)
@
Jeffrey Street



City of Boca Raton Traffic Engineering Intersection Timing Sheet

Name **DIXIE HWY & HIDDEN VALLEY BLVD** Mod. No. **6** Initial Oper:
Intersection **48** Mod. Date **02/02/18**

Part I Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8
Approach	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB
Initial	5	18	5	12	5	18	5	12
Passage	1.8	2.0	1.8	2.0	1.8	2.0	1.8	2.0
Max1	15.0	40.0	15.0	30.0	15.0	60.0	15.0	30.0
Max2								
Yellow	4.4	4.4	3.7	3.7	4.4	4.4	3.7	3.7
Red	3.0	3.0	4.5	4.5	3.0	3.0	4.5	4.5
Walk		7.0		7.0				
Ped Clear		24.0		19.0				
Recall		Min				Min		
LT Type	5-SECT		5-SECT		5-SECT		3-SECT	
Detect Type								

Pre-emption

3M Opticom <input type="checkbox"/> Active	RailRoad Pre-Emption <input checked="" type="checkbox"/> Active	Fire Station Pre-emp
Bridge <input type="checkbox"/> Active		

Part II Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8
Split Pat 1								
Split Pat 2								
Split Pat 3								
Split Pat 4								
Split Pat 5								
Split Pat 6								

Schedule Implementation

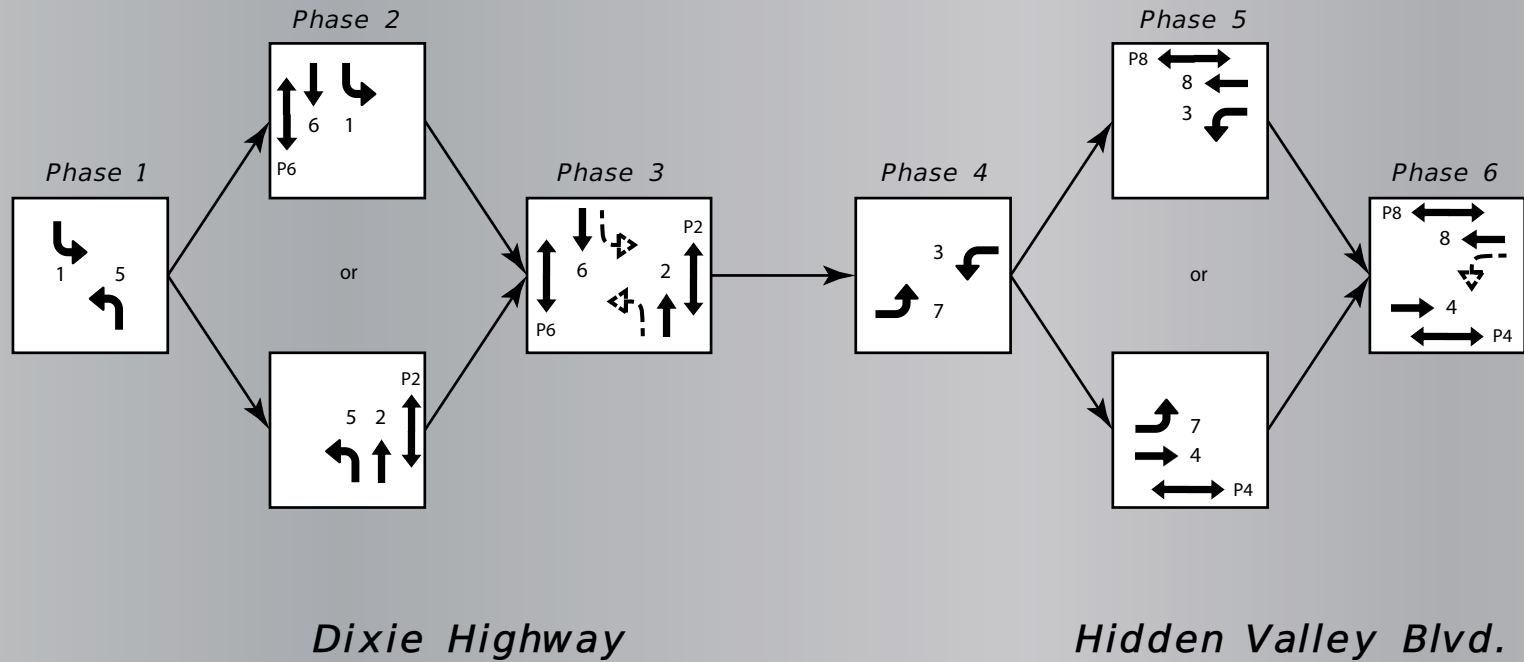
Schedule Notes	Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day 1
	Start	End	Split	Start	End	Split	
	0:00	0:00	100	0:00	0:00	100	

Part III Notes and Comments

1. Updated pedestrian signal timings. Phase 2.

ation Date	6/4/12
<i>Sp(A)</i>	<i>Sp(B)</i>
<i>tion</i>	<input type="checkbox"/> Active
<i>Cycle</i>	<i>Offset</i>
Plan 3 (Special)	

SOP 10



Intersection Notes:

WEEKDAY

00:00 - 24:00 Free Mode

WEEKEND

00:00 - 24:00 = Free Mode

Legend

- = Permissive Left Turn
- X = Phase Number
- PX = Pedestrian Phase Number
- OLX = Overlap Phase



City of Boca Raton
Municipal Services
Traffic Engineering

Standard Signal
Operating Plan
(SOP)

Designed By:
TNP
Date: 06/2020

048
Dixie Highway
@
Hidden Valley Boulevard



Site Code: 15550503 &
15550504

Date: 11/18/2021

Location: N Dixie Hwy &
W Hidden Valley Blvd/
NW 76th St

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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↘↙		
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↘↙		

Total

AM			PM		
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1	2	3	1	2	3
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-	-	0:15	-	0:17	-
0:20 _A	0:13 _A	0:06 _A	0:15 _A	-	0:13 _A
0:34	0:25	0:28	0:48	0:54	0:48
0:20	-	0:18	0:19	-	0:18
-	0:33 _A	0:02 _A	-	0:16 _B	-
0:19	-	0:25	0:38	0:33	0:34

1:33	1:11	1:34	2:00	2:00	1:53
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Site Code: 15550507 &
15550508

Date: 11/18/2021

Location: Congress Ave
& Clint Moore Rd

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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↶	↷	
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Total

AM			PM		
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1	2	3	1	2	3
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-	-	-	0:14	0:24	0:14
0:40 _A	0:37 _A	0:47 _A	0:18 _A	0:07 _A	0:18 _A
0:36	0:15	0:17	0:57	0:56	0:56
0:43 _A	0:44 _A	0:42 _A	-	-	-
0:26	-	0:18	-	0:23	0:20
0:19 _A	0:45 _A	0:26 _A	0:59 _A	0:37 _A	0:40 _A
0:39	0:29	0:43	0:32	0:31	0:28

3:23	2:50	3:13	3:00	2:58	2:56
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Site Code: 15550509 &
15550510

Date: 11/18/2021

Location: NW 2nd Ave &
Jeffery St

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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1:35	30:43	5:36	4:07	5:37	5:04
0:11	-	0:26	0:11	0:11	-
-	0:19	-	-	-	0:19

1:46	31:02	6:02	4:18	5:48	5:23
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Site Code: 15550513 &
15550514

Date: 11/18/2021

Location: US-1 &
Jeffery St

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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0:14 _A	-	-	0:14 _B	0:18 _B	0:18 _B
1:52	2:14	2:13	2:00	1:50	1:43
0:16	0:18	0:23	0:33	0:40	0:30

2:22	2:32	2:36	2:47	2:48	2:31
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Site Code: 15550515 &
15550516

Date: 11/18/2021

Location: NW 2nd Ave &
W Yamato Rd

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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↵↵		
↵	↵↵	
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↵	↵↵	

Total

AM			PM		
1	2	3	1	2	3
0:23	-	0:18	0:18	0:17	0:16
0:10 _A	0:43 _A	0:09 _A	0:20 _A	0:20 _A	0:21 _A
1:03	1:00	1:22	1:00	1:01	1:00
0:17	0:14	0:17	-	-	-
0:13 _A	0:21 _A	0:13 _A	0:22 _B	0:20 _B	0:15 _B
0:37	0:26	0:28	0:14	0:21	0:23
-	-	-	0:35 _A	0:32 _A	0:34 _A
2:43	2:44	2:47	2:49	2:51	2:49



Site Code: 15550517 &
15550518

Date: 11/18/2021

Location: N Dixie Hwy &
Yamato Rd

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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0:17	0:20	0:23	0:18	0:22	0:17
0:09 _A	0:20 _A	0:15 _A	0:13 _A	0:13 _A	0:17 _A
1:21	1:21	1:22	1:15	1:14	1:24
-	0:14	0:14	-	-	0:15
0:26 _A	0:11 _A	0:11 _A	0:32 _A	0:24 _A	0:18 _A
0:24	0:27	0:27	0:28	0:29	0:52

2:37	2:53	2:52	2:46	2:42	3:23
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Site Code: 15550519 &
15550520

Date: 11/18/2021

Location: NW 2nd Ave &
NW 40th St/
Spanish River Blvd

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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0:16	0:13	0:16	0:16	0:13	0:18
0:03 _A	0:11 _B	0:03 _B	-	0:03 _A	0:06 _B
1:18	1:04	1:00	1:27	1:15	0:59
-	0:19	0:14	0:25	0:23	0:27
0:18 _A	-	0:05 _A	0:15 _A	0:08 _A	0:04 _A
0:43	0:53	0:43	0:56	0:46	0:46

2:38	2:40	2:21	3:19	2:48	2:40
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Site Code: 15550521 &
15550522

Date: 11/18/2021

Location: N Dixie Hwy &
NW 40th St/
NE Spanish River Blvd

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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↙↖		

Total

AM			PM		
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1	2	3	1	2	3
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0:06	0:16	0:15	0:22	0:23	-
0:07 _A	0:03 _A	0:04 _A	-	-	0:21 _B
1:07	1:09	1:13	1:00	1:00	1:00
0:15	0:18	0:15	-	0:14	0:16
0:15 _A	0:10 _A	0:05 _A	0:22 _A	0:08 _A	0:07 _A
1:08	0:47	0:56	0:55	0:56	0:56

2:58	2:43	2:48	2:39	2:41	2:40
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Site Code: 15550523 &
15550524

Date: 11/18/2021

Location: N Dixie Hwy &
NW 40th St/
NE Spanish River Blvd

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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0:11	-	-	0:13	0:11	-
1:51	2:31	2:07	1:34	0:31	0:42
0:21	0:21	0:14	0:14	0:14	0:23

2:23	2:52	2:21	2:01	0:56	1:05
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Site Code: 15550525 &
15550526

Date: 11/18/2021

Location: N Dixie Hwy &
NW 28th St

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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0:27 _A	0:10 _B	-	0:23 _B	0:22 _B	
0:13	0:38	0:45	0:34	0:30	0:54
0:15	0:16	0:25	0:33	0:35	0:31

0:55	1:04	1:10	1:30	1:27	1:25
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Site Code: 15550527 &
15550528

Date: 11/18/2021

Location: NW 2nd Ave/Boca Raton Blvd
& NW 20th St

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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-	-	-	0:15	0:12	-
0:12 _A	-	-	-	-	0:15 _B
0:16	0:36	0:39	0:53	0:55	0:46
-	-	-	0:18	0:15	0:15
0:21	0:19	0:19	0:35	0:46	0:37

0:49	0:55	0:58	2:01	2:08	1:53
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Site Code: 15550529 &
15550530

Date: 11/18/2021

Location: N Dixie Hwy & NW 28th St

Count Times: 6:00AM-9:00AM
4:00PM-7:00PM

A	B	C
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Total

AM			PM		
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1	2	3	1	2	3
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0:26 _A	0:23 _B	0:23 _C	0:19 _C	0:21 _A	0:12 _C
1:03	1:14	1:11	1:25	1:21	1:33
0:06	0:17	-	0:26	-	0:23
0:11 _A	-	0:21 _B	-	0:28 _B	-
0:35	1:01	0:43	0:29	0:33	0:31

2:21	2:55	2:48	2:39	2:43	2:39
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APPENDIX D: TRAFFIC FORECAST VOLUMES

2045 AM No Build (BG+ST)

AADT

Total Turning Counts at an Intersection

New Counts

XX

Site Trips Added

Background Growth

Main Streets

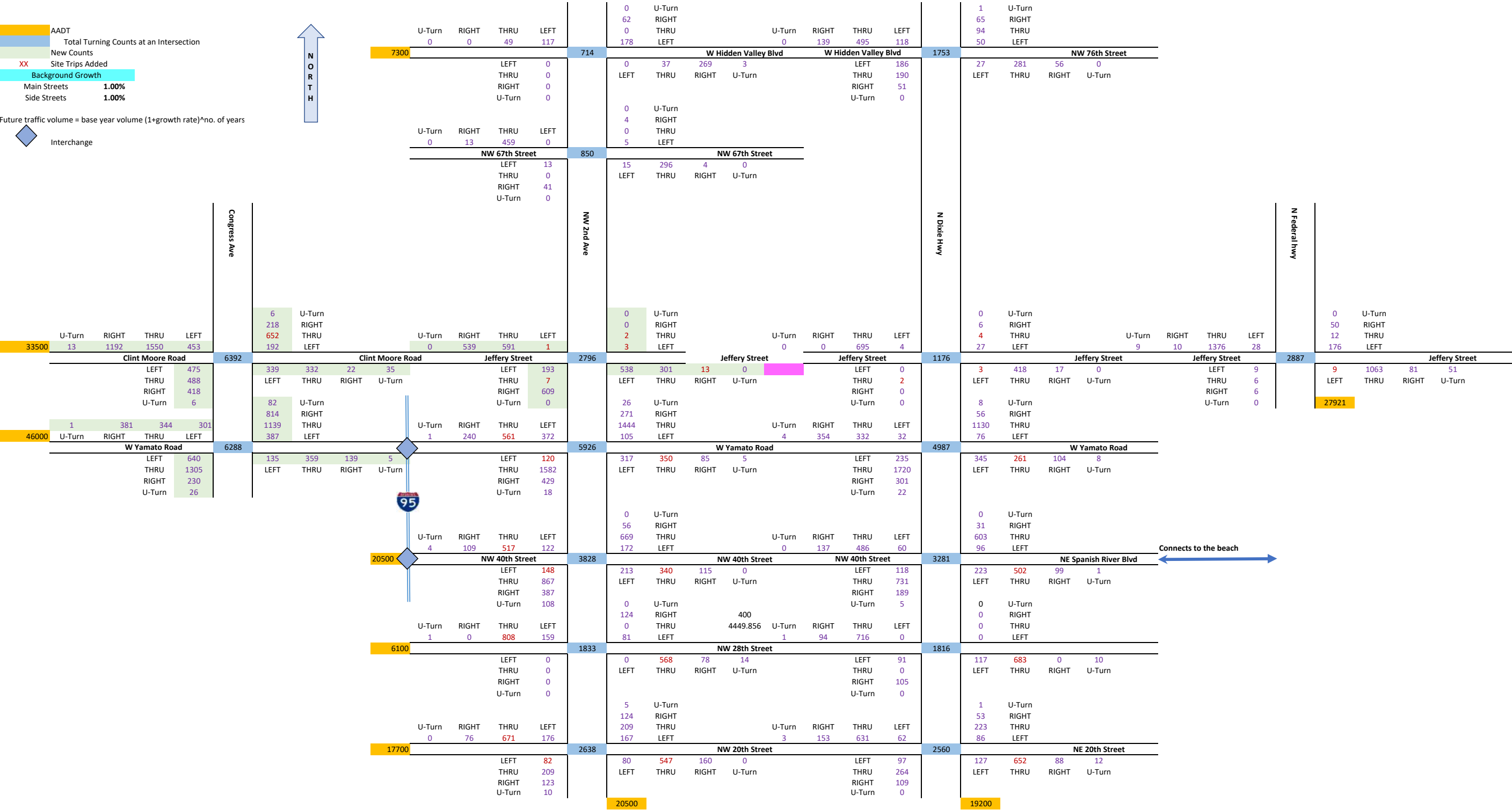
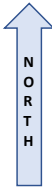
1.00%

Side Streets

1.00%

Future traffic volume = base year volume (1+growth rate)^no. of years

Interchange



2045 AM Build (Reassign 1-1)
(with Jeffery St connection and NW 28th St Closure)

AADT

Total Turning Counts at an Intersection

New Counts

XX Site Trips Added

Background Growth

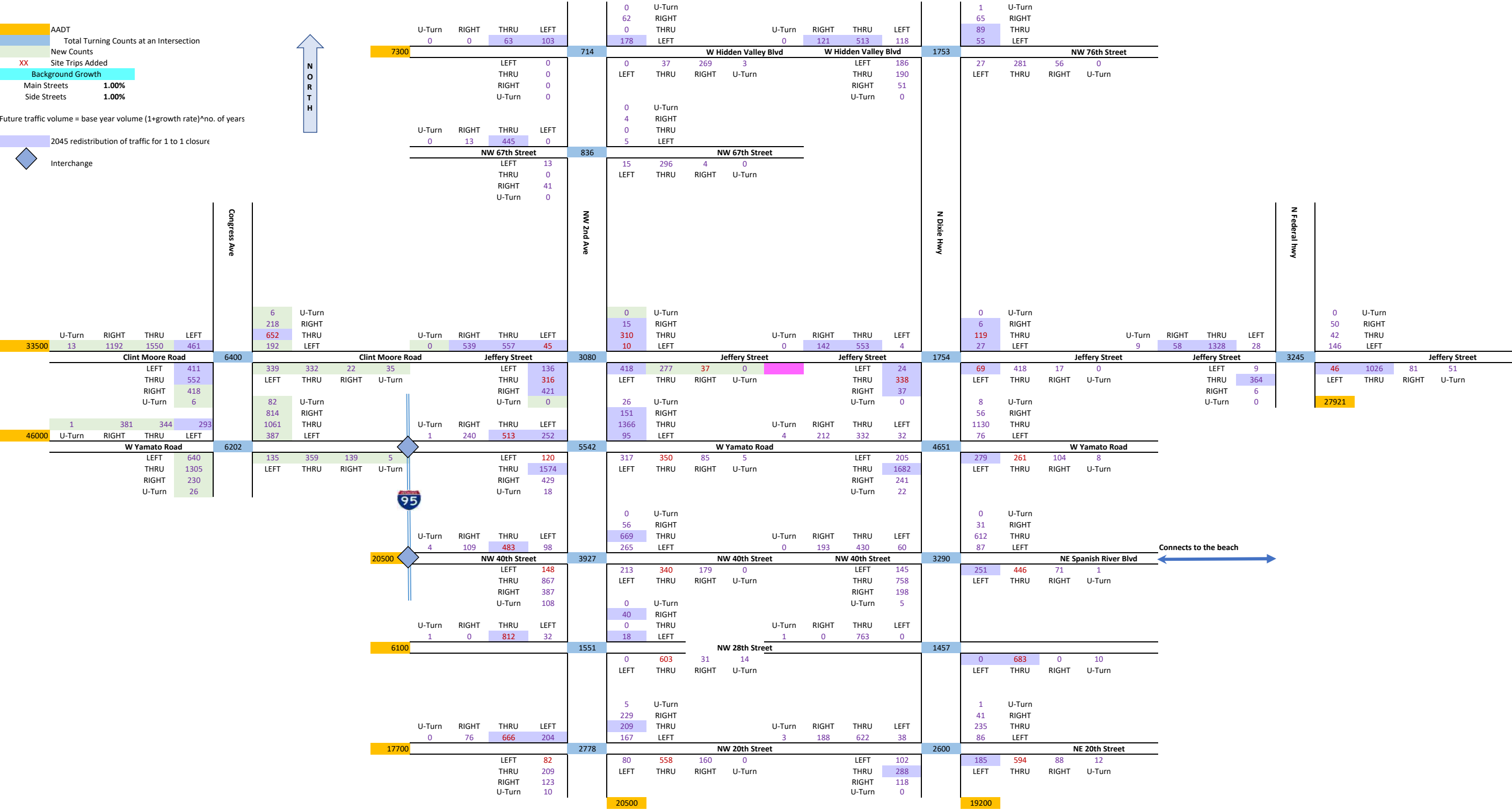
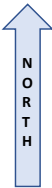
Main Streets 1.00%

Side Streets 1.00%

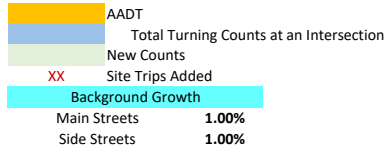
Future traffic volume = base year volume (1+growth rate)^no. of years

2045 redistribution of traffic for 1 to 1 closure

Interchange



(with proposed Jeffery St connection; & NW 28th St and Hidden Valley Blvd railroad crossing closure)



Future traffic volume = base year volume $(1 + \text{growth rate})^{\text{no. of years}}$

2045 redistribution of traffic for 2 to 1 closure

Interchange

2045 PM No Build (BG+ST)

AADT

Total Turning Counts at an Intersection

XX Site Trips Added

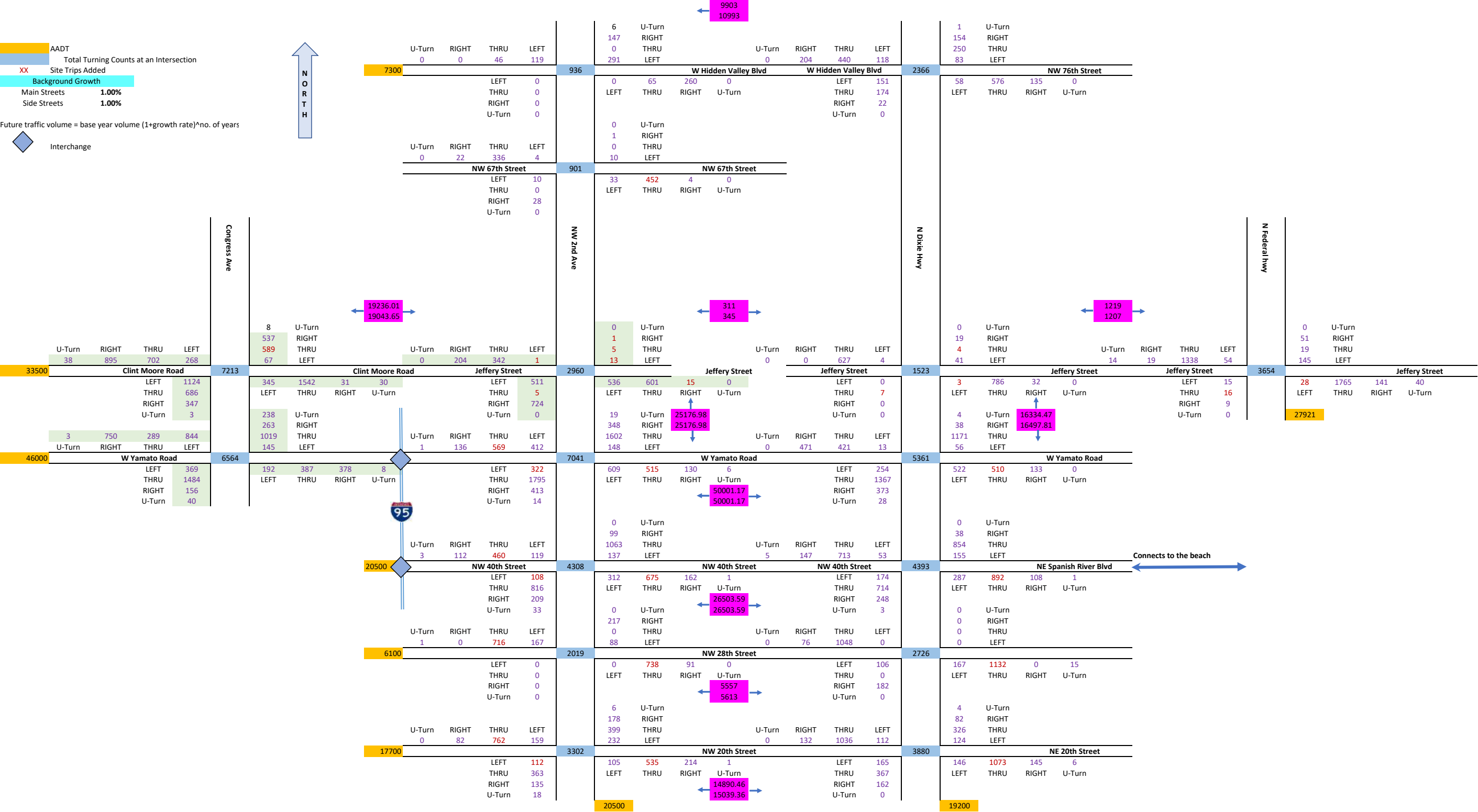
Background Growth

Main Streets 1.00%

Side Streets 1.00%

Future traffic volume = base year volume (1+growth rate)*no. of years

Interchange



2045 PM Build (Reassign 1-1)
(with Jeffery St connection and NW 28th St Closure)

AADT

Total Turning Counts at an Intersection

XX

Site Trips Added

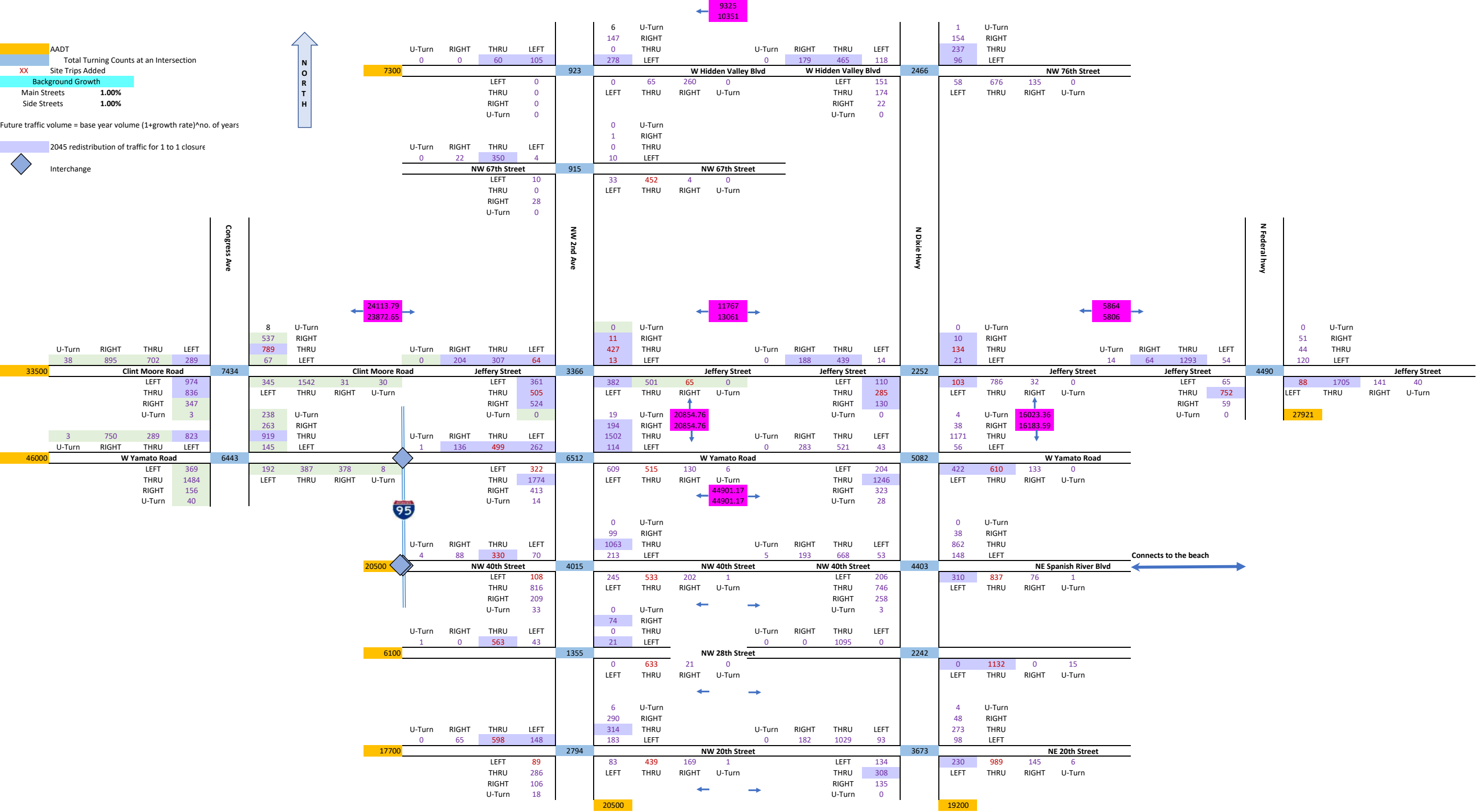
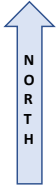
Background Growth

Main Streets1.00%

Side Streets1.00%

Future traffic volume = base year volume (1+growth rate)^no. of years

2045 redistribution of traffic for 1 to 1 closure



2045 PM Build (Reassign 2-1)
(with proposed Jeffery St connection; & NW 28th St and Hidden Valley Blvd railroad crossing closure)

AADT

Total Turning Counts at an Intersection

XX

Site Trips Added

Background Growth

Main Streets

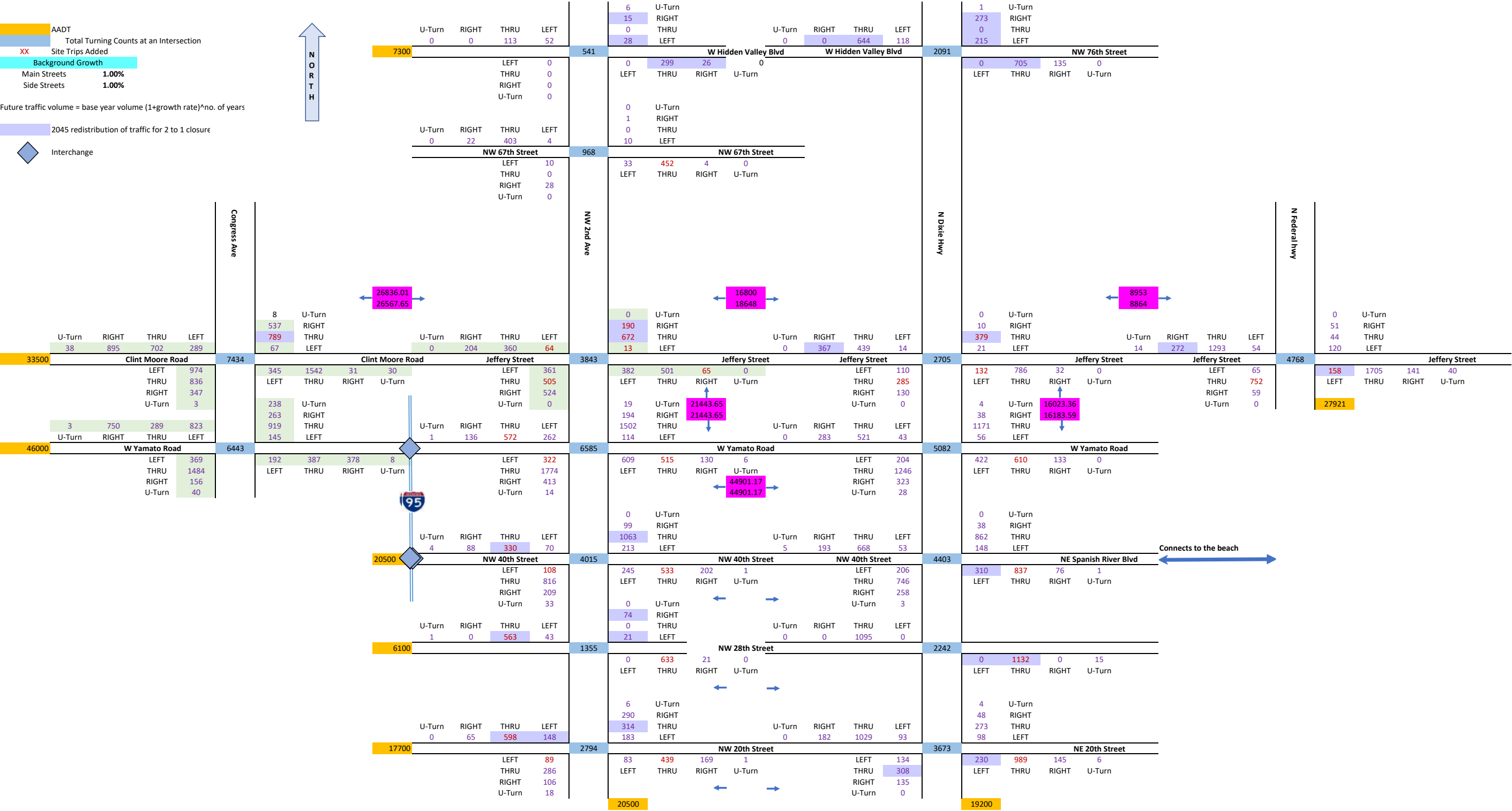
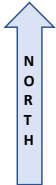
1.00%

Side Streets

1.00%

Future traffic volume = base year volume (1+growth rate)^no. of years

2045 redistribution of traffic for 2 to 1 closure





APPENDIX E:
SITE TRIPS FROM GOLF COURSE

2045 AM Site Trips

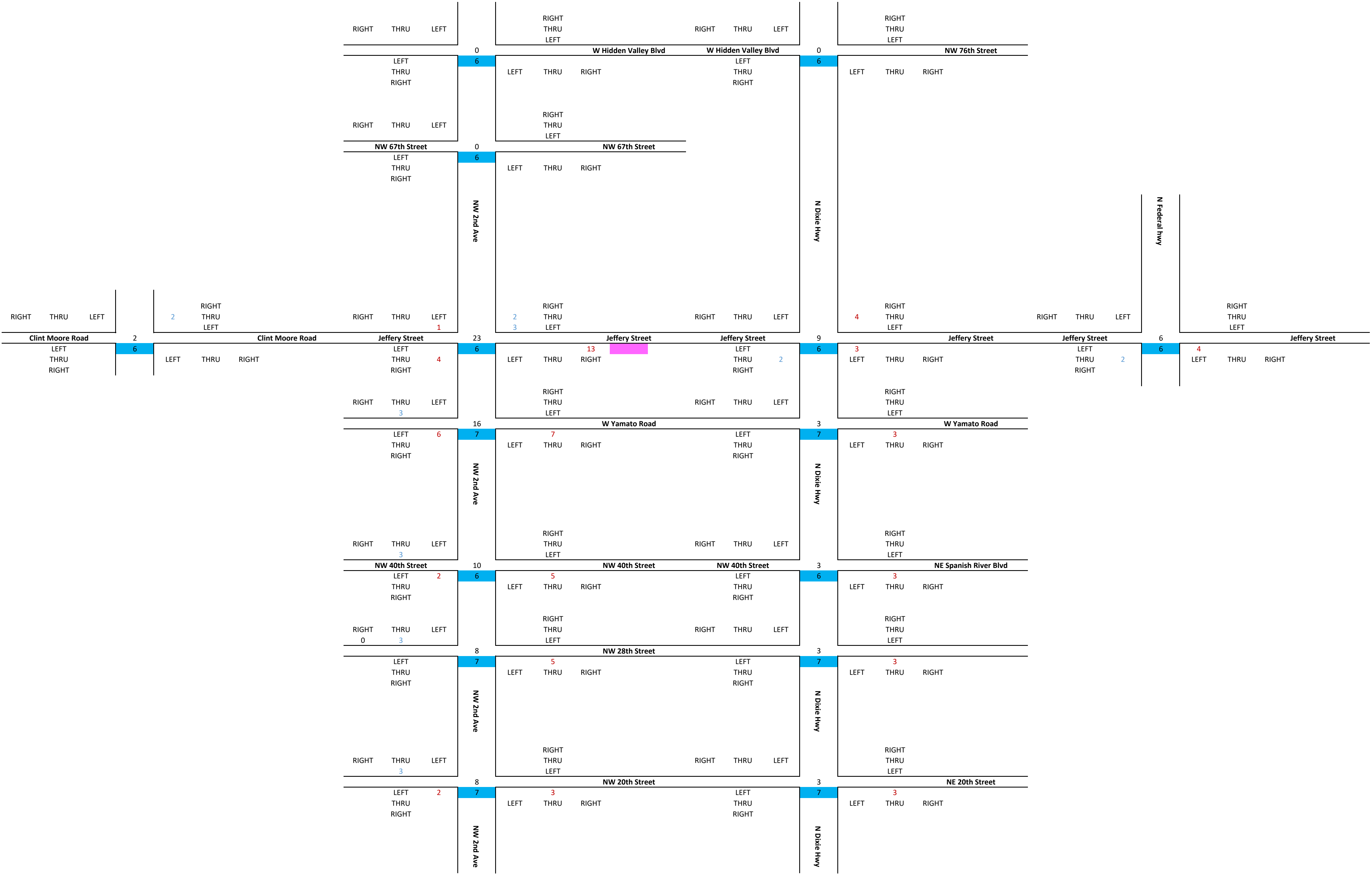
25

7

In

Out

Golf Office



2045 PM Site Trips

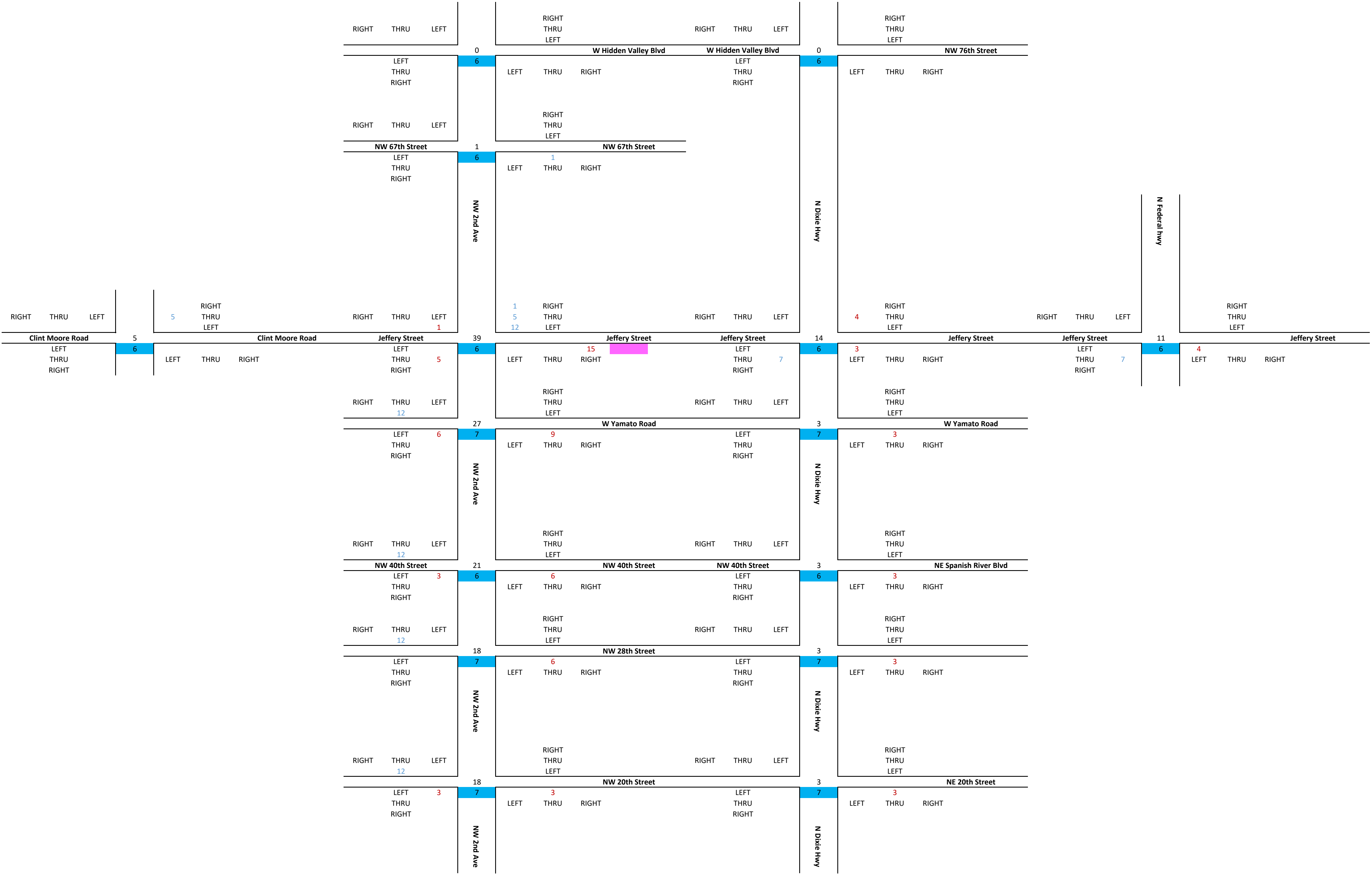
28

25

In

Out

Golf Office

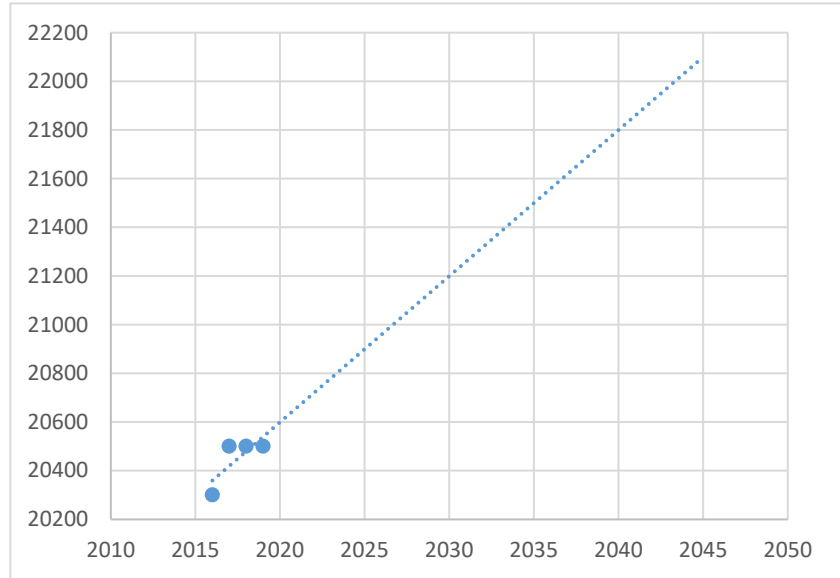




APPENDIX F:
GROWTH FACTOR CALCULATIONS & MEETING NOTES - CITY OF BOCA
RATON

NW 2nd Avenue

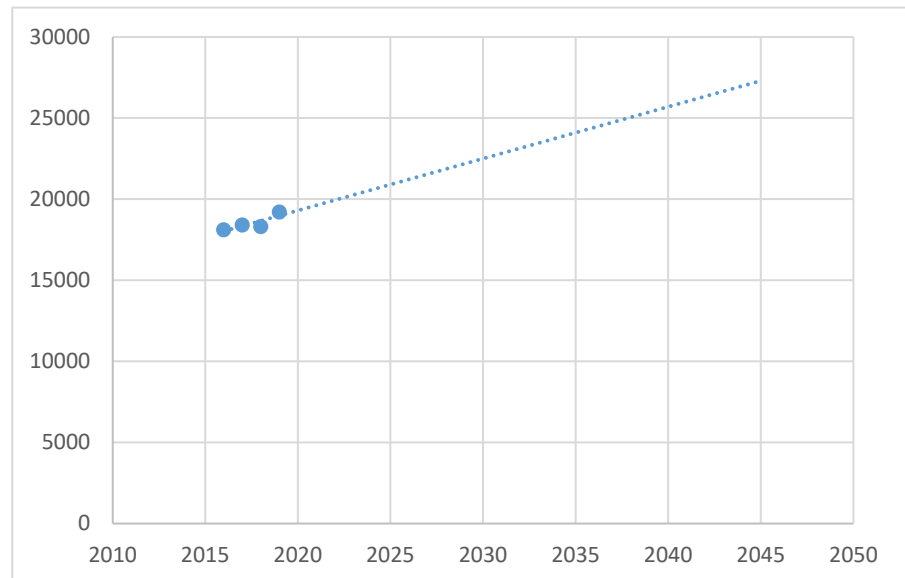
Year	AADT		
2016	20300		20300
2017	20500	0.99%	
2018	20500	0.00%	
2019	20500	0.00%	20500 0.33%
2020			
2021		0.33%	
2022		Growth Rate	
2023		0.33%	



Future traffic volume	22100	266413	22442
Base year volume	20300		
No. of years	29		
Future traffic volume = base year volume (1+growth rate)^no. of years			
	0.293%		

N Dixie Hwy

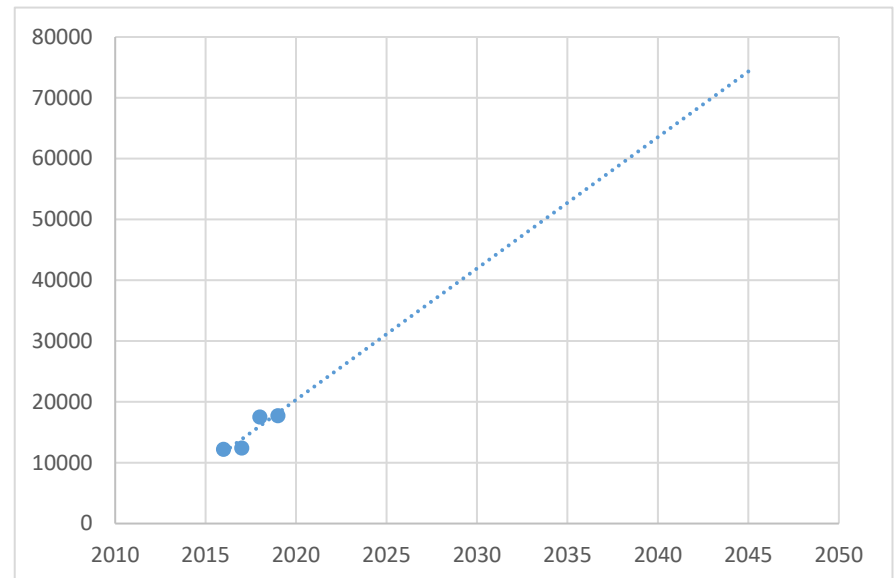
Year	AADT			
2016	18100		18100	
2017	18400	1.66%		
2018	18300	-0.54%		
2019	19200	4.92%	19200	2.03%
2020				
2021		2.01%		



Future traffic volume	25300	24438
Base year volume	18100	
No. of years	29	
Future traffic volume = base year volume (1+growth rate)^no. of years		
1.161%	25626	
	25300	

NW 20th Street

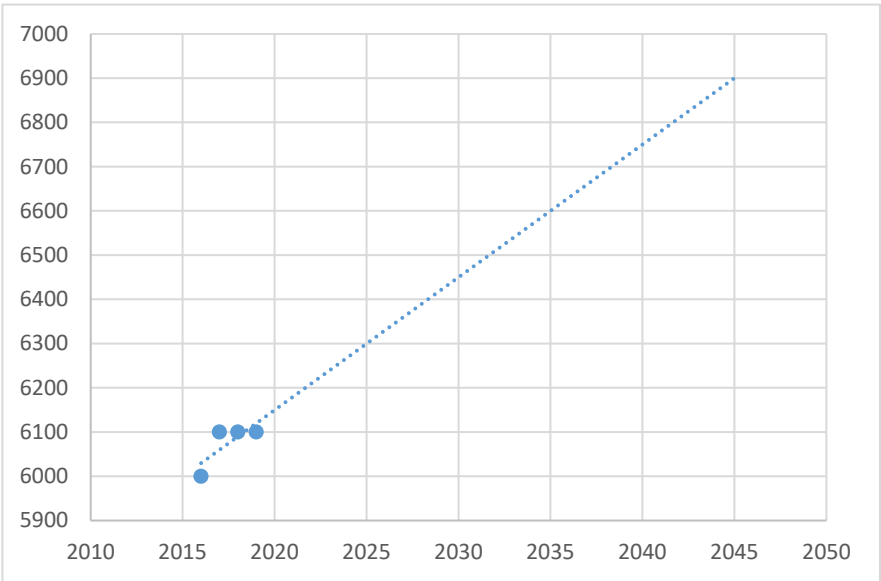
Year	AADT			
2016	12200		12200	
2017	12400	1.64%		
2018	17500	41.13%		
2019	17700	1.14%	17700	15.03%
2020				
2021		14.64%		



Future traffic volume	72500	72500	1241
Base year volume	12200		
No. of years	29		
Future traffic volume = base year volume (1+growth rate)^no. of years			
	6.338%		

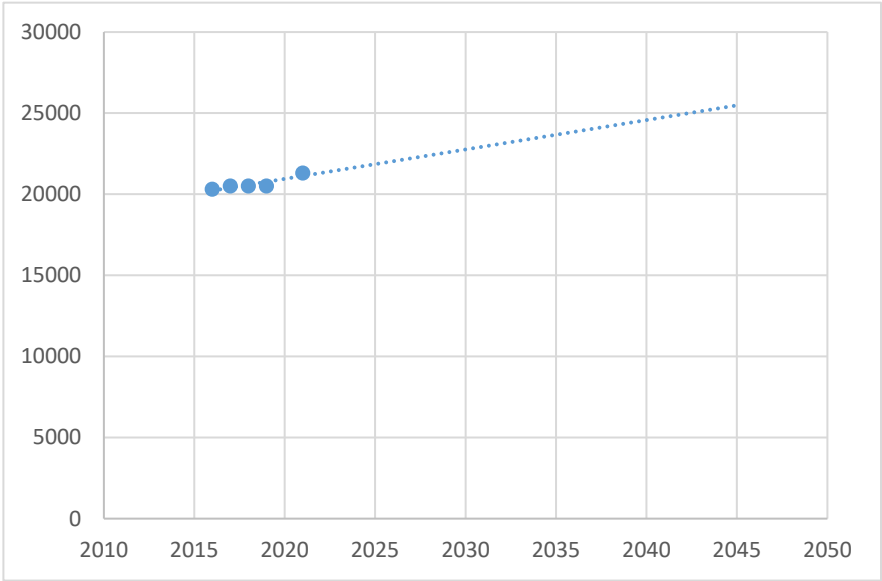
NW 28th Street

Year	AADT		
2016	6000	6000	
2017	6100	1.67%	
2018	6100	0.00%	
2019	6100	0.00%	61000.56%
2020			
2021		0.56%	
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040	Future traffic volume	6900	1056710567
2041	Base year volume	6000	
2042	No. of years	29	
2043	Future traffic volume = base year volume (1+growth rate)^no. of years		
2044		0.483%	
2045		1.97%	



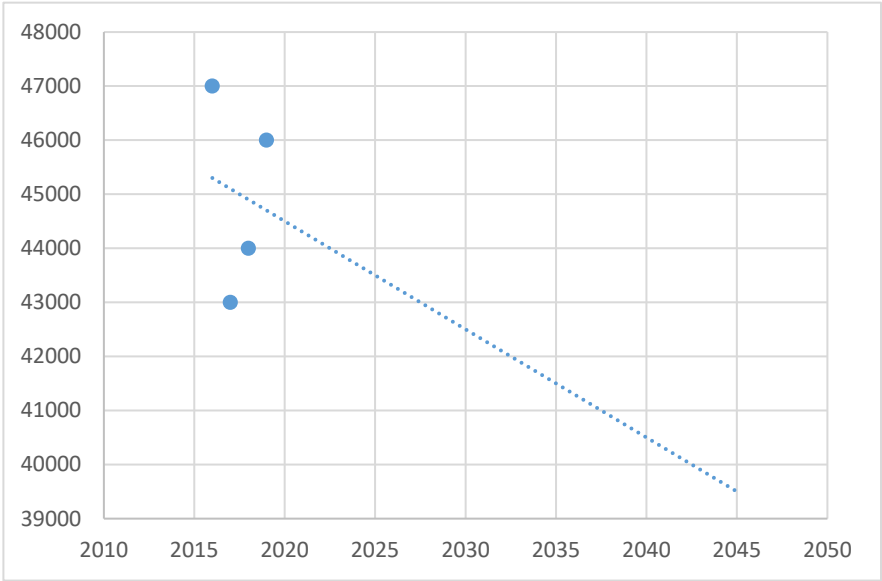
Spanish River Blvd

Year	AADT		
2016	20300	20300	
2017	20500	0.99%	
2018	20500	0.00%	
2019	20500	0.00%	
2020			
2021	21302	0.33%	213020.99%
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040	Future traffic volume	25100	874625889
2041	Base year volume	20300	
2042	No. of years	29	
2043	Future traffic volume = base year volume (1+growth rate)^no. of years		
2044		0.735%	
2045		-4.18%	



Yamato Road

Year	AADT		
2016	47000	47000	
2017	43000	-8.51%	
2018	44000	2.33%	
2019	46000	4.55%	46000-0.71%
2020			
2021		-0.55%	
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040	Future traffic volume	39500	29109464072
2041	Base year volume	47000	
2042	No. of years	29	
2043	Future traffic volume = base year volume (1+growth rate)^no. of years		
2044		-0.598%	
2045		1.07%	

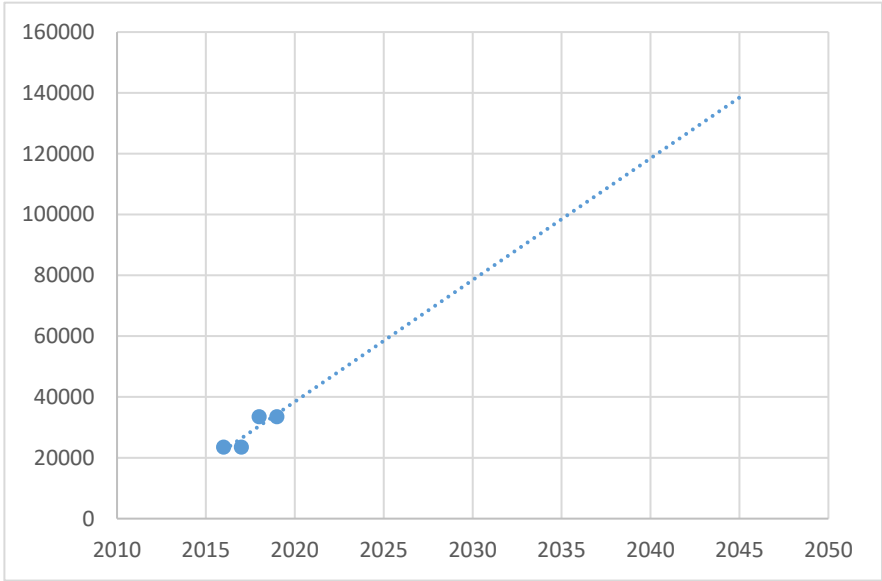


Ji

Year	
2016	
2017	
2018	
2019	
2020	
2021	
2022	
2023	
2024	
2025	
2026	
2027	
2028	
2029	
2030	
2031	
2032	
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2039	
2040	
2041	
2042	
2043	
2044	
2045	

effery Street

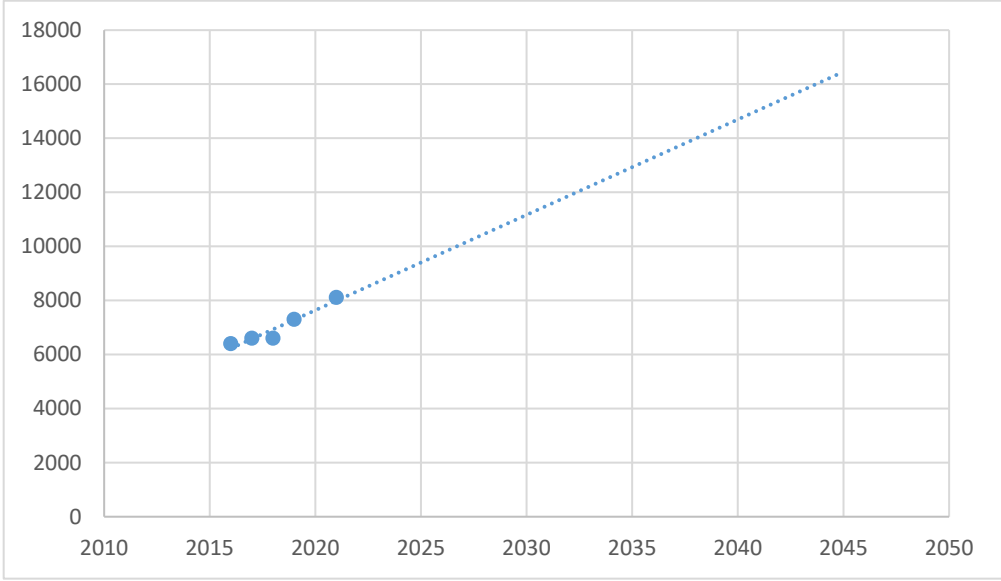
AADT			
23500		23500	
23500	0.00%		
33500	42.55%		
33500	0.00%	33500	14.18%
	14.18%		



Future traffic volume	138000	44183	11134
Base year volume	23500		
No. of years	29		
Future traffic volume = base year volume (1+growth rate)^no. of years			
	6.294%		
	-2.54%		

Hidden Valley Blvd

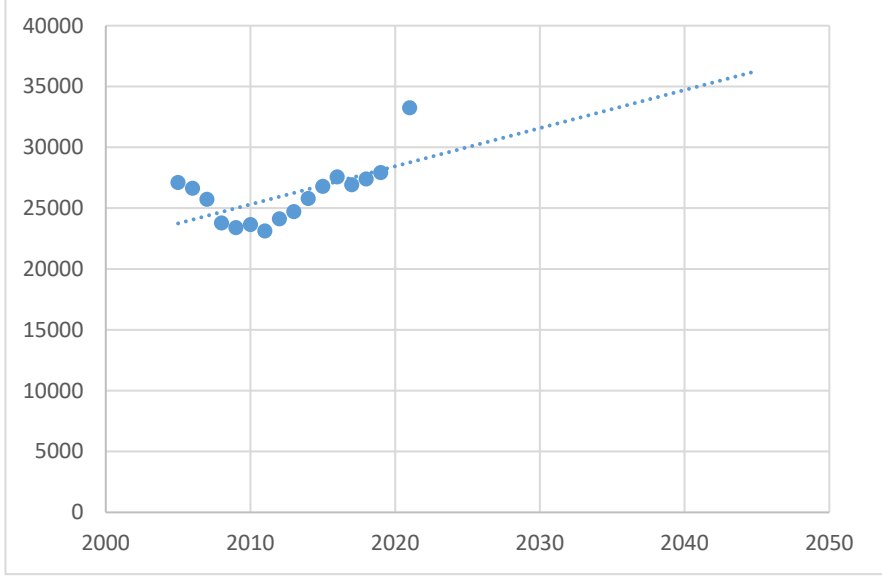
Year	AADT		
2016	6400		6400
2017	6600	3.13%	
2018	6600	0.00%	
2019	7300	10.61%	
2020			
2021	8108	4.58%	8108
2022			5.34%
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040			
2041			
2042			
2043			
2044			
2045			



Future traffic volume	16050	5833	4285
Base year volume	6400		
No. of years	29		
Future traffic volume = base year volume (1+growth rate)^no. of years			
	3.221%		
	-1.37%		

N Federal Hwy

Year	AADT		
2005	27096		
2006	26627	-2.32%	
2007	25726	1.75%	
2008	23778	1.94%	
2009	23397		
2010	23647	0.46%	
2011	23123		
2012	24112		
2013	24712		
2014	25788		
2015	26782		
2016	27556		27556
2017	26918		
2018	27389		
2019	27921		
2020			
2021	33242		33242
2022			4.13%
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
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2039			
2040			
2041			
2042			
2043			
2044			
2045			



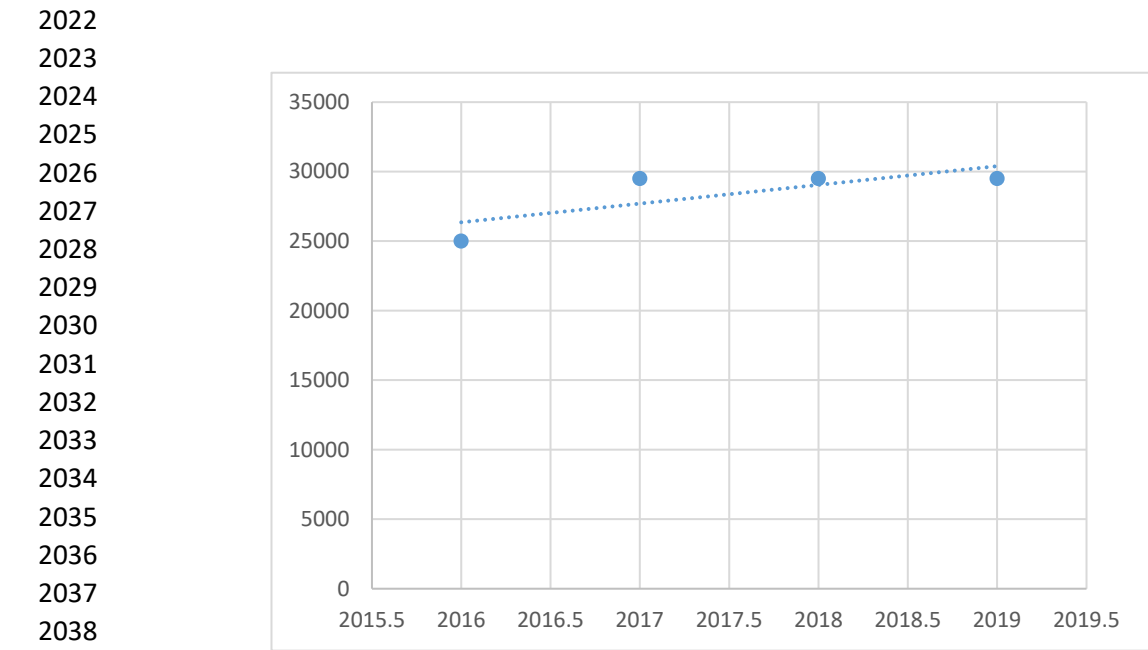
Future traffic volume	35100	54361	34240	32000
Base year volume	27556			
No. of years	29			
Future traffic volume = base year volume (1+growth rate)^no. of years				
		0.838%		
		0.75%		
			0.517%	

Congress Ave

Year	AADT	
2016	25000	
2017	29500	18.00%
2018	29500	0.00%
2019	29500	0.00%

6400

2020				
2021	8108	6.00%	8108	5.34%
2022				



2039				
2040	Future traffic volume	30050	5833	4285
2041	Base year volume	25000		
2042	No. of years	29		

Future traffic volume = base year volume (1+growth rate)^no. of years

2043				
2044				
2045				

0.636%

-5.90%



APPENDIX G:
LIST OF ASSUMPTIONS FOR 1:1 CLOSURE & 2:1 CLOSURE

1:1 CLOSURE ASSUMPTIONS

3% vehicle of SBL on Yamato Rd & Congress Ave were moved to SBL of Yamato Rd & Clintmoore Rd
14% of vehicles of EBL on Clintmoore Rd & Congress Ave were moved to it's EBT and carried throughout the corridor
8% of vehicles were added to SBL on Congress Ave & Clintmoore Rd and carried throughout the corridor

30% of vehicles of EBL on Jeffery St & NW 2nd Ave were moved to it's EBT and carried throughout the corridor
28% of vehicles of EBR on Jeffery St & NW 2nd Ave were moved to it's EBT and carried throughout the corridor
4% of vehicles of SBT on Jeffery St & NW 2nd Ave were moved to it's SBL and carried throughout the corridor
8% of vehicles of NBT on Jeffery St & NW 2nd Ave were moved to it's NBR and carried throughout the corridor

19% of vehicles of NBL on Yamato Rd & N Dixie Hwy were moved to NBL of Jeffery St & N Dixie Hwy and carried throughout the corridor
40% of vehicles of SBR on Yamato Rd & N Dixie Hwy were moved to SBR of Jeffery St & N Dixie Hwy and carried throughout the corridor

4% of vehicles of NBT on Jeffery St & US 1 were moved to it's NBL and carried throughout the corridor
17% of vehicles of WBL on Jeffery St & US 1 were moved to it's WBT and carried throughout the corridor
4% of vehicles of SBT on Jeffery St & US 1 were moved to it's SBR and carried throughout the corridor

24% of vehicles of SBL on NW 28th St & NW 2nd Ave were moved to it's SBT and carried throughout the corridor
12% of vehicles of WBR on NW 28th St were reduced
28% of vehicles of WBL on NW 28th St were reduced
Volumes of NBL of NW 28th St & N Dixie Hwy were distributed equally between NBT of NW 28th St & N Dixie Hwy and NBL of NW 20th St & N Dixie Hwy and carried throughout the corridor
Volumes of SBR of NW 28th St & N Dixie Hwy were equally distributed between SBT of NW 28th St & N Dixie Hwy and SBR of Spanish River Blvd & N Dixie Hwy and carried throughout the corridor

5% of vehicles of WBT on Hidden Valley Blvd & N Dixie Hwy were moved to it's WBL and carried throughout the corridor
13% of vehicles of SBR on Hidden Valley Blvd & N Dixie Hwy were moved to it's SBT and carried throughout the corridor
12% of vehicles of SBL on Hidden Valley Blvd & NW 2nd Ave were to it's SBT and carried throughout the corridor

2:1 CLOSURE ASSUMPTIONS

50% of vehicles of SBL on Hidden Valley Blvd & NW 2nd Ave were moved to it's SBT and carried throughout the corridor

90% of vehicles of NBR on Hidden Valley Blvd & NW 2nd Ave were moved to it's NBT and carried throughout the corridor

SBR volumes on Hidden Valley Blvd & N Dixie Hwy were moved to SBR on Jeffery St & N Dixie Hwy

NBL volumes on Hidden Valley Blvd & N Dixie Hwy were equally distributed between it's NBT and NBL of Jeffery St & N Dixie Hwy and carried throughout the corridor

WBT volumes on Hidden Valley Blvd & N Dixie Hwy were equally distributed between it's WBL and WBR

WBR volumes on Hidden Valley Blvd & NW 2nd Ave was reduced by 90%

WBL volumes on Hidden Valley Blvd & NW 2nd Ave was reduced by 90%; for which 75% was added to SBR on US 1 & Jeffery and 25% was added to NBL on US 1 & Jeffery





















APPENDIX H:

2021 EXISTING SYNCHRO REPORTS

Timings
1: NW 2nd Ave & NW 20th St

Existing AM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	71	165	135	165	63	428	126	138	526
Future Volume (vph)	71	165	135	165	63	428	126	138	526
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	12.0	34.0	18.0	40.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	10.0%	28.3%	15.0%	33.3%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.0	13.0	29.3	20.6	66.1	60.4	60.4	72.8	65.5
Actuated g/C Ratio	0.15	0.11	0.24	0.17	0.55	0.50	0.50	0.61	0.55
v/c Ratio	0.40	0.63	0.59	0.44	0.15	0.26	0.15	0.26	0.33
Control Delay	42.9	41.0	46.8	31.0	10.4	18.2	1.9	10.6	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	41.0	46.8	31.0	10.4	18.2	1.9	10.6	16.5
LOS	D	D	D	C	B	B	A	B	B
Approach Delay		41.4		36.4		14.1			15.3
Approach LOS		D		D		B			B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 23.2

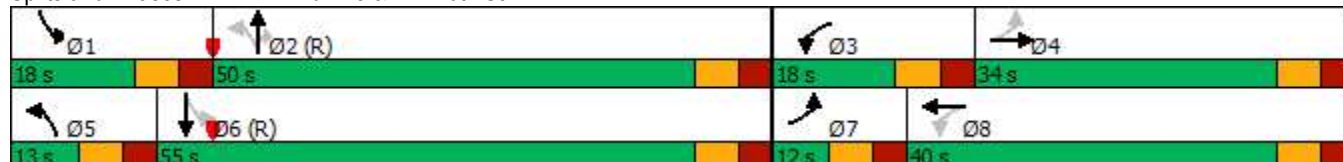
Intersection LOS: C

Intersection Capacity Utilization 74.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues
1: NW 2nd Ave & NW 20th St

Existing AM 2021
09/28/2022

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	76	279	144	280	67	455	134	147	624
v/c Ratio	0.40	0.63	0.59	0.44	0.15	0.26	0.15	0.26	0.33
Control Delay	42.9	41.0	46.8	31.0	10.4	18.2	1.9	10.6	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	41.0	46.8	31.0	10.4	18.2	1.9	10.6	16.5
Queue Length 50th (ft)	46	74	92	66	18	101	0	42	137
Queue Length 95th (ft)	85	117	146	107	40	153	22	77	197
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	191	820	251	958	453	1765	868	597	1867
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.34	0.57	0.29	0.15	0.26	0.15	0.25	0.33
Intersection Summary									

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St



















Existing AM 2021

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	165	97	135	165	98	63	428	126	138	526	60
Future Volume (veh/h)	71	165	97	135	165	98	63	428	126	138	526	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	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	1885	1856	1900	1826	1826	1826	1826	1856	1870	1870	1841	1826
Adj Flow Rate, veh/h	76	176	103	144	176	104	67	455	134	147	560	64
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	3	0	5	5	5	5	3	2	2	4	5
Cap, veh/h	243	286	158	265	377	211	441	1729	775	506	1616	184
Arrive On Green	0.04	0.13	0.13	0.09	0.18	0.18	0.04	0.49	0.49	0.06	0.51	0.51
Sat Flow, veh/h	1795	2173	1203	1739	2133	1194	1739	3526	1580	1781	3163	361
Grp Volume(v), veh/h	76	141	138	144	141	139	67	455	134	147	309	315
Grp Sat Flow(s),veh/h/ln	1795	1763	1613	1739	1735	1592	1739	1763	1580	1781	1749	1775
Q Serve(g_s), s	4.4	9.1	9.8	8.4	8.8	9.4	2.3	9.1	5.7	4.9	12.6	12.7
Cycle Q Clear(g_c), s	4.4	9.1	9.8	8.4	8.8	9.4	2.3	9.1	5.7	4.9	12.6	12.7
Prop In Lane	1.00		0.75	1.00		0.75	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	243	232	212	265	307	282	441	1729	775	506	893	907
V/C Ratio(X)	0.31	0.61	0.65	0.54	0.46	0.49	0.15	0.26	0.17	0.29	0.35	0.35
Avail Cap(c_a), veh/h	243	397	363	273	477	438	464	1729	775	566	893	907
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	0.97	0.97	0.97
Uniform Delay (d), s/veh	42.9	49.2	49.5	40.1	44.3	44.5	14.4	17.9	17.0	13.8	17.4	17.5
Incr Delay (d2), s/veh	0.3	1.0	1.3	1.1	0.4	0.5	0.1	0.4	0.5	0.1	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.0	4.0	3.7	3.8	3.7	0.9	3.7	2.1	1.9	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	50.1	50.7	41.1	44.7	45.0	14.5	18.3	17.5	13.9	18.5	18.5
LnGrp LOS	D	D	D	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		355			424			656			771	
Approach Delay, s/veh		48.9			43.6			17.7			17.6	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	65.9	17.4	22.8	11.5	68.3	12.0	28.2				
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	11.0	43.0	11.0	27.0	6.0	48.0	5.0	33.0				
Max Q Clear Time (g_c+I1), s	6.9	11.1	10.4	11.8	4.3	14.7	6.4	11.4				
Green Ext Time (p_c), s	0.1	1.5	0.0	0.5	0.0	1.3	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				27.7								
HCM 6th LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
2: N Dixie Hwy & NW 20th St

Existing AM 2021
09/28/2022

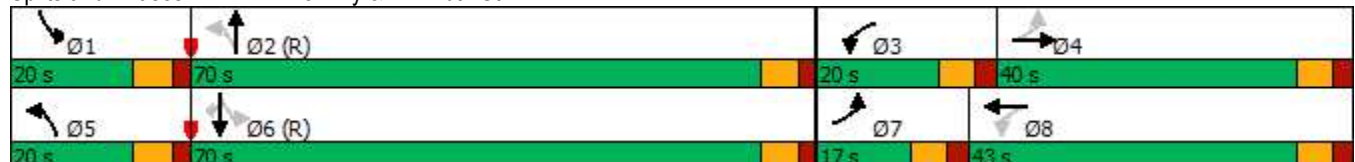
									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	77	208	68	176	109	511	50	497	120
Future Volume (vph)	77	208	68	176	109	511	50	497	120
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	24.5	11.5	45.5	11.4	42.4	11.4	41.4	41.4
Total Split (s)	17.0	40.0	20.0	43.0	20.0	70.0	20.0	70.0	70.0
Total Split (%)	11.3%	26.7%	13.3%	28.7%	13.3%	46.7%	13.3%	46.7%	46.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	27.0	19.1	26.0	16.8	101.1	94.7	96.6	90.8	90.8
Actuated g/C Ratio	0.18	0.13	0.17	0.11	0.67	0.63	0.64	0.61	0.61
v/c Ratio	0.38	0.66	0.37	0.56	0.19	0.27	0.10	0.25	0.12
Control Delay	52.2	62.0	51.8	62.7	9.1	13.7	8.9	15.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	62.0	51.8	62.7	9.1	13.7	8.9	15.1	2.8
LOS	D	E	D	E	A	B	A	B	A
Approach Delay		60.0		60.1		13.0		12.4	
Approach LOS		E		E		B		B	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 25 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 28.1
 Intersection Capacity Utilization 61.5%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St






















Existing AM 2021
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	303	70	223	112	599	52	512	124
v/c Ratio	0.38	0.66	0.37	0.56	0.19	0.27	0.10	0.25	0.12
Control Delay	52.2	62.0	51.8	62.7	9.1	13.7	8.9	15.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	62.0	51.8	62.7	9.1	13.7	8.9	15.1	2.8
Queue Length 50th (ft)	64	134	57	102	33	132	15	116	0
Queue Length 95th (ft)	106	182	95	140	65	198	35	179	32
Internal Link Dist (ft)		417		733		683		3051	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	217	771	240	844	645	2185	619	2061	1007
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.39	0.29	0.26	0.17	0.27	0.08	0.25	0.12
Intersection Summary									

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	208	86	68	176	41	109	511	70	50	497	120
Future Volume (veh/h)	77	208	86	68	176	41	109	511	70	50	497	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1841	1841	1856	1856	1900	1870	1856	1900	1870	1811	1870
Adj Flow Rate, veh/h	79	214	89	70	181	42	112	527	72	52	512	124
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	4	4	3	3	0	2	3	0	2	6	2
Cap, veh/h	203	311	125	171	347	79	550	1948	265	550	2126	979
Arrive On Green	0.05	0.13	0.13	0.05	0.12	0.12	0.04	0.62	0.62	0.03	0.62	0.62
Sat Flow, veh/h	1711	2424	972	1767	2846	643	1781	3117	424	1781	3441	1585
Grp Volume(v), veh/h	79	152	151	70	110	113	112	297	302	52	512	124
Grp Sat Flow(s),veh/h/ln	1711	1749	1647	1767	1763	1726	1781	1763	1779	1781	1721	1585
Q Serve(g_s), s	6.0	12.5	13.2	5.2	8.8	9.2	3.5	11.4	11.5	1.6	10.0	4.9
Cycle Q Clear(g_c), s	6.0	12.5	13.2	5.2	8.8	9.2	3.5	11.4	11.5	1.6	10.0	4.9
Prop In Lane	1.00		0.59	1.00		0.37	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	203	224	211	171	215	211	550	1102	1112	550	2126	979
V/C Ratio(X)	0.39	0.68	0.71	0.41	0.51	0.53	0.20	0.27	0.27	0.09	0.24	0.13
Avail Cap(c_a), veh/h	235	391	368	250	429	420	646	1102	1112	659	2126	979
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	0.96	0.96	0.96
Uniform Delay (d), s/veh	54.0	62.4	62.8	54.7	61.7	61.8	9.9	12.7	12.7	10.0	12.9	11.9
Incr Delay (d2), s/veh	0.5	1.3	1.7	0.6	0.7	0.8	0.1	0.6	0.6	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.6	5.6	2.3	4.0	4.1	1.3	4.6	4.6	0.6	3.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	63.8	64.4	55.3	62.4	62.6	10.0	13.3	13.3	10.0	13.1	12.1
LnGrp LOS	D	E	E	E	E	E	B	B	B	B	B	B
Approach Vol, veh/h		382			293			711			688	
Approach Delay, s/veh		62.1			60.8			12.8			12.7	
Approach LOS		E			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	100.1	13.3	25.7	11.9	99.1	14.2	24.8				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	63.6	13.5	33.5	13.6	63.6	10.5	36.5				
Max Q Clear Time (g_c+I1), s	3.6	13.5	7.2	15.2	5.5	12.0	8.0	11.2				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.1	1.6	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
3: NW 2nd Ave & NW 28th St

Existing AM 2021
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↕	↖	↕
Traffic Volume (vph)	64	97	443	126	634
Future Volume (vph)	64	97	443	126	634
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	24.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.0	12.0	32.2	39.8	41.0
Actuated g/C Ratio	0.20	0.20	0.53	0.65	0.67
v/c Ratio	0.21	0.27	0.31	0.27	0.29
Control Delay	22.6	7.3	11.3	6.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	7.3	11.3	6.8	6.1
LOS	C	A	B	A	A
Approach Delay	13.3		11.3		6.2
Approach LOS	B		B		A

Intersection Summary

Cycle Length: 61

Actuated Cycle Length: 61

Offset: 10 (16%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 8.8

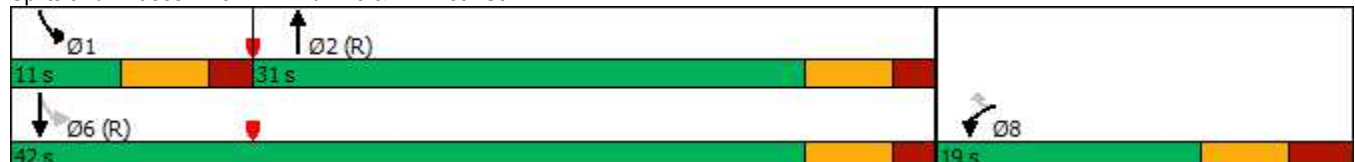
Intersection LOS: A

Intersection Capacity Utilization 47.8%

ICU Level of Service A






Analysis Period (min) 15

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St







Existing AM 2021
09/28/2022

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	70	107	555	138	697
v/c Ratio	0.21	0.27	0.31	0.27	0.29
Control Delay	22.6	7.3	11.3	6.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	7.3	11.3	6.8	6.1
Queue Length 50th (ft)	22	0	68	20	60
Queue Length 95th (ft)	52	34	103	40	87
Internal Link Dist (ft)	228		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	328	394	1813	520	2378
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.27	0.31	0.27	0.29
Intersection Summary					

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St

Existing AM 2021
09/28/2022













						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	64	97	443	62	126	634
Future Volume (veh/h)	64	97	443	62	126	634
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1781	1856	1841	1841	1841	1870
Adj Flow Rate, veh/h	70	107	487	68	138	697
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	8	3	4	4	4	2
Cap, veh/h	317	294	1318	183	516	2132
Arrive On Green	0.19	0.19	0.43	0.43	0.07	0.60
Sat Flow, veh/h	1697	1572	3176	429	1753	3647
Grp Volume(v), veh/h	70	107	275	280	138	697
Grp Sat Flow(s),veh/h/ln	1697	1572	1749	1764	1753	1777
Q Serve(g_s), s	2.1	3.6	6.5	6.6	2.4	6.0
Cycle Q Clear(g_c), s	2.1	3.6	6.5	6.6	2.4	6.0
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	317	294	748	754	516	2132
V/C Ratio(X)	0.22	0.36	0.37	0.37	0.27	0.33
Avail Cap(c_a), veh/h	334	309	748	754	530	2132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	0.79	0.79
Uniform Delay (d), s/veh	21.0	21.6	11.9	11.9	7.9	6.1
Incr Delay (d2), s/veh	0.1	0.3	1.4	1.4	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.3	2.4	2.5	0.7	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.2	21.9	13.2	13.2	8.0	6.4
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	177		555			835
Approach Delay, s/veh	21.6		13.2			6.7
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.5	32.1			42.6	18.4
Change Period (Y+Rc), s	6.0	6.0			6.0	7.0
Max Green Setting (Gmax), s	5.0	25.0			36.0	12.0
Max Q Clear Time (g_c+I1), s	4.4	8.6			8.0	5.6
Green Ext Time (p_c), s	0.0	1.1			1.9	0.2
Intersection Summary						
HCM 6th Ctrl Delay			10.7			
HCM 6th LOS			B			

Notes

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

Timings
4: N Dixie Hwy & NW 28th St

Existing AM 2021
09/28/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	72	83	100	535	565	74
Future Volume (vph)	72	83	100	535	565	74
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	12.0	12.0	5.0	18.0	18.0	18.0
Minimum Split (s)	37.0	37.0	11.4	24.4	24.4	24.4
Total Split (s)	30.0	30.0	15.0	40.0	25.0	25.0
Total Split (%)	42.9%	42.9%	21.4%	57.1%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	4.0	4.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	6.4	6.4	6.4	6.4
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	12.0	12.0	47.6	48.9	38.6	38.6
Actuated g/C Ratio	0.17	0.17	0.68	0.70	0.55	0.55
v/c Ratio	0.27	0.26	0.20	0.24	0.32	0.09
Control Delay	28.1	8.9	6.2	5.6	12.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	8.9	6.2	5.6	12.6	3.7
LOS	C	A	A	A	B	A
Approach Delay	17.8			5.7	11.6	
Approach LOS	B			A	B	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 12 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 9.6

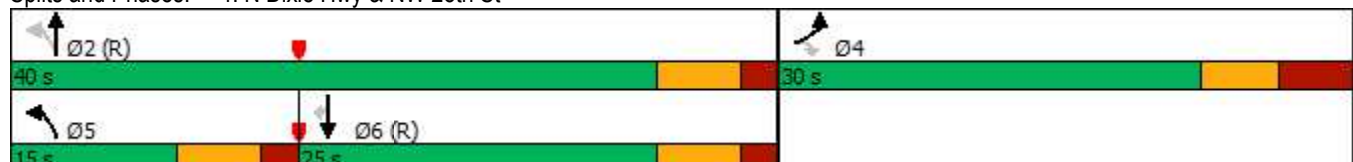
Intersection LOS: A

Intersection Capacity Utilization 48.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: N Dixie Hwy & NW 28th St



Queues
4: N Dixie Hwy & NW 28th St

Existing AM 2021
09/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	77	89	108	575	608	80
v/c Ratio	0.27	0.26	0.20	0.24	0.32	0.09
Control Delay	28.1	8.9	6.2	5.6	12.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	8.9	6.2	5.6	12.6	3.7
Queue Length 50th (ft)	29	0	16	51	88	0
Queue Length 95th (ft)	65	35	33	74	133	22
Internal Link Dist (ft)	243			3051	3633	
Turn Bay Length (ft)			230			280
Base Capacity (vph)	525	544	567	2423	1896	901
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.16	0.19	0.24	0.32	0.09
Intersection Summary						

HCM 6th Signalized Intersection Summary 4: N Dixie Hwy & NW 28th St

Existing AM 2021
09/28/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	83	100	535	565	74
Future Volume (veh/h)	72	83	100	535	565	74
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1781	1826	1856	1841	1826	1856
Adj Flow Rate, veh/h	77	89	108	575	608	80
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	8	5	3	4	5	3
Cap, veh/h	279	255	486	2202	1650	748
Arrive On Green	0.16	0.16	0.06	0.63	0.48	0.48
Sat Flow, veh/h	1697	1547	1767	3589	3561	1572
Grp Volume(v), veh/h	77	89	108	575	608	80
Grp Sat Flow(s),veh/h/ln	1697	1547	1767	1749	1735	1572
Q Serve(g_s), s	2.8	3.6	2.0	5.1	7.8	2.0
Cycle Q Clear(g_c), s	2.8	3.6	2.0	5.1	7.8	2.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	279	255	486	2202	1650	748
V/C Ratio(X)	0.28	0.35	0.22	0.26	0.37	0.11
Avail Cap(c_a), veh/h	533	486	593	2202	1650	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	0.96	0.96
Uniform Delay (d), s/veh	25.6	25.9	7.8	5.7	11.7	10.1
Incr Delay (d2), s/veh	0.2	0.3	0.1	0.3	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.2	0.6	1.4	2.7	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	26.2	7.9	6.0	12.3	10.4
LnGrp LOS	C	C	A	A	B	B
Approach Vol, veh/h	166			683	688	
Approach Delay, s/veh	26.0			6.3	12.1	
Approach LOS	C			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	50.5			19.5	10.8	39.7
Change Period (Y+Rc), s	6.4			8.0	6.4	6.4
Max Green Setting (Gmax), s	33.6			22.0	8.6	18.6
Max Q Clear Time (g_c+I1), s	7.1			5.6	4.0	9.8
Green Ext Time (p_c), s	1.5			0.3	0.1	1.3

Intersection Summary



















HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

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

Timings
5: NW 2nd Ave & Spanish River Blvd

Existing AM 2021
09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	200	683	305	135	527	168	264	99	405
Future Volume (vph)	200	683	305	135	527	168	264	99	405
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	30.0	59.0	59.0	20.0	49.0	18.0	53.0	18.0	53.0
Total Split (%)	20.0%	39.3%	39.3%	13.3%	32.7%	12.0%	35.3%	12.0%	35.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Min	None	Min
Act Effct Green (s)	89.8	77.9	77.9	84.4	75.2	38.3	27.0	35.6	25.6
Actuated g/C Ratio	0.60	0.52	0.52	0.56	0.50	0.26	0.18	0.24	0.17
v/c Ratio	0.40	0.38	0.31	0.31	0.33	0.88	0.56	0.41	0.82
Control Delay	15.4	23.4	3.2	14.7	23.9	82.0	54.0	56.4	82.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	23.4	3.2	14.7	23.9	82.0	54.0	56.4	82.8
LOS	B	C	A	B	C	F	D	E	F
Approach Delay		16.9			22.1		63.0		78.4
Approach LOS		B			C		E		E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 39 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 38.2

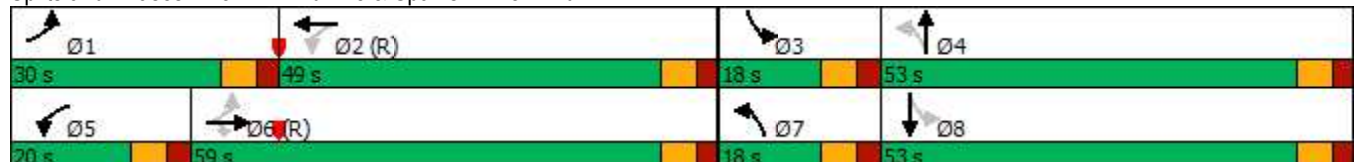
Intersection LOS: D

Intersection Capacity Utilization 81.2%

ICU Level of Service D

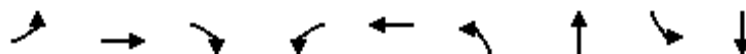
Analysis Period (min) 15

Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

Existing AM 2021
09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	202	690	308	136	576	170	359	100	496
v/c Ratio	0.40	0.38	0.31	0.31	0.33	0.88	0.56	0.41	0.82
Control Delay	15.4	23.4	3.2	14.7	23.9	82.0	54.0	56.4	82.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	23.4	3.2	14.7	23.9	82.0	54.0	56.4	82.8
Queue Length 50th (ft)	80	207	0	52	171	131	155	89	255
Queue Length 95th (ft)	134	294	54	93	249	#213	202	m130	317
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	600	1803	978	484	1772	196	1074	262	1080
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.38	0.31	0.28	0.33	0.87	0.33	0.38	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

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

HCM 6th Signalized Intersection Summary
5: NW 2nd Ave & Spanish River Blvd



















Existing AM 2021

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	683	305	135	527	44	168	264	91	99	405	86
Future Volume (veh/h)	200	683	305	135	527	44	168	264	91	99	405	86
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	1841	1885	1885	1885	1870	1841	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	690	308	136	532	44	170	267	92	100	409	87
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	4	1	1	1	2	4	2	2	2	2	2
Cap, veh/h	529	1889	862	379	1746	144	203	466	157	237	470	99
Arrive On Green	0.07	0.54	0.54	0.05	0.52	0.52	0.08	0.18	0.18	0.06	0.16	0.16
Sat Flow, veh/h	1781	3497	1596	1795	3350	276	1753	2609	878	1781	2919	616
Grp Volume(v), veh/h	202	690	308	136	284	292	170	180	179	100	248	248
Grp Sat Flow(s),veh/h/ln	1781	1749	1596	1795	1791	1835	1753	1777	1711	1781	1777	1758
Q Serve(g_s), s	7.9	17.0	16.5	5.3	13.5	13.6	11.5	13.9	14.4	7.0	20.4	20.7
Cycle Q Clear(g_c), s	7.9	17.0	16.5	5.3	13.5	13.6	11.5	13.9	14.4	7.0	20.4	20.7
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.51	1.00		0.35
Lane Grp Cap(c), veh/h	529	1889	862	379	934	957	203	317	305	237	286	283
V/C Ratio(X)	0.38	0.37	0.36	0.36	0.30	0.31	0.84	0.57	0.59	0.42	0.87	0.88
Avail Cap(c_a), veh/h	687	1889	862	452	934	957	203	551	530	269	551	545
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	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	19.8	19.7	15.9	20.4	20.4	51.2	56.3	56.5	48.9	61.3	61.5
Incr Delay (d2), s/veh	0.2	0.5	1.2	0.2	0.8	0.8	23.6	0.6	0.6	0.4	3.1	3.5
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	3.2	7.1	6.4	2.2	5.9	6.1	6.7	6.3	6.3	3.1	9.4	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	20.3	20.8	16.1	21.3	21.3	74.8	56.9	57.2	49.3	64.4	65.0
LnGrp LOS	B	C	C	B	C	C	E	E	E	D	E	E
Approach Vol, veh/h		1200			712			529			596	
Approach Delay, s/veh		19.6			20.3			62.7			62.1	
Approach LOS		B			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	84.7	15.4	33.3	13.9	87.5	18.0	30.6				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	23.5	42.5	11.5	46.5	13.5	52.5	11.5	46.5				
Max Q Clear Time (g_c+I1), s	9.9	15.6	9.0	16.4	7.3	19.0	13.5	22.7				
Green Ext Time (p_c), s	0.3	1.2	0.0	0.8	0.1	2.8	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									

Timings
6: N Dixie Hwy & Spanish River Blvd

Existing AM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	97	576	76	475	177	393	47	383	108
Future Volume (vph)	97	576	76	475	177	393	47	383	108
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	28.0	50.0	21.0	43.0	28.0	64.0	15.0	51.0	51.0
Total Split (%)	18.7%	33.3%	14.0%	28.7%	18.7%	42.7%	10.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	48.8	38.7	46.5	37.6	82.5	72.1	70.3	63.6	63.6
Actuated g/C Ratio	0.33	0.26	0.31	0.25	0.55	0.48	0.47	0.42	0.42
v/c Ratio	0.42	0.88	0.53	0.61	0.38	0.31	0.13	0.28	0.15
Control Delay	36.2	64.0	43.1	52.0	20.6	25.7	16.1	21.7	2.8
Queue Delay	0.0	50.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	114.6	43.1	52.0	20.6	25.7	16.1	21.7	2.8
LOS	D	F	D	D	C	C	B	C	A
Approach Delay		105.4		50.8		24.3		17.4	
Approach LOS		F		D		C		B	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 35 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 54.6

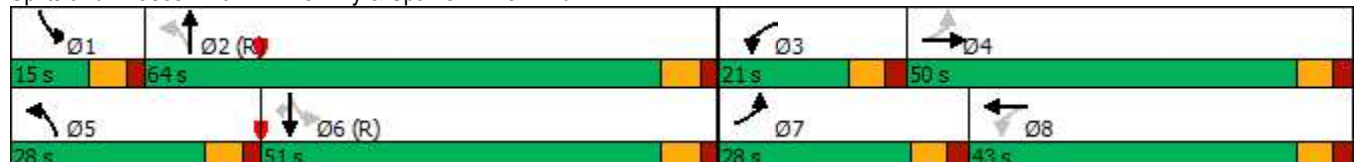
Intersection LOS: D

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

Existing AM 2021
09/28/2022
























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	105	787	83	542	192	512	51	416	117
v/c Ratio	0.42	0.88	0.53	0.61	0.38	0.31	0.13	0.28	0.15
Control Delay	36.2	64.0	43.1	52.0	20.6	25.7	16.1	21.7	2.8
Queue Delay	0.0	50.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	114.6	43.1	52.0	20.6	25.7	16.1	21.7	2.8
Queue Length 50th (ft)	70	383	54	247	92	157	9	144	2
Queue Length 95th (ft)	103	434	84	291	161	235	m28	227	m56
Internal Link Dist (ft)		267		828		3633		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	365	1010	220	930	570	1626	406	1471	798
Starvation Cap Reductn	0	334	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	1.16	0.38	0.58	0.34	0.31	0.13	0.28	0.15

Intersection Summary

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























HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	576	148	76	475	24	177	393	78	47	383	108
Future Volume (veh/h)	97	576	148	76	475	24	177	393	78	47	383	108
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		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	1885	1856	1856	1856	1885	1900	1856	1841	1781	1648	1841	1900
Adj Flow Rate, veh/h	105	626	161	83	516	26	192	427	85	51	416	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	3	3	3	1	0	3	4	8	17	4	0
Cap, veh/h	238	675	173	147	811	41	513	1477	292	424	1632	751
Arrive On Green	0.06	0.24	0.24	0.05	0.23	0.23	0.07	0.51	0.51	0.03	0.47	0.47
Sat Flow, veh/h	1795	2771	712	1767	3468	174	1767	2911	575	1570	3497	1609
Grp Volume(v), veh/h	105	398	389	83	266	276	192	255	257	51	416	117
Grp Sat Flow(s),veh/h/ln	1795	1763	1720	1767	1791	1852	1767	1749	1737	1570	1749	1609
Q Serve(g_s), s	6.6	33.1	33.2	5.3	20.0	20.1	8.3	12.6	12.8	2.5	10.8	6.3
Cycle Q Clear(g_c), s	6.6	33.1	33.2	5.3	20.0	20.1	8.3	12.6	12.8	2.5	10.8	6.3
Prop In Lane	1.00		0.41	1.00		0.09	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	238	430	419	147	419	433	513	887	881	424	1632	751
V/C Ratio(X)	0.44	0.93	0.93	0.56	0.64	0.64	0.37	0.29	0.29	0.12	0.25	0.16
Avail Cap(c_a), veh/h	392	511	499	234	436	451	644	887	881	468	1632	751
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)	0.97	0.97	0.97	1.00	1.00	1.00	0.98	0.98	0.98	0.68	0.68	0.68
Uniform Delay (d), s/veh	41.6	55.4	55.4	44.4	51.7	51.7	17.9	21.3	21.4	19.8	24.2	23.0
Incr Delay (d2), s/veh	0.5	19.1	19.9	1.3	2.1	2.1	0.2	0.8	0.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	16.9	16.6	2.4	9.3	9.6	3.4	5.3	5.4	0.9	4.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	74.5	75.4	45.7	53.8	53.8	18.0	22.1	22.2	19.9	24.5	23.3
LnGrp LOS	D	E	E	D	D	D	B	C	C	B	C	C
Approach Vol, veh/h		892			625			704			584	
Approach Delay, s/veh		71.1			52.7			21.0			23.8	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	82.5	13.6	43.1	16.9	76.4	15.1	41.6				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	14.5	43.5	21.6	44.6	21.5	36.5				
Max Q Clear Time (g_c+I1), s	4.5	14.8	7.3	35.2	10.3	12.8	8.6	22.1				
Green Ext Time (p_c), s	0.0	1.0	0.1	1.4	0.2	1.3	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.6									
HCM 6th LOS			D									

Timings
7: NW 2nd Ave & W Yamato Rd

Existing AM 2021
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	104	1246	338	103	1137	213	254	270	67	294	440
Future Volume (vph)	104	1246	338	103	1137	213	254	270	67	294	440
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	5.0	18.0	18.0	5.0	18.0	18.0	7.0	12.0	12.0	7.0	12.0
Minimum Split (s)	14.0	40.8	40.8	14.0	37.8	37.8	13.0	42.0	42.0	14.0	41.0
Total Split (s)	19.0	56.0	56.0	19.0	56.0	56.0	31.0	40.0	40.0	35.0	44.0
Total Split (%)	12.7%	37.3%	37.3%	12.7%	37.3%	37.3%	20.7%	26.7%	26.7%	23.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	72.4	62.8	62.8	71.8	62.5	62.5	17.1	31.7	31.7	18.6	34.2
Actuated g/C Ratio	0.48	0.42	0.42	0.48	0.42	0.42	0.11	0.21	0.21	0.12	0.23
v/c Ratio	0.56	0.66	0.43	0.60	0.60	0.30	0.72	0.76	0.17	0.77	0.87
Control Delay	31.2	38.6	4.8	34.9	37.1	6.1	65.6	73.8	12.8	76.3	64.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	38.6	4.8	34.9	37.1	6.1	65.6	73.8	12.8	76.3	64.1
LOS	C	D	A	C	D	A	E	E	B	E	E
Approach Delay		31.3			32.4			63.4			68.0
Approach LOS		C			C			E			E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 14 (9%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 43.0

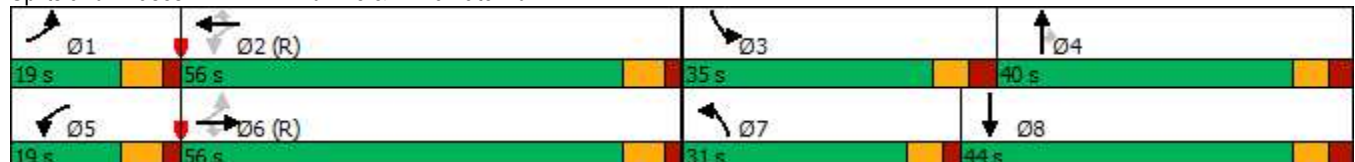
Intersection LOS: D

Intersection Capacity Utilization 77.4%

ICU Level of Service D












Analysis Period (min) 15

Splits and Phases: 7: NW 2nd Ave & W Yamato Rd



Queues
7: NW 2nd Ave & W Yamato Rd
































Existing AM 2021
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	116	1384	376	114	1263	237	282	300	74	327	699
v/c Ratio	0.56	0.66	0.43	0.60	0.60	0.30	0.72	0.76	0.17	0.77	0.87
Control Delay	31.2	38.6	4.8	34.9	37.1	6.1	65.6	73.8	12.8	76.3	64.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	38.6	4.8	34.9	37.1	6.1	65.6	73.8	12.8	76.3	64.1
Queue Length 50th (ft)	57	397	0	56	351	8	142	291	10	162	328
Queue Length 95th (ft)	108	523	75	109	463	72	187	389	30	209	387
Internal Link Dist (ft)	1311				615				322		560
Turn Bay Length (ft)	350	400		415	280		280	200		250	
Base Capacity (vph)	237	2108	881	224	2119	803	572	425	449	634	885
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.66	0.43	0.51	0.60	0.30	0.49	0.71	0.16	0.52	0.79
Intersection Summary											

HCM 6th Signalized Intersection Summary



























7: NW 2nd Ave & W Yamato Rd

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	104	1246	338	103	1137	213	254	270	67	294	440	189
Future Volume (veh/h)	104	1246	338	103	1137	213	254	270	67	294	440	189
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	1826	1856	1870	1870	1870	1900	1870	1870	1870	1856	1870	1885
Adj Flow Rate, veh/h	116	1384	376	114	1263	237	282	300	74	327	489	210
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	3	2	2	2	0	2	2	2	3	2	1
Cap, veh/h	227	2312	723	201	2323	732	340	376	318	382	535	228
Arrive On Green	0.05	0.46	0.46	0.05	0.45	0.45	0.10	0.20	0.20	0.11	0.22	0.22
Sat Flow, veh/h	1739	5066	1585	1781	5106	1610	3456	1870	1580	3428	2423	1034
Grp Volume(v), veh/h	116	1384	376	114	1263	237	282	300	74	327	358	341
Grp Sat Flow(s),veh/h/ln	1739	1689	1585	1781	1702	1610	1728	1870	1580	1714	1777	1681
Q Serve(g_s), s	5.3	30.7	25.4	5.1	26.9	14.1	12.0	22.9	5.9	14.1	29.5	29.8
Cycle Q Clear(g_c), s	5.3	30.7	25.4	5.1	26.9	14.1	12.0	22.9	5.9	14.1	29.5	29.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	227	2312	723	201	2323	732	340	376	318	382	392	371
V/C Ratio(X)	0.51	0.60	0.52	0.57	0.54	0.32	0.83	0.80	0.23	0.86	0.91	0.92
Avail Cap(c_a), veh/h	284	2312	723	261	2323	732	576	411	348	640	438	415
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	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	30.5	29.1	25.2	29.6	26.1	66.4	57.0	50.2	65.5	57.0	57.2
Incr Delay (d2), s/veh	0.7	1.2	2.7	0.9	0.9	1.1	4.0	9.4	0.3	2.7	21.4	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	12.4	10.3	2.1	10.9	5.7	5.5	11.8	2.4	6.3	15.6	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	31.7	31.7	26.0	30.5	27.2	70.3	66.4	50.5	68.2	78.5	80.8
LnGrp LOS	C	C	C	C	C	C	E	E	D	E	E	F
Approach Vol, veh/h		1876			1614			656			1026	
Approach Delay, s/veh		31.2			29.7			66.3			76.0	
Approach LOS		C			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	75.0	23.7	37.1	13.9	75.2	20.7	40.1				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	12.2	49.2	28.0	33.0	12.2	49.2	25.0	37.0				
Max Q Clear Time (g_c+I1), s	7.3	28.9	16.1	24.9	7.1	32.7	14.0	31.8				
Green Ext Time (p_c), s	0.1	4.3	0.6	0.7	0.1	5.0	0.7	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			44.1									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
8: N Dixie Hwy & W Yamato Rd

Existing AM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  	 	 		 	
Traffic Volume (vph)	202	1354	66	890	278	203	28	262	279
Future Volume (vph)	202	1354	66	890	278	203	28	262	279
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	13.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	59.0	22.0	56.0	25.0	46.0	23.0	44.0	44.0
Total Split (%)	16.7%	39.3%	14.7%	37.3%	16.7%	30.7%	15.3%	29.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	13.8	79.0	10.3	75.5	16.5	31.5	7.0	17.3	17.3
Actuated g/C Ratio	0.09	0.53	0.07	0.50	0.11	0.21	0.05	0.12	0.12
v/c Ratio	0.70	0.67	0.60	0.40	0.80	0.42	0.37	0.70	0.79
Control Delay	77.9	28.6	87.0	24.9	67.1	37.7	80.9	72.6	32.8
Queue Delay	0.0	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.9	76.8	87.0	24.9	67.1	37.7	80.9	72.6	32.8
LOS	E	E	F	C	E	D	F	E	C
Approach Delay		77.0		29.0		52.2		53.5	
Approach LOS		E		C		D		D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 26 (17%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 57.8

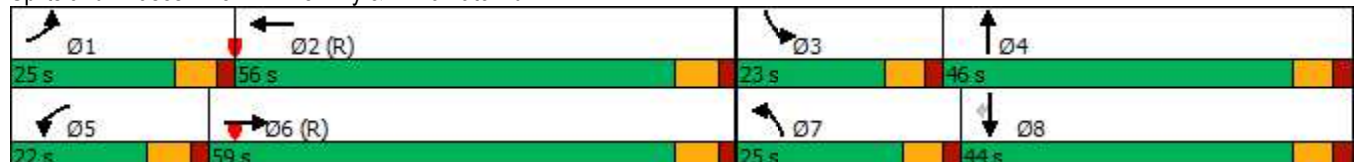
Intersection LOS: E

Intersection Capacity Utilization 76.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd






















Existing AM 2021
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	220	1730	72	1015	302	310	30	285	303
v/c Ratio	0.70	0.67	0.60	0.40	0.80	0.42	0.37	0.70	0.79
Control Delay	77.9	28.6	87.0	24.9	67.1	37.7	80.9	72.6	32.8
Queue Delay	0.0	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.9	76.8	87.0	24.9	67.1	37.7	80.9	72.6	32.8
Queue Length 50th (ft)	109	434	70	220	153	132	29	144	74
Queue Length 95th (ft)	151	595	122	309	174	176	65	184	180
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	416	2594	179	2542	425	911	195	875	560
Starvation Cap Reductn	0	1080	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	1.14	0.40	0.40	0.71	0.34	0.15	0.33	0.54
Intersection Summary									

HCM 6th Signalized Intersection Summary 8: N Dixie Hwy & W Yamato Rd

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	1354	237	66	890	44	278	203	82	28	262	279
Future Volume (veh/h)	202	1354	237	66	890	44	278	203	82	28	262	279
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	1856	1811	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	1472	258	72	967	48	302	221	89	30	285	303
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	6	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	1997	349	91	2161	107	352	713	278	42	737	329
Arrive On Green	0.08	0.46	0.46	0.05	0.43	0.43	0.03	0.09	0.09	0.02	0.21	0.21
Sat Flow, veh/h	3456	4336	759	1781	4983	247	3456	2497	975	1781	3554	1585
Grp Volume(v), veh/h	220	1146	584	72	660	355	302	155	155	30	285	303
Grp Sat Flow(s),veh/h/ln	1728	1689	1718	1781	1702	1826	1728	1777	1695	1781	1777	1585
Q Serve(g_s), s	9.4	41.6	41.7	6.0	20.4	20.5	13.0	12.2	12.8	2.5	10.4	28.1
Cycle Q Clear(g_c), s	9.4	41.6	41.7	6.0	20.4	20.5	13.0	12.2	12.8	2.5	10.4	28.1
Prop In Lane	1.00		0.44	1.00		0.14	1.00		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	269	1555	791	91	1476	792	352	507	484	42	737	329
V/C Ratio(X)	0.82	0.74	0.74	0.79	0.45	0.45	0.86	0.31	0.32	0.71	0.39	0.92
Avail Cap(c_a), veh/h	419	1555	791	181	1476	792	429	507	484	197	879	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	33.0	33.1	70.4	29.8	29.9	71.4	54.1	54.3	72.7	51.2	58.3
Incr Delay (d2), s/veh	3.3	2.8	5.5	5.8	1.0	1.8	11.3	0.1	0.1	7.8	0.1	22.9
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	4.2	17.0	18.0	2.8	8.4	9.2	6.6	5.9	5.9	1.2	4.6	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.4	35.9	38.6	76.2	30.8	31.7	82.7	54.2	54.5	80.5	51.4	81.2
LnGrp LOS	E	D	D	E	C	C	F	D	D	F	D	F
Approach Vol, veh/h	1950			1087			612			618		
Approach Delay, s/veh	40.7			34.1			68.3			67.4		
Approach LOS	D			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.5	71.9	10.0	49.7	14.4	75.9	21.7	38.0				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	49.2	16.6	39.1	15.2	52.2	18.6	37.1				
Max Q Clear Time (g_c+I1), s	11.4	22.5	4.5	14.8	8.0	43.7	15.0	30.1				
Green Ext Time (p_c), s	0.3	2.4	0.0	0.6	0.0	3.5	0.3	1.0				
Intersection Summary												
HCM 6th Ctrl Delay	46.9											
HCM 6th LOS	D											

Timings
9: NW 2nd Ave & Jeffery St

Existing AM 2021
09/28/2022

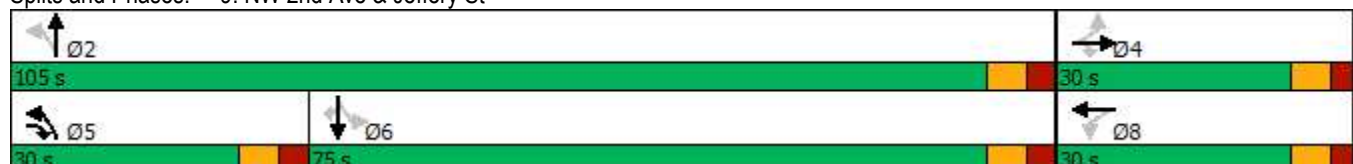
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	152	479	423	237	465	425	
Future Volume (vph)	152	479	423	237	465	425	
Turn Type	Perm	pm+ov	pm+pt	NA	NA	Perm	
Protected Phases		5	5	2	6		8
Permitted Phases	4	4	2			6	
Detector Phase	4	5	5	2	6	6	
Switch Phase							
Minimum Initial (s)	12.0	5.0	5.0	18.0	18.0	18.0	12.0
Minimum Split (s)	32.5	25.0	25.0	30.0	39.0	39.0	30.5
Total Split (s)	30.0	30.0	30.0	105.0	75.0	75.0	30.0
Total Split (%)	22.2%	22.2%	22.2%	77.8%	55.6%	55.6%	22%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	3.0	3.0	3.0	3.0	3.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	7.0	7.0	7.0	7.0	7.0	
Lead/Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None
Act Effect Green (s)	15.7	36.6	59.3	59.3	30.6	30.6	
Actuated g/C Ratio	0.18	0.41	0.67	0.67	0.34	0.34	
v/c Ratio	0.65	0.62	0.77	0.21	0.77	0.54	
Control Delay	50.1	10.7	23.0	6.3	34.7	5.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	50.1	10.7	23.0	6.3	34.7	5.0	
LOS	D	B	C	A	C	A	
Approach Delay				17.0	20.5		
Approach LOS				B	C		

Intersection Summary

Cycle Length: 135
 Actuated Cycle Length: 89
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 19.4
 Intersection Capacity Utilization 75.6%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 9: NW 2nd Ave & Jeffery St



Queues
9: NW 2nd Ave & Jeffery St

Existing AM 2021
09/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	162	510	450	252	495	452
v/c Ratio	0.65	0.62	0.77	0.21	0.77	0.54
Control Delay	50.1	10.7	23.0	6.3	34.7	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	10.7	23.0	6.3	34.7	5.0
Queue Length 50th (ft)	86	63	115	44	242	4
Queue Length 95th (ft)	180	199	#335	96	403	66
Internal Link Dist (ft)				1963	2746	
Turn Bay Length (ft)	100	270	135			200
Base Capacity (vph)	386	859	626	1790	1475	1336
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.59	0.72	0.14	0.34	0.34

Intersection Summary






















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

HCM 6th Signalized Intersection Summary

9: NW 2nd Ave & Jeffery St

Existing AM 2021

09/28/2022

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	0	479	0	0	0	423	237	0	0	465	425
Future Volume (veh/h)	152	0	479	0	0	0	423	237	0	0	465	425
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		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	1900	1870	1900	1870	1856	1900	1900	1885	1870
Adj Flow Rate, veh/h	162	0	510	0	0	0	450	252	0	0	495	452
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	2	0	2	3	0	0	1	2
Cap, veh/h	509	458	688	0	458	0	485	1141	0	75	663	551
Arrive On Green	0.24	0.00	0.24	0.00	0.00	0.00	0.19	0.61	0.00	0.00	0.35	0.35
Sat Flow, veh/h	1774	1870	1579	0	1870	0	1781	1856	0	1146	1885	1566
Grp Volume(v), veh/h	162	0	510	0	0	0	450	252	0	0	495	452
Grp Sat Flow(s),veh/h/ln	1774	1870	1579	0	1870	0	1781	1856	0	1146	1885	1566
Q Serve(g_s), s	7.3	0.0	23.5	0.0	0.0	0.0	15.7	5.8	0.0	0.0	22.2	25.3
Cycle Q Clear(g_c), s	7.3	0.0	23.5	0.0	0.0	0.0	15.7	5.8	0.0	0.0	22.2	25.3
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	458	688	0	458	0	485	1141	0	75	663	551
V/C Ratio(X)	0.32	0.00	0.74	0.00	0.00	0.00	0.93	0.22	0.00	0.00	0.75	0.82
Avail Cap(c_a), veh/h	509	458	688	0	458	0	573	1894	0	483	1335	1109
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	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	22.7	0.0	0.0	0.0	20.7	8.2	0.0	0.0	27.4	28.4
Incr Delay (d2), s/veh	0.1	0.0	3.8	0.0	0.0	0.0	18.4	0.1	0.0	0.0	2.1	3.7
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	3.1	0.0	9.7	0.0	0.0	0.0	8.5	2.2	0.0	0.0	10.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	0.0	26.5	0.0	0.0	0.0	39.1	8.4	0.0	0.0	29.4	32.1
LnGrp LOS	C	A	C	A	A	A	D	A	A	A	C	C
Approach Vol, veh/h	672			0			702			947		
Approach Delay, s/veh	27.4			0.0			28.1			30.7		
Approach LOS	C						C			C		
Timer - Assigned Phs	2			4		5	6	8				
Phs Duration (G+Y+Rc), s	66.0			30.0		25.3	40.8	30.0				
Change Period (Y+Rc), s	7.0			6.5		7.0	7.0	6.5				
Max Green Setting (Gmax), s	98.0			23.5		23.0	68.0	23.5				
Max Q Clear Time (g_c+I1), s	7.8			25.5		17.7	27.3	0.0				
Green Ext Time (p_c), s	1.3			0.0		0.5	6.5	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	28.9											
HCM 6th LOS	C											

Notes

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

Timings
10: Congress Ave & Clint Moore Rd

Existing AM 2021
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	379	385	329	156	512	171	295	261	17	367	1221	938
Future Volume (vph)	379	385	329	156	512	171	295	261	17	367	1221	938
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	25.8	49.8	49.8	22.5	48.8	48.8	25.8	49.8	49.8	25.8	50.8	50.8
Total Split (s)	40.0	59.0	59.0	24.0	43.0	43.0	32.0	53.0	53.0	44.0	65.0	65.0
Total Split (%)	22.2%	32.8%	32.8%	13.3%	23.9%	23.9%	17.8%	29.4%	29.4%	24.4%	36.1%	36.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.3	44.0	44.0	12.8	31.5	31.5	20.2	67.3	67.3	24.7	71.8	71.8
Actuated g/C Ratio	0.14	0.24	0.24	0.07	0.18	0.18	0.11	0.37	0.37	0.14	0.40	0.40
v/c Ratio	0.84	0.33	0.56	0.68	0.88	0.40	0.82	0.15	0.03	0.83	0.65	1.21
Control Delay	90.7	55.9	11.3	95.8	88.5	5.3	94.8	40.0	0.1	90.7	47.5	135.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	55.9	11.3	95.8	88.5	5.3	94.8	40.0	0.1	90.7	47.5	135.5
LOS	F	E	B	F	F	A	F	D	A	F	D	F
Approach Delay		54.5			72.9			67.0			86.4	
Approach LOS		D			E			E			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 110 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 155

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.21

Intersection Signal Delay: 75.0

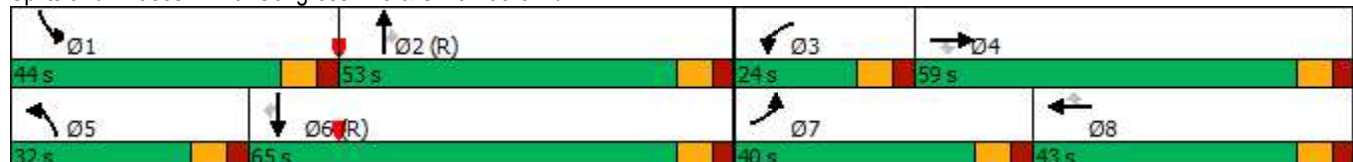
Intersection LOS: E

Intersection Capacity Utilization 100.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd















Queues

10: Congress Ave & Clint Moore Rd

Existing AM 2021

09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	403	410	350	166	545	182	314	278	18	390	1299	998
v/c Ratio	0.84	0.33	0.56	0.68	0.88	0.40	0.82	0.15	0.03	0.83	0.65	1.21
Control Delay	90.7	55.9	11.3	95.8	88.5	5.3	94.8	40.0	0.1	90.7	47.5	135.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	55.9	11.3	95.8	88.5	5.3	94.8	40.0	0.1	90.7	47.5	135.5
Queue Length 50th (ft)	242	146	34	100	334	0	189	80	0	235	458	~1185
Queue Length 95th (ft)	296	174	130	142	397	34	242	121	0	288	580	#1537
Internal Link Dist (ft)	2199				619				1029			
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	614	1446	678	308	696	482	461	1848	720	690	2008	824
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.28	0.52	0.54	0.78	0.38	0.68	0.15	0.03	0.57	0.65	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary























10: Congress Ave & Clint Moore Rd

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	385	329	156	512	171	295	261	17	367	1221	938
Future Volume (veh/h)	379	385	329	156	512	171	295	261	17	367	1221	938
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	1885	1870	1870	1870	1870	1826	1870	1870	1856	1841
Adj Flow Rate, veh/h	403	410	350	166	545	182	314	278	18	390	1299	998
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	1	2	2	2	2	5	2	2	3	4
Cap, veh/h	449	1225	383	205	602	268	356	1999	635	437	2150	662
Arrive On Green	0.13	0.24	0.24	0.06	0.17	0.17	0.10	0.40	0.40	0.13	0.42	0.42
Sat Flow, veh/h	3456	5106	1596	3456	3554	1582	3456	4985	1584	3456	5066	1559
Grp Volume(v), veh/h	403	410	350	166	545	182	314	278	18	390	1299	998
Grp Sat Flow(s),veh/h/ln	1728	1702	1596	1728	1777	1582	1728	1662	1584	1728	1689	1559
Q Serve(g_s), s	20.7	11.9	38.4	8.5	27.1	19.4	16.1	6.4	1.2	20.0	35.7	76.4
Cycle Q Clear(g_c), s	20.7	11.9	38.4	8.5	27.1	19.4	16.1	6.4	1.2	20.0	35.7	76.4
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	449	1225	383	205	602	268	356	1999	635	437	2150	662
V/C Ratio(X)	0.90	0.33	0.91	0.81	0.91	0.68	0.88	0.14	0.03	0.89	0.60	1.51
Avail Cap(c_a), veh/h	618	1452	454	311	695	309	465	1999	635	695	2150	662
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	77.1	56.5	66.6	83.6	73.3	70.2	79.7	34.2	32.7	77.4	40.1	51.8
Incr Delay (d2), s/veh	10.4	0.1	19.4	5.0	13.2	3.4	12.5	0.1	0.1	5.9	1.3	236.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	5.2	17.6	4.0	13.4	8.1	7.7	2.6	0.5	9.2	14.9	72.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	56.6	86.0	88.6	86.5	73.5	92.2	34.3	32.7	83.3	41.4	288.2
LnGrp LOS	F	E	F	F	F	E	F	C	C	F	D	F
Approach Vol, veh/h	1163			893			610			2687		
Approach Delay, s/veh	76.2			84.2			64.1			139.1		
Approach LOS	E			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.6	80.0	18.5	51.0	26.3	84.2	31.2	38.3				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	36.2	45.2	16.2	51.2	24.2	57.2	32.2	35.2				
Max Q Clear Time (g_c+l1), s	22.0	8.4	10.5	40.4	18.1	78.4	22.7	29.1				
Green Ext Time (p_c), s	0.8	0.7	0.2	1.7	0.4	0.0	0.7	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	107.7											
HCM 6th LOS	F											

Timings
11: N Federal Hwy & Jeffery St

Existing AM 2021
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	7	5	138	9	39	44	837	64	29	1084	8
Future Volume (vph)	7	5	138	9	39	44	837	64	29	1084	8
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	24.8	38.8	38.8	24.8	28.8	28.8
Total Split (s)	40.0	40.0	40.0	40.0	40.0	25.0	75.0	75.0	25.0	75.0	75.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.9%	53.6%	53.6%	17.9%	53.6%	53.6%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.7	18.7	18.7	18.7	18.7	102.7	99.3	99.3	100.9	96.7	96.7
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13	0.73	0.71	0.71	0.72	0.69	0.69
v/c Ratio	0.04	0.05	0.76	0.04	0.14	0.13	0.34	0.06	0.07	0.46	0.01
Control Delay	49.4	35.5	82.0	49.3	1.0	6.0	9.6	0.9	5.6	11.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	35.5	82.0	49.3	1.0	6.0	9.6	0.9	5.6	11.7	0.0
LOS	D	D	F	D	A	A	A	A	A	B	A
Approach Delay		41.2		63.4			8.8			11.5	
Approach LOS		D		E			A			B	

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 89 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 14.8

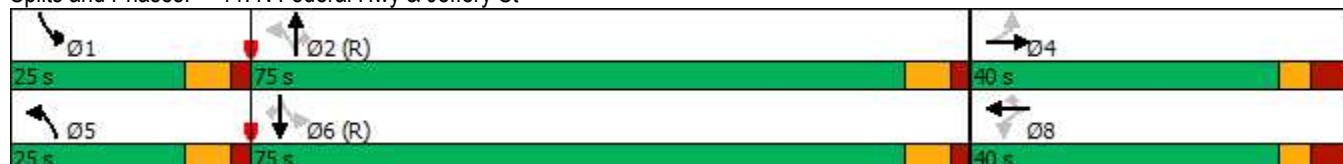
Intersection LOS: B

Intersection Capacity Utilization 65.5%

ICU Level of Service C












Analysis Period (min) 15

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues
11: N Federal Hwy & Jeffery St
























Existing AM 2021
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	7	10	141	9	40	45	854	65	30	1106	8
v/c Ratio	0.04	0.05	0.76	0.04	0.14	0.13	0.34	0.06	0.07	0.46	0.01
Control Delay	49.4	35.5	82.0	49.3	1.0	6.0	9.6	0.9	5.6	11.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	35.5	82.0	49.3	1.0	6.0	9.6	0.9	5.6	11.7	0.0
Queue Length 50th (ft)	6	4	126	7	0	9	161	0	6	231	0
Queue Length 95th (ft)	20	21	191	24	1	23	239	9	17	339	0
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		220		230	225		170	250		145
Base Capacity (vph)	327	370	320	435	434	493	2485	1124	565	2420	886
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.03	0.44	0.02	0.09	0.09	0.34	0.06	0.05	0.46	0.01
Intersection Summary											

HCM 6th Signalized Intersection Summary





















11: N Federal Hwy & Jeffery St

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	5	5	138	9	39	44	837	64	29	1084	8
Future Volume (veh/h)	7	5	5	138	9	39	44	837	64	29	1084	8
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	1900	1604	1900	1870	1900	1900	1900	1856	1870	1796	1856	1530
Adj Flow Rate, veh/h	7	5	5	141	9	40	45	854	65	30	1106	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	20	0	2	0	0	0	3	2	7	3	25
Cap, veh/h	213	89	89	214	231	196	391	2469	1105	446	2452	897
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.03	0.70	0.70	0.02	0.70	0.70
Sat Flow, veh/h	1378	736	736	1405	1900	1610	1810	3526	1578	1711	3526	1291
Grp Volume(v), veh/h	7	0	10	141	9	40	45	854	65	30	1106	8
Grp Sat Flow(s),veh/h/ln	1378	0	1471	1405	1900	1610	1810	1763	1578	1711	1763	1291
Q Serve(g_s), s	0.6	0.0	0.8	13.8	0.6	3.1	1.0	13.4	1.8	0.7	19.5	0.3
Cycle Q Clear(g_c), s	1.2	0.0	0.8	14.7	0.6	3.1	1.0	13.4	1.8	0.7	19.5	0.3
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	0	179	214	231	196	391	2469	1105	446	2452	897
V/C Ratio(X)	0.03	0.00	0.06	0.66	0.04	0.20	0.12	0.35	0.06	0.07	0.45	0.01
Avail Cap(c_a), veh/h	362	0	337	365	436	369	572	2469	1105	627	2452	897
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	0.00	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	54.8	0.0	54.4	60.9	54.3	55.4	6.9	8.3	6.6	6.2	9.5	6.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	0.0	0.2	0.0	0.4	0.1	0.0	0.6	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	0.2	0.0	0.3	5.1	0.3	1.3	0.3	4.7	0.6	0.2	6.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	0.0	54.4	62.2	54.3	55.6	7.0	8.7	6.7	6.2	10.1	6.6
LnGrp LOS	D	A	D	E	D	E	A	A	A	A	B	A
Approach Vol, veh/h		17			190			964			1144	
Approach Delay, s/veh		54.6			60.4			8.5			9.9	
Approach LOS		D			E			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	104.8		24.9	10.9	104.2		24.9				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	18.2	68.2		32.1	18.2	68.2		32.1				
Max Q Clear Time (g_c+I1), s	2.7	15.4		3.2	3.0	21.5		16.7				
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	3.2		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				13.8								
HCM 6th LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
12: N Dixie Hwy & Hidden Valley Blvd

Existing AM 2021
09/28/2022

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	146	149	40	74	21	221	44	93	390	109
Future Volume (vph)	146	149	40	74	21	221	44	93	390	109
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases			8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	13.2	34.2	13.2	26.2	13.8	38.4	38.4	13.8	26.8	26.8
Total Split (s)	15.0	30.0	15.0	30.0	15.0	60.0	60.0	15.0	60.0	60.0
Total Split (%)	12.5%	25.0%	12.5%	25.0%	12.5%	50.0%	50.0%	12.5%	50.0%	50.0%
Yellow Time (s)	3.7	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	7.4	7.4	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max
Act Effct Green (s)	6.8	18.8	18.1	12.2	51.1	46.6	46.6	55.6	52.9	52.9
Actuated g/C Ratio	0.07	0.19	0.18	0.12	0.51	0.46	0.46	0.55	0.52	0.52
v/c Ratio	1.25	0.30	0.17	0.29	0.05	0.28	0.05	0.15	0.42	0.12
Control Delay	205.3	36.0	31.9	27.2	9.5	18.7	0.1	10.2	17.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	205.3	36.0	31.9	27.2	9.5	18.7	0.1	10.2	17.4	0.3
LOS	F	D	C	C	A	B	A	B	B	A
Approach Delay		109.9		28.3		15.2			13.1	
Approach LOS		F		C		B			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 100.9

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.25

Intersection Signal Delay: 38.9









Intersection LOS: D

Intersection Capacity Utilization 68.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd

			
Ø1	Ø2	Ø3	Ø4
15 s	60 s	15 s	30 s
			
Ø5	Ø6	Ø7	Ø8
15 s	60 s	15 s	30 s

Queues
12: N Dixie Hwy & Hidden Valley Blvd

Existing AM 2021
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	151	195	41	130	22	228	45	96	402	112
v/c Ratio	1.25	0.30	0.17	0.29	0.05	0.28	0.05	0.15	0.42	0.12
Control Delay	205.3	36.0	31.9	27.2	9.5	18.7	0.1	10.2	17.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	205.3	36.0	31.9	27.2	9.5	18.7	0.1	10.2	17.4	0.3
Queue Length 50th (ft)	~111	50	18	22	6	92	0	26	131	0
Queue Length 95th (ft)	#272	97	51	55	16	149	0	49	268	0
Internal Link Dist (ft)		221		597		5728			435	
Turn Bay Length (ft)	290		140		295		295	290		270
Base Capacity (vph)	121	842	258	760	506	939	909	641	966	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.23	0.16	0.17	0.04	0.24	0.05	0.15	0.42	0.12























Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

12: N Dixie Hwy & Hidden Valley Blvd

Existing AM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	149	40	40	74	52	21	221	44	93	390	109
Future Volume (veh/h)	146	149	40	40	74	52	21	221	44	93	390	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	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	1885	1885	1900	1856	1885	1870	1826	1811	1870	1885	1856	1885
Adj Flow Rate, veh/h	151	154	41	41	76	54	22	228	45	96	402	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	0	3	1	2	5	6	2	1	3	1
Cap, veh/h	116	410	106	238	237	154	422	867	759	599	930	800
Arrive On Green	0.06	0.15	0.15	0.03	0.11	0.11	0.02	0.48	0.48	0.04	0.50	0.50
Sat Flow, veh/h	1795	2813	727	1767	2075	1345	1739	1811	1584	1795	1856	1597
Grp Volume(v), veh/h	151	96	99	41	65	65	22	228	45	96	402	112
Grp Sat Flow(s),veh/h/ln	1795	1791	1748	1767	1791	1629	1739	1811	1584	1795	1856	1597
Q Serve(g_s), s	6.8	5.1	5.4	2.1	3.5	3.9	0.7	7.9	1.6	2.8	14.5	4.0
Cycle Q Clear(g_c), s	6.8	5.1	5.4	2.1	3.5	3.9	0.7	7.9	1.6	2.8	14.5	4.0
Prop In Lane	1.00		0.42	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	261	255	238	205	186	422	867	759	599	930	800
V/C Ratio(X)	1.30	0.37	0.39	0.17	0.32	0.35	0.05	0.26	0.06	0.16	0.43	0.14
Avail Cap(c_a), veh/h	116	372	363	294	372	338	509	908	794	649	930	800
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	49.1	40.5	40.6	39.1	42.7	42.9	13.9	16.3	14.7	12.9	16.7	14.0
Incr Delay (d2), s/veh	183.5	0.3	0.4	0.1	0.3	0.4	0.0	0.1	0.0	0.0	1.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	2.3	2.3	0.9	1.6	1.6	0.3	3.1	0.6	1.1	6.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	232.6	40.8	40.9	39.2	43.0	43.3	14.0	16.4	14.7	13.0	18.1	14.4
LnGrp LOS	F	D	D	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		346			171			295			610	
Approach Delay, s/veh		124.5			42.2			15.9			16.6	
Approach LOS		F			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	57.7	11.7	23.5	9.8	60.0	15.0	20.2				
Change Period (Y+Rc), s	7.4	7.4	* 8.2	* 8.2	7.4	7.4	* 8.2	* 8.2				
Max Green Setting (Gmax), s	7.6	52.6	* 6.8	* 22	7.6	52.6	* 6.8	* 22				
Max Q Clear Time (g_c+I1), s	4.8	9.9	4.1	7.4	2.7	16.5	8.8	5.9				
Green Ext Time (p_c), s	0.0	0.5	0.0	0.3	0.0	1.1	0.0	0.2				




Intersection Summary

HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	5	329	13	3	547
Future Vol, veh/h	21	5	329	13	3	547
Conflicting Peds, #/hr	0	0	0	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	40	4	0	33	2
Mvmt Flow	23	5	358	14	3	595

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	972	371	0	0	378
Stage 1	371	-	-	-	-
Stage 2	601	-	-	-	-
Critical Hdwy	6.45	6.6	-	-	4.43
Critical Hdwy Stg 1	5.45	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-
Follow-up Hdwy	3.545	3.66	-	-	2.497
Pot Cap-1 Maneuver	277	598	-	-	1029
Stage 1	691	-	-	-	-
Stage 2	542	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	274	595	-	-	1023
Mov Cap-2 Maneuver	274	-	-	-	-
Stage 1	687	-	-	-	-
Stage 2	540	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18	0	0
HCM LOS	C		



















Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	306	1023
HCM Lane V/C Ratio	-	-	0.092	0.003
HCM Control Delay (s)	-	-	18	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection				
Intersection Delay, s/veh	5.0			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	47	8	282	422
Demand Flow Rate, veh/h	47	8	290	426
Vehicles Circulating, veh/h	420	298	11	19
Vehicles Exiting, veh/h	25	3	456	287
Ped Vol Crossing Leg, #/h	2	17	0	2
Ped Cap Adj	1.000	0.998	1.000	1.000
Approach Delay, s/veh	4.5	3.6	4.5	5.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	47	8	290	426
Cap Entry Lane, veh/h	899	1018	1364	1353
Entry HV Adj Factor	1.000	1.000	0.973	0.990
Flow Entry, veh/h	47	8	282	422
Cap Entry, veh/h	899	1016	1327	1340
V/C Ratio	0.052	0.008	0.213	0.315
Control Delay, s/veh	4.5	3.6	4.5	5.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Intersection						
Intersection Delay, s/veh	3.9					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	193	249	134		
Demand Flow Rate, veh/h	0	197	252	134		
Vehicles Circulating, veh/h	282	31	95	148		
Vehicles Exiting, veh/h	0	95	187	31		
Ped Vol Crossing Leg, #/h	10	3	1	1		
Ped Cap Adj	0.999	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	3.5	4.3	4.0		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	49	4.976	221	4.976
Entry Flow, veh/h	0	148	1337	31	1252	134
Cap Entry Lane, veh/h	1035	1337	1.000	1252	0.990	1187
Entry HV Adj Factor	1.000	0.973	49	0.971	219	1.000
Flow Entry, veh/h	0	144	1336	30	1240	134
Cap Entry, veh/h	1034	1300	0.037	1216	0.177	1186
V/C Ratio	0.000	0.111	3.0	0.025	4.4	0.113
Control Delay, s/veh	3.5	3.7	A	3.2	A	4.0
LOS	A	A	0	A	1	A
95th %tile Queue, veh	0	0		0		0

Timings
1: NW 2nd Ave & NW 20th St

Existing PM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	100	286	188	314	84	419	169	125	591
Future Volume (vph)	100	286	188	314	84	419	169	125	591
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	17.0	34.0	18.0	35.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	14.2%	28.3%	15.0%	29.2%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.8	18.9	31.8	20.9	59.7	53.4	53.4	64.7	55.9
Actuated g/C Ratio	0.23	0.16	0.26	0.17	0.50	0.44	0.44	0.54	0.47
v/c Ratio	0.52	0.76	0.84	0.78	0.25	0.29	0.23	0.28	0.44
Control Delay	39.0	52.2	61.5	51.0	14.7	23.2	4.2	14.3	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	52.2	61.5	51.0	14.7	23.2	4.2	14.3	23.2
LOS	D	D	E	D	B	C	A	B	C
Approach Delay		49.5		54.1		17.4			21.7
Approach LOS		D		D		B			C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 9 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 33.9

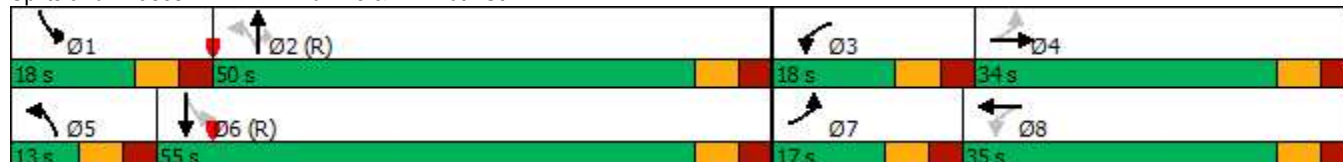
Intersection LOS: C

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues
1: NW 2nd Ave & NW 20th St

Existing PM 2021
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	110	430	207	499	92	460	186	137	720
v/c Ratio	0.52	0.76	0.84	0.78	0.25	0.29	0.23	0.28	0.44
Control Delay	39.0	52.2	61.5	51.0	14.7	23.2	4.2	14.3	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	52.2	61.5	51.0	14.7	23.2	4.2	14.3	23.2
Queue Length 50th (ft)	63	153	125	176	30	117	0	47	188
Queue Length 95th (ft)	101	199	#180	226	62	181	48	88	273
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	229	791	250	834	375	1573	814	529	1646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.54	0.83	0.60	0.25	0.29	0.23	0.26	0.44

Intersection Summary























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

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St

Existing PM 2021

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	286	106	188	314	140	84	419	169	125	591	65
Future Volume (veh/h)	100	286	106	188	314	140	84	419	169	125	591	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	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	1885	1870	1870	1870	1885	1885	1900	1870	1885	1826	1885	1900
Adj Flow Rate, veh/h	110	314	116	207	345	154	92	460	186	137	649	71
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	2	2	2	1	1	0	2	1	5	1	0
Cap, veh/h	225	420	152	266	461	202	385	1604	721	445	1525	167
Arrive On Green	0.07	0.16	0.16	0.09	0.19	0.19	0.04	0.45	0.45	0.06	0.47	0.47
Sat Flow, veh/h	1795	2544	920	1781	2412	1056	1810	3554	1598	1739	3256	356
Grp Volume(v), veh/h	110	217	213	207	254	245	92	460	186	137	357	363
Grp Sat Flow(s),veh/h/ln	1795	1777	1687	1781	1791	1677	1810	1777	1598	1739	1791	1821
Q Serve(g_s), s	6.0	14.0	14.5	11.0	16.1	16.6	3.3	9.8	8.7	5.0	15.9	15.9
Cycle Q Clear(g_c), s	6.0	14.0	14.5	11.0	16.1	16.6	3.3	9.8	8.7	5.0	15.9	15.9
Prop In Lane	1.00		0.55	1.00		0.63	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	225	293	278	266	342	321	385	1604	721	445	839	853
V/C Ratio(X)	0.49	0.74	0.76	0.78	0.74	0.76	0.24	0.29	0.26	0.31	0.43	0.43
Avail Cap(c_a), veh/h	257	400	380	266	418	391	400	1604	721	503	839	853
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	0.98	0.98	0.98
Uniform Delay (d), s/veh	38.7	47.7	47.9	39.5	45.8	46.0	17.1	20.7	20.4	16.1	21.2	21.2
Incr Delay (d2), s/veh	0.6	2.8	3.9	12.6	4.1	5.3	0.1	0.5	0.9	0.1	1.5	1.5
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	6.3	6.3	6.0	7.5	7.3	1.3	4.1	3.4	2.0	6.9	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	50.4	51.8	52.1	49.9	51.3	17.3	21.2	21.3	16.3	22.7	22.7
LnGrp LOS	D	D	D	D	D	D	B	C	C	B	C	C
Approach Vol, veh/h		540			706			738			857	
Approach Delay, s/veh		48.7			51.0			20.7			21.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	61.2	18.0	26.8	12.0	63.2	14.9	29.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	11.0	43.0	11.0	27.0	6.0	48.0	10.0	28.0				
Max Q Clear Time (g_c+I1), s	7.0	11.8	13.0	16.5	5.3	17.9	8.0	18.6				
Green Ext Time (p_c), s	0.1	1.7	0.0	0.7	0.0	1.6	0.0	0.9				

Intersection Summary



















HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

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

Timings
2: N Dixie Hwy & NW 20th St

Existing PM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	130	289	101	257	120	842	88	816	104
Future Volume (vph)	130	289	101	257	120	842	88	816	104
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	41.5	11.5	78.5	11.4	42.4	11.4	24.4	24.4
Total Split (s)	25.0	33.0	22.0	30.0	20.0	85.0	20.0	85.0	85.0
Total Split (%)	15.6%	20.6%	13.8%	18.8%	12.5%	53.1%	12.5%	53.1%	53.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	45.0	26.5	39.0	23.5	92.2	78.6	92.2	78.6	78.6
Actuated g/C Ratio	0.28	0.17	0.24	0.15	0.58	0.49	0.58	0.49	0.49
v/c Ratio	0.47	0.76	0.44	0.67	0.36	0.61	0.31	0.51	0.13
Control Delay	48.0	67.7	47.8	68.4	15.8	30.9	15.3	28.9	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.0	67.7	47.8	68.4	15.8	30.9	15.3	28.9	3.8
LOS	D	E	D	E	B	C	B	C	A
Approach Delay		63.0		63.5		29.3		25.1	
Approach LOS		E		E		C		C	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 15 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 38.7

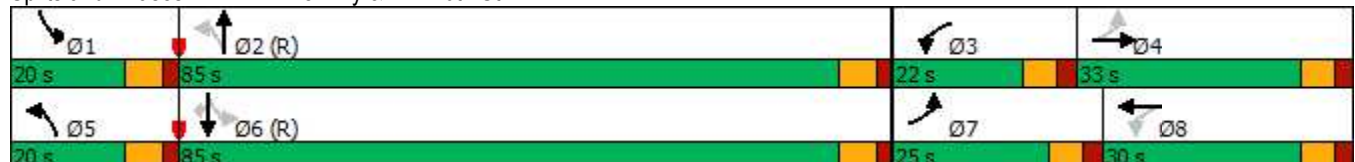
Intersection LOS: D

Intersection Capacity Utilization 93.0%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St






















Existing PM 2021
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	141	452	110	350	130	1039	96	887	113
v/c Ratio	0.47	0.76	0.44	0.67	0.36	0.61	0.31	0.51	0.13
Control Delay	48.0	67.7	47.8	68.4	15.8	30.9	15.3	28.9	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.0	67.7	47.8	68.4	15.8	30.9	15.3	28.9	3.8
Queue Length 50th (ft)	112	222	86	176	54	403	39	326	0
Queue Length 95th (ft)	175	287	140	234	85	475	65	387	34
Internal Link Dist (ft)		417		733		683		3051	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	298	593	248	523	360	1716	312	1738	850
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.76	0.44	0.67	0.36	0.61	0.31	0.51	0.13
Intersection Summary									

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	289	127	101	257	65	120	842	114	88	816	104
Future Volume (veh/h)	130	289	127	101	257	65	120	842	114	88	816	104
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	1885	1885	1885	1900	1885	1900	1870	1870	1885	1885	1870	1900
Adj Flow Rate, veh/h	141	314	138	110	279	71	130	915	124	96	887	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	1	0	2	2	1	1	2	0
Cap, veh/h	307	404	174	258	417	104	378	1545	209	352	1746	791
Arrive On Green	0.12	0.17	0.17	0.10	0.15	0.15	0.09	0.49	0.49	0.09	0.49	0.49
Sat Flow, veh/h	1795	2437	1048	1810	2837	709	1781	3144	426	1795	3554	1610
Grp Volume(v), veh/h	141	229	223	110	174	176	130	517	522	96	887	113
Grp Sat Flow(s),veh/h/ln	1795	1791	1694	1810	1791	1756	1781	1777	1794	1795	1777	1610
Q Serve(g_s), s	10.1	19.6	20.2	7.8	14.7	15.2	5.3	33.4	33.4	3.8	27.1	6.1
Cycle Q Clear(g_c), s	10.1	19.6	20.2	7.8	14.7	15.2	5.3	33.4	33.4	3.8	27.1	6.1
Prop In Lane	1.00		0.62	1.00		0.40	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	307	297	281	258	263	258	378	873	881	352	1746	791
V/C Ratio(X)	0.46	0.77	0.79	0.43	0.66	0.68	0.34	0.59	0.59	0.27	0.51	0.14
Avail Cap(c_a), veh/h	307	297	281	258	263	258	378	873	881	352	1746	791
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	48.1	63.9	64.1	49.8	64.5	64.7	18.5	29.2	29.2	19.4	27.6	22.3
Incr Delay (d2), s/veh	4.9	17.4	20.2	5.1	12.4	13.6	2.5	2.9	2.9	1.6	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	10.3	10.3	3.9	7.6	7.8	2.4	14.7	14.9	1.7	11.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	81.2	84.3	54.9	76.9	78.3	21.0	32.2	32.1	21.0	28.5	22.6
LnGrp LOS	D	F	F	D	E	E	C	C	C	C	C	C
Approach Vol, veh/h		593			460			1169			1096	
Approach Delay, s/veh		75.7			72.2			30.9			27.2	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	85.0	22.0	33.0	20.0	85.0	25.0	30.0				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	78.6	15.5	26.5	13.6	78.6	18.5	23.5				
Max Q Clear Time (g_c+I1), s	5.8	35.4	9.8	22.2	7.3	29.1	12.1	17.2				
Green Ext Time (p_c), s	0.1	2.4	0.1	0.5	0.1	2.8	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			43.4									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
3: NW 2nd Ave & NW 28th St

Existing PM 2021
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↑↑	↘	↓↓
Traffic Volume (vph)	70	171	577	132	554
Future Volume (vph)	70	171	577	132	554
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	24.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.0	12.0	32.2	39.8	41.0
Actuated g/C Ratio	0.20	0.20	0.53	0.65	0.67
v/c Ratio	0.21	0.39	0.36	0.30	0.24
Control Delay	22.5	6.9	11.9	7.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	6.9	11.9	7.3	5.8
LOS	C	A	B	A	A
Approach Delay	11.4		11.9		6.1
Approach LOS	B		B		A

Intersection Summary

Cycle Length: 61

Actuated Cycle Length: 61

Offset: 18 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.3

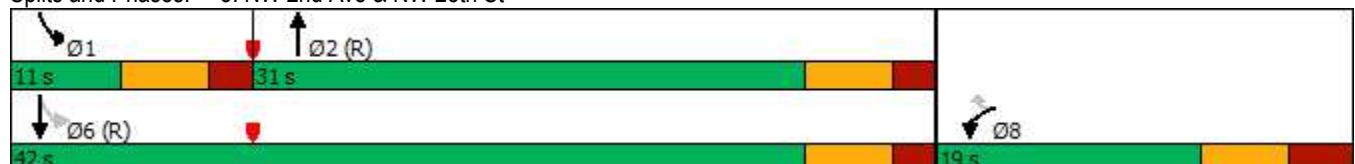
Intersection LOS: A

Intersection Capacity Utilization 54.0%

ICU Level of Service A






Analysis Period (min) 15

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St

Existing PM 2021
09/28/2022

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	73	178	676	138	577
v/c Ratio	0.21	0.39	0.36	0.30	0.24
Control Delay	22.5	6.9	11.9	7.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	6.9	11.9	7.3	5.8
Queue Length 50th (ft)	23	0	87	20	47
Queue Length 95th (ft)	54	44	129	40	71
Internal Link Dist (ft)	228		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	344	457	1866	457	2378
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.39	0.36	0.30	0.24
Intersection Summary					

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St

Existing PM 2021
09/28/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	70	171	577	72	132	554
Future Volume (veh/h)	70	171	577	72	132	554
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1885	1885	1900	1841	1870
Adj Flow Rate, veh/h	73	178	601	75	138	577
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	1	0	4	2
Cap, veh/h	343	310	1347	168	463	2107
Arrive On Green	0.19	0.19	0.42	0.42	0.07	0.59
Sat Flow, veh/h	1767	1598	3298	399	1753	3647
Grp Volume(v), veh/h	73	178	335	341	138	577
Grp Sat Flow(s),veh/h/ln	1767	1598	1791	1812	1753	1777
Q Serve(g_s), s	2.1	6.2	8.1	8.2	2.5	4.8
Cycle Q Clear(g_c), s	2.1	6.2	8.1	8.2	2.5	4.8
Prop In Lane	1.00	1.00		0.22	1.00	
Lane Grp Cap(c), veh/h	343	310	753	762	463	2107
V/C Ratio(X)	0.21	0.57	0.45	0.45	0.30	0.27
Avail Cap(c_a), veh/h	348	314	753	762	477	2107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	0.85	0.85
Uniform Delay (d), s/veh	20.7	22.3	12.6	12.6	8.4	6.0
Incr Delay (d2), s/veh	0.1	1.6	1.8	1.8	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.3	3.1	3.2	0.7	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.8	23.9	14.4	14.4	8.5	6.3
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	251		676			715
Approach Delay, s/veh	23.0		14.4			6.7
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.5	31.7			42.2	18.8
Change Period (Y+Rc), s	6.0	6.0			6.0	7.0
Max Green Setting (Gmax), s	5.0	25.0			36.0	12.0
Max Q Clear Time (g_c+I1), s	4.5	10.2			6.8	8.2
Green Ext Time (p_c), s	0.0	1.4			1.5	0.2

Intersection Summary













HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Notes

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

Timings
4: N Dixie Hwy & NW 28th St

Existing PM 2021
09/28/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	84	143	143	889	825	60
Future Volume (vph)	84	143	143	889	825	60
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	12.0	12.0	5.0	18.0	18.0	18.0
Minimum Split (s)	37.0	37.0	11.4	24.4	24.4	24.4
Total Split (s)	30.0	30.0	15.0	45.0	30.0	30.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	4.0	4.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	6.4	6.4	6.4	6.4
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	12.0	12.0	48.6	48.6	35.1	35.1
Actuated g/C Ratio	0.16	0.16	0.65	0.65	0.47	0.47
v/c Ratio	0.33	0.42	0.43	0.43	0.55	0.09
Control Delay	31.6	8.9	8.9	7.2	16.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	8.9	8.9	7.2	16.2	3.9
LOS	C	A	A	A	B	A
Approach Delay	17.3			7.4	15.4	
Approach LOS	B			A	B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 11 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 11.7

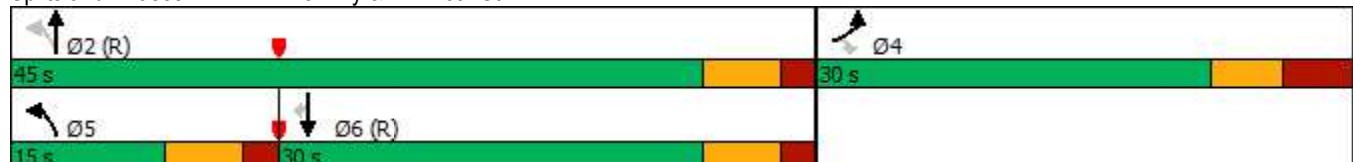
Intersection LOS: B

Intersection Capacity Utilization 58.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: N Dixie Hwy & NW 28th St



Queues
4: N Dixie Hwy & NW 28th St

Existing PM 2021
09/28/2022









Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	93	159	159	988	917	67
v/c Ratio	0.33	0.42	0.43	0.43	0.55	0.09
Control Delay	31.6	8.9	8.9	7.2	16.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	8.9	8.9	7.2	16.2	3.9
Queue Length 50th (ft)	39	0	25	102	152	0
Queue Length 95th (ft)	81	49	46	137	223	21
Internal Link Dist (ft)	243			3051	3633	
Turn Bay Length (ft)			230			280
Base Capacity (vph)	524	570	400	2293	1670	775
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.28	0.40	0.43	0.55	0.09
Intersection Summary						

HCM 6th Signalized Intersection Summary 4: N Dixie Hwy & NW 28th St

Existing PM 2021
09/28/2022





















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	143	143	889	825	60
Future Volume (veh/h)	84	143	143	889	825	60
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1870	1841	1870	1885	1870
Adj Flow Rate, veh/h	93	159	159	988	917	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	2	4	2	1	2
Cap, veh/h	286	252	395	2306	1781	788
Arrive On Green	0.16	0.16	0.07	0.65	0.50	0.50
Sat Flow, veh/h	1795	1585	1753	3647	3676	1585
Grp Volume(v), veh/h	93	159	159	988	917	67
Grp Sat Flow(s),veh/h/ln	1795	1585	1753	1777	1791	1585
Q Serve(g_s), s	3.4	7.0	3.1	10.1	13.0	1.7
Cycle Q Clear(g_c), s	3.4	7.0	3.1	10.1	13.0	1.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	286	252	395	2306	1781	788
V/C Ratio(X)	0.33	0.63	0.40	0.43	0.51	0.08
Avail Cap(c_a), veh/h	527	465	480	2306	1781	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	0.78	0.78
Uniform Delay (d), s/veh	28.0	29.5	9.0	6.4	12.7	9.9
Incr Delay (d2), s/veh	0.2	1.0	0.2	0.5	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.2	0.9	2.9	4.6	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.2	30.4	9.2	6.9	13.6	10.1
LnGrp LOS	C	C	A	A	B	B
Approach Vol, veh/h	252			1147	984	
Approach Delay, s/veh	29.6			7.2	13.3	
Approach LOS	C			A	B	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	55.1		19.9		11.4	43.7
Change Period (Y+Rc), s	6.4		8.0		6.4	6.4
Max Green Setting (Gmax), s	38.6		22.0		8.6	23.6
Max Q Clear Time (g_c+I1), s	12.1		9.0		5.1	15.0
Green Ext Time (p_c), s	2.8		0.5		0.1	2.0
Intersection Summary						
HCM 6th Ctrl Delay			12.1			
HCM 6th LOS			B			

Notes

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

Timings
5: NW 2nd Ave & Spanish River Blvd

Existing PM 2021
09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	109	642	165	108	837	246	527	96	352
Future Volume (vph)	109	642	165	108	837	246	527	96	352
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	40.0	64.0	64.0	24.0	48.0	22.0	50.0	22.0	50.0
Total Split (%)	25.0%	40.0%	40.0%	15.0%	30.0%	13.8%	31.3%	13.8%	31.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	88.3	78.1	78.1	86.3	77.1	51.1	36.0	42.0	31.2
Actuated g/C Ratio	0.55	0.49	0.49	0.54	0.48	0.32	0.22	0.26	0.20
v/c Ratio	0.40	0.39	0.21	0.29	0.57	0.95	0.88	0.60	0.68
Control Delay	20.6	28.3	4.3	18.5	32.9	87.1	70.9	47.1	38.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	28.3	4.3	18.5	32.9	87.1	70.9	47.1	38.8
LOS	C	C	A	B	C	F	E	D	D
Approach Delay		23.0			31.3		75.3		40.3
Approach LOS		C			C		E		D

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 145 (91%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 42.2

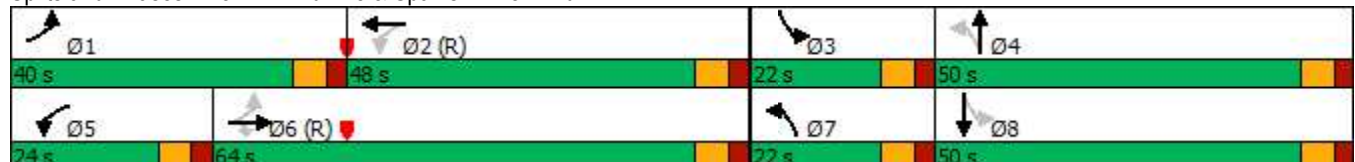
Intersection LOS: D

Intersection Capacity Utilization 82.0%

ICU Level of Service D

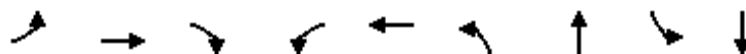
Analysis Period (min) 15

Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

Existing PM 2021
09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	676	174	114	963	259	689	101	464
v/c Ratio	0.40	0.39	0.21	0.29	0.57	0.95	0.88	0.60	0.68
Control Delay	20.6	28.3	4.3	18.5	32.9	87.1	70.9	47.1	38.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	28.3	4.3	18.5	32.9	87.1	70.9	47.1	38.8
Queue Length 50th (ft)	52	231	0	51	368	212	361	37	221
Queue Length 95th (ft)	98	336	50	97	530	#299	414	m72	243
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	507	1745	847	477	1702	272	946	222	947
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.39	0.21	0.24	0.57	0.95	0.73	0.45	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















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

HCM 6th Signalized Intersection Summary

5: NW 2nd Ave & Spanish River Blvd



















Existing PM 2021

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	642	165	108	837	78	246	527	127	96	352	88
Future Volume (veh/h)	109	642	165	108	837	78	246	527	127	96	352	88
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	1885	1841	1856	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	115	676	174	114	881	82	259	555	134	101	371	93
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	4	3	1	2	1	2	1	2	2	2
Cap, veh/h	327	1875	817	386	1733	161	263	604	145	165	491	122
Arrive On Green	0.04	0.52	0.52	0.04	0.52	0.52	0.10	0.21	0.21	0.06	0.17	0.17
Sat Flow, veh/h	1781	3582	1560	1767	3312	308	1795	2840	683	1781	2821	699
Grp Volume(v), veh/h	115	676	174	114	476	487	259	347	342	101	232	232
Grp Sat Flow(s),veh/h/ln	1781	1791	1560	1767	1791	1830	1795	1777	1746	1781	1777	1743
Q Serve(g_s), s	4.8	17.7	9.6	4.8	27.6	27.6	15.5	30.5	30.7	7.4	19.8	20.3
Cycle Q Clear(g_c), s	4.8	17.7	9.6	4.8	27.6	27.6	15.5	30.5	30.7	7.4	19.8	20.3
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.39	1.00		0.40
Lane Grp Cap(c), veh/h	327	1875	817	386	937	957	263	378	371	165	309	304
V/C Ratio(X)	0.35	0.36	0.21	0.30	0.51	0.51	0.98	0.92	0.92	0.61	0.75	0.76
Avail Cap(c_a), veh/h	622	1875	817	504	937	957	263	483	475	233	483	474
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	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	22.4	20.4	17.3	24.8	24.8	54.3	61.6	61.7	52.1	62.8	62.9
Incr Delay (d2), s/veh	0.2	0.5	0.6	0.2	2.0	1.9	49.0	16.5	17.5	1.4	1.4	1.5
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	2.0	7.7	3.7	2.0	12.2	12.5	6.6	15.5	15.4	3.4	9.1	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	22.9	21.0	17.4	26.8	26.7	103.3	78.1	79.2	53.5	64.1	64.5
LnGrp LOS	B	C	C	B	C	C	F	E	E	D	E	E
Approach Vol, veh/h	965			1077			948			565		
Approach Delay, s/veh	22.2			25.7			85.4			62.4		
Approach LOS	C			C			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	90.2	15.8	40.5	13.4	90.3	22.0	34.4				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	33.5	41.5	15.5	43.5	17.5	57.5	15.5	43.5				
Max Q Clear Time (g_c+I1), s	6.8	29.6	9.4	32.7	6.8	19.7	17.5	22.3				
Green Ext Time (p_c), s	0.2	1.9	0.1	1.3	0.1	2.3	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay	46.5											
HCM 6th LOS	D											

Timings
6: N Dixie Hwy & Spanish River Blvd

Existing PM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	139	563	122	673	227	700	45	562	116
Future Volume (vph)	139	563	122	673	227	700	45	562	116
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	22.0	59.0	22.0	59.0	23.0	64.0	15.0	56.0	56.0
Total Split (%)	13.8%	36.9%	13.8%	36.9%	14.4%	40.0%	9.4%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Min	Max	Min	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	59.6	44.1	59.6	44.1	81.0	57.6	66.6	49.6	49.6
Actuated g/C Ratio	0.37	0.28	0.37	0.28	0.51	0.36	0.42	0.31	0.31
v/c Ratio	0.67	0.89	0.63	0.81	0.61	0.70	0.17	0.58	0.22
Control Delay	46.1	64.8	47.8	60.8	31.4	46.9	35.7	72.2	21.1
Queue Delay	0.0	50.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	115.4	47.8	60.8	31.4	46.9	35.7	72.2	21.1
LOS	D	F	D	E	C	D	D	E	C
Approach Delay		104.6		58.9		43.4		61.7	
Approach LOS		F		E		D		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 150 (94%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 66.8

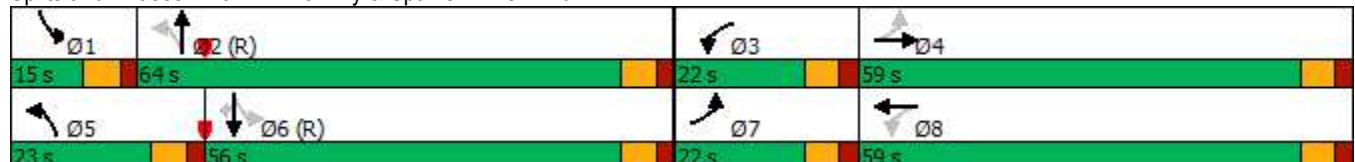
Intersection LOS: E

Intersection Capacity Utilization 79.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

Existing PM 2021
09/28/2022
























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	158	862	139	799	258	892	51	639	132
v/c Ratio	0.67	0.89	0.63	0.81	0.61	0.70	0.17	0.58	0.22
Control Delay	46.1	64.8	47.8	60.8	31.4	46.9	35.7	72.2	21.1
Queue Delay	0.0	50.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	115.4	47.8	60.8	31.4	46.9	35.7	72.2	21.1
Queue Length 50th (ft)	105	441	92	410	154	416	39	363	35
Queue Length 95th (ft)	153	478	151	446	233	480	m62	422	68
Internal Link Dist (ft)		267		828		3633		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	235	1151	220	1168	426	1273	297	1107	607
Starvation Cap Reductn	0	411	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	1.16	0.63	0.68	0.61	0.70	0.17	0.58	0.22

Intersection Summary

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






























HCM 6th Signalized Intersection Summary 6: N Dixie Hwy & Spanish River Blvd

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	563	195	122	673	30	227	700	85	45	562	116
Future Volume (veh/h)	139	563	195	122	673	30	227	700	85	45	562	116
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	1885	1900	1885	1885	1885	1900	1885	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	158	640	222	139	765	34	258	795	97	51	639	132
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	0	1	1	1	0	1	1	0	0	1	0
Cap, veh/h	256	688	238	234	914	41	401	1370	167	293	1348	606
Arrive On Green	0.10	0.26	0.26	0.10	0.26	0.26	0.10	0.43	0.43	0.05	0.38	0.38
Sat Flow, veh/h	1795	2626	910	1795	3492	155	1795	3214	392	1810	3582	1610
Grp Volume(v), veh/h	158	440	422	139	392	407	258	443	449	51	639	132
Grp Sat Flow(s),veh/h/ln	1795	1805	1731	1795	1791	1856	1795	1791	1815	1810	1791	1610
Q Serve(g_s), s	9.9	38.0	38.1	8.6	33.1	33.1	13.6	30.2	30.2	2.6	21.7	8.9
Cycle Q Clear(g_c), s	9.9	38.0	38.1	8.6	33.1	33.1	13.6	30.2	30.2	2.6	21.7	8.9
Prop In Lane	1.00		0.53	1.00		0.08	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	256	473	453	234	469	486	401	763	774	293	1348	606
V/C Ratio(X)	0.62	0.93	0.93	0.59	0.84	0.84	0.64	0.58	0.58	0.17	0.47	0.22
Avail Cap(c_a), veh/h	256	592	568	234	588	609	401	763	774	293	1348	606
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)	0.96	0.96	0.96	1.00	1.00	1.00	0.91	0.91	0.91	0.80	0.80	0.80
Uniform Delay (d), s/veh	40.5	57.6	57.7	40.9	55.8	55.8	26.8	35.0	35.0	28.4	37.9	33.9
Incr Delay (d2), s/veh	10.2	16.8	17.5	10.6	7.0	6.8	7.1	2.9	2.9	1.0	1.0	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	5.1	19.5	18.8	4.5	15.8	16.4	6.6	13.7	13.8	1.2	9.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	74.4	75.1	51.5	62.8	62.6	33.9	37.9	37.9	29.4	38.8	34.6
LnGrp LOS	D	E	E	D	E	E	C	D	D	C	D	C
Approach Vol, veh/h		1020			938			1150			822	
Approach Delay, s/veh		71.0			61.0			37.0			37.6	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	74.6	22.0	48.4	23.0	66.6	22.0	48.4				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	15.5	52.5	16.6	49.6	15.5	52.5				
Max Q Clear Time (g_c+I1), s	4.6	32.2	10.6	40.1	15.6	23.7	11.9	35.1				
Green Ext Time (p_c), s	0.0	1.9	0.1	1.8	0.1	2.0	0.1	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			51.7									
HCM 6th LOS			D									

Timings
7: NW 2nd Ave & W Yamato Rd

Existing PM 2021
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		  			  		 			 	 
Traffic Volume (vph)	260	1414	325	131	1262	274	484	399	102	325	439
Future Volume (vph)	260	1414	325	131	1262	274	484	399	102	325	439
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0
Minimum Split (s)	14.8	40.8	40.8	14.8	37.8	37.8	14.0	42.0	42.0	14.0	41.0
Total Split (s)	26.0	50.0	50.0	26.0	50.0	50.0	48.0	56.0	56.0	28.0	36.0
Total Split (%)	16.3%	31.3%	31.3%	16.3%	31.3%	31.3%	30.0%	35.0%	35.0%	17.5%	22.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	78.1	60.1	60.1	59.6	47.1	47.1	28.7	40.8	40.8	19.0	32.1
Actuated g/C Ratio	0.49	0.38	0.38	0.37	0.29	0.29	0.18	0.26	0.26	0.12	0.20
v/c Ratio	0.83	0.76	0.43	0.75	0.88	0.46	0.83	0.88	0.22	0.84	0.82
Control Delay	65.8	48.0	6.7	61.7	61.7	14.1	90.9	53.7	1.2	87.3	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	48.0	6.7	61.7	61.7	14.1	90.9	53.7	1.2	87.3	69.6
LOS	E	D	A	E	E	B	F	D	A	F	E
Approach Delay		43.6			53.9			66.5			76.2
Approach LOS		D			D			E			E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 50 (31%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 55.9

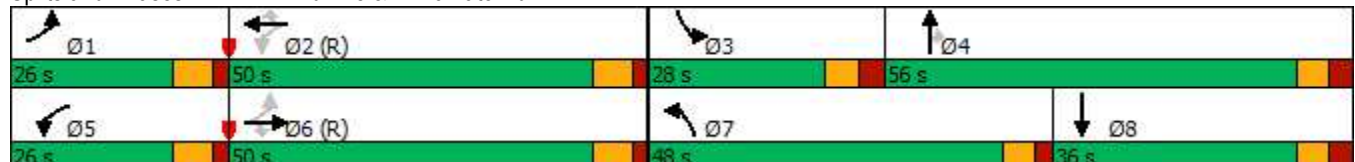
Intersection LOS: E

Intersection Capacity Utilization 92.3%

ICU Level of Service F












Analysis Period (min) 15

Splits and Phases: 7: NW 2nd Ave & W Yamato Rd



Queues
7: NW 2nd Ave & W Yamato Rd

Existing PM 2021
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	274	1488	342	138	1328	288	509	420	107	342	575
v/c Ratio	0.83	0.76	0.43	0.75	0.88	0.46	0.83	0.88	0.22	0.84	0.82
Control Delay	65.8	48.0	6.7	61.7	61.7	14.1	90.9	53.7	1.2	87.3	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	48.0	6.7	61.7	61.7	14.1	90.9	53.7	1.2	87.3	69.6
Queue Length 50th (ft)	226	505	9	95	504	52	241	429	2	181	295
Queue Length 95th (ft)	#474	#715	95	167	#601	144	285	547	m0	238	360
Internal Link Dist (ft)		1311			615			322			560
Turn Bay Length (ft)	350		400	415		280	280		200	250	
Base Capacity (vph)	330	1949	800	259	1511	632	901	570	561	450	715
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.76	0.43	0.53	0.88	0.46	0.56	0.74	0.19	0.76	0.80

Intersection Summary
































95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

HCM 6th Signalized Intersection Summary
7: NW 2nd Ave & W Yamato Rd

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	260	1414	325	131	1262	274	484	399	102	325	439	107
Future Volume (veh/h)	260	1414	325	131	1262	274	484	399	102	325	439	107
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	1885	1900	1870	1870	1885	1900	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	1488	342	138	1328	288	509	420	107	342	462	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	2	2	1	0	2	2	2	2	2	2
Cap, veh/h	294	2143	655	218	1856	581	578	450	381	387	543	132
Arrive On Green	0.11	0.41	0.41	0.06	0.36	0.36	0.17	0.24	0.24	0.11	0.19	0.19
Sat Flow, veh/h	1795	5187	1585	1781	5147	1610	3456	1870	1583	3456	2834	688
Grp Volume(v), veh/h	274	1488	342	138	1328	288	509	420	107	342	288	287
Grp Sat Flow(s),veh/h/ln	1795	1729	1585	1781	1716	1610	1728	1870	1583	1728	1777	1745
Q Serve(g_s), s	16.2	37.8	25.8	7.8	35.6	22.3	23.0	35.2	8.8	15.6	25.1	25.4
Cycle Q Clear(g_c), s	16.2	37.8	25.8	7.8	35.6	22.3	23.0	35.2	8.8	15.6	25.1	25.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	294	2143	655	218	1856	581	578	450	381	387	341	335
V/C Ratio(X)	0.93	0.69	0.52	0.63	0.72	0.50	0.88	0.93	0.28	0.88	0.85	0.86
Avail Cap(c_a), veh/h	304	2143	655	321	1856	581	907	573	485	454	341	335
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	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	38.6	35.1	33.4	44.1	39.8	65.1	59.5	49.5	70.0	62.4	62.5
Incr Delay (d2), s/veh	33.3	1.9	3.0	1.0	2.2	2.7	5.5	18.8	0.3	15.1	17.3	18.8
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	9.6	16.1	10.6	3.4	15.2	9.3	10.6	18.9	3.5	7.7	12.9	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	40.5	38.1	34.4	46.3	42.6	70.6	78.3	49.7	85.1	79.7	81.3
LnGrp LOS	E	D	D	C	D	D	E	E	D	F	E	F
Approach Vol, veh/h		2104			1754			1036			917	
Approach Delay, s/veh		44.3			44.7			71.5			82.2	
Approach LOS		D			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.1	64.5	24.9	45.5	16.7	72.9	32.8	37.7				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	19.2	43.2	21.0	49.0	19.2	43.2	42.0	29.0				
Max Q Clear Time (g_c+I1), s	18.2	37.6	17.6	37.2	9.8	39.8	25.0	27.4				
Green Ext Time (p_c), s	0.1	2.6	0.3	1.4	0.1	2.0	1.7	0.4				

Intersection Summary



























HCM 6th Ctrl Delay	55.3
HCM 6th LOS	E

Notes

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

Timings
8: N Dixie Hwy & W Yamato Rd

Existing PM 2021
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  	 	 		 	
Traffic Volume (vph)	222	1077	47	922	411	399	10	331	371
Future Volume (vph)	222	1077	47	922	411	399	10	331	371
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	13.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	60.0	20.0	55.0	33.0	59.0	21.0	47.0	47.0
Total Split (%)	15.6%	37.5%	12.5%	34.4%	20.6%	36.9%	13.1%	29.4%	29.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	14.8	75.8	8.6	67.2	23.6	52.3	5.6	27.5	27.5
Actuated g/C Ratio	0.09	0.47	0.05	0.42	0.15	0.33	0.04	0.17	0.17
v/c Ratio	0.74	0.61	0.51	0.47	0.86	0.47	0.18	0.57	0.91
Control Delay	84.5	34.5	90.7	36.7	83.4	72.2	81.0	63.4	57.4
Queue Delay	0.0	20.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	54.9	90.7	36.7	83.4	72.2	81.0	63.4	57.4
LOS	F	D	F	D	F	E	F	E	E
Approach Delay		59.1		39.2		77.2		60.5	
Approach LOS		E		D		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 71 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 58.5

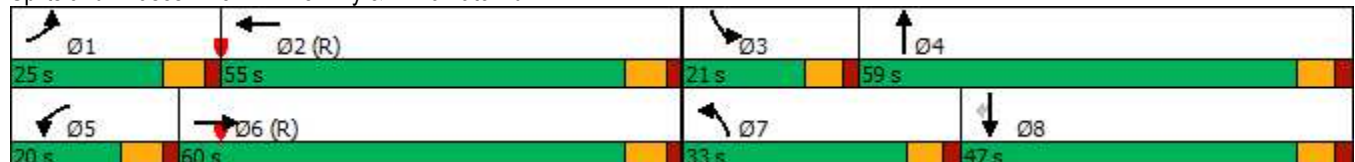
Intersection LOS: E

Intersection Capacity Utilization 75.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd






















Existing PM 2021
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	234	1443	49	1003	433	531	11	348	391
v/c Ratio	0.74	0.61	0.51	0.47	0.86	0.47	0.18	0.57	0.91
Control Delay	84.5	34.5	90.7	36.7	83.4	72.2	81.0	63.4	57.4
Queue Delay	0.0	20.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	54.9	90.7	36.7	83.4	72.2	81.0	63.4	57.4
Queue Length 50th (ft)	124	405	51	277	243	291	11	178	222
Queue Length 95th (ft)	170	562	98	387	303	336	34	212	331
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	390	2379	148	2147	570	1199	161	886	540
Starvation Cap Reductn	0	974	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	1.03	0.33	0.47	0.76	0.44	0.07	0.39	0.72
Intersection Summary									
















HCM 6th Signalized Intersection Summary
8: N Dixie Hwy & W Yamato Rd

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	1077	294	47	922	30	411	399	105	10	331	371
Future Volume (veh/h)	222	1077	294	47	922	30	411	399	105	10	331	371
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	1885	1885	1900	1885	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	234	1134	309	49	971	32	433	420	111	11	348	391
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	1	2	2	2	1	2	2	2
Cap, veh/h	279	1633	445	63	1843	61	485	1056	276	22	891	397
Arrive On Green	0.08	0.41	0.41	0.04	0.36	0.36	0.05	0.13	0.13	0.01	0.25	0.25
Sat Flow, veh/h	3456	4023	1096	1810	5117	168	3456	2786	730	1781	3554	1585
Grp Volume(v), veh/h	234	967	476	49	651	352	433	266	265	11	348	391
Grp Sat Flow(s),veh/h/ln	1728	1716	1688	1810	1716	1855	1728	1777	1739	1781	1777	1585
Q Serve(g_s), s	10.7	37.3	37.3	4.3	24.0	24.0	19.9	22.1	22.4	1.0	13.0	39.3
Cycle Q Clear(g_c), s	10.7	37.3	37.3	4.3	24.0	24.0	19.9	22.1	22.4	1.0	13.0	39.3
Prop In Lane	1.00		0.65	1.00		0.09	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	279	1393	685	63	1236	668	485	673	659	22	891	397
V/C Ratio(X)	0.84	0.69	0.69	0.77	0.53	0.53	0.89	0.40	0.40	0.51	0.39	0.98
Avail Cap(c_a), veh/h	393	1393	685	149	1236	668	575	673	659	163	891	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.5	39.3	39.3	76.6	40.4	40.4	75.1	53.1	53.3	78.6	49.8	59.6
Incr Delay (d2), s/veh	7.2	2.7	5.3	7.2	1.6	3.0	9.3	0.1	0.1	6.8	0.1	40.7
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	5.0	15.9	16.1	2.1	10.3	11.4	9.9	10.6	10.5	0.5	5.8	20.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.7	42.0	44.6	83.8	42.0	43.4	84.4	53.2	53.4	85.3	49.9	100.4
LnGrp LOS	E	D	D	F	D	D	F	D	D	F	D	F
Approach Vol, veh/h	1677		1052				964		750			
Approach Delay, s/veh	48.0		44.4				67.3		76.7			
Approach LOS	D		D				E		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.7	64.4	8.3	67.5	12.4	71.8	28.8	47.0				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	48.2	14.6	52.1	13.2	53.2	26.6	40.1				
Max Q Clear Time (g_c+I1), s	12.7	26.0	3.0	24.4	6.3	39.3	21.9	41.3				
Green Ext Time (p_c), s	0.2	2.3	0.0	1.1	0.0	3.5	0.5	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			56.2									
HCM 6th LOS			E									

Timings
9: NW 2nd Ave & Jeffery St

Existing PM 2021
09/28/2022

								
Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	402	570	1	0	422	474	269	161
Future Volume (vph)	402	570	1	0	422	474	269	161
Turn Type	Perm	pm+ov	Perm	NA	pm+pt	NA	NA	Perm
Protected Phases		5		8	5	2	6	
Permitted Phases	4	4	8		2			6
Detector Phase	4	5	8	8	5	2	6	6
Switch Phase								
Minimum Initial (s)	12.0	5.0	12.0	12.0	5.0	18.0	18.0	18.0
Minimum Split (s)	30.5	25.0	30.5	30.5	25.0	30.0	39.0	39.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	105.0	75.0	75.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	77.8%	55.6%	55.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	3.0	2.5	2.5	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	7.0		6.5	7.0	7.0	7.0	7.0
Lead/Lag		Lead			Lead		Lag	Lag
Lead-Lag Optimize?		Yes			Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	23.6	51.3		23.6	48.0	48.0	19.8	19.8
Actuated g/C Ratio	0.28	0.60		0.28	0.56	0.56	0.23	0.23
v/c Ratio	1.07	0.51		0.00	0.70	0.47	0.65	0.34
Control Delay	99.9	3.1		25.0	17.2	12.5	37.6	6.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	99.9	3.1		25.0	17.2	12.5	37.6	6.5
LOS	F	A		C	B	B	D	A
Approach Delay				25.0		14.7	26.0	
Approach LOS				C		B	C	

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 85.1

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 28.8

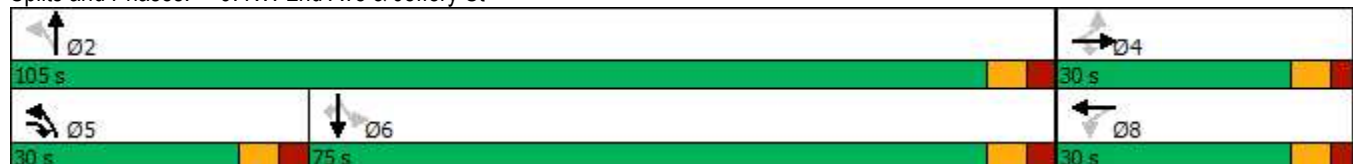
Intersection LOS: C

Intersection Capacity Utilization 77.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 9: NW 2nd Ave & Jeffery St



Queues
9: NW 2nd Ave & Jeffery St

Existing PM 2021
09/28/2022



Lane Group	EBL	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	419	594	1	440	494	280	168
v/c Ratio	1.07	0.51	0.00	0.70	0.47	0.65	0.34
Control Delay	99.9	3.1	25.0	17.2	12.5	37.6	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.9	3.1	25.0	17.2	12.5	37.6	6.5
Queue Length 50th (ft)	~252	11	0	126	144	140	0
Queue Length 95th (ft)	#475	61	4	191	214	221	47
Internal Link Dist (ft)			163		1963	2746	
Turn Bay Length (ft)	100	270		135			200
Base Capacity (vph)	390	1189	397	656	1881	1492	1301
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.50	0.00	0.67	0.26	0.19	0.13






















Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

























9: NW 2nd Ave & Jeffery St

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	402	0	570	1	0	0	422	474	0	0	269	161
Future Volume (veh/h)	402	0	570	1	0	0	422	474	0	0	269	161
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		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	1900	1870	1900	1870	1885	1900	1900	1870	1870
Adj Flow Rate, veh/h	419	0	594	1	0	0	440	494	0	0	280	168
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	0	2	0	2	1	0	0	2	2
Cap, veh/h	504	546	786	330	0	0	581	1018	0	89	466	392
Arrive On Green	0.29	0.00	0.29	0.29	0.00	0.00	0.20	0.54	0.00	0.00	0.25	0.25
Sat Flow, veh/h	1418	1870	1585	823	0	0	1781	1885	0	917	1870	1572
Grp Volume(v), veh/h	419	0	594	1	0	0	440	494	0	0	280	168
Grp Sat Flow(s),veh/h/ln	1418	1870	1585	823	0	0	1781	1885	0	917	1870	1572
Q Serve(g_s), s	23.4	0.0	23.5	0.1	0.0	0.0	13.8	13.1	0.0	0.0	10.6	7.2
Cycle Q Clear(g_c), s	23.5	0.0	23.5	0.1	0.0	0.0	13.8	13.1	0.0	0.0	10.6	7.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	504	546	786	330	0	0	581	1018	0	89	466	392
V/C Ratio(X)	0.83	0.00	0.76	0.00	0.00	0.00	0.76	0.49	0.00	0.00	0.60	0.43
Avail Cap(c_a), veh/h	504	546	786	330	0	0	727	2296	0	636	1581	1328
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	16.4	20.2	0.0	0.0	16.2	11.5	0.0	0.0	26.7	25.4
Incr Delay (d2), s/veh	10.7	0.0	3.8	0.0	0.0	0.0	2.6	0.4	0.0	0.0	1.5	0.9
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	9.2	0.0	8.6	0.0	0.0	0.0	5.5	5.1	0.0	0.0	4.8	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	20.1	20.2	0.0	0.0	18.8	12.0	0.0	0.0	28.2	26.3
LnGrp LOS	D	A	C	C	A	A	B	B	A	A	C	C
Approach Vol, veh/h	1013			1			934			448		
Approach Delay, s/veh	28.1			20.2			15.2			27.5		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	2			4		5	6		8			
Phs Duration (G+Y+Rc), s	50.5			30.0		23.4	27.1		30.0			
Change Period (Y+Rc), s	7.0			6.5		7.0	7.0		6.5			
Max Green Setting (Gmax), s	98.0			23.5		23.0	68.0		23.5			
Max Q Clear Time (g_c+l1), s	15.1			25.5		15.8	12.6		2.1			
Green Ext Time (p_c), s	2.9			0.0		0.6	2.6		0.0			
Intersection Summary												
HCM 6th Ctrl Delay	22.9											
HCM 6th LOS	C											

Timings
10: Congress Ave & Clint Moore Rd

Existing PM 2021
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	887	541	273	59	460	423	295	1215	24	241	553	705
Future Volume (vph)	887	541	273	59	460	423	295	1215	24	241	553	705
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	22.5	50.8	50.8
Total Split (s)	55.0	72.0	72.0	20.0	37.0	37.0	32.0	60.0	60.0	28.0	56.0	56.0
Total Split (%)	30.6%	40.0%	40.0%	11.1%	20.6%	20.6%	17.8%	33.3%	33.3%	15.6%	31.1%	31.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	47.2	68.4	68.4	8.0	29.2	29.2	20.7	54.9	54.9	17.5	51.7	51.7
Actuated g/C Ratio	0.26	0.38	0.38	0.04	0.16	0.16	0.12	0.30	0.30	0.10	0.29	0.29
v/c Ratio	1.09	0.31	0.38	0.42	0.88	1.09	0.82	0.86	0.04	0.80	0.41	0.95
Control Delay	118.9	39.9	4.9	92.0	90.7	106.8	95.1	65.8	0.1	96.8	53.3	43.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	118.9	39.9	4.9	92.0	90.7	106.8	95.1	65.8	0.1	96.8	53.3	43.4
LOS	F	D	A	F	F	F	F	E	A	F	D	D
Approach Delay		75.5			98.0			70.4			55.6	
Approach LOS		E			F			E			E	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 88 (49%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 72.6

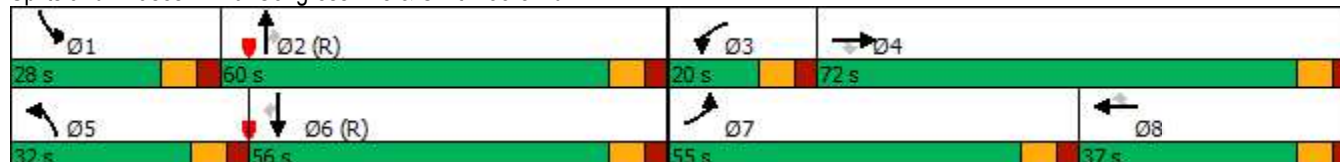
Intersection LOS: E

Intersection Capacity Utilization 106.6%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd















Queues

10: Congress Ave & Clint Moore Rd

Existing PM 2021

09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	975	595	300	65	505	465	324	1335	26	265	608	775
v/c Ratio	1.09	0.31	0.38	0.42	0.88	1.09	0.82	0.86	0.04	0.80	0.41	0.95
Control Delay	118.9	39.9	4.9	92.0	90.7	106.8	95.1	65.8	0.1	96.8	53.3	43.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	118.9	39.9	4.9	92.0	90.7	106.8	95.1	65.8	0.1	96.8	53.3	43.4
Queue Length 50th (ft)	~667	180	0	39	312	~400	195	550	0	160	215	416
Queue Length 95th (ft)	#805	221	66	68	#406	#639	250	624	0	212	263	#732
Internal Link Dist (ft)	2199			619			1029			883		
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	891	1931	793	232	574	426	461	1550	594	385	1476	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.31	0.38	0.28	0.88	1.09	0.70	0.86	0.04	0.69	0.41	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary























10: Congress Ave & Clint Moore Rd

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	887	541	273	59	460	423	295	1215	24	241	553	705
Future Volume (veh/h)	887	541	273	59	460	423	295	1215	24	241	553	705
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	1870	1885	1870	1870	1870	1870	1870	1870	1870	1885	1885
Adj Flow Rate, veh/h	975	595	300	65	505	465	324	1335	26	265	608	775
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	1	2	2	2	2	2	2	2	1	1
Cap, veh/h	899	1976	618	129	576	257	365	1603	497	305	1526	473
Arrive On Green	0.26	0.39	0.39	0.04	0.16	0.16	0.11	0.31	0.31	0.09	0.30	0.30
Sat Flow, veh/h	3428	5106	1596	3456	3554	1582	3456	5106	1582	3456	5147	1594
Grp Volume(v), veh/h	975	595	300	65	505	465	324	1335	26	265	608	775
Grp Sat Flow(s),veh/h/ln	1714	1702	1596	1728	1777	1582	1728	1702	1582	1728	1716	1594
Q Serve(g_s), s	47.2	14.6	25.5	3.3	25.0	29.2	16.7	43.7	2.1	13.6	17.0	53.4
Cycle Q Clear(g_c), s	47.2	14.6	25.5	3.3	25.0	29.2	16.7	43.7	2.1	13.6	17.0	53.4
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	899	1976	618	129	576	257	365	1603	497	305	1526	473
V/C Ratio(X)	1.08	0.30	0.49	0.50	0.88	1.81	0.89	0.83	0.05	0.87	0.40	1.64
Avail Cap(c_a), veh/h	899	1976	618	234	576	257	465	1603	497	388	1526	473
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	66.4	38.3	41.6	85.0	73.6	75.4	79.4	57.3	43.1	81.0	50.5	63.3
Incr Delay (d2), s/veh	55.6	0.0	0.2	1.1	13.7	380.3	13.5	5.2	0.2	13.4	0.8	297.1
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	27.4	6.1	10.1	1.5	12.4	38.9	8.0	19.3	0.8	6.6	7.4	60.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.0	38.3	41.9	86.1	87.3	455.7	93.0	62.6	43.3	94.4	51.3	360.5
LnGrp LOS	F	D	D	F	F	F	F	E	D	F	D	F
Approach Vol, veh/h	1870			1035			1685			1648		
Approach Delay, s/veh	82.5			252.8			68.1			203.6		
Approach LOS	F			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.7	64.3	14.5	77.5	26.8	61.2	55.0	37.0				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	20.2	52.2	12.2	64.2	24.2	48.2	47.2	29.2				
Max Q Clear Time (g_c+I1), s	15.6	45.7	5.3	27.5	18.7	55.4	49.2	31.2				
Green Ext Time (p_c), s	0.2	2.5	0.0	2.5	0.4	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	138.9											
HCM 6th LOS	F											

Timings
11: N Federal Hwy & Jeffery St

Existing PM 2021
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	12	7	114	15	40	50	1390	111	53	1053	15
Future Volume (vph)	12	7	114	15	40	50	1390	111	53	1053	15
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	11.8	38.8	38.8	11.8	28.8	28.8
Total Split (s)	40.0	40.0	40.0	40.0	40.0	30.0	80.0	80.0	30.0	80.0	80.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	20.0%	53.3%	53.3%	20.0%	53.3%	53.3%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	32.1	32.1	32.1	32.1	32.1	96.4	73.2	73.2	96.4	73.2	73.2
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.64	0.49	0.49	0.64	0.49	0.49
v/c Ratio	0.04	0.04	0.42	0.04	0.11	0.14	0.88	0.15	0.18	0.66	0.02
Control Delay	47.4	31.3	56.0	47.3	2.5	8.5	41.3	7.8	11.5	31.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	31.3	56.0	47.3	2.5	8.5	41.3	7.8	11.5	31.4	0.1
LOS	D	C	E	D	A	A	D	A	B	C	A
Approach Delay		38.5		42.5			37.8			30.1	
Approach LOS		D		D			D			C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 5 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 35.1

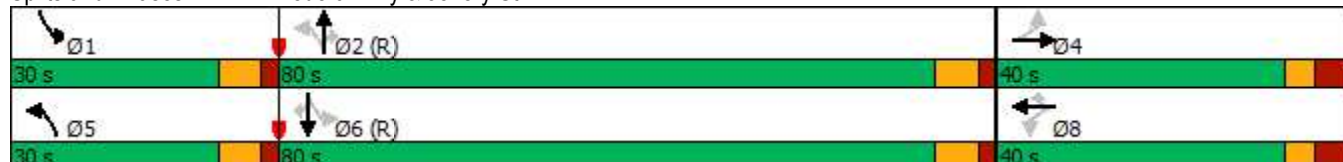
Intersection LOS: D

Intersection Capacity Utilization 77.3%

ICU Level of Service D












Analysis Period (min) 15

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues
11: N Federal Hwy & Jeffery St























Existing PM 2021
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	13	16	125	16	44	55	1527	122	58	1157	16
v/c Ratio	0.04	0.04	0.42	0.04	0.11	0.14	0.88	0.15	0.18	0.66	0.02
Control Delay	47.4	31.3	56.0	47.3	2.5	8.5	41.3	7.8	11.5	31.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	31.3	56.0	47.3	2.5	8.5	41.3	7.8	11.5	31.4	0.1
Queue Length 50th (ft)	10	6	107	13	0	16	690	19	17	442	0
Queue Length 95th (ft)	30	28	175	34	8	31	801	55	39	521	0
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		220		230	225		170	250		145
Base Capacity (vph)	303	382	297	406	406	405	1744	816	329	1744	813
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.42	0.04	0.11	0.14	0.88	0.15	0.18	0.66	0.02
Intersection Summary											

HCM 6th Signalized Intersection Summary





















11: N Federal Hwy & Jeffery St

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	7	7	114	15	40	50	1390	111	53	1053	15
Future Volume (veh/h)	12	7	7	114	15	40	50	1390	111	53	1053	15
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	1900	1900	1900	1870	1900	1900	1900	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	13	8	8	125	16	44	55	1527	122	58	1157	16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	2	0	0	0	1	2	0	1	0
Cap, veh/h	331	187	187	337	407	345	446	1748	773	361	1748	785
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.15	0.49	0.49	0.15	0.49	0.49
Sat Flow, veh/h	1364	872	872	1397	1900	1610	1810	3582	1583	1810	3582	1609
Grp Volume(v), veh/h	13	0	16	125	16	44	55	1527	122	58	1157	16
Grp Sat Flow(s),veh/h/ln	1364	0	1743	1397	1900	1610	1810	1791	1583	1810	1791	1609
Q Serve(g_s), s	1.1	0.0	1.1	11.7	1.0	3.3	1.7	57.1	6.4	1.8	36.6	0.8
Cycle Q Clear(g_c), s	2.1	0.0	1.1	12.8	1.0	3.3	1.7	57.1	6.4	1.8	36.6	0.8
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	0	373	337	407	345	446	1748	773	361	1748	785
V/C Ratio(X)	0.04	0.00	0.04	0.37	0.04	0.13	0.12	0.87	0.16	0.16	0.66	0.02
Avail Cap(c_a), veh/h	331	0	373	337	407	345	446	1748	773	361	1748	785
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	0.00	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	47.6	0.0	46.8	51.8	46.7	47.6	14.9	34.3	21.3	23.3	29.0	19.9
Incr Delay (d2), s/veh	0.2	0.0	0.2	3.1	0.2	0.8	0.6	6.4	0.4	1.0	2.0	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	0.4	0.0	0.5	4.5	0.5	1.4	0.7	25.2	2.4	1.0	15.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	0.0	47.0	55.0	46.9	48.4	15.5	40.7	21.7	24.2	31.0	19.9
LnGrp LOS	D	A	D	D	D	D	B	D	C	C	C	B
Approach Vol, veh/h	29			185			1704			1231		
Approach Delay, s/veh	47.3			52.7			38.5			30.6		
Approach LOS	D			D			D			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	80.0		40.0	30.0	80.0		40.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	23.2	73.2		32.1	23.2	73.2		32.1				
Max Q Clear Time (g_c+I1), s	3.8	59.1		4.1	3.7	38.6		14.8				
Green Ext Time (p_c), s	0.1	4.5		0.0	0.1	3.4		0.4				
Intersection Summary												
HCM 6th Ctrl Delay	36.3											
HCM 6th LOS	D											

Timings
12: N Dixie Hwy & Hidden Valley Blvd

Existing PM 2021
09/28/2022

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	119	137	67	197	45	453	106	93	346	161
Future Volume (vph)	119	137	67	197	45	453	106	93	346	161
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases			8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	13.2	34.2	13.2	26.2	13.8	38.4	38.4	13.8	26.8	26.8
Total Split (s)	15.0	30.0	15.0	30.0	15.0	60.0	60.0	15.0	60.0	60.0
Total Split (%)	12.5%	25.0%	12.5%	25.0%	12.5%	50.0%	50.0%	12.5%	50.0%	50.0%
Yellow Time (s)	3.7	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	7.4	7.4	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.0	17.7	19.6	13.3	32.1	27.6	27.6	35.0	31.0	31.0
Actuated g/C Ratio	0.08	0.21	0.24	0.16	0.38	0.33	0.33	0.42	0.37	0.37
v/c Ratio	0.89	0.23	0.23	0.57	0.13	0.82	0.18	0.37	0.55	0.25
Control Delay	94.1	32.4	25.2	29.5	12.4	37.8	1.0	15.8	25.1	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.1	32.4	25.2	29.5	12.4	37.8	1.0	15.8	25.1	3.7
LOS	F	C	C	C	B	D	A	B	C	A
Approach Delay		59.3		28.7		29.4			17.9	
Approach LOS		E		C		C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 83.4

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 30.0









Intersection LOS: C

Intersection Capacity Utilization 71.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd

			
15 s	60 s	15 s	30 s
			
15 s	60 s	15 s	30 s

Queues

12: N Dixie Hwy & Hidden Valley Blvd

Existing PM 2021

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	132	171	74	353	50	503	118	103	384	179
v/c Ratio	0.89	0.23	0.23	0.57	0.13	0.82	0.18	0.37	0.55	0.25
Control Delay	94.1	32.4	25.2	29.5	12.4	37.8	1.0	15.8	25.1	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.1	32.4	25.2	29.5	12.4	37.8	1.0	15.8	25.1	3.7
Queue Length 50th (ft)	70	40	27	67	13	244	0	28	167	0
Queue Length 95th (ft)	#222	81	70	130	33	389	5	58	278	37
Internal Link Dist (ft)		221		597		5728			435	
Turn Bay Length (ft)	290		140		295		295	290		270
Base Capacity (vph)	148	1013	339	986	413	1212	1117	297	1212	1086
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.17	0.22	0.36	0.12	0.42	0.11	0.35	0.32	0.16























Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.




HCM 6th Signalized Intersection Summary 12: N Dixie Hwy & Hidden Valley Blvd

Existing PM 2021
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	137	17	67	197	121	45	453	106	93	346	161
Future Volume (veh/h)	119	137	17	67	197	121	45	453	106	93	346	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	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	1885	1900	1870	1900	1900	1900	1870	1900	1885	1870	1856
Adj Flow Rate, veh/h	132	152	19	74	219	134	50	503	118	103	384	179
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	1	0	2	0	0	0	2	0	1	2	3
Cap, veh/h	155	609	75	364	336	197	289	562	484	231	591	497
Arrive On Green	0.09	0.19	0.19	0.05	0.15	0.15	0.04	0.30	0.30	0.06	0.32	0.32
Sat Flow, veh/h	1781	3208	395	1781	2185	1280	1810	1870	1610	1795	1870	1572
Grp Volume(v), veh/h	132	84	87	74	179	174	50	503	118	103	384	179
Grp Sat Flow(s),veh/h/ln	1781	1791	1812	1781	1805	1660	1810	1870	1610	1795	1870	1572
Q Serve(g_s), s	5.7	3.1	3.2	2.7	7.3	7.7	1.5	20.1	4.3	3.0	13.8	6.8
Cycle Q Clear(g_c), s	5.7	3.1	3.2	2.7	7.3	7.7	1.5	20.1	4.3	3.0	13.8	6.8
Prop In Lane	1.00		0.22	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	155	340	344	364	278	256	289	562	484	231	591	497
V/C Ratio(X)	0.85	0.25	0.25	0.20	0.64	0.68	0.17	0.90	0.24	0.44	0.65	0.36
Avail Cap(c_a), veh/h	155	501	507	428	505	464	389	1262	1087	302	1262	1061
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	35.1	26.8	26.9	25.7	31.0	31.2	18.4	26.1	20.6	20.0	22.9	20.6
Incr Delay (d2), s/veh	32.0	0.1	0.1	0.1	0.9	1.2	0.1	2.1	0.1	0.5	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	1.3	1.4	1.1	3.1	3.1	0.6	8.4	1.6	1.2	5.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	27.0	27.0	25.8	31.9	32.3	18.5	28.2	20.7	20.5	23.4	20.7
LnGrp LOS	E	C	C	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		303			427			671			666	
Approach Delay, s/veh		44.5			31.0			26.2			22.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	30.8	12.2	23.0	10.7	32.0	15.0	20.2				
Change Period (Y+Rc), s	7.4	7.4	* 8.2	* 8.2	7.4	7.4	* 8.2	* 8.2				
Max Green Setting (Gmax), s	7.6	52.6	* 6.8	* 22	7.6	52.6	* 6.8	* 22				
Max Q Clear Time (g_c+I1), s	5.0	22.1	4.7	5.2	3.5	15.8	7.7	9.7				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.3	0.0	1.2	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	15	619	25	3	494
Future Vol, veh/h	32	15	619	25	3	494
Conflicting Peds, #/hr	0	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	37	17	720	29	3	574

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1319	739	0
Stage 1	739	-	-
Stage 2	580	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	175	421	-
Stage 1	476	-	-
Stage 2	564	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	173	419	-
Mov Cap-2 Maneuver	173	-	-
Stage 1	474	-	-
Stage 2	561	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.6	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	213	863
HCM Lane V/C Ratio	-	-	0.257	0.004
HCM Control Delay (s)	-	-	27.6	9.2
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	1	0

Intersection				
Intersection Delay, s/veh	5.1			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	10	428	316
Demand Flow Rate, veh/h	33	10	432	322
Vehicles Circulating, veh/h	312	438	12	38
Vehicles Exiting, veh/h	48	6	333	410
Ped Vol Crossing Leg, #/h	1	5	0	1
Ped Cap Adj	1.000	0.999	1.000	1.000
Approach Delay, s/veh	3.9	4.2	5.5	4.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	33	10	432	322
Cap Entry Lane, veh/h	1004	883	1363	1327
Entry HV Adj Factor	1.000	1.000	0.991	0.982
Flow Entry, veh/h	33	10	428	316
Cap Entry, veh/h	1004	882	1351	1303
V/C Ratio	0.033	0.011	0.317	0.243
Control Delay, s/veh	3.9	4.2	5.5	4.9
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1



















Intersection						
Intersection Delay, s/veh	4.3					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	383	286	144		
Demand Flow Rate, veh/h	0	389	290	147		
Vehicles Circulating, veh/h	404	60	106	257		
Vehicles Exiting, veh/h	0	106	298	60		
Ped Vol Crossing Leg, #/h	2	1	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	4.2	4.3	4.7		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	132	4.976	230	4.976
Entry Flow, veh/h	0	257	1298	60	1238	147
Cap Entry Lane, veh/h	914	1298	0.980	1238	0.990	1062
Entry HV Adj Factor	1.000	0.988	129	0.962	228	0.978
Flow Entry, veh/h	0	254	1272	58	1226	144
Cap Entry, veh/h	914	1283	0.101	1191	0.186	1039
V/C Ratio	0.000	0.198	3.7	0.048	4.5	0.138
Control Delay, s/veh	3.9	4.5	A	3.4	A	4.7
LOS	A	A	0	A	1	A
95th %tile Queue, veh	0	1		0		0



APPENDIX I:
2045 NO BUILD SYNCHRO REPORTS

Timings
1: NW 2nd Ave & NW 20th St

No Build 2045 AM
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	92	209	172	209	80	547	160	176	671
Future Volume (vph)	92	209	172	209	80	547	160	176	671
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	12.0	34.0	18.0	40.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	10.0%	28.3%	15.0%	33.3%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	19.6	14.6	30.9	20.3	63.0	56.8	56.8	71.6	62.9
Actuated g/C Ratio	0.16	0.12	0.26	0.17	0.52	0.47	0.47	0.60	0.52
v/c Ratio	0.50	0.73	0.80	0.56	0.24	0.35	0.21	0.38	0.44
Control Delay	45.2	46.1	61.3	35.5	12.5	21.7	3.9	13.0	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	46.1	61.3	35.5	12.5	21.7	3.9	13.0	19.7
LOS	D	D	E	D	B	C	A	B	B
Approach Delay		45.9		44.3		17.2			18.4
Approach LOS		D		D		B			B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 27.4

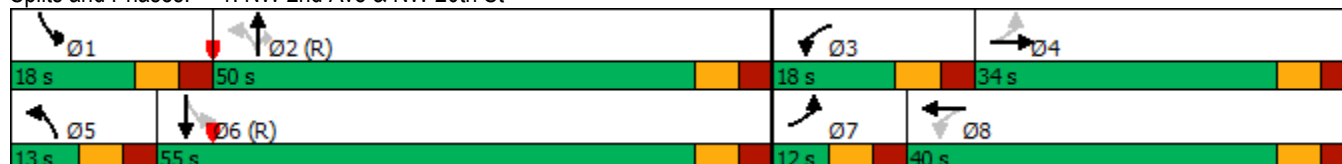
Intersection LOS: C

Intersection Capacity Utilization 78.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues
1: NW 2nd Ave & NW 20th St

No Build 2045 AM
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	353	183	354	85	582	170	187	795
v/c Ratio	0.50	0.73	0.80	0.56	0.24	0.35	0.21	0.38	0.44
Control Delay	45.2	46.1	61.3	35.5	12.5	21.7	3.9	13.0	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	46.1	61.3	35.5	12.5	21.7	3.9	13.0	19.7
Queue Length 50th (ft)	59	104	117	95	25	144	0	58	197
Queue Length 95th (ft)	99	150	#196	138	52	217	43	103	283
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	197	820	234	958	363	1658	828	509	1794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.43	0.78	0.37	0.23	0.35	0.21	0.37	0.44

Intersection Summary


























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

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St



















No Build 2045 AM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (veh/h)	92	209	123	172	209	124	80	547	160	176	671	76
Future Volume (veh/h)	92	209	123	172	209	124	80	547	160	176	671	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	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	1885	1856	1900	1826	1826	1826	1826	1856	1870	1870	1841	1826
Adj Flow Rate, veh/h	98	222	131	183	222	132	85	582	170	187	714	81
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	3	0	5	5	5	5	3	2	2	4	5
Cap, veh/h	238	321	181	265	421	240	354	1600	717	435	1539	174
Arrive On Green	0.04	0.15	0.15	0.09	0.20	0.20	0.04	0.45	0.45	0.07	0.49	0.49
Sat Flow, veh/h	1795	2158	1218	1739	2119	1207	1739	3526	1580	1781	3165	359
Grp Volume(v), veh/h	98	180	173	183	180	174	85	582	170	187	394	401
Grp Sat Flow(s),veh/h/ln	1795	1763	1613	1739	1735	1591	1739	1763	1580	1781	1749	1775
Q Serve(g_s), s	5.0	11.6	12.3	10.6	11.1	11.8	3.1	13.0	7.9	6.7	18.0	18.0
Cycle Q Clear(g_c), s	5.0	11.6	12.3	10.6	11.1	11.8	3.1	13.0	7.9	6.7	18.0	18.0
Prop In Lane	1.00		0.76	1.00		0.76	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	238	262	240	265	344	316	354	1600	717	435	850	863
V/C Ratio(X)	0.41	0.69	0.72	0.69	0.52	0.55	0.24	0.36	0.24	0.43	0.46	0.46
Avail Cap(c_a), veh/h	238	397	363	265	477	438	371	1600	717	469	850	863
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	0.94	0.94	0.94
Uniform Delay (d), s/veh	42.4	48.4	48.7	38.8	43.0	43.3	17.1	21.4	20.1	16.0	20.5	20.5
Incr Delay (d2), s/veh	0.4	1.2	1.6	6.2	0.5	0.6	0.1	0.6	0.8	0.2	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.1	5.0	4.9	4.8	4.7	1.2	5.4	3.0	2.7	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	49.6	50.3	45.0	43.5	43.8	17.2	22.1	20.8	16.2	22.2	22.1
LnGrp LOS	D	D	D	D	D	D	B	C	C	B	C	C
Approach Vol, veh/h	451			537			837			982		
Approach Delay, s/veh	48.4			44.1			21.3			21.0		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	61.4	18.0	24.8	11.8	65.3	12.0	30.8				
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	11.0	43.0	11.0	27.0	6.0	48.0	5.0	33.0				
Max Q Clear Time (g_c+I1), s	8.7	15.0	12.6	14.3	5.1	20.0	7.0	13.8				
Green Ext Time (p_c), s	0.1	2.0	0.0	0.7	0.0	1.8	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay	29.9											
HCM 6th LOS	C											

Timings
2: N Dixie Hwy & NW 20th St

No Build 2045 AM
09/28/2022


									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	97	264	87	223	139	652	65	631	153
Future Volume (vph)	97	264	87	223	139	652	65	631	153
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	24.5	11.5	45.5	11.4	42.4	11.4	41.4	41.4
Total Split (s)	17.0	40.0	20.0	43.0	20.0	70.0	20.0	70.0	70.0
Total Split (%)	11.3%	26.7%	13.3%	28.7%	13.3%	46.7%	13.3%	46.7%	46.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.9	20.2	31.1	20.9	97.3	89.5	91.2	84.8	84.8
Actuated g/C Ratio	0.20	0.13	0.21	0.14	0.65	0.60	0.61	0.57	0.57
v/c Ratio	0.47	0.80	0.48	0.58	0.29	0.37	0.16	0.34	0.16
Control Delay	51.2	69.2	52.0	60.6	11.7	17.6	11.2	19.4	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	69.2	52.0	60.6	11.7	17.6	11.2	19.4	3.2
LOS	D	E	D	E	B	B	B	B	A
Approach Delay		65.5		58.6		16.6		15.8	
Approach LOS		E		E		B		B	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 25 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 31.3
 Intersection Capacity Utilization 66.7%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 2: N Dixie Hwy & NW 20th St

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	70 s	20 s	40 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	70 s	17 s	43 s

Queues
2: N Dixie Hwy & NW 20th St






















No Build 2045 AM
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	100	384	90	285	143	763	67	651	158
v/c Ratio	0.47	0.80	0.48	0.58	0.29	0.37	0.16	0.34	0.16
Control Delay	51.2	69.2	52.0	60.6	11.7	17.6	11.2	19.4	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	69.2	52.0	60.6	11.7	17.6	11.2	19.4	3.2
Queue Length 50th (ft)	79	175	70	131	48	200	21	174	0
Queue Length 95th (ft)	123	226	111	170	90	290	47	261	39
Internal Link Dist (ft)		417		733		683		3051	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	224	770	224	843	532	2066	505	1925	963
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.50	0.40	0.34	0.27	0.37	0.13	0.34	0.16
Intersection Summary									

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

No Build 2045 AM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	264	109	87	223	53	139	652	88	65	631	153
Future Volume (veh/h)	97	264	109	87	223	53	139	652	88	65	631	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1841	1841	1856	1856	1900	1870	1856	1900	1870	1811	1870
Adj Flow Rate, veh/h	100	272	112	90	230	55	143	672	91	67	651	158
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	4	4	3	3	0	2	3	0	2	6	2
Cap, veh/h	212	340	136	174	378	88	460	1874	254	449	2016	929
Arrive On Green	0.06	0.14	0.14	0.06	0.13	0.13	0.05	0.60	0.60	0.03	0.59	0.59
Sat Flow, veh/h	1711	2426	971	1767	2826	661	1781	3120	422	1781	3441	1585
Grp Volume(v), veh/h	100	194	190	90	142	143	143	379	384	67	651	158
Grp Sat Flow(s),veh/h/ln	1711	1749	1648	1767	1763	1724	1781	1763	1780	1781	1721	1585
Q Serve(g_s), s	7.5	16.1	16.8	6.5	11.3	11.8	4.8	16.4	16.5	2.2	14.5	6.9
Cycle Q Clear(g_c), s	7.5	16.1	16.8	6.5	11.3	11.8	4.8	16.4	16.5	2.2	14.5	6.9
Prop In Lane	1.00		0.59	1.00		0.38	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	212	245	231	174	236	231	460	1059	1069	449	2016	929
V/C Ratio(X)	0.47	0.79	0.82	0.52	0.60	0.62	0.31	0.36	0.36	0.15	0.32	0.17
Avail Cap(c_a), veh/h	225	391	368	235	429	420	539	1059	1069	555	2016	929
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	52.0	62.3	62.7	52.8	61.2	61.4	11.9	15.2	15.2	12.2	15.9	14.3
Incr Delay (d2), s/veh	0.6	2.2	3.7	0.9	0.9	1.0	0.1	0.9	0.9	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	7.3	7.3	2.9	5.1	5.2	1.9	6.7	6.8	0.9	5.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	64.5	66.4	53.7	62.1	62.4	12.1	16.2	16.2	12.2	16.3	14.7
LnGrp LOS	D	E	E	D	E	E	B	B	B	B	B	B
Approach Vol, veh/h		484			375			906			876	
Approach Delay, s/veh		62.8			60.2			15.5			15.7	
Approach LOS		E			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	96.5	14.9	27.5	13.3	94.3	15.9	26.6				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	63.6	13.5	33.5	13.6	63.6	10.5	36.5				
Max Q Clear Time (g_c+I1), s	4.2	18.5	8.5	18.8	6.8	16.5	9.5	13.8				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.7	0.1	2.1	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
3: NW 2nd Ave & NW 28th St

No Build 2045 AM
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↑↑	↘	↓↓
Traffic Volume (vph)	81	123	568	160	808
Future Volume (vph)	81	123	568	160	808
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	24.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.0	12.0	28.8	39.8	41.0
Actuated g/C Ratio	0.20	0.20	0.47	0.65	0.67
v/c Ratio	0.27	0.32	0.44	0.40	0.37
Control Delay	23.4	7.1	12.8	8.4	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	7.1	12.8	8.4	6.6
LOS	C	A	B	A	A
Approach Delay	13.6		12.8		6.9
Approach LOS	B		B		A

Intersection Summary

Cycle Length: 61

Actuated Cycle Length: 61

Offset: 10 (16%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 9.7

Intersection LOS: A

Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St

No Build 2045 AM
09/28/2022



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	89	135	710	176	888
v/c Ratio	0.27	0.32	0.44	0.40	0.37
Control Delay	23.4	7.1	12.8	8.4	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	7.1	12.8	8.4	6.6
Queue Length 50th (ft)	28	0	93	26	82
Queue Length 95th (ft)	63	39	137	50	116
Internal Link Dist (ft)	228		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	328	416	1625	435	2378
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.32	0.44	0.40	0.37
Intersection Summary					

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St

No Build 2045 AM
09/28/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	81	123	568	78	160	808
Future Volume (veh/h)	81	123	568	78	160	808
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1781	1856	1841	1841	1841	1870
Adj Flow Rate, veh/h	89	135	624	86	176	888
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	8	3	4	4	4	2
Cap, veh/h	326	302	1282	176	454	2113
Arrive On Green	0.19	0.19	0.42	0.42	0.08	0.59
Sat Flow, veh/h	1697	1572	3180	425	1753	3647
Grp Volume(v), veh/h	89	135	353	357	176	888
Grp Sat Flow(s),veh/h/ln	1697	1572	1749	1764	1753	1777
Q Serve(g_s), s	2.7	4.6	9.0	9.1	3.2	8.2
Cycle Q Clear(g_c), s	2.7	4.6	9.0	9.1	3.2	8.2
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	326	302	726	733	454	2113
V/C Ratio(X)	0.27	0.45	0.49	0.49	0.39	0.42
Avail Cap(c_a), veh/h	334	309	726	733	456	2113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.69	0.69
Uniform Delay (d), s/veh	21.0	21.8	13.1	13.1	8.8	6.7
Incr Delay (d2), s/veh	0.2	0.4	2.2	2.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	3.4	3.5	1.0	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.2	22.2	15.3	15.3	9.0	7.1
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	224		710			1064
Approach Delay, s/veh	21.8		15.3			7.4
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.9	31.3			42.3	18.7
Change Period (Y+Rc), s	6.0	6.0			6.0	7.0
Max Green Setting (Gmax), s	5.0	25.0			36.0	12.0
Max Q Clear Time (g_c+I1), s	5.2	11.1			10.2	6.6
Green Ext Time (p_c), s	0.0	1.4			2.5	0.2

Intersection Summary














HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

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

Timings
4: N Dixie Hwy & NW 28th St

No Build 2045 AM
09/28/2022

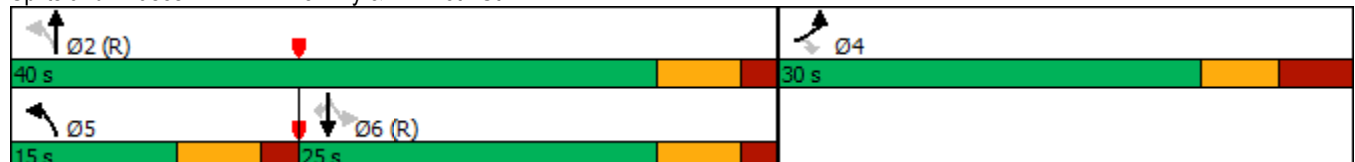
							
Lane Group	EBL	EBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	91	105	127	683	1	716	94
Future Volume (vph)	91	105	127	683	1	716	94
Turn Type	Prot	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		5	2		6	
Permitted Phases	4	4	2		6		6
Detector Phase	4	4	5	2	6	6	6
Switch Phase							
Minimum Initial (s)	12.0	12.0	5.0	18.0	18.0	18.0	18.0
Minimum Split (s)	37.0	37.0	11.4	24.4	24.4	24.4	24.4
Total Split (s)	30.0	30.0	15.0	40.0	25.0	25.0	25.0
Total Split (%)	42.9%	42.9%	21.4%	57.1%	35.7%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.0	4.0	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
Total Lost Time (s)	8.0	8.0	6.4	6.4		6.4	6.4
Lead/Lag			Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.0	12.0	47.6	48.8		38.1	38.1
Actuated g/C Ratio	0.17	0.17	0.68	0.70		0.54	0.54
v/c Ratio	0.34	0.29	0.30	0.30		0.43	0.11
Control Delay	29.3	4.4	7.1	6.0		14.3	0.6
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	29.3	4.4	7.1	6.0		14.3	0.6
LOS	C	A	A	A		B	A
Approach Delay				6.2		12.7	
Approach LOS				A		B	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 12 (17%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.43
 Intersection Signal Delay: 10.1
 Intersection Capacity Utilization 57.7%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 4: N Dixie Hwy & NW 28th St



Queues
4: N Dixie Hwy & NW 28th St



















No Build 2045 AM
09/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	98	113	137	734	771	101
v/c Ratio	0.34	0.29	0.30	0.30	0.43	0.11
Control Delay	29.3	4.4	7.1	6.0	14.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	4.4	7.1	6.0	14.3	0.6
Queue Length 50th (ft)	38	0	21	69	122	0
Queue Length 95th (ft)	79	23	41	98	184	5
Internal Link Dist (ft)				3051	3633	
Turn Bay Length (ft)			230			280
Base Capacity (vph)	525	588	488	2421	1785	934
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.19	0.28	0.30	0.43	0.11
Intersection Summary						



















HCM 6th Signalized Intersection Summary 4: N Dixie Hwy & NW 28th St

No Build 2045 AM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	0	105	0	0	0	127	683	0	1	716	94
Future Volume (veh/h)	91	0	105	0	0	0	127	683	0	1	716	94
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1781	0	1826				1856	1841	1900	1900	1826	1856
Adj Flow Rate, veh/h	98	0	113				137	734	0	1	770	101
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	8	0	5				3	4	0	0	5	3
Cap, veh/h	286	0	261				417	2188	0	52	1592	736
Arrive On Green	0.17	0.00	0.17				0.07	0.63	0.00	0.47	0.47	0.47
Sat Flow, veh/h	1697	0	1547				1767	3589	0	0	3403	1572
Grp Volume(v), veh/h	98	0	113				137	734	0	413	358	101
Grp Sat Flow(s),veh/h/ln	1697	0	1547				1767	1749	0	1825	1578	1572
Q Serve(g_s), s	3.6	0.0	4.6				2.6	7.0	0.0	0.0	10.9	2.6
Cycle Q Clear(g_c), s	3.6	0.0	4.6				2.6	7.0	0.0	10.9	10.9	2.6
Prop In Lane	1.00		1.00				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	286	0	261				417	2188	0	905	738	736
V/C Ratio(X)	0.34	0.00	0.43				0.33	0.34	0.00	0.46	0.48	0.14
Avail Cap(c_a), veh/h	533	0	486				517	2188	0	905	738	736
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.93	0.93	0.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	25.7	0.0	26.1				8.8	6.2	0.0	12.8	12.8	10.6
Incr Delay (d2), s/veh	0.3	0.0	0.4				0.2	0.4	0.0	1.4	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	4.1				0.8	1.9	0.0	4.1	3.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	26.5				8.9	6.6	0.0	14.3	14.8	10.9
LnGrp LOS	C	A	C				A	A	A	B	B	B
Approach Vol, veh/h	211						871			872		
Approach Delay, s/veh	26.3						7.0			14.1		
Approach LOS	C						A			B		
Timer - Assigned Phs	2			4			5			6		
Phs Duration (G+Y+Rc), s	50.2			19.8			11.1			39.1		
Change Period (Y+Rc), s	6.4			8.0			6.4			6.4		
Max Green Setting (Gmax), s	33.6			22.0			8.6			18.6		
Max Q Clear Time (g_c+l1), s	9.0			6.6			4.6			12.9		
Green Ext Time (p_c), s	1.9			0.4			0.1			1.2		
Intersection Summary												
HCM 6th Ctrl Delay	12.2											
HCM 6th LOS	B											

Timings
5: NW 2nd Ave & Spanish River Blvd

No Build 2045 AM
09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	256	867	387	172	669	213	340	126	517
Future Volume (vph)	256	867	387	172	669	213	340	126	517
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	30.0	59.0	59.0	20.0	49.0	18.0	53.0	18.0	53.0
Total Split (%)	20.0%	39.3%	39.3%	13.3%	32.7%	12.0%	35.3%	12.0%	35.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	86.2	69.6	69.6	74.3	63.0	44.1	32.6	42.3	31.7
Actuated g/C Ratio	0.57	0.46	0.46	0.50	0.42	0.29	0.22	0.28	0.21
v/c Ratio	0.62	0.54	0.43	0.53	0.49	1.13	0.60	0.51	0.85
Control Delay	23.1	31.8	8.4	22.7	34.9	143.2	52.1	52.1	77.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	31.8	8.4	22.7	34.9	143.2	52.1	52.1	77.6
LOS	C	C	A	C	C	F	D	D	E
Approach Delay		24.3			32.6		81.2		73.3
Approach LOS		C			C		F		E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 39 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 45.8

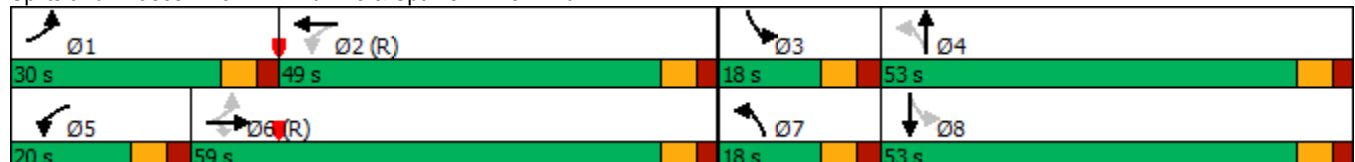
Intersection LOS: D

Intersection Capacity Utilization 89.6%

ICU Level of Service E

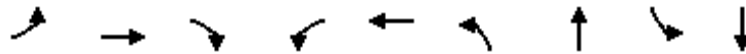
Analysis Period (min) 15

Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

No Build 2045 AM
09/28/2022

























Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	259	876	391	174	733	215	459	127	632
v/c Ratio	0.62	0.54	0.43	0.53	0.49	1.13	0.60	0.51	0.85
Control Delay	23.1	31.8	8.4	22.7	34.9	143.2	52.1	52.1	77.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	31.8	8.4	22.7	34.9	143.2	52.1	52.1	77.6
Queue Length 50th (ft)	120	317	47	76	271	~187	202	113	329
Queue Length 95th (ft)	192	443	147	129	393	#338	247	m147	m376
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	476	1609	904	362	1484	190	1073	262	1080
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.54	0.43	0.48	0.49	1.13	0.43	0.48	0.59

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



















HCM 6th Signalized Intersection Summary 5: NW 2nd Ave & Spanish River Blvd

No Build 2045 AM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	867	387	172	669	56	213	340	115	126	517	109
Future Volume (veh/h)	256	867	387	172	669	56	213	340	115	126	517	109
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	1841	1885	1885	1885	1870	1841	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	259	876	391	174	676	57	215	343	116	127	522	110
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	4	1	1	1	2	4	2	2	2	2	2
Cap, veh/h	445	1702	777	304	1537	129	200	538	179	250	580	122
Arrive On Green	0.09	0.49	0.49	0.06	0.46	0.46	0.08	0.21	0.21	0.07	0.20	0.20
Sat Flow, veh/h	1781	3497	1596	1795	3343	282	1753	2618	871	1781	2923	613
Grp Volume(v), veh/h	259	876	391	174	362	371	215	231	228	127	316	316
Grp Sat Flow(s),veh/h/ln	1781	1749	1596	1795	1791	1834	1753	1777	1712	1781	1777	1759
Q Serve(g_s), s	11.4	25.7	25.0	7.7	20.5	20.6	11.5	17.8	18.3	8.4	26.1	26.3
Cycle Q Clear(g_c), s	11.4	25.7	25.0	7.7	20.5	20.6	11.5	17.8	18.3	8.4	26.1	26.3
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.51	1.00		0.35
Lane Grp Cap(c), veh/h	445	1702	777	304	823	843	200	365	352	250	352	349
V/C Ratio(X)	0.58	0.51	0.50	0.57	0.44	0.44	1.07	0.63	0.65	0.51	0.90	0.90
Avail Cap(c_a), veh/h	560	1702	777	348	823	843	200	551	531	263	551	545
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	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	26.4	26.2	21.4	27.4	27.5	51.0	54.4	54.6	44.4	58.6	58.7
Incr Delay (d2), s/veh	0.4	1.1	2.3	0.6	1.7	1.7	81.2	0.6	0.7	0.6	8.3	9.1
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	4.8	11.0	10.0	3.3	9.2	9.4	6.7	8.0	8.0	3.8	12.5	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	27.5	28.5	22.0	29.1	29.1	132.2	55.0	55.3	45.0	66.9	67.8
LnGrp LOS	C	C	C	C	C	C	F	E	E	D	E	E
Approach Vol, veh/h	1526			907			674			759		
Approach Delay, s/veh	26.5			27.8			79.7			63.6		
Approach LOS	C			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.3	75.5	16.9	37.4	16.2	79.5	18.0	36.3				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	23.5	42.5	11.5	46.5	13.5	52.5	11.5	46.5				
Max Q Clear Time (g_c+I1), s	13.4	22.6	10.4	20.3	9.7	27.7	13.5	28.3				
Green Ext Time (p_c), s	0.3	1.6	0.0	1.0	0.1	3.8	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	43.4											
HCM 6th LOS	D											

Timings
6: N Dixie Hwy & Spanish River Blvd

No Build 2045 AM
09/28/2022

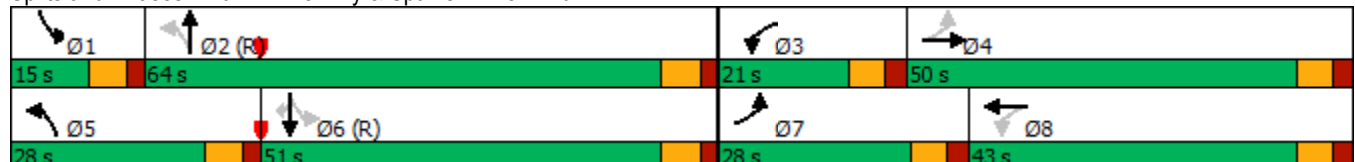
									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	123	731	96	603	224	502	60	486	137
Future Volume (vph)	123	731	96	603	224	502	60	486	137
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	28.0	50.0	21.0	43.0	28.0	64.0	15.0	51.0	51.0
Total Split (%)	18.7%	33.3%	14.0%	28.7%	18.7%	42.7%	10.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	58.8	47.5	55.6	45.9	73.4	62.0	57.7	50.4	50.4
Actuated g/C Ratio	0.39	0.32	0.37	0.31	0.49	0.41	0.38	0.34	0.34
v/c Ratio	0.51	0.92	0.64	0.63	0.59	0.47	0.24	0.45	0.22
Control Delay	34.0	62.2	47.8	48.1	29.4	33.4	24.2	37.0	5.7
Queue Delay	0.0	47.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	109.5	47.8	48.1	29.4	33.4	24.2	37.0	5.7
LOS	C	F	D	D	C	C	C	D	A
Approach Delay		100.6		48.0		32.3		29.6	
Approach LOS		F		D		C		C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 35 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 57.0
 Intersection Capacity Utilization 90.5%
 Analysis Period (min) 15

Intersection LOS: E
 ICU Level of Service E

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

No Build 2045 AM
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	134	1000	104	689	243	654	65	528	149
v/c Ratio	0.51	0.92	0.64	0.63	0.59	0.47	0.24	0.45	0.22
Control Delay	34.0	62.2	47.8	48.1	29.4	33.4	24.2	37.0	5.7
Queue Delay	0.0	47.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	109.5	47.8	48.1	29.4	33.4	24.2	37.0	5.7
Queue Length 50th (ft)	80	484	61	302	140	246	21	224	39
Queue Length 95th (ft)	127	#654	115	388	203	309	m39	m283	m51
Internal Link Dist (ft)		267		828		3633		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	369	1086	218	1087	449	1400	289	1167	677
Starvation Cap Reductn	0	400	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	1.46	0.48	0.63	0.54	0.47	0.22	0.45	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

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

HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd






























No Build 2045 AM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	731	189	96	603	31	224	502	99	60	486	137
Future Volume (veh/h)	123	731	189	96	603	31	224	502	99	60	486	137
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		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	1885	1856	1856	1856	1885	1900	1856	1841	1781	1648	1841	1900
Adj Flow Rate, veh/h	134	795	205	104	655	34	243	546	108	65	528	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	3	3	3	1	0	3	4	8	17	4	0
Cap, veh/h	251	803	207	147	962	50	427	1303	257	323	1356	624
Arrive On Green	0.07	0.29	0.29	0.05	0.28	0.28	0.10	0.45	0.45	0.04	0.39	0.39
Sat Flow, veh/h	1795	2769	714	1767	3463	180	1767	2912	574	1570	3497	1609
Grp Volume(v), veh/h	134	506	494	104	339	350	243	327	327	65	528	149
Grp Sat Flow(s),veh/h/ln	1795	1763	1721	1767	1791	1851	1767	1749	1737	1570	1749	1609
Q Serve(g_s), s	7.9	42.9	42.9	6.3	25.2	25.3	12.0	19.1	19.2	3.7	16.3	9.4
Cycle Q Clear(g_c), s	7.9	42.9	42.9	6.3	25.2	25.3	12.0	19.1	19.2	3.7	16.3	9.4
Prop In Lane	1.00		0.41	1.00		0.10	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	251	511	499	147	498	514	427	782	777	323	1356	624
V/C Ratio(X)	0.53	0.99	0.99	0.71	0.68	0.68	0.57	0.42	0.42	0.20	0.39	0.24
Avail Cap(c_a), veh/h	388	511	499	221	498	514	513	782	777	357	1356	624
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)	0.94	0.94	0.94	1.00	1.00	1.00	0.96	0.96	0.96	0.73	0.73	0.73
Uniform Delay (d), s/veh	37.4	53.0	53.0	41.3	48.2	48.2	23.7	28.2	28.2	26.4	33.1	31.0
Incr Delay (d2), s/veh	0.6	35.8	36.3	2.3	3.1	3.0	0.4	1.6	1.6	0.1	0.6	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	3.5	23.9	23.4	2.8	11.7	12.1	5.0	8.3	8.3	1.4	7.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	88.8	89.3	43.6	51.3	51.3	24.1	29.7	29.8	26.5	33.7	31.6
LnGrp LOS	D	F	F	D	D	D	C	C	C	C	C	C
Approach Vol, veh/h		1134			793			897			742	
Approach Delay, s/veh		83.0			50.3			28.2			32.7	
Approach LOS		F			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	73.5	14.7	50.0	20.7	64.6	16.5	48.2				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	14.5	43.5	21.6	44.6	21.5	36.5				
Max Q Clear Time (g_c+I1), s	5.7	21.2	8.3	44.9	14.0	18.3	9.9	27.3				
Green Ext Time (p_c), s	0.0	1.4	0.1	0.0	0.3	1.7	0.2	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			51.5									
HCM 6th LOS			D									

Timings
7: NW 2nd Ave & W Yamato Rd

No Build 2045 AM
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		  			  		 			 	 
Traffic Volume (vph)	138	1582	429	131	1444	271	322	350	85	373	561
Future Volume (vph)	138	1582	429	131	1444	271	322	350	85	373	561
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	5.0	18.0	18.0	5.0	18.0	18.0	7.0	12.0	12.0	7.0	12.0
Minimum Split (s)	14.0	41.8	41.8	14.0	38.8	38.8	13.0	42.0	42.0	14.0	41.0
Total Split (s)	19.0	56.0	56.0	19.0	56.0	56.0	31.0	40.0	40.0	35.0	44.0
Total Split (%)	12.7%	37.3%	37.3%	12.7%	37.3%	37.3%	20.7%	26.7%	26.7%	23.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	61.8	50.3	50.3	61.0	49.9	49.9	20.6	37.8	37.8	23.2	41.4
Actuated g/C Ratio	0.41	0.34	0.34	0.41	0.33	0.33	0.14	0.25	0.25	0.15	0.28
v/c Ratio	0.85	1.04	0.58	0.81	0.95	0.44	0.76	0.83	0.19	0.79	0.92
Control Delay	72.4	81.4	8.0	65.8	61.5	12.5	62.5	71.6	14.2	71.9	65.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	81.4	8.0	65.8	61.5	12.5	62.5	71.6	14.2	71.9	65.5
LOS	E	F	A	E	E	B	E	E	B	E	E
Approach Delay		66.2			54.6			61.3			67.5
Approach LOS		E			D			E			E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 14 (9%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 62.2

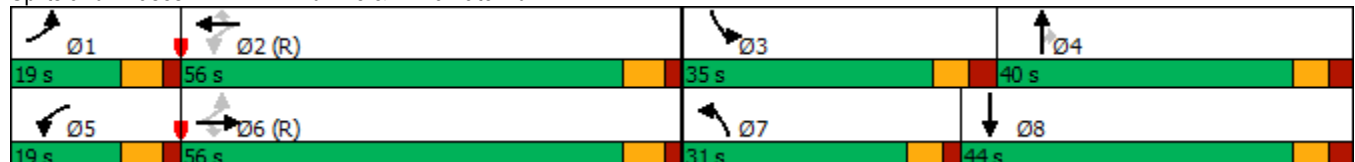
Intersection LOS: E

Intersection Capacity Utilization 92.4%

ICU Level of Service F












Analysis Period (min) 15

Splits and Phases: 7: NW 2nd Ave & W Yamato Rd



Queues
7: NW 2nd Ave & W Yamato Rd

No Build 2045 AM
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	153	1758	477	146	1604	301	358	389	94	414	890
v/c Ratio	0.85	1.04	0.58	0.81	0.95	0.44	0.76	0.83	0.19	0.79	0.92
Control Delay	72.4	81.4	8.0	65.8	61.5	12.5	62.5	71.6	14.2	71.9	65.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	81.4	8.0	65.8	61.5	12.5	62.5	71.6	14.2	71.9	65.5
Queue Length 50th (ft)	99	~692	26	90	564	54	182	381	16	203	431
Queue Length 95th (ft)	#224	#787	128	#198	#668	140	222	#591	52	255	#607
Internal Link Dist (ft)		1311			615			322			560
Turn Bay Length (ft)	350		400	415		280	280		200	250	
Base Capacity (vph)	188	1688	821	193	1691	686	572	468	483	634	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	1.04	0.58	0.76	0.95	0.44	0.63	0.83	0.19	0.65	0.92





























Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary



























7: NW 2nd Ave & W Yamato Rd

No Build 2045 AM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 		
Traffic Volume (veh/h)	138	1582	429	131	1444	271	322	350	85	373	561	240
Future Volume (veh/h)	138	1582	429	131	1444	271	322	350	85	373	561	240
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	1826	1856	1870	1870	1870	1900	1870	1870	1870	1856	1870	1885
Adj Flow Rate, veh/h	153	1758	477	146	1604	301	358	389	94	414	623	267
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	3	2	2	2	0	2	2	2	3	2	1
Cap, veh/h	188	1985	621	171	1983	625	420	415	351	479	597	256
Arrive On Green	0.07	0.39	0.39	0.06	0.39	0.39	0.12	0.22	0.22	0.14	0.25	0.25
Sat Flow, veh/h	1739	5066	1585	1781	5106	1610	3456	1870	1581	3428	2421	1037
Grp Volume(v), veh/h	153	1758	477	146	1604	301	358	389	94	414	457	433
Grp Sat Flow(s),veh/h/ln	1739	1689	1585	1781	1702	1610	1728	1870	1581	1714	1777	1681
Q Serve(g_s), s	7.9	48.5	39.3	7.4	42.0	21.1	15.2	30.7	7.4	17.7	37.0	37.0
Cycle Q Clear(g_c), s	7.9	48.5	39.3	7.4	42.0	21.1	15.2	30.7	7.4	17.7	37.0	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	188	1985	621	171	1983	625	420	415	351	479	438	415
V/C Ratio(X)	0.81	0.89	0.77	0.85	0.81	0.48	0.85	0.94	0.27	0.86	1.04	1.04
Avail Cap(c_a), veh/h	214	1985	621	205	1983	625	576	415	351	640	438	415
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	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	42.5	39.7	35.5	40.9	34.5	64.6	57.4	48.3	63.1	56.5	56.5
Incr Delay (d2), s/veh	16.5	6.2	8.8	19.7	3.3	2.4	8.9	28.9	0.3	9.3	54.7	56.1
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	4.1	20.7	16.7	4.0	17.7	8.7	7.2	17.7	3.0	8.3	23.1	22.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	48.7	48.5	55.2	44.2	36.9	73.5	86.2	48.6	72.4	111.2	112.6
LnGrp LOS	D	D	D	E	D	D	E	F	D	E	F	F
Approach Vol, veh/h	2388				2051		841				1304	
Approach Delay, s/veh	48.8				43.9		76.6				99.4	
Approach LOS	D				D		E				F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	65.1	28.0	40.3	16.2	65.6	24.2	44.0				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	12.2	49.2	28.0	33.0	12.2	49.2	25.0	37.0				
Max Q Clear Time (g_c+I1), s	9.9	44.0	19.7	32.7	9.4	50.5	17.2	39.0				
Green Ext Time (p_c), s	0.1	2.9	1.2	0.1	0.1	0.0	1.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			60.8									
HCM 6th LOS			E									
Notes												

Timings
8: N Dixie Hwy & W Yamato Rd

No Build 2045 AM
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  	 	 		 	
Traffic Volume (vph)	257	1720	84	1130	353	261	36	332	354
Future Volume (vph)	257	1720	84	1130	353	261	36	332	354
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	15.8	42.3	13.4	42.3	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	59.0	22.0	56.0	25.0	46.0	23.0	44.0	44.0
Total Split (%)	16.7%	39.3%	14.7%	37.3%	16.7%	30.7%	15.3%	29.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effect Green (s)	15.8	68.9	11.5	64.7	18.3	37.2	7.7	24.4	24.4
Actuated g/C Ratio	0.11	0.46	0.08	0.43	0.12	0.25	0.05	0.16	0.16
v/c Ratio	0.77	0.97	0.67	0.59	0.92	0.46	0.43	0.63	0.89
Control Delay	79.9	51.8	90.1	35.7	74.9	32.2	82.7	62.5	48.8
Queue Delay	0.0	43.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.9	94.9	90.1	35.7	74.9	32.2	82.7	62.5	48.8
LOS	E	F	F	D	E	C	F	E	D
Approach Delay		93.3		39.3		53.2		56.8	
Approach LOS		F		D		D		E	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 26 (17%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 68.5

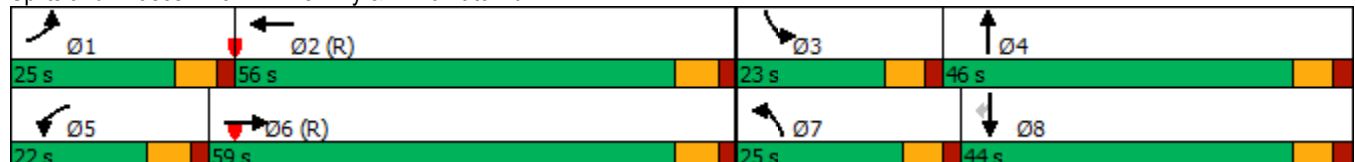
Intersection LOS: E

Intersection Capacity Utilization 87.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd

No Build 2045 AM
09/28/2022
























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	279	2197	91	1289	384	397	39	361	385
v/c Ratio	0.77	0.97	0.67	0.59	0.92	0.46	0.43	0.63	0.89
Control Delay	79.9	51.8	90.1	35.7	74.9	32.2	82.7	62.5	48.8
Queue Delay	0.0	43.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.9	94.9	90.1	35.7	74.9	32.2	82.7	62.5	48.8
Queue Length 50th (ft)	138	747	88	347	171	171	38	177	180
Queue Length 95th (ft)	188	#1082	148	475	#275	213	77	207	285
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	416	2266	179	2178	425	936	195	875	551
Starvation Cap Reductn	0	730	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	1.43	0.51	0.59	0.90	0.42	0.20	0.41	0.70

Intersection Summary

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




















HCM 6th Signalized Intersection Summary 8: N Dixie Hwy & W Yamato Rd

No Build 2045 AM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	1720	301	84	1130	56	353	261	104	36	332	354
Future Volume (veh/h)	257	1720	301	84	1130	56	353	261	104	36	332	354
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	1856	1811	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	279	1870	327	91	1228	61	384	284	113	39	361	385
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	6	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	1681	290	112	1768	88	428	858	333	50	879	392
Arrive On Green	0.09	0.39	0.39	0.06	0.35	0.35	0.04	0.11	0.11	0.03	0.25	0.25
Sat Flow, veh/h	3456	4347	749	1781	4982	247	3456	2501	972	1781	3554	1585
Grp Volume(v), veh/h	279	1446	751	91	839	450	384	200	197	39	361	385
Grp Sat Flow(s),veh/h/ln	1728	1689	1719	1781	1702	1825	1728	1777	1695	1781	1777	1585
Q Serve(g_s), s	11.9	58.0	58.0	7.6	31.7	31.7	16.6	15.5	16.1	3.3	12.8	36.2
Cycle Q Clear(g_c), s	11.9	58.0	58.0	7.6	31.7	31.7	16.6	15.5	16.1	3.3	12.8	36.2
Prop In Lane	1.00		0.44	1.00		0.14	1.00		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	327	1306	665	112	1208	648	428	609	582	50	879	392
V/C Ratio(X)	0.85	1.11	1.13	0.82	0.69	0.69	0.90	0.33	0.34	0.77	0.41	0.98
Avail Cap(c_a), veh/h	419	1306	665	181	1208	648	429	609	582	197	879	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	46.0	46.0	69.4	41.4	41.4	71.0	50.6	50.8	72.4	47.3	56.1
Incr Delay (d2), s/veh	8.7	57.9	73.0	5.8	3.3	6.1	18.5	0.1	0.1	9.0	0.1	40.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	33.9	37.3	3.6	13.5	15.0	8.9	7.5	7.4	1.6	5.6	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.6	103.9	119.0	75.3	44.7	47.5	89.5	50.7	50.9	81.4	47.4	96.6
LnGrp LOS	E	F	F	E	D	D	F	D	D	F	D	F
Approach Vol, veh/h	2476			1380			781			785		
Approach Delay, s/veh	105.3			47.7			69.8			73.2		
Approach LOS	F			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	60.0	10.6	58.4	16.2	64.8	25.0	44.0				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	49.2	16.6	39.1	15.2	52.2	18.6	37.1				
Max Q Clear Time (g_c+I1), s	13.9	33.7	5.3	18.1	9.6	60.0	18.6	38.2				
Green Ext Time (p_c), s	0.3	3.0	0.0	0.8	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			80.9									
HCM 6th LOS			F									
Notes												

Timings
9: NW 2nd Ave & Jeffery St

No Build 2045 AM
09/28/2022

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	193	7	609	3	2	538	301	1	591	539
Future Volume (vph)	193	7	609	3	2	538	301	1	591	539
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4	5		8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	5	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	12.0	12.0	5.0	12.0	12.0	5.0	18.0	18.0	18.0	18.0
Minimum Split (s)	30.5	30.5	25.0	30.5	30.5	25.0	30.0	39.0	39.0	39.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	105.0	75.0	75.0	75.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	77.8%	55.6%	55.6%	55.6%
Yellow Time (s)	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	3.0	2.5	2.5	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0		6.5	7.0	7.0	7.0	7.0	7.0
Lead/Lag			Lead			Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	19.8	19.8	42.9		19.8	76.1	76.1	45.4	45.4	45.4
Actuated g/C Ratio	0.18	0.18	0.39		0.18	0.69	0.69	0.41	0.41	0.41
v/c Ratio	0.81	0.02	0.88		0.02	1.12	0.26	0.00	0.81	0.63
Control Delay	69.5	42.1	34.1		42.2	102.6	6.9	18.0	37.1	8.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.5	42.1	34.1		42.2	102.6	6.9	18.0	37.1	8.7
LOS	E	D	C		D	F	A	B	D	A
Approach Delay		42.6			42.2		67.4		23.5	
Approach LOS		D			D		E		C	

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 109.8

Natural Cycle: 115

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 42.4

Intersection LOS: D

Intersection Capacity Utilization 96.1%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 9: NW 2nd Ave & Jeffery St



Queues
9: NW 2nd Ave & Jeffery St

No Build 2045 AM
09/28/2022



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	205	7	648	5	572	334	1	629	573
v/c Ratio	0.81	0.02	0.88	0.02	1.12	0.26	0.00	0.81	0.63
Control Delay	69.5	42.1	34.1	42.2	102.6	6.9	18.0	37.1	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.5	42.1	34.1	42.2	102.6	6.9	18.0	37.1	8.7
Queue Length 50th (ft)	139	4	261	3	~385	83	0	392	60
Queue Length 95th (ft)	#306	20	#670	16	#708	124	4	541	164
Internal Link Dist (ft)		296		163		1963		2746	
Turn Bay Length (ft)	100		270		135		170		200
Base Capacity (vph)	307	408	740	373	511	1616	656	1192	1165
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.02	0.88	0.01	1.12	0.21	0.00	0.53	0.49






















Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
9: NW 2nd Ave & Jeffery St

























No Build 2045 AM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	7	609	3	2	0	538	301	13	1	591	539
Future Volume (veh/h)	193	7	609	3	2	0	538	301	13	1	591	539
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		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	1900	1870	1900	1870	1856	1900	1900	1885	1870
Adj Flow Rate, veh/h	205	7	648	3	2	0	572	320	14	1	629	573
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	2	0	2	3	0	0	1	2
Cap, veh/h	348	379	634	166	99	0	477	1201	53	507	797	663
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.68	0.68	0.42	0.42	0.42
Sat Flow, veh/h	1408	1870	1577	574	489	0	1781	1764	77	1052	1885	1569
Grp Volume(v), veh/h	205	7	648	5	0	0	572	0	334	1	629	573
Grp Sat Flow(s),veh/h/ln	1408	1870	1577	1062	0	0	1781	0	1841	1052	1885	1569
Q Serve(g_s), s	15.4	0.3	23.5	0.0	0.0	0.0	23.0	0.0	8.2	0.1	33.5	38.5
Cycle Q Clear(g_c), s	15.7	0.3	23.5	0.2	0.0	0.0	23.0	0.0	8.2	0.1	33.5	38.5
Prop In Lane	1.00		1.00	0.60		0.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	348	379	634	265	0	0	477	0	1254	507	797	663
V/C Ratio(X)	0.59	0.02	1.02	0.02	0.00	0.00	1.20	0.00	0.27	0.00	0.79	0.86
Avail Cap(c_a), veh/h	348	379	634	265	0	0	477	0	1554	678	1105	920
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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	37.0	34.8	37.0	0.0	0.0	31.6	0.0	7.2	19.4	29.0	30.5
Incr Delay (d2), s/veh	1.8	0.0	41.7	0.0	0.0	0.0	108.2	0.0	0.1	0.0	3.0	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.2	24.5	0.1	0.0	0.0	27.8	0.0	3.1	0.0	15.5	15.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	37.0	76.5	37.0	0.0	0.0	139.8	0.0	7.3	19.4	32.0	37.3
LnGrp LOS	D	D	F	D	A	A	F	A	A	B	C	D
Approach Vol, veh/h	860			5			906			1203		
Approach Delay, s/veh	68.6			37.0			90.9			34.5		
Approach LOS	E			D			F			C		
Timer - Assigned Phs	2			4		5		6		8		
Phs Duration (G+Y+Rc), s	86.0			30.0		30.0		56.0		30.0		
Change Period (Y+Rc), s	7.0			6.5		7.0		7.0		6.5		
Max Green Setting (Gmax), s	98.0			23.5		23.0		68.0		23.5		
Max Q Clear Time (g_c+l1), s	10.2			25.5		25.0		40.5		2.2		
Green Ext Time (p_c), s	1.8			0.0		0.0		8.5		0.0		
Intersection Summary												
HCM 6th Ctrl Delay	61.6											
HCM 6th LOS	E											

Timings
10: Congress Ave & Clint Moore Rd

No Build 2045 AM
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	481	488	418	198	652	218	374	332	22	466	1550	1192
Future Volume (vph)	481	488	418	198	652	218	374	332	22	466	1550	1192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	14.8	50.8	50.8
Total Split (s)	40.0	59.0	59.0	24.0	43.0	43.0	32.0	53.0	53.0	44.0	65.0	65.0
Total Split (%)	22.2%	32.8%	32.8%	13.3%	23.9%	23.9%	17.8%	29.4%	29.4%	24.4%	36.1%	36.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.7	52.4	52.4	14.4	37.0	37.0	23.1	52.0	52.0	30.0	58.9	58.9
Actuated g/C Ratio	0.16	0.29	0.29	0.08	0.21	0.21	0.13	0.29	0.29	0.17	0.33	0.33
v/c Ratio	0.90	0.35	0.65	0.77	0.95	0.47	0.90	0.25	0.04	0.87	1.00	1.74
Control Delay	93.5	51.4	22.0	99.9	93.0	12.0	101.3	50.6	0.1	88.7	81.5	365.3
Queue Delay	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 Delay	93.5	51.4	22.0	99.9	93.0	12.0	101.3	50.6	0.1	88.7	81.5	365.3
LOS	F	D	C	F	F	B	F	D	A	F	F	F
Approach Delay		57.1			77.8			75.2			188.0	
Approach LOS		E			E			E			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 110 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.74

Intersection Signal Delay: 128.3

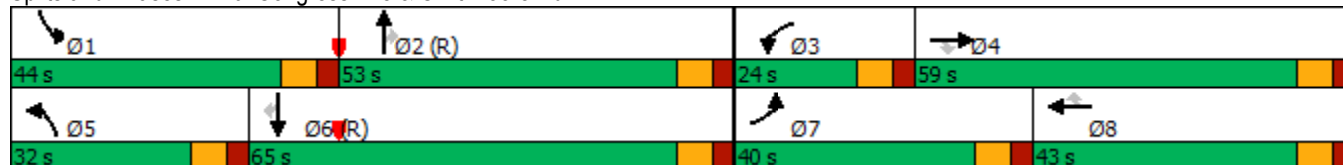
Intersection LOS: F

Intersection Capacity Utilization 122.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd















Queues

10: Congress Ave & Clint Moore Rd

No Build 2045 AM

09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	512	519	445	211	694	232	398	353	23	496	1649	1268
v/c Ratio	0.90	0.35	0.65	0.77	0.95	0.47	0.90	0.25	0.04	0.87	1.00	1.74
Control Delay	93.5	51.4	22.0	99.9	93.0	12.0	101.3	50.6	0.1	88.7	81.5	365.3
Queue Delay	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 Delay	93.5	51.4	22.0	99.9	93.0	12.0	101.3	50.6	0.1	88.7	81.5	365.3
Queue Length 50th (ft)	307	179	149	127	434	14	241	118	0	298	~760	~1961
Queue Length 95th (ft)	376	219	286	176	#583	99	#327	158	0	354	#853	#2230
Internal Link Dist (ft)	2199			619			1029			883		
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	614	1480	680	308	728	494	461	1426	606	690	1648	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.35	0.65	0.69	0.95	0.47	0.86	0.25	0.04	0.72	1.00	1.74

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

10: Congress Ave & Clint Moore Rd























No Build 2045 AM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	481	488	418	198	652	218	374	332	22	466	1550	1192
Future Volume (veh/h)	481	488	418	198	652	218	374	332	22	466	1550	1192
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	1885	1870	1870	1870	1870	1826	1870	1870	1856	1841
Adj Flow Rate, veh/h	512	519	445	211	694	232	398	353	23	496	1649	1268
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	1	2	2	2	2	5	2	2	3	4
Cap, veh/h	554	1452	454	250	698	311	435	1560	496	543	1743	536
Arrive On Green	0.16	0.28	0.28	0.07	0.20	0.20	0.13	0.31	0.31	0.16	0.34	0.34
Sat Flow, veh/h	3456	5106	1596	3456	3554	1583	3456	4985	1584	3456	5066	1559
Grp Volume(v), veh/h	512	519	445	211	694	232	398	353	23	496	1649	1268
Grp Sat Flow(s),veh/h/ln	1728	1702	1596	1728	1777	1583	1728	1662	1584	1728	1689	1559
Q Serve(g_s), s	26.3	14.6	49.8	10.9	35.1	24.8	20.5	9.4	1.8	25.4	57.0	61.9
Cycle Q Clear(g_c), s	26.3	14.6	49.8	10.9	35.1	24.8	20.5	9.4	1.8	25.4	57.0	61.9
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	554	1452	454	250	698	311	435	1560	496	543	1743	536
V/C Ratio(X)	0.92	0.36	0.98	0.85	0.99	0.75	0.91	0.23	0.05	0.91	0.95	2.36
Avail Cap(c_a), veh/h	618	1452	454	311	698	311	465	1560	496	695	1743	536
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	74.5	51.3	63.9	82.5	72.2	68.1	77.7	45.7	43.1	74.7	57.4	59.0
Incr Delay (d2), s/veh	17.9	0.1	36.9	13.5	32.4	8.4	21.0	0.3	0.2	12.6	12.1	620.0
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	13.0	6.3	24.7	5.3	19.0	10.7	10.3	3.9	0.7	12.1	25.8	116.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	51.4	100.8	96.0	104.7	76.5	98.7	46.1	43.3	87.3	69.5	679.0
LnGrp LOS	F	D	F	F	F	E	F	D	D	F	E	F
Approach Vol, veh/h	1476			1137			774			3413		
Approach Delay, s/veh	80.5			97.3			73.1			298.6		
Approach LOS	F			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.1	64.1	20.8	59.0	30.5	69.7	36.6	43.2				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	36.2	45.2	16.2	51.2	24.2	57.2	32.2	35.2				
Max Q Clear Time (g_c+I1), s	27.4	11.4	12.9	51.8	22.5	63.9	28.3	37.1				
Green Ext Time (p_c), s	0.8	1.0	0.1	0.0	0.2	0.0	0.5	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	191.9											
HCM 6th LOS	F											

Timings
11: N Federal Hwy & Jeffery St

No Build 2045 AM
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	9	6	176	12	50	60	1063	81	37	1376	10
Future Volume (vph)	9	6	176	12	50	60	1063	81	37	1376	10
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	24.8	38.8	38.8	24.8	28.8	28.8
Total Split (s)	40.0	40.0	40.0	40.0	40.0	25.0	75.0	75.0	25.0	75.0	75.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.9%	53.6%	53.6%	17.9%	53.6%	53.6%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.4	22.4	22.4	22.4	22.4	97.8	93.0	93.0	97.1	92.6	92.6
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.70	0.66	0.66	0.69	0.66	0.66
v/c Ratio	0.04	0.05	0.81	0.04	0.16	0.25	0.47	0.08	0.12	0.61	0.01
Control Delay	45.9	32.1	81.7	46.1	3.4	8.9	13.7	2.1	7.3	16.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	32.1	81.7	46.1	3.4	8.9	13.7	2.1	7.3	16.5	0.0
LOS	D	C	F	D	A	A	B	A	A	B	A
Approach Delay		38.0		63.5			12.6			16.1	
Approach LOS		D		E			B			B	

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 89 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 18.7

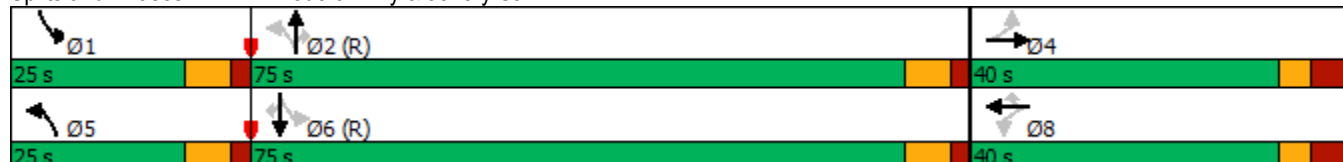
Intersection LOS: B

Intersection Capacity Utilization 76.5%

ICU Level of Service D












Analysis Period (min) 15

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues
11: N Federal Hwy & Jeffery St

No Build 2045 AM
09/28/2022
























											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	9	12	180	12	51	61	1085	83	38	1404	10
v/c Ratio	0.04	0.05	0.81	0.04	0.16	0.25	0.47	0.08	0.12	0.61	0.01
Control Delay	45.9	32.1	81.7	46.1	3.4	8.9	13.7	2.1	7.3	16.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	32.1	81.7	46.1	3.4	8.9	13.7	2.1	7.3	16.5	0.0
Queue Length 50th (ft)	7	5	160	9	0	14	247	0	8	373	0
Queue Length 95th (ft)	23	23	232	27	12	33	364	20	23	542	0
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		220		230	225		170	250		145
Base Capacity (vph)	326	371	320	435	434	388	2328	1059	454	2319	852
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.56	0.03	0.12	0.16	0.47	0.08	0.08	0.61	0.01
Intersection Summary											

HCM 6th Signalized Intersection Summary

11: N Federal Hwy & Jeffery St

No Build 2045 AM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	6	6	176	12	50	60	1063	81	37	1376	10
Future Volume (veh/h)	9	6	6	176	12	50	60	1063	81	37	1376	10
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	1900	1604	1900	1870	1900	1900	1900	1856	1870	1796	1856	1530
Adj Flow Rate, veh/h	9	6	6	180	12	51	61	1085	83	38	1404	10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	20	0	2	0	0	0	3	2	7	3	25
Cap, veh/h	249	111	111	253	286	242	280	2356	1055	339	2339	856
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.03	0.67	0.67	0.03	0.66	0.66
Sat Flow, veh/h	1360	736	736	1402	1900	1610	1810	3526	1578	1711	3526	1290
Grp Volume(v), veh/h	9	0	12	180	12	51	61	1085	83	38	1404	10
Grp Sat Flow(s),veh/h/ln	1360	0	1471	1402	1900	1610	1810	1763	1578	1711	1763	1290
Q Serve(g_s), s	0.8	0.0	1.0	17.7	0.8	3.9	1.5	20.6	2.6	1.0	31.2	0.4
Cycle Q Clear(g_c), s	1.6	0.0	1.0	18.6	0.8	3.9	1.5	20.6	2.6	1.0	31.2	0.4
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	0	221	253	286	242	280	2356	1055	339	2339	856
V/C Ratio(X)	0.04	0.00	0.05	0.71	0.04	0.21	0.22	0.46	0.08	0.11	0.60	0.01
Avail Cap(c_a), veh/h	356	0	337	363	436	369	457	2356	1055	514	2339	856
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	0.0	50.9	58.9	50.8	52.2	10.8	11.1	8.1	8.4	13.2	8.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	0.0	0.2	0.1	0.7	0.1	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	6.4	0.4	1.6	0.5	7.5	0.9	0.3	11.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	51.0	60.3	50.9	52.3	11.0	11.8	8.3	8.4	14.3	8.0
LnGrp LOS	D	A	D	E	D	D	B	B	A	A	B	A
Approach Vol, veh/h	21			243			1229			1452		
Approach Delay, s/veh	51.2			58.2			11.5			14.1		
Approach LOS	D			E			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	100.4		29.0	11.3	99.7		29.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	18.2	68.2		32.1	18.2	68.2		32.1				
Max Q Clear Time (g_c+I1), s	3.0	22.6		3.6	3.5	33.2		20.6				
Green Ext Time (p_c), s	0.0	3.3		0.0	0.1	4.5		0.4				

Intersection Summary

HCM 6th Ctrl Delay 16.9





















HCM 6th LOS B

Notes

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

Timings
12: N Dixie Hwy & Hidden Valley Blvd

No Build 2045 AM
09/28/2022

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	186	190	51	94	27	281	56	118	495	139
Future Volume (vph)	186	190	51	94	27	281	56	118	495	139
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases			8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	13.2	34.2	13.2	26.2	13.8	38.4	38.4	13.8	26.8	26.8
Total Split (s)	15.0	30.0	15.0	30.0	15.0	60.0	60.0	15.0	60.0	60.0
Total Split (%)	12.5%	25.0%	12.5%	25.0%	12.5%	50.0%	50.0%	12.5%	50.0%	50.0%
Yellow Time (s)	3.7	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	7.4	7.4	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	6.9	19.5	18.5	12.6	29.6	24.0	24.0	36.3	33.6	33.6
Actuated g/C Ratio	0.08	0.24	0.23	0.15	0.36	0.29	0.29	0.44	0.41	0.41
v/c Ratio	1.28	0.30	0.18	0.29	0.10	0.55	0.10	0.28	0.68	0.19
Control Delay	203.0	28.7	23.7	21.7	12.2	28.3	0.3	13.7	26.4	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	203.0	28.7	23.7	21.7	12.2	28.3	0.3	13.7	26.4	1.7
LOS	F	C	C	C	B	C	A	B	C	A
Approach Delay		104.6		22.2		22.8			19.8	
Approach LOS		F		C		C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 82.1

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.28

Intersection Signal Delay: 41.4

Intersection LOS: D

Intersection Capacity Utilization 76.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd

			
15 s	60 s	15 s	30 s
			
15 s	60 s	15 s	30 s

Queues

12: N Dixie Hwy & Hidden Valley Blvd

No Build 2045 AM

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	192	249	53	164	28	290	58	122	510	143
v/c Ratio	1.28	0.30	0.18	0.29	0.10	0.55	0.10	0.28	0.68	0.19
Control Delay	203.0	28.7	23.7	21.7	12.2	28.3	0.3	13.7	26.4	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	203.0	28.7	23.7	21.7	12.2	28.3	0.3	13.7	26.4	1.7
Queue Length 50th (ft)	~111	49	16	21	7	124	0	33	179	0
Queue Length 95th (ft)	#314	110	54	60	20	201	0	64	381	18
Internal Link Dist (ft)		221		597		5728			435	
Turn Bay Length (ft)	290		140		295		295	290		270
Base Capacity (vph)	150	1043	315	941	324	1165	1082	446	1199	1105
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.24	0.17	0.17	0.09	0.25	0.05	0.27	0.43	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.























95th percentile volume exceeds capacity, queue may be longer.





Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

12: N Dixie Hwy & Hidden Valley Blvd

No Build 2045 AM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	190	51	51	94	65	27	281	56	118	495	139
Future Volume (veh/h)	186	190	51	51	94	65	27	281	56	118	495	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1885	1885	1900	1856	1885	1870	1826	1811	1870	1885	1856	1885
Adj Flow Rate, veh/h	192	196	53	53	97	67	28	290	58	122	510	143
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	0	3	1	2	5	6	2	1	3	1
Cap, veh/h	162	573	151	334	333	212	181	485	424	354	571	491
Arrive On Green	0.09	0.20	0.20	0.04	0.16	0.16	0.03	0.27	0.27	0.07	0.31	0.31
Sat Flow, veh/h	1795	2801	738	1767	2094	1333	1739	1811	1583	1795	1856	1596
Grp Volume(v), veh/h	192	123	126	53	82	82	28	290	58	122	510	143
Grp Sat Flow(s),veh/h/ln	1795	1791	1748	1767	1791	1635	1739	1811	1583	1795	1856	1596
Q Serve(g_s), s	6.8	4.4	4.6	1.9	3.0	3.4	0.9	10.5	2.1	3.6	19.8	5.1
Cycle Q Clear(g_c), s	6.8	4.4	4.6	1.9	3.0	3.4	0.9	10.5	2.1	3.6	19.8	5.1
Prop In Lane	1.00		0.42	1.00		0.81	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	367	358	334	285	260	181	485	424	354	571	491
V/C Ratio(X)	1.19	0.34	0.35	0.16	0.29	0.32	0.15	0.60	0.14	0.35	0.89	0.29
Avail Cap(c_a), veh/h	162	517	505	415	517	473	305	1263	1104	410	1294	1113
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	34.3	25.6	25.7	24.7	28.0	28.1	20.9	24.1	21.0	18.6	24.9	19.8
Incr Delay (d2), s/veh	129.7	0.2	0.2	0.1	0.2	0.3	0.1	0.4	0.1	0.2	2.0	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	8.7	1.8	1.9	0.8	1.3	1.3	0.3	4.2	0.8	1.4	8.2	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	164.0	25.8	25.9	24.8	28.2	28.3	21.0	24.5	21.0	18.8	26.9	20.0
LnGrp LOS	F	C	C	C	C	C	C	C	C	B	C	B
Approach Vol, veh/h		441			217			376			775	
Approach Delay, s/veh		86.0			27.4			23.7			24.4	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.6	27.6	11.6	23.6	9.6	30.6	15.0	20.2				
Change Period (Y+Rc), s	7.4	7.4	* 8.2	* 8.2	7.4	7.4	* 8.2	* 8.2				
Max Green Setting (Gmax), s	7.6	52.6	* 6.8	* 22	7.6	52.6	* 6.8	* 22				
Max Q Clear Time (g_c+I1), s	5.6	12.5	3.9	6.6	2.9	21.8	8.8	5.4				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.5	0.0	1.4	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



















Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	6	418	17	4	695
Future Vol, veh/h	27	6	418	17	4	695
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	40	4	0	33	2
Mvmt Flow	29	7	454	18	4	755
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1226	463	0	0	472	0
Stage 1	463	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Critical Hdwy	6.45	6.6	-	-	4.43	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.66	-	-	2.497	-
Pot Cap-1 Maneuver	194	528	-	-	946	-
Stage 1	627	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	193	528	-	-	946	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	627	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	24.7	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	218	946	-	
HCM Lane V/C Ratio	-	-	0.165	0.005	-	
HCM Control Delay (s)	-	-	24.7	8.8	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.6	0	-	

Intersection				
Intersection Delay, s/veh	5.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	62	11	358	537
Demand Flow Rate, veh/h	62	11	368	542
Vehicles Circulating, veh/h	533	378	15	23
Vehicles Exiting, veh/h	32	5	580	366
Ped Vol Crossing Leg, #/h	2	17	0	2
Ped Cap Adj	1.000	0.998	1.000	1.000
Approach Delay, s/veh	5.3	3.9	5.1	6.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	62	11	368	542
Cap Entry Lane, veh/h	801	938	1359	1348
Entry HV Adj Factor	1.000	1.000	0.973	0.990
Flow Entry, veh/h	62	11	358	537
Cap Entry, veh/h	801	936	1322	1335
V/C Ratio	0.077	0.012	0.271	0.402
Control Delay, s/veh	5.3	3.9	5.1	6.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	2

Intersection						
Intersection Delay, s/veh	4.4					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	248	315	172		
Demand Flow Rate, veh/h	0	254	319	172		
Vehicles Circulating, veh/h	362	39	121	190		
Vehicles Exiting, veh/h	0	121	241	39		
Ped Vol Crossing Leg, #/h	10	3	1	1		
Ped Cap Adj	0.999	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	3.8	4.8	4.5		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	64	4.976	280	4.976
Entry Flow, veh/h	0	190	1326	39	1220	172
Cap Entry Lane, veh/h	954	1326	1.000	1220	0.990	1137
Entry HV Adj Factor	1.000	0.968	64	0.971	277	1.000
Flow Entry, veh/h	0	184	1325	38	1207	172
Cap Entry, veh/h	953	1284	0.048	1184	0.229	1137
V/C Ratio	0.000	0.143	3.1	0.032	5.0	0.151
Control Delay, s/veh	3.8	4.0	A	3.3	A	4.5
LOS	A	A	0	A	1	A
95th %tile Queue, veh	0	1		0		1

Timings
1: NW 2nd Ave & NW 20th St

No Build 2045 PM
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	130	363	238	399	106	535	214	159	762
Future Volume (vph)	130	363	238	399	106	535	214	159	762
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	17.0	34.0	18.0	35.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	14.2%	28.3%	15.0%	29.2%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	32.4	23.1	35.7	24.7	54.4	48.2	48.2	61.5	51.8
Actuated g/C Ratio	0.27	0.19	0.30	0.21	0.45	0.40	0.40	0.51	0.43
v/c Ratio	0.70	0.80	1.08	0.85	0.45	0.41	0.30	0.44	0.61
Control Delay	47.2	52.1	113.7	53.5	21.8	27.9	4.4	18.6	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	52.1	113.7	53.5	21.8	27.9	4.4	18.6	28.8
LOS	D	D	F	D	C	C	A	B	C
Approach Delay		51.1		71.1		21.3			27.2
Approach LOS		D		E		C			C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 9 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 41.0

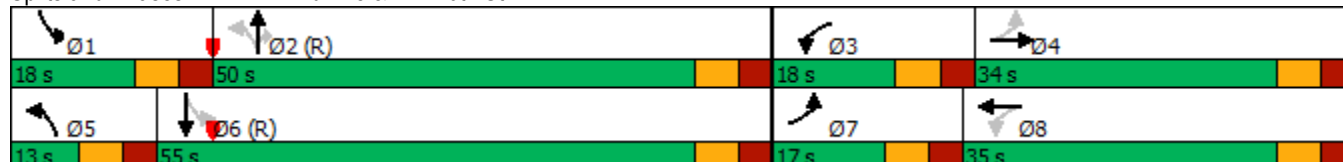
Intersection LOS: D

Intersection Capacity Utilization 84.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues

No Build 2045 PM

1: NW 2nd Ave & NW 20th St

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	143	547	262	634	116	588	235	175	927
v/c Ratio	0.70	0.80	1.08	0.85	0.45	0.41	0.30	0.44	0.61
Control Delay	47.2	52.1	113.7	53.5	21.8	27.9	4.4	18.6	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	52.1	113.7	53.5	21.8	27.9	4.4	18.6	28.8
Queue Length 50th (ft)	78	197	~158	229	43	174	0	68	291
Queue Length 95th (ft)	#126	254	#309	291	79	236	53	115	372
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	213	791	242	835	258	1422	782	420	1526
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.69	1.08	0.76	0.45	0.41	0.30	0.42	0.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St

No Build 2045 PM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	363	135	238	399	178	106	535	214	159	762	82
Future Volume (veh/h)	130	363	135	238	399	178	106	535	214	159	762	82
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		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	1885	1870	1870	1870	1885	1885	1900	1870	1885	1826	1885	1900
Adj Flow Rate, veh/h	143	399	148	262	438	196	116	588	235	175	837	90
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	2	2	2	1	1	0	2	1	5	1	0
Cap, veh/h	227	499	183	261	504	223	292	1431	643	376	1397	150
Arrive On Green	0.08	0.20	0.20	0.09	0.21	0.21	0.05	0.40	0.40	0.08	0.43	0.43
Sat Flow, veh/h	1795	2536	928	1781	2403	1065	1810	3554	1598	1739	3262	351
Grp Volume(v), veh/h	143	278	269	262	325	309	116	588	235	175	459	468
Grp Sat Flow(s),veh/h/ln	1795	1777	1688	1781	1791	1677	1810	1777	1598	1739	1791	1822
Q Serve(g_s), s	7.5	17.9	18.3	11.0	21.0	21.4	4.5	14.2	12.4	7.0	23.7	23.7
Cycle Q Clear(g_c), s	7.5	17.9	18.3	11.0	21.0	21.4	4.5	14.2	12.4	7.0	23.7	23.7
Prop In Lane	1.00		0.55	1.00		0.63	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	227	350	332	261	376	352	292	1431	643	376	767	780
V/C Ratio(X)	0.63	0.79	0.81	1.00	0.87	0.88	0.40	0.41	0.37	0.47	0.60	0.60
Avail Cap(c_a), veh/h	235	400	380	261	418	391	292	1431	643	404	767	780
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	0.95	0.95	0.95
Uniform Delay (d), s/veh	36.2	45.9	46.0	41.4	45.8	45.9	21.4	25.6	25.1	19.3	26.4	26.4
Incr Delay (d2), s/veh	3.7	8.0	9.6	56.1	14.7	17.1	0.3	0.9	1.6	0.3	3.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	8.6	8.5	6.5	10.8	10.5	1.9	6.1	4.9	2.8	10.6	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	53.9	55.6	97.6	60.5	63.0	21.7	26.5	26.7	19.6	29.7	29.6
LnGrp LOS	D	D	E	F	E	E	C	C	C	B	C	C
Approach Vol, veh/h		690			896			939			1102	
Approach Delay, s/veh		51.7			72.2			26.0			28.1	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	55.3	18.0	30.6	13.0	58.4	16.5	32.2				
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	11.0	43.0	11.0	27.0	6.0	48.0	10.0	28.0				
Max Q Clear Time (g_c+I1), s	9.0	16.2	13.0	20.3	6.5	25.7	9.5	23.4				
Green Ext Time (p_c), s	0.1	2.2	0.0	0.8	0.0	2.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay 42.9



















HCM 6th LOS D

Notes

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

Timings
2: N Dixie Hwy & NW 20th St

No Build 2045 PM
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	165	367	128	326	152	1073	112	1036	132
Future Volume (vph)	165	367	128	326	152	1073	112	1036	132
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	41.5	11.5	45.5	11.4	42.4	11.4	24.4	24.4
Total Split (s)	25.0	33.0	22.0	30.0	20.0	85.0	20.0	85.0	85.0
Total Split (%)	15.6%	20.6%	13.8%	18.8%	12.5%	53.1%	12.5%	53.1%	53.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	45.0	26.5	39.0	23.5	92.2	78.6	92.2	78.6	78.6
Actuated g/C Ratio	0.28	0.17	0.24	0.15	0.58	0.49	0.58	0.49	0.49
v/c Ratio	0.68	0.97	0.63	0.85	0.58	0.77	0.52	0.65	0.17
Control Delay	57.4	91.3	55.8	79.7	22.3	36.8	25.2	32.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	91.3	55.8	79.7	22.3	36.8	25.2	32.6	3.5
LOS	E	F	E	E	C	D	C	C	A
Approach Delay		83.3		74.0		35.2		28.9	
Approach LOS		F		E		D		C	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 15 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 47.1

Intersection LOS: D

Intersection Capacity Utilization 103.6%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St

No Build 2045 PM
09/28/2022
























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	575	139	443	165	1324	122	1126	143
v/c Ratio	0.68	0.97	0.63	0.85	0.58	0.77	0.52	0.65	0.17
Control Delay	57.4	91.3	55.8	79.7	22.3	36.8	25.2	32.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	91.3	55.8	79.7	22.3	36.8	25.2	32.6	3.5
Queue Length 50th (ft)	146	301	110	233	70	583	50	454	0
Queue Length 95th (ft)	218	#427	172	#317	106	675	102	532	38
Internal Link Dist (ft)		417		733		683		3051	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	262	593	222	522	283	1716	233	1738	866
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.97	0.63	0.85	0.58	0.77	0.52	0.65	0.17

Intersection Summary

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

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

No Build 2045 PM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	367	162	128	326	82	152	1073	145	112	1036	132
Future Volume (veh/h)	165	367	162	128	326	82	152	1073	145	112	1036	132
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	1885	1885	1885	1900	1885	1900	1870	1870	1885	1885	1870	1900
Adj Flow Rate, veh/h	179	399	176	139	354	89	165	1166	158	122	1126	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	1	0	2	2	1	1	2	0
Cap, veh/h	275	402	175	220	417	104	308	1545	209	277	1746	791
Arrive On Green	0.12	0.17	0.17	0.10	0.15	0.15	0.09	0.49	0.49	0.09	0.49	0.49
Sat Flow, veh/h	1795	2427	1057	1810	2842	705	1781	3146	425	1795	3554	1610
Grp Volume(v), veh/h	179	293	282	139	221	222	165	657	667	122	1126	143
Grp Sat Flow(s),veh/h/ln	1795	1791	1693	1810	1791	1757	1781	1777	1794	1795	1777	1610
Q Serve(g_s), s	13.1	26.1	26.5	10.1	19.3	19.7	6.9	47.8	48.2	4.9	37.8	7.9
Cycle Q Clear(g_c), s	13.1	26.1	26.5	10.1	19.3	19.7	6.9	47.8	48.2	4.9	37.8	7.9
Prop In Lane	1.00		0.62	1.00		0.40	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	275	297	280	220	263	258	308	873	881	277	1746	791
V/C Ratio(X)	0.65	0.99	1.01	0.63	0.84	0.86	0.54	0.75	0.76	0.44	0.64	0.18
Avail Cap(c_a), veh/h	275	297	280	220	263	258	308	873	881	277	1746	791
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)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	49.8	66.6	66.8	51.3	66.4	66.6	23.0	32.9	33.0	25.7	30.3	22.7
Incr Delay (d2), s/veh	11.1	48.8	54.6	13.0	26.5	29.1	6.5	6.0	6.0	3.3	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	15.9	15.7	5.4	10.7	10.9	3.4	21.5	21.9	2.3	16.2	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	115.4	121.3	64.2	92.9	95.8	29.5	38.8	39.0	28.9	31.5	23.1
LnGrp LOS	E	F	F	E	F	F	C	D	D	C	C	C
Approach Vol, veh/h	754			582			1489			1391		
Approach Delay, s/veh	104.7			87.2			37.9			30.4		
Approach LOS	F			F			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	85.0	22.0	33.0	20.0	85.0	25.0	30.0				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	78.6	15.5	26.5	13.6	78.6	18.5	23.5				
Max Q Clear Time (g_c+I1), s	6.9	50.2	12.1	28.5	8.9	39.8	15.1	21.7				
Green Ext Time (p_c), s	0.1	3.3	0.1	0.0	0.1	3.8	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay	54.2											
HCM 6th LOS	D											

Timings
3: NW 2nd Ave & NW 28th St

No Build 2045 PM
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↕	↖	↕
Traffic Volume (vph)	88	217	738	168	716
Future Volume (vph)	88	217	738	168	716
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	24.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.0	12.0	25.0	36.0	36.0
Actuated g/C Ratio	0.20	0.20	0.41	0.59	0.59
v/c Ratio	0.27	0.46	0.59	0.54	0.36
Control Delay	23.2	7.0	15.7	12.1	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	7.0	15.7	12.1	7.1
LOS	C	A	B	B	A
Approach Delay	11.7		15.7		8.0
Approach LOS	B		B		A

Intersection Summary

Cycle Length: 61
 Actuated Cycle Length: 61
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 11.7
 Intersection Capacity Utilization 58.5%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St

No Build 2045 PM
09/28/2022



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	92	226	864	175	746
v/c Ratio	0.27	0.46	0.59	0.54	0.36
Control Delay	23.2	7.0	15.7	12.1	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	7.0	15.7	12.1	7.1
Queue Length 50th (ft)	29	0	121	26	65
Queue Length 95th (ft)	65	49	173	50	94
Internal Link Dist (ft)	228		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	344	496	1456	326	2088
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.46	0.59	0.54	0.36
Intersection Summary					

HCM 6th Signalized Intersection Summary













3: NW 2nd Ave & NW 28th St

No Build 2045 PM
09/28/2022

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	88	217	738	91	168	716
Future Volume (veh/h)	88	217	738	91	168	716
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1885	1885	1900	1841	1870
Adj Flow Rate, veh/h	92	226	769	95	175	746
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	1	0	4	2
Cap, veh/h	346	313	1321	163	402	2100
Arrive On Green	0.20	0.20	0.41	0.41	0.08	0.59
Sat Flow, veh/h	1767	1598	3302	396	1753	3647
Grp Volume(v), veh/h	92	226	429	435	175	746
Grp Sat Flow(s),veh/h/ln	1767	1598	1791	1813	1753	1777
Q Serve(g_s), s	2.7	8.1	11.3	11.3	3.2	6.6
Cycle Q Clear(g_c), s	2.7	8.1	11.3	11.3	3.2	6.6
Prop In Lane	1.00	1.00		0.22	1.00	
Lane Grp Cap(c), veh/h	346	313	737	746	402	2100
V/C Ratio(X)	0.27	0.72	0.58	0.58	0.43	0.36
Avail Cap(c_a), veh/h	348	314	737	746	404	2100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.88	0.88	0.80	0.80
Uniform Delay (d), s/veh	20.8	23.0	13.9	13.9	9.6	6.5
Incr Delay (d2), s/veh	0.2	6.9	2.9	2.9	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.4	4.5	4.5	1.0	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.0	29.8	16.8	16.8	9.9	6.8
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	318		864			921
Approach Delay, s/veh	27.3		16.8			7.4
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.9	31.1			42.1	18.9
Change Period (Y+Rc), s	6.0	6.0			6.0	7.0
Max Green Setting (Gmax), s	5.0	25.0			36.0	12.0
Max Q Clear Time (g_c+I1), s	5.2	13.3			8.6	10.1
Green Ext Time (p_c), s	0.0	1.7			2.1	0.2
Intersection Summary						
HCM 6th Ctrl Delay			14.3			
HCM 6th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						

Timings
4: N Dixie Hwy & NW 28th St

No Build 2045 PM
09/28/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	106	182	182	1132	1048	76
Future Volume (vph)	106	182	182	1132	1048	76
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	12.0	12.0	5.0	18.0	18.0	18.0
Minimum Split (s)	37.0	37.0	11.4	24.4	24.4	24.4
Total Split (s)	30.0	30.0	15.0	45.0	30.0	30.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	4.0	4.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	6.4	6.4	6.4	6.4
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	12.3	12.3	48.3	48.3	33.2	33.2
Actuated g/C Ratio	0.16	0.16	0.64	0.64	0.44	0.44
v/c Ratio	0.40	0.48	0.66	0.55	0.74	0.11
Control Delay	32.6	8.7	20.4	8.6	21.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	8.7	20.4	8.6	21.9	0.3
LOS	C	A	C	A	C	A
Approach Delay				10.2	20.4	
Approach LOS				B	C	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 11 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 15.2

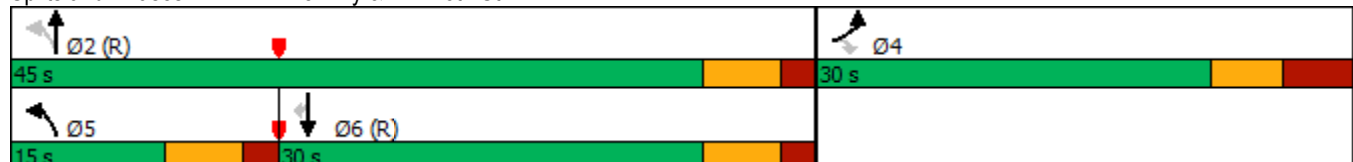
Intersection LOS: B

Intersection Capacity Utilization 59.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: N Dixie Hwy & NW 28th St



Queues
4: N Dixie Hwy & NW 28th St

No Build 2045 PM
09/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	118	202	202	1258	1164	84
v/c Ratio	0.40	0.48	0.66	0.55	0.74	0.11
Control Delay	32.6	8.7	20.4	8.6	21.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	8.7	20.4	8.6	21.9	0.3
Queue Length 50th (ft)	50	0	32	145	220	0
Queue Length 95th (ft)	96	53	98	206	#381	1
Internal Link Dist (ft)				3051	3633	
Turn Bay Length (ft)			230			280
Base Capacity (vph)	524	601	327	2280	1583	794
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.34	0.62	0.55	0.74	0.11



















Intersection Summary

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

HCM 6th Signalized Intersection Summary
4: N Dixie Hwy & NW 28th St

No Build 2045 PM

09/28/2022



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	0	182	0	0	0	182	1132	0	0	1048	76
Future Volume (veh/h)	106	0	182	0	0	0	182	1132	0	0	1048	76
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1885	0	1870				1841	1870	1900	0	1885	1870
Adj Flow Rate, veh/h	118	0	202				202	1258	0	0	1164	84
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	0	2				4	2	0	0	1	2
Cap, veh/h	287	0	253				339	2304	0	0	1729	765
Arrive On Green	0.16	0.00	0.16				0.08	0.65	0.00	0.00	0.48	0.48
Sat Flow, veh/h	1795	0	1585				1753	3647	0	0	3676	1585
Grp Volume(v), veh/h	118	0	202				202	1258	0	0	1164	84
Grp Sat Flow(s),veh/h/ln	1795	0	1585				1753	1777	0	0	1791	1585
Q Serve(g_s), s	4.4	0.0	9.2				4.0	14.5	0.0	0.0	18.7	2.2
Cycle Q Clear(g_c), s	4.4	0.0	9.2				4.0	14.5	0.0	0.0	18.7	2.2
Prop In Lane	1.00		1.00				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	287	0	253				339	2304	0	0	1729	765
V/C Ratio(X)	0.41	0.00	0.80				0.60	0.55	0.00	0.00	0.67	0.11
Avail Cap(c_a), veh/h	527	0	465				399	2304	0	0	1729	765
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.56	0.56	0.00	0.00	0.59	0.59
Uniform Delay (d), s/veh	28.3	0.0	30.3				12.4	7.2	0.0	0.0	14.9	10.6
Incr Delay (d2), s/veh	0.4	0.0	2.2				0.4	0.5	0.0	0.0	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	7.9				1.2	4.0	0.0	0.0	6.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	32.5				12.8	7.7	0.0	0.0	16.1	10.8
LnGrp LOS	C	A	C				B	A	A	A	B	B
Approach Vol, veh/h	320						1460			1248		
Approach Delay, s/veh	31.1						8.4			15.8		
Approach LOS	C						A			B		
Timer - Assigned Phs	2			4			5			6		
Phs Duration (G+Y+Rc), s	55.0			20.0			12.4			42.6		
Change Period (Y+Rc), s	6.4			8.0			6.4			6.4		
Max Green Setting (Gmax), s	38.6			22.0			8.6			23.6		
Max Q Clear Time (g_c+I1), s	16.5			11.2			6.0			20.7		
Green Ext Time (p_c), s	3.8			0.6			0.1			1.3		
Intersection Summary												
HCM 6th Ctrl Delay	13.8											
HCM 6th LOS	B											

Notes

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

Timings
5: NW 2nd Ave & Spanish River Blvd

No Build 2045 PM
09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	141	816	209	137	1063	313	675	122	460
Future Volume (vph)	141	816	209	137	1063	313	675	122	460
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	40.0	64.0	64.0	24.0	48.0	22.0	50.0	22.0	50.0
Total Split (%)	25.0%	40.0%	40.0%	15.0%	30.0%	13.8%	31.3%	13.8%	31.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	80.4	67.6	67.6	77.1	65.9	58.7	43.4	51.7	39.8
Actuated g/C Ratio	0.50	0.42	0.42	0.48	0.41	0.37	0.27	0.32	0.25
v/c Ratio	0.76	0.57	0.29	0.51	0.84	1.20	0.93	0.72	0.69
Control Delay	57.4	38.2	7.6	26.8	49.4	152.9	72.5	74.0	37.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	38.2	7.6	26.8	49.4	152.9	72.5	74.0	37.6
LOS	E	D	A	C	D	F	E	E	D
Approach Delay		35.1			47.0		94.3		44.0
Approach LOS		D			D		F		D

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 145 (91%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 55.9

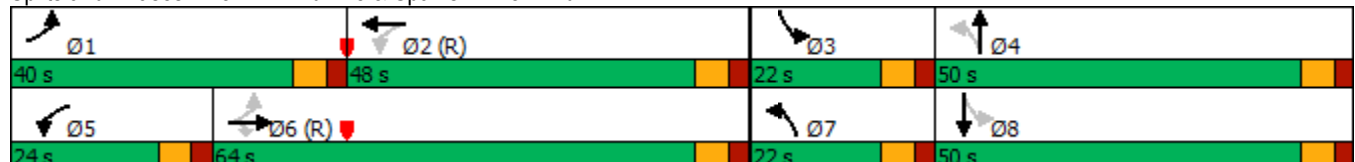
Intersection LOS: E

Intersection Capacity Utilization 95.6%

ICU Level of Service F

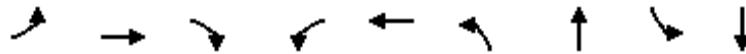
Analysis Period (min) 15

Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

No Build 2045 PM
09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	148	859	220	144	1223	329	882	128	602
v/c Ratio	0.76	0.57	0.29	0.51	0.84	1.20	0.93	0.72	0.69
Control Delay	57.4	38.2	7.6	26.8	49.4	152.9	72.5	74.0	37.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	38.2	7.6	26.8	49.4	152.9	72.5	74.0	37.6
Queue Length 50th (ft)	97	372	20	79	621	~280	453	80	248
Queue Length 95th (ft)	174	465	83	123	#832	#509	#597	m123	m304
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	411	1509	764	352	1456	275	968	218	947
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.57	0.29	0.41	0.84	1.20	0.91	0.59	0.64

Intersection Summary






















- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

5: NW 2nd Ave & Spanish River Blvd



















No Build 2045 PM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	816	209	137	1063	99	313	675	162	122	460	112
Future Volume (veh/h)	141	816	209	137	1063	99	313	675	162	122	460	112
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	1885	1841	1856	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	148	859	220	144	1119	104	329	711	171	128	484	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	4	3	1	2	1	2	1	2	2	2
Cap, veh/h	226	1615	703	290	1489	138	280	746	179	175	660	160
Arrive On Green	0.06	0.45	0.45	0.06	0.45	0.45	0.10	0.26	0.26	0.07	0.23	0.23
Sat Flow, veh/h	1781	3582	1560	1767	3313	308	1795	2840	683	1781	2835	687
Grp Volume(v), veh/h	148	859	220	144	604	619	329	445	437	128	302	300
Grp Sat Flow(s),veh/h/ln	1781	1791	1560	1767	1791	1830	1795	1777	1747	1781	1777	1746
Q Serve(g_s), s	7.1	27.7	14.4	7.0	44.9	45.0	15.5	39.4	39.4	8.7	25.2	25.5
Cycle Q Clear(g_c), s	7.1	27.7	14.4	7.0	44.9	45.0	15.5	39.4	39.4	8.7	25.2	25.5
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.39	1.00		0.39
Lane Grp Cap(c), veh/h	226	1615	703	290	805	822	280	467	459	175	414	406
V/C Ratio(X)	0.66	0.53	0.31	0.50	0.75	0.75	1.18	0.95	0.95	0.73	0.73	0.74
Avail Cap(c_a), veh/h	495	1615	703	382	805	822	280	483	475	228	483	475
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	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	31.7	28.1	24.5	36.6	36.7	50.6	58.0	58.0	46.5	56.7	56.9
Incr Delay (d2), s/veh	1.2	1.3	1.2	0.5	6.4	6.3	105.4	24.6	25.0	5.3	3.6	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	3.1	12.3	5.7	3.0	20.9	21.4	12.0	20.8	20.5	4.1	11.7	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	33.0	29.3	25.0	43.0	42.9	155.9	82.6	83.0	51.7	60.3	60.7
LnGrp LOS	C	C	C	C	D	D	F	F	F	D	E	E
Approach Vol, veh/h	1227			1367			1211			730		
Approach Delay, s/veh	32.2			41.1			102.7			59.0		
Approach LOS	C			D			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	78.4	17.2	48.5	15.6	78.6	22.0	43.7				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	33.5	41.5	15.5	43.5	17.5	57.5	15.5	43.5				
Max Q Clear Time (g_c+I1), s	9.1	47.0	10.7	41.4	9.0	29.7	17.5	27.5				
Green Ext Time (p_c), s	0.2	0.0	0.1	0.6	0.1	3.1	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	58.0											
HCM 6th LOS	E											

Timings
6: N Dixie Hwy & Spanish River Blvd

No Build 2045 PM
09/28/2022









									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	177	714	155	854	288	892	58	713	147
Future Volume (vph)	177	714	155	854	288	892	58	713	147
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	37.5	11.5	37.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	22.0	59.0	22.0	59.0	23.0	64.0	15.0	56.0	56.0
Total Split (%)	13.8%	36.9%	13.8%	36.9%	14.4%	40.0%	9.4%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Min	Max	Min	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	67.1	51.6	67.1	51.6	73.5	57.6	59.1	49.6	49.6
Actuated g/C Ratio	0.42	0.32	0.42	0.32	0.46	0.36	0.37	0.31	0.31
v/c Ratio	0.91	0.96	0.80	0.88	1.16	0.89	0.43	0.73	0.27
Control Delay	84.3	70.8	65.3	61.1	134.4	57.9	43.2	70.0	21.0
Queue Delay	0.0	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.3	116.3	65.3	61.1	134.4	57.9	43.2	70.0	21.0
LOS	F	F	E	E	F	E	D	E	C
Approach Delay		111.4		61.7		75.0		60.4	
Approach LOS		F		E		E		E	

Intersection Summary

Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 150 (94%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 78.2
 Intersection Capacity Utilization 93.5%
 Analysis Period (min) 15

Intersection LOS: E
 ICU Level of Service F

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd

			
Ø1	Ø2 (R)	Ø3	Ø4
15 s	64 s	22 s	59 s
			
Ø5	Ø6 (R)	Ø7	Ø8
23 s	56 s	22 s	59 s

Queues
6: N Dixie Hwy & Spanish River Blvd

No Build 2045 PM
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	201	1093	176	1013	327	1137	66	810	167
v/c Ratio	0.91	0.96	0.80	0.88	1.16	0.89	0.43	0.73	0.27
Control Delay	84.3	70.8	65.3	61.1	134.4	57.9	43.2	70.0	21.0
Queue Delay	0.0	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.3	116.3	65.3	61.1	134.4	57.9	43.2	70.0	21.0
Queue Length 50th (ft)	157	575	128	524	~316	586	46	465	45
Queue Length 95th (ft)	#304	#687	#240	596	#502	662	m66	m513	m76
Internal Link Dist (ft)		267		828		3633		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	220	1151	220	1168	283	1273	154	1107	615
Starvation Cap Reductn	0	450	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	1.56	0.80	0.87	1.16	0.89	0.43	0.73	0.27






















Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd

No Build 2045 PM























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	714	248	155	854	38	288	892	108	58	713	147
Future Volume (veh/h)	177	714	248	155	854	38	288	892	108	58	713	147
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	1885	1900	1885	1885	1885	1900	1885	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	201	811	282	176	970	43	327	1014	123	66	810	167
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	0	1	1	1	0	1	1	0	0	1	0
Cap, veh/h	253	843	293	228	1121	50	300	1181	143	180	1136	511
Arrive On Green	0.10	0.32	0.32	0.10	0.32	0.32	0.10	0.37	0.37	0.05	0.32	0.32
Sat Flow, veh/h	1795	2625	912	1795	3493	155	1795	3216	390	1810	3582	1610
Grp Volume(v), veh/h	201	557	536	176	497	516	327	564	573	66	810	167
Grp Sat Flow(s),veh/h/ln	1795	1805	1732	1795	1791	1857	1795	1791	1815	1810	1791	1610
Q Serve(g_s), s	11.7	48.5	48.6	10.4	41.8	41.8	16.6	46.6	46.7	3.8	31.9	12.6
Cycle Q Clear(g_c), s	11.7	48.5	48.6	10.4	41.8	41.8	16.6	46.6	46.7	3.8	31.9	12.6
Prop In Lane	1.00		0.53	1.00		0.08	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	253	579	556	228	575	596	300	658	666	180	1136	511
V/C Ratio(X)	0.80	0.96	0.96	0.77	0.87	0.87	1.09	0.86	0.86	0.37	0.71	0.33
Avail Cap(c_a), veh/h	253	592	568	228	588	609	300	658	666	180	1136	511
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)	0.92	0.92	0.92	1.00	1.00	1.00	0.83	0.83	0.83	0.83	0.83	0.83
Uniform Delay (d), s/veh	38.0	53.4	53.4	39.8	51.1	51.1	39.9	46.8	46.8	38.2	48.2	41.6
Incr Delay (d2), s/veh	20.8	25.8	26.7	22.1	12.0	11.7	74.3	11.6	11.6	4.7	3.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	26.0	25.1	6.0	20.6	21.3	14.0	22.6	22.9	1.9	14.6	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	79.1	80.1	61.9	63.1	62.7	114.2	58.4	58.4	43.0	51.4	43.0
LnGrp LOS	E	E	F	E	E	E	F	E	E	D	D	D
Approach Vol, veh/h	1294			1189			1464			1043		
Approach Delay, s/veh	76.4			62.8			70.9			49.5		
Approach LOS	E			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	65.1	22.0	57.9	23.0	57.1	22.0	57.9				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	15.5	52.5	16.6	49.6	15.5	52.5				
Max Q Clear Time (g_c+I1), s	5.8	48.7	12.4	50.6	18.6	33.9	13.7	43.8				
Green Ext Time (p_c), s	0.0	2.1	0.1	0.7	0.0	2.4	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	65.9											
HCM 6th LOS	E											

Timings
7: NW 2nd Ave & W Yamato Rd

No Build 2045 PM

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	336	1795	413	167	1602	348	615	515	130	413	569
Future Volume (vph)	336	1795	413	167	1602	348	615	515	130	413	569
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0
Minimum Split (s)	14.8	41.8	41.8	14.8	38.8	38.8	14.0	42.0	42.0	14.0	41.0
Total Split (s)	26.0	50.0	50.0	26.0	50.0	50.0	48.0	56.0	56.0	28.0	36.0
Total Split (%)	16.3%	31.3%	31.3%	16.3%	31.3%	31.3%	30.0%	35.0%	35.0%	17.5%	22.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	65.8	47.2	47.2	58.4	43.2	43.2	35.1	49.0	49.0	21.0	35.9
Actuated g/C Ratio	0.41	0.30	0.30	0.36	0.27	0.27	0.22	0.31	0.31	0.13	0.22
v/c Ratio	1.36	1.23	0.62	0.82	1.22	0.61	0.86	0.95	0.24	0.97	0.95
Control Delay	221.8	157.6	16.4	68.8	152.4	23.9	81.0	60.5	2.1	102.9	80.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.8	157.6	16.4	68.8	152.4	23.9	81.0	60.5	2.1	102.9	80.9
LOS	F	F	B	E	F	C	F	E	A	F	F
Approach Delay		143.1			124.7			64.5			89.0
Approach LOS		F			F			E			F

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 50 (31%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.36

Intersection Signal Delay: 114.9

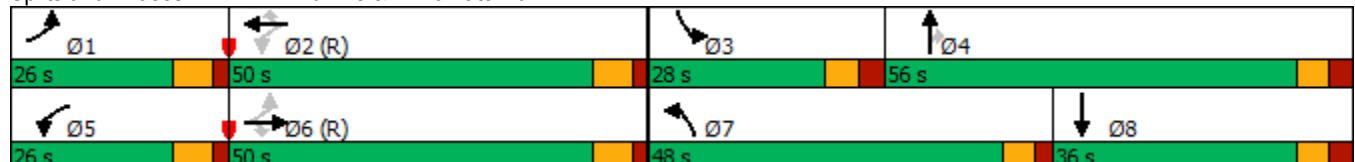
Intersection LOS: F

Intersection Capacity Utilization 111.5%

ICU Level of Service H












Analysis Period (min) 15

Splits and Phases: 7: NW 2nd Ave & W Yamato Rd



Queues
7: NW 2nd Ave & W Yamato Rd

No Build 2045 PM
09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	354	1889	435	176	1686	366	647	542	137	435	742
v/c Ratio	1.36	1.23	0.62	0.82	1.22	0.61	0.86	0.95	0.24	0.97	0.95
Control Delay	221.8	157.6	16.4	68.8	152.4	23.9	81.0	60.5	2.1	102.9	80.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.8	157.6	16.4	68.8	152.4	23.9	81.0	60.5	2.1	102.9	80.9
Queue Length 50th (ft)	~435	~900	90	130	~787	130	290	574	2	237	399
Queue Length 95th (ft)	#656	#1035	223	215	#882	247	m314	m#734	m4	#349	#614
Internal Link Dist (ft)		1311			615			322			560
Turn Bay Length (ft)	350		400	415		280	280		200	250	
Base Capacity (vph)	261	1530	698	259	1386	598	901	570	561	450	780
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.36	1.23	0.62	0.68	1.22	0.61	0.72	0.95	0.24	0.97	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
































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

HCM 6th Signalized Intersection Summary

7: NW 2nd Ave & W Yamato Rd



























No Build 2045 PM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	336	1795	413	167	1602	348	615	515	130	413	569	136
Future Volume (veh/h)	336	1795	413	167	1602	348	615	515	130	413	569	136
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	1885	1900	1870	1870	1885	1900	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	1889	435	176	1686	366	647	542	137	435	599	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	2	2	1	0	2	2	2	2	2	2
Cap, veh/h	260	1610	492	197	1420	444	716	562	476	454	656	156
Arrive On Green	0.12	0.31	0.31	0.09	0.28	0.28	0.21	0.30	0.30	0.13	0.23	0.23
Sat Flow, veh/h	1795	5187	1585	1781	5147	1610	3456	1870	1583	3456	2846	678
Grp Volume(v), veh/h	354	1889	435	176	1686	366	647	542	137	435	373	369
Grp Sat Flow(s),veh/h/ln	1795	1729	1585	1781	1716	1610	1728	1870	1583	1728	1777	1747
Q Serve(g_s), s	19.2	49.7	41.7	11.6	44.1	34.1	29.2	45.7	10.6	20.0	32.8	32.9
Cycle Q Clear(g_c), s	19.2	49.7	41.7	11.6	44.1	34.1	29.2	45.7	10.6	20.0	32.8	32.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	260	1610	492	197	1420	444	716	562	476	454	410	403
V/C Ratio(X)	1.36	1.17	0.88	0.89	1.19	0.82	0.90	0.96	0.29	0.96	0.91	0.91
Avail Cap(c_a), veh/h	260	1610	492	259	1420	444	907	573	485	454	410	403
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	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	55.2	52.4	44.6	57.9	54.3	61.9	55.1	42.9	69.1	60.0	60.0
Incr Delay (d2), s/veh	184.5	85.0	20.2	18.6	90.6	13.5	9.9	28.5	0.2	31.6	24.0	24.9
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	23.8	33.8	19.3	6.0	30.6	15.4	13.8	25.8	4.2	10.8	17.4	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	236.7	140.2	72.6	63.2	148.5	67.7	71.8	83.6	43.1	100.7	83.9	84.9
LnGrp LOS	F	F	E	E	F	E	E	F	D	F	F	F
Approach Vol, veh/h		2678			2228			1326			1177	
Approach Delay, s/veh		142.0			128.5			73.7			90.4	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	50.9	28.0	55.1	20.5	56.5	39.2	43.9				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	19.2	43.2	21.0	49.0	19.2	43.2	42.0	29.0				
Max Q Clear Time (g_c+I1), s	21.2	46.1	22.0	47.7	13.6	51.7	31.2	34.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	0.0	1.9	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			117.5									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
8: N Dixie Hwy & W Yamato Rd

No Build 2045 PM
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  	 	 		 	
Traffic Volume (vph)	282	1367	60	1171	522	510	13	421	471
Future Volume (vph)	282	1367	60	1171	522	510	13	421	471
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	13.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	60.0	20.0	55.0	33.0	59.0	21.0	47.0	47.0
Total Split (%)	15.6%	37.5%	12.5%	34.4%	20.6%	36.9%	13.1%	29.4%	29.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	16.8	61.8	9.6	52.2	26.5	65.2	5.9	37.6	37.6
Actuated g/C Ratio	0.10	0.39	0.06	0.33	0.17	0.41	0.04	0.24	0.24
v/c Ratio	0.82	0.94	0.58	0.76	0.97	0.48	0.22	0.53	0.97
Control Delay	89.1	56.8	93.6	52.7	86.5	68.7	82.1	55.7	70.6
Queue Delay	0.0	45.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	102.1	93.6	52.7	86.5	68.7	82.1	55.7	70.6
LOS	F	F	F	D	F	E	F	E	E
Approach Delay		100.3		54.6		76.7		63.8	
Approach LOS		F		D		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 71 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 78.2

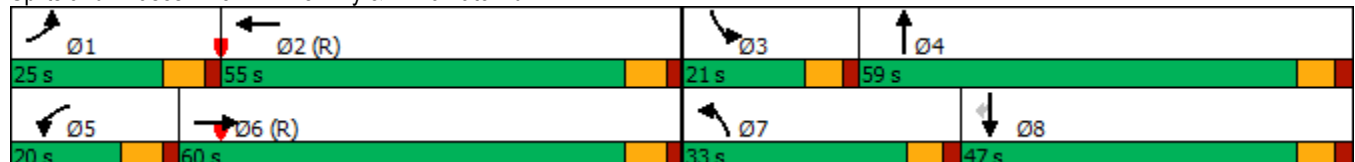
Intersection LOS: E

Intersection Capacity Utilization 87.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd

No Build 2045 PM
09/28/2022
























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	297	1832	63	1273	549	677	14	443	496
v/c Ratio	0.82	0.94	0.58	0.76	0.97	0.48	0.22	0.53	0.97
Control Delay	89.1	56.8	93.6	52.7	86.5	68.7	82.1	55.7	70.6
Queue Delay	0.0	45.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	102.1	93.6	52.7	86.5	68.7	82.1	55.7	70.6
Queue Length 50th (ft)	158	~732	65	454	311	352	15	211	351
Queue Length 95th (ft)	212	#869	118	516	m#375	m407	41	268	#580
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	390	1949	148	1668	570	1412	161	886	533
Starvation Cap Reductn	0	645	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	1.40	0.43	0.76	0.96	0.48	0.09	0.50	0.93

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.




















HCM 6th Signalized Intersection Summary 8: N Dixie Hwy & W Yamato Rd

No Build 2045 PM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	1367	373	60	1171	38	522	510	133	13	421	471
Future Volume (veh/h)	282	1367	373	60	1171	38	522	510	133	13	421	471
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	1885	1885	1900	1885	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	297	1439	393	63	1233	40	549	537	140	14	443	496
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	1	2	2	2	1	2	2	2
Cap, veh/h	340	1493	405	80	1621	53	575	1123	292	26	891	397
Arrive On Green	0.10	0.37	0.37	0.04	0.32	0.32	0.28	0.67	0.67	0.01	0.25	0.25
Sat Flow, veh/h	3456	4026	1093	1810	5120	166	3456	2792	725	1781	3554	1585
Grp Volume(v), veh/h	297	1225	607	63	826	447	549	341	336	14	443	496
Grp Sat Flow(s),veh/h/ln	1728	1716	1688	1810	1716	1855	1728	1777	1740	1781	1777	1585
Q Serve(g_s), s	13.6	55.9	56.5	5.5	34.7	34.7	25.0	14.8	15.0	1.2	17.1	40.1
Cycle Q Clear(g_c), s	13.6	55.9	56.5	5.5	34.7	34.7	25.0	14.8	15.0	1.2	17.1	40.1
Prop In Lane	1.00		0.65	1.00		0.09	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	340	1272	626	80	1086	587	575	715	700	26	891	397
V/C Ratio(X)	0.87	0.96	0.97	0.79	0.76	0.76	0.96	0.48	0.48	0.54	0.50	1.25
Avail Cap(c_a), veh/h	393	1272	626	149	1086	587	575	715	700	163	891	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	0.32	0.32	0.32	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.1	49.3	49.5	75.7	49.2	49.2	57.2	18.1	18.1	78.3	51.3	60.0
Incr Delay (d2), s/veh	13.9	16.1	26.7	6.2	5.0	9.0	12.3	0.1	0.1	6.4	0.2	131.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	26.1	27.8	2.7	15.4	17.3	10.9	4.9	4.8	0.6	7.6	30.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.0	65.4	76.2	81.9	54.3	58.2	69.5	18.2	18.2	84.7	51.5	191.2
LnGrp LOS	F	E	E	F	D	E	E	B	B	F	D	F
Approach Vol, veh/h	2129		1336				1226		953			
Approach Delay, s/veh	71.2		56.9				41.2		124.7			
Approach LOS	E		E				D		F			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.6	57.4	8.7	71.3	13.9	66.1	33.0	47.0				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	48.2	14.6	52.1	13.2	53.2	26.6	40.1				
Max Q Clear Time (g_c+I1), s	15.6	36.7	3.2	17.0	7.5	58.5	27.0	42.1				
Green Ext Time (p_c), s	0.2	2.7	0.0	1.4	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			70.3									
HCM 6th LOS			E									

Timings
9: NW 2nd Ave & Jeffery St

No Build 2045 PM
09/28/2022

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	511	5	724	13	5	536	601	1	342	204
Future Volume (vph)	511	5	724	13	5	536	601	1	342	204
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4	5		8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	5	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	12.0	12.0	5.0	12.0	12.0	5.0	18.0	18.0	18.0	18.0
Minimum Split (s)	30.5	30.5	25.0	30.5	30.5	25.0	30.0	39.0	39.0	39.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	105.0	75.0	75.0	75.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	77.8%	55.6%	55.6%	55.6%
Yellow Time (s)	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	3.0	2.5	2.5	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0		6.5	7.0	7.0	7.0	7.0	7.0
Lead/Lag			Lead			Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	23.6	23.6	53.2		23.6	53.0	53.0	22.9	22.9	22.9
Actuated g/C Ratio	0.26	0.26	0.59		0.26	0.59	0.59	0.25	0.25	0.25
v/c Ratio	1.47	0.01	0.68		0.05	0.92	0.58	0.00	0.75	0.38
Control Delay	254.4	27.2	8.9		26.5	40.1	14.0	24.0	41.6	5.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	254.4	27.2	8.9		26.5	40.1	14.0	24.0	41.6	5.8
LOS	F	C	A		C	D	B	C	D	A
Approach Delay		110.1			26.5		26.1		28.2	
Approach LOS		F			C		C		C	

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 90.1

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.47

Intersection Signal Delay: 61.7

Intersection LOS: E

Intersection Capacity Utilization 99.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 9: NW 2nd Ave & Jeffery St



Queues
9: NW 2nd Ave & Jeffery St

No Build 2045 PM
09/28/2022



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	532	5	754	20	558	642	1	356	213
v/c Ratio	1.47	0.01	0.68	0.05	0.92	0.58	0.00	0.75	0.38
Control Delay	254.4	27.2	8.9	26.5	40.1	14.0	24.0	41.6	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	254.4	27.2	8.9	26.5	40.1	14.0	24.0	41.6	5.8
Queue Length 50th (ft)	~412	2	90	8	206	210	0	187	0
Queue Length 95th (ft)	#675	12	270	29	#429	304	4	283	50
Internal Link Dist (ft)		296		163		1963		2746	
Turn Bay Length (ft)	100		270		135		170		200
Base Capacity (vph)	362	487	1114	426	604	1872	600	1410	1249
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.47	0.01	0.68	0.05	0.92	0.34	0.00	0.25	0.17






















Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
9: NW 2nd Ave & Jeffery St

No Build 2045 PM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	511	5	724	13	5	1	536	601	15	1	342	204
Future Volume (veh/h)	511	5	724	13	5	1	536	601	15	1	342	204
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		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	1900	1870	1900	1870	1885	1900	1900	1870	1870
Adj Flow Rate, veh/h	532	5	754	14	5	1	558	626	16	1	356	212
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	0	2	0	2	1	0	0	2	2
Cap, veh/h	463	501	817	226	73	12	599	1057	27	281	469	394
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.25	0.58	0.58	0.25	0.25	0.25
Sat Flow, veh/h	1410	1870	1585	583	273	45	1781	1830	47	795	1870	1572
Grp Volume(v), veh/h	532	5	754	20	0	0	558	0	642	1	356	212
Grp Sat Flow(s),veh/h/ln	1410	1870	1585	901	0	0	1781	0	1876	795	1870	1572
Q Serve(g_s), s	22.8	0.2	23.5	0.0	0.0	0.0	19.2	0.0	19.2	0.1	15.4	10.2
Cycle Q Clear(g_c), s	23.5	0.2	23.5	0.7	0.0	0.0	19.2	0.0	19.2	0.1	15.4	10.2
Prop In Lane	1.00		1.00	0.70		0.05	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	463	501	817	311	0	0	599	0	1084	281	469	394
V/C Ratio(X)	1.15	0.01	0.92	0.06	0.00	0.00	0.93	0.00	0.59	0.00	0.76	0.54
Avail Cap(c_a), veh/h	463	501	817	311	0	0	626	0	2098	699	1451	1219
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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	23.5	19.6	23.7	0.0	0.0	17.5	0.0	11.9	24.6	30.4	28.5
Incr Delay (d2), s/veh	89.4	0.0	15.9	0.1	0.0	0.0	20.4	0.0	0.5	0.0	2.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	0.1	16.1	0.3	0.0	0.0	10.5	0.0	7.4	0.0	7.1	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.5	23.5	35.5	23.8	0.0	0.0	37.9	0.0	12.4	24.7	33.0	29.6
LnGrp LOS	F	C	D	C	A	A	D	A	B	C	C	C
Approach Vol, veh/h	1291			20			1200			569		
Approach Delay, s/veh	71.7			23.8			24.3			31.7		
Approach LOS	E			C			C			C		
Timer - Assigned Phs	2			4		5	6	8				
Phs Duration (G+Y+Rc), s	57.6			30.0		28.7	29.0	30.0				
Change Period (Y+Rc), s	7.0			6.5		7.0	7.0	6.5				
Max Green Setting (Gmax), s	98.0			23.5		23.0	68.0	23.5				
Max Q Clear Time (g_c+I1), s	21.2			25.5		21.2	17.4	2.7				
Green Ext Time (p_c), s	3.2			0.0		0.5	2.6	0.1				

Intersection Summary

HCM 6th Ctrl Delay 45.5

























HCM 6th LOS D

Notes

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

Timings
10: Congress Ave & Clint Moore Rd

No Build 2045 PM
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1127	686	347	75	589	537	375	1542	31	306	702	895
Future Volume (vph)	1127	686	347	75	589	537	375	1542	31	306	702	895
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	22.5	50.8	50.8
Total Split (s)	55.0	72.0	72.0	20.0	37.0	37.0	32.0	60.0	60.0	28.0	56.0	56.0
Total Split (%)	30.6%	40.0%	40.0%	11.1%	20.6%	20.6%	17.8%	33.3%	33.3%	15.6%	31.1%	31.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	47.2	67.7	67.7	8.7	29.2	29.2	23.5	52.8	52.8	19.6	48.9	48.9
Actuated g/C Ratio	0.26	0.38	0.38	0.05	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
v/c Ratio	1.39	0.39	0.48	0.49	1.13	1.39	0.92	1.14	0.06	0.90	0.55	1.25
Control Delay	228.7	42.1	9.5	93.3	142.5	221.1	103.0	125.4	0.2	105.5	58.1	146.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	228.7	42.1	9.5	93.3	142.5	221.1	103.0	125.4	0.2	105.5	58.1	146.5
LOS	F	D	A	F	F	F	F	F	A	F	E	F
Approach Delay		134.2			174.6			119.1			107.3	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 88 (49%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.39

Intersection Signal Delay: 129.8

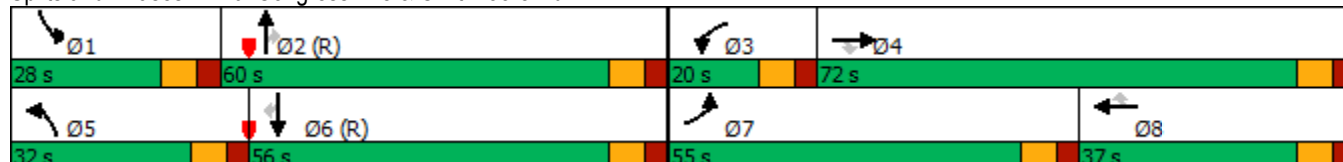
Intersection LOS: F

Intersection Capacity Utilization 120.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd















Queues

No Build 2045 PM

10: Congress Ave & Clint Moore Rd

09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1238	754	381	82	647	590	412	1695	34	336	771	984
v/c Ratio	1.39	0.39	0.48	0.49	1.13	1.39	0.92	1.14	0.06	0.90	0.55	1.25
Control Delay	228.7	42.1	9.5	93.3	142.5	221.1	103.0	125.4	0.2	105.5	58.1	146.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	228.7	42.1	9.5	93.3	142.5	221.1	103.0	125.4	0.2	105.5	58.1	146.5
Queue Length 50th (ft)	~998	239	47	50	~463	~713	251	~857	0	205	290	~1003
Queue Length 95th (ft)	#1136	286	145	81	#596	#965	#345	#950	0	#291	338	#1275
Internal Link Dist (ft)		2199			619			1029			883	
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	891	1911	800	232	574	425	461	1492	578	385	1394	790
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.39	0.39	0.48	0.35	1.13	1.39	0.89	1.14	0.06	0.87	0.55	1.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary























10: Congress Ave & Clint Moore Rd

No Build 2045 PM
09/28/2022

																
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Traffic Volume (veh/h)	1127	686	347	75	589	537	375	1542	31	306	702	895				
Future Volume (veh/h)	1127	686	347	75	589	537	375	1542	31	306	702	895				
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	1870	1885	1870	1870	1870	1870	1870	1870	1870	1885	1885				
Adj Flow Rate, veh/h	1238	754	381	82	647	590	412	1695	34	336	771	984				
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91				
Percent Heavy Veh, %	3	2	1	2	2	2	2	2	2	2	1	1				
Cap, veh/h	899	1972	617	132	576	257	448	1504	466	372	1403	435				
Arrive On Green	0.26	0.39	0.39	0.04	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27				
Sat Flow, veh/h	3428	5106	1596	3456	3554	1582	3456	5106	1582	3456	5147	1594				
Grp Volume(v), veh/h	1238	754	381	82	647	590	412	1695	34	336	771	984				
Grp Sat Flow(s),veh/h/ln	1714	1702	1596	1728	1777	1582	1728	1702	1582	1728	1716	1594				
Q Serve(g_s), s	47.2	19.1	34.6	4.2	29.2	29.2	21.2	53.0	2.8	17.3	23.1	49.1				
Cycle Q Clear(g_c), s	47.2	19.1	34.6	4.2	29.2	29.2	21.2	53.0	2.8	17.3	23.1	49.1				
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	899	1972	617	132	576	257	448	1504	466	372	1403	435				
V/C Ratio(X)	1.38	0.38	0.62	0.62	1.12	2.30	0.92	1.13	0.07	0.90	0.55	2.26				
Avail Cap(c_a), veh/h	899	1972	617	234	576	257	465	1504	466	388	1403	435				
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	66.4	39.8	44.5	85.3	75.4	75.4	77.4	63.5	45.8	79.4	56.0	65.5				
Incr Delay (d2), s/veh	176.7	0.0	1.4	1.8	75.8	596.6	22.5	66.3	0.3	22.4	1.6	576.3				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	42.5	8.1	13.9	1.9	19.3	54.3	10.7	31.8	1.1	8.8	10.1	89.3				
Unsig. Movement Delay, s/veh																
LnGrp Delay(d),s/veh	243.1	39.8	45.9	87.0	151.2	672.0	99.9	129.8	46.1	101.8	57.6	641.8				
LnGrp LOS	F	D	D	F	F	F	F	F	D	F	E	F				
Approach Vol, veh/h	2373			1319			2141			2091						
Approach Delay, s/veh	146.9			380.2			122.7			339.6						
Approach LOS	F			F			F			F						
Timer - Assigned Phs	1	2	3	4	5	6	7	8								
Phs Duration (G+Y+Rc), s	27.2	60.8	14.7	77.3	31.1	56.9	55.0	37.0								
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8								
Max Green Setting (Gmax), s	20.2	52.2	12.2	64.2	24.2	48.2	47.2	29.2								
Max Q Clear Time (g_c+I1), s	19.3	55.0	6.2	36.6	23.2	51.1	49.2	31.2								
Green Ext Time (p_c), s	0.1	0.0	0.1	3.2	0.1	0.0	0.0	0.0								
Intersection Summary																
HCM 6th Ctrl Delay	230.0															
HCM 6th LOS	F															
Notes																
User approved pedestrian interval to be less than phase max green.																

Timings
11: N Federal Hwy & Jeffery St

No Build 2045 PM
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	15	16	145	19	51	68	1765	141	68	1338	19
Future Volume (vph)	15	16	145	19	51	68	1765	141	68	1338	19
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	11.8	38.8	38.8	11.8	28.8	28.8
Total Split (s)	40.0	40.0	40.0	40.0	40.0	30.0	80.0	80.0	30.0	80.0	80.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	20.0%	53.3%	53.3%	20.0%	53.3%	53.3%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	32.1	32.1	32.1	32.1	32.1	96.4	73.2	73.2	96.4	73.2	73.2
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.64	0.49	0.49	0.64	0.49	0.49
v/c Ratio	0.05	0.07	0.54	0.05	0.14	0.23	1.11	0.19	0.23	0.84	0.03
Control Delay	47.7	34.6	60.2	47.5	5.1	15.0	95.7	10.3	15.0	39.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	34.6	60.2	47.5	5.1	15.0	95.7	10.3	15.0	39.0	0.1
LOS	D	C	E	D	A	B	F	B	B	D	A
Approach Delay		39.4		46.0			86.8			37.4	
Approach LOS		D		D			F			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 5 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 64.6

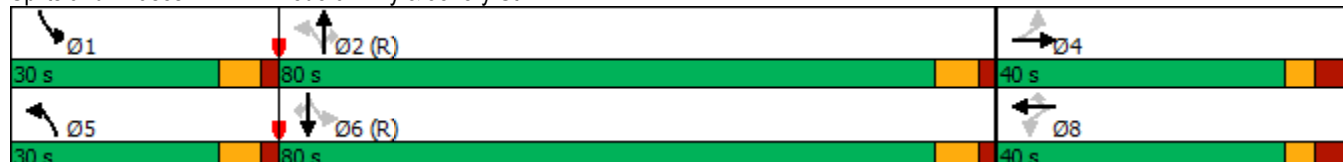
Intersection LOS: E

Intersection Capacity Utilization 87.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues
11: N Federal Hwy & Jeffery St

No Build 2045 PM

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	28	159	21	56	75	1940	155	75	1470	21
v/c Ratio	0.05	0.07	0.54	0.05	0.14	0.23	1.11	0.19	0.23	0.84	0.03
Control Delay	47.7	34.6	60.2	47.5	5.1	15.0	95.7	10.3	15.0	39.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	34.6	60.2	47.5	5.1	15.0	95.7	10.3	15.0	39.0	0.1
Queue Length 50th (ft)	13	14	140	17	0	22	~1140	36	22	646	0
Queue Length 95th (ft)	34	43	220	42	21	61	#1274	79	61	751	0
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		220		230	225		170	250		145
Base Capacity (vph)	302	392	294	406	406	329	1744	816	329	1744	813
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.54	0.05	0.14	0.23	1.11	0.19	0.23	0.84	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
























Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 11: N Federal Hwy & Jeffery St

No Build 2045 PM
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	16	9	145	19	51	68	1765	141	68	1338	19
Future Volume (veh/h)	15	16	9	145	19	51	68	1765	141	68	1338	19
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	1900	1900	1900	1870	1900	1900	1900	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	16	18	10	159	21	56	75	1940	155	75	1470	21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	2	0	0	0	1	2	0	1	0
Cap, veh/h	324	246	136	326	407	345	375	1748	773	328	1748	785
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.15	0.49	0.49	0.15	0.49	0.49
Sat Flow, veh/h	1343	1148	638	1382	1900	1610	1810	3582	1583	1810	3582	1609
Grp Volume(v), veh/h	16	0	28	159	21	56	75	1940	155	75	1470	21
Grp Sat Flow(s),veh/h/ln	1343	0	1785	1382	1900	1610	1810	1791	1583	1810	1791	1609
Q Serve(g_s), s	1.4	0.0	1.9	15.6	1.3	4.2	2.3	73.2	8.3	2.3	53.5	1.0
Cycle Q Clear(g_c), s	2.8	0.0	1.9	17.4	1.3	4.2	2.3	73.2	8.3	2.3	53.5	1.0
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	0	382	326	407	345	375	1748	773	328	1748	785
V/C Ratio(X)	0.05	0.00	0.07	0.49	0.05	0.16	0.20	1.11	0.20	0.23	0.84	0.03
Avail Cap(c_a), veh/h	324	0	382	326	407	345	375	1748	773	328	1748	785
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	0.00	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	47.9	0.0	47.1	54.0	46.9	48.0	22.0	38.4	21.8	27.9	33.3	19.9
Incr Delay (d2), s/veh	0.3	0.0	0.4	5.1	0.2	1.0	1.2	58.3	0.6	1.6	5.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.9	6.0	0.7	1.8	1.2	44.5	3.2	1.4	23.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	0.0	47.4	59.2	47.1	49.0	23.2	96.7	22.4	29.5	38.4	20.0
LnGrp LOS	D	A	D	E	D	D	C	F	C	C	D	B
Approach Vol, veh/h	44				236				2170			
Approach Delay, s/veh	47.7				55.7				88.8			
Approach LOS	D				E				F			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	80.0		40.0	30.0	80.0		40.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	23.2	73.2		32.1	23.2	73.2		32.1				
Max Q Clear Time (g_c+I1), s	4.3	75.2		4.8	4.3	55.5		19.4				
Green Ext Time (p_c), s	0.1	0.0		0.1	0.1	4.3		0.4				

Intersection Summary





















HCM 6th Ctrl Delay 66.5
HCM 6th LOS E

Notes

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

Timings
12: N Dixie Hwy & Hidden Valley Blvd

No Build 2045 PM
09/28/2022

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	151	174	84	250	58	576	135	118	440	204
Future Volume (vph)	151	174	84	250	58	576	135	118	440	204
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases			8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	13.2	34.2	13.2	26.2	13.8	38.4	38.4	13.8	26.8	26.8
Total Split (s)	15.0	30.0	15.0	30.0	15.0	60.0	60.0	15.0	60.0	60.0
Total Split (%)	12.5%	25.0%	12.5%	25.0%	12.5%	50.0%	50.0%	12.5%	50.0%	50.0%
Yellow Time (s)	3.7	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	7.4	7.4	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.0	19.6	22.2	15.8	44.1	37.9	37.9	47.6	41.9	41.9
Actuated g/C Ratio	0.07	0.20	0.22	0.16	0.44	0.38	0.38	0.48	0.42	0.42
v/c Ratio	1.37	0.31	0.31	0.73	0.18	0.90	0.21	0.59	0.62	0.29
Control Delay	245.8	37.8	31.6	39.7	13.1	46.3	1.9	24.6	27.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	245.8	37.8	31.6	39.7	13.1	46.3	1.9	24.6	27.9	3.6
LOS	F	D	C	D	B	D	A	C	C	A
Approach Delay		128.6		38.3		36.0			20.9	
Approach LOS		F		D		D			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 99.6

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.37

Intersection Signal Delay: 45.2

Intersection LOS: D

Intersection Capacity Utilization 83.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd

			
15 s	60 s	15 s	30 s
			
15 s	60 s	15 s	30 s

Queues
12: N Dixie Hwy & Hidden Valley Blvd

No Build 2045 PM
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	168	217	93	449	64	640	150	131	489	227
v/c Ratio	1.37	0.31	0.31	0.73	0.18	0.90	0.21	0.59	0.62	0.29
Control Delay	245.8	37.8	31.6	39.7	13.1	46.3	1.9	24.6	27.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	245.8	37.8	31.6	39.7	13.1	46.3	1.9	24.6	27.9	3.6
Queue Length 50th (ft)	~142	62	43	113	18	370	0	39	245	0
Queue Length 95th (ft)	#333	112	96	192	42	574	20	80	395	46
Internal Link Dist (ft)		221		597		5728			435	
Turn Bay Length (ft)	290		140		295		295	290		270
Base Capacity (vph)	123	838	304	836	376	1005	959	232	1005	951
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.37	0.26	0.31	0.54	0.17	0.64	0.16	0.56	0.49	0.24

Intersection Summary























- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

12: N Dixie Hwy & Hidden Valley Blvd

No Build 2045 PM

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	174	22	84	250	154	58	576	135	118	440	204
Future Volume (veh/h)	151	174	22	84	250	154	58	576	135	118	440	204
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		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	1885	1900	1870	1900	1900	1900	1870	1900	1885	1870	1856
Adj Flow Rate, veh/h	168	193	24	93	278	171	64	640	150	131	489	227
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	1	0	2	0	0	0	2	0	1	2	3
Cap, veh/h	130	552	68	320	342	204	286	690	594	221	729	613
Arrive On Green	0.07	0.17	0.17	0.06	0.16	0.16	0.04	0.37	0.37	0.06	0.39	0.39
Sat Flow, veh/h	1781	3209	394	1781	2169	1293	1810	1870	1610	1795	1870	1572
Grp Volume(v), veh/h	168	107	110	93	230	219	64	640	150	131	489	227
Grp Sat Flow(s),veh/h/ln	1781	1791	1812	1781	1805	1657	1810	1870	1610	1795	1870	1572
Q Serve(g_s), s	6.8	4.9	5.0	4.0	11.4	11.9	2.0	30.5	6.0	4.1	20.1	9.6
Cycle Q Clear(g_c), s	6.8	4.9	5.0	4.0	11.4	11.9	2.0	30.5	6.0	4.1	20.1	9.6
Prop In Lane	1.00		0.22	1.00		0.78	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	308	312	320	285	261	286	690	594	221	729	613
V/C Ratio(X)	1.29	0.35	0.35	0.29	0.81	0.84	0.22	0.93	0.25	0.59	0.67	0.37
Avail Cap(c_a), veh/h	130	420	425	345	424	389	355	1059	912	253	1059	891
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	43.0	33.8	33.9	30.1	37.7	38.0	18.6	28.1	20.4	22.0	23.4	20.2
Incr Delay (d2), s/veh	175.2	0.2	0.3	0.2	4.0	6.4	0.1	7.4	0.1	1.4	0.4	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	9.3	2.1	2.2	1.7	5.3	5.2	0.8	14.0	2.2	1.7	8.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	218.3	34.1	34.1	30.3	41.7	44.4	18.7	35.5	20.5	23.4	23.8	20.4
LnGrp LOS	F	C	C	C	D	D	B	D	C	C	C	C
Approach Vol, veh/h	385				542				854			
Approach Delay, s/veh	114.5				40.9				31.6			
Approach LOS	F				D				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	41.7	13.7	24.2	11.4	43.6	15.0	22.8				
Change Period (Y+Rc), s	7.4	7.4	* 8.2	* 8.2	7.4	7.4	* 8.2	* 8.2				
Max Green Setting (Gmax), s	7.6	52.6	* 6.8	* 22	7.6	52.6	* 6.8	* 22				
Max Q Clear Time (g_c+I1), s	6.1	32.5	6.0	7.0	4.0	22.1	8.8	13.9				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.4	0.0	1.6	0.0	0.7				

Intersection Summary





HCM 6th Ctrl Delay 42.8

HCM 6th LOS D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	19	786	32	4	627
Future Vol, veh/h	41	19	786	32	4	627
Conflicting Peds, #/hr	0	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	48	22	914	37	5	729

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1676	937	0	0	955
Stage 1	937	-	-	-	-
Stage 2	739	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	106	324	-	-	728
Stage 1	384	-	-	-	-
Stage 2	476	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	105	323	-	-	725
Mov Cap-2 Maneuver	105	-	-	-	-
Stage 1	382	-	-	-	-
Stage 2	473	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	57.9	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	134	725
HCM Lane V/C Ratio	-	-	0.521	0.006
HCM Control Delay (s)	-	-	57.9	10
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	2.5	0

Intersection				
Intersection Delay, s/veh	6.0			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	42	12	543	401
Demand Flow Rate, veh/h	42	12	548	408
Vehicles Circulating, veh/h	395	555	15	48
Vehicles Exiting, veh/h	61	8	422	519
Ped Vol Crossing Leg, #/h	1	5	0	1
Ped Cap Adj	1.000	0.999	1.000	1.000
Approach Delay, s/veh	4.3	4.7	6.5	5.6
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	42	12	548	408
Cap Entry Lane, veh/h	922	783	1359	1314
Entry HV Adj Factor	1.000	1.000	0.991	0.982
Flow Entry, veh/h	42	12	543	401
Cap Entry, veh/h	922	783	1346	1290
V/C Ratio	0.046	0.015	0.403	0.311
Control Delay, s/veh	4.3	4.7	6.5	5.6
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	1

Intersection						
Intersection Delay, s/veh	4.9					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	486	361	183		
Demand Flow Rate, veh/h	0	492	367	188		
Vehicles Circulating, veh/h	514	75	135	326		
Vehicles Exiting, veh/h	0	135	379	75		
Ped Vol Crossing Leg, #/h	2	1	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	4.7	4.9	5.6		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	166	4.976	292	4.976
Entry Flow, veh/h	0	326	1278	75	1202	188
Cap Entry Lane, veh/h	817	1278	0.980	1202	0.990	990
Entry HV Adj Factor	1.000	0.991	163	0.962	289	0.976
Flow Entry, veh/h	0	323	1253	72	1190	183
Cap Entry, veh/h	817	1266	0.130	1156	0.243	966
V/C Ratio	0.000	0.255	4.0	0.062	5.2	0.190
Control Delay, s/veh	4.4	5.1	A	3.6	A	5.6
LOS	A	A	0	A	1	A
95th %tile Queue, veh	0	1		0		1



APPENDIX J: PROPOSED TRAFFIC LAYOUT




REVISIONS	
DATE	DESCRIPTION

REVISIONS	
DATE	DESCRIPTION



**2035 Vista Parkway
West Palm Beach, FL 33411
Certificate of Authorization 6091**

 CITY OF BOCA RATON		
ROAD NO.	COUNTY	PURCHASE ORDER NO.
JEFFERY ST	PALM BEACH	CBR2200494

JEFFERY STREET
BUILD OPTION



















SHEET NO.
B0-01



APPENDIX K:
2045 BUILD SYNCHRO REPORTS (1:1 CLOSURE)

Timings
1: NW 2nd Ave & NW 20th St

2045 AM Build W Mitigation 1-1
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	92	209	172	209	80	558	160	204	666
Future Volume (vph)	92	209	172	209	80	558	160	204	666
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	12.0	34.0	18.0	40.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	10.0%	28.3%	15.0%	33.3%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	19.6	14.6	30.9	20.3	61.9	55.7	55.7	72.5	62.9
Actuated g/C Ratio	0.16	0.12	0.26	0.17	0.52	0.46	0.46	0.60	0.52
v/c Ratio	0.61	0.73	0.80	0.65	0.24	0.37	0.21	0.44	0.44
Control Delay	52.7	46.1	61.3	27.2	12.6	22.6	4.0	13.8	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	46.1	61.3	27.2	12.6	22.6	4.0	13.8	19.7
LOS	D	D	E	C	B	C	A	B	B
Approach Delay		47.6		36.8		17.9			18.4
Approach LOS		D		D		B			B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 26.8

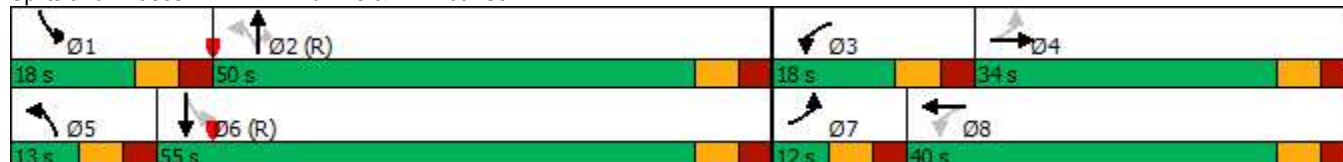
Intersection LOS: C

Intersection Capacity Utilization 81.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues

2045 AM Build W Mitigation 1-1

09/28/2022

1: NW 2nd Ave & NW 20th St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	353	183	466	85	594	170	217	790
v/c Ratio	0.61	0.73	0.80	0.65	0.24	0.37	0.21	0.44	0.44
Control Delay	52.7	46.1	61.3	27.2	12.6	22.6	4.0	13.8	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	46.1	61.3	27.2	12.6	22.6	4.0	13.8	19.7
Queue Length 50th (ft)	59	104	117	89	25	151	0	69	195
Queue Length 95th (ft)	99	150	#196	140	52	228	44	120	281
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	161	820	234	1027	365	1627	816	502	1794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.43	0.78	0.45	0.23	0.37	0.21	0.43	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

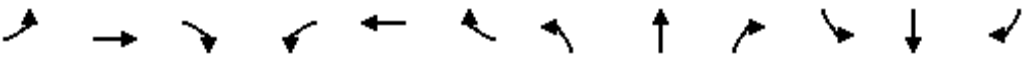









Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2045 AM Build W Mitigation 1-1

1: NW 2nd Ave & NW 20th St























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	209	123	172	209	229	80	558	160	204	666	76
Future Volume (vph)	92	209	123	172	209	229	80	558	160	204	666	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.94		1.00	0.92		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1784	3330		1719	3133		1718	3505	1562	1769	3408	
Flt Permitted	0.38	1.00		0.25	1.00		0.32	1.00	1.00	0.34	1.00	
Satd. Flow (perm)	721	3330		456	3133		583	3505	1562	637	3408	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	98	222	131	183	222	244	85	594	170	217	709	81
RTOR Reduction (vph)	0	81	0	0	190	0	0	0	91	0	6	0
Lane Group Flow (vph)	98	272	0	183	276	0	85	594	79	217	784	0
Confl. Peds. (#/hr)	8		1	1		8	5		1	1		5
Heavy Vehicles (%)	1%	3%	0%	5%	5%	5%	5%	3%	2%	2%	4%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	19.6	14.6		31.0	20.3		60.9	55.7	55.7	72.5	61.5	
Effective Green, g (s)	19.6	14.6		31.0	20.3		60.9	55.7	55.7	72.5	61.5	
Actuated g/C Ratio	0.16	0.12		0.26	0.17		0.51	0.46	0.46	0.60	0.51	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.0	2.0	2.0	1.8	2.0	
Lane Grp Cap (vph)	162	405		230	529		345	1626	725	488	1746	
v/s Ratio Prot	0.03	0.08		c0.07	c0.09		0.01	0.17		c0.04	c0.23	
v/s Ratio Perm	0.07			c0.13			0.11		0.05	0.23		
v/c Ratio	0.60	0.67		0.80	0.52		0.25	0.37	0.11	0.44	0.45	
Uniform Delay, d1	44.9	50.4		37.5	45.4		15.4	20.7	18.1	11.6	18.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.3	3.4		16.1	0.4		0.1	0.6	0.3	0.2	0.8	
Delay (s)	49.3	53.8		53.6	45.9		15.6	21.4	18.4	11.8	19.4	
Level of Service	D	D		D	D		B	C	B	B	B	
Approach Delay (s)		52.9			48.0			20.2			17.7	
Approach LOS		D			D			C			B	
Intersection Summary												
HCM 2000 Control Delay			30.5			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			28.0			
Intersection Capacity Utilization			81.0%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St



















2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	209	123	172	209	229	80	558	160	204	666	76
Future Volume (veh/h)	92	209	123	172	209	229	80	558	160	204	666	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	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	1885	1856	1900	1826	1826	1826	1826	1856	1870	1870	1841	1826
Adj Flow Rate, veh/h	98	222	131	183	222	244	85	594	170	217	709	81
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	3	0	5	5	5	5	3	2	2	4	5
Cap, veh/h	181	326	184	268	349	307	354	1555	697	438	1528	174
Arrive On Green	0.04	0.15	0.15	0.09	0.20	0.20	0.04	0.44	0.44	0.08	0.48	0.48
Sat Flow, veh/h	1795	2158	1218	1739	1735	1529	1739	3526	1580	1781	3162	361
Grp Volume(v), veh/h	98	180	173	183	222	244	85	594	170	217	392	398
Grp Sat Flow(s),veh/h/ln	1795	1763	1613	1739	1735	1529	1739	1763	1580	1781	1749	1774
Q Serve(g_s), s	5.0	11.6	12.3	10.6	14.1	18.2	3.2	13.6	8.1	7.9	17.9	17.9
Cycle Q Clear(g_c), s	5.0	11.6	12.3	10.6	14.1	18.2	3.2	13.6	8.1	7.9	17.9	17.9
Prop In Lane	1.00		0.76	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	181	266	244	268	349	307	354	1555	697	438	845	857
V/C Ratio(X)	0.54	0.67	0.71	0.68	0.64	0.79	0.24	0.38	0.24	0.50	0.46	0.46
Avail Cap(c_a), veh/h	181	397	363	268	477	420	370	1555	697	453	845	857
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	0.95	0.95	0.95
Uniform Delay (d), s/veh	43.2	48.1	48.5	38.5	43.9	45.6	17.7	22.5	21.0	16.6	20.7	20.7
Incr Delay (d2), s/veh	1.9	1.1	1.4	5.8	0.7	4.9	0.1	0.7	0.8	0.3	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.1	5.0	4.9	6.1	7.2	1.3	5.7	3.1	3.2	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	49.3	49.9	44.3	44.6	50.5	17.9	23.3	21.8	16.9	22.4	22.4
LnGrp LOS	D	D	D	D	D	D	B	C	C	B	C	C
Approach Vol, veh/h		451			649			849			1007	
Approach Delay, s/veh		48.6			46.7			22.4			21.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.9	18.0	25.1	11.9	65.0	12.0	31.1				
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	11.0	43.0	11.0	27.0	6.0	48.0	5.0	33.0				
Max Q Clear Time (g_c+I1), s	9.9	15.6	12.6	14.3	5.2	19.9	7.0	20.2				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.1	0.0	3.2	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			31.3									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
2: N Dixie Hwy & NW 20th St

2045 AM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	102	288	87	235	197	594	41	622	188
Future Volume (vph)	102	288	87	235	197	594	41	622	188
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	24.5	11.5	45.5	11.4	42.4	11.4	41.4	41.4
Total Split (s)	17.0	40.0	20.0	43.0	20.0	70.0	20.0	70.0	70.0
Total Split (%)	11.3%	26.7%	13.3%	28.7%	13.3%	46.7%	13.3%	46.7%	46.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	31.6	21.8	32.5	22.3	97.9	88.6	86.6	80.9	80.9
Actuated g/C Ratio	0.21	0.15	0.22	0.15	0.65	0.59	0.58	0.54	0.54
v/c Ratio	0.46	0.81	0.49	0.55	0.41	0.34	0.10	0.35	0.21
Control Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
LOS	D	E	D	E	B	B	B	B	A
Approach Delay		65.2		57.6		16.7		15.1	
Approach LOS		E		E		B		B	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 20 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 31.3

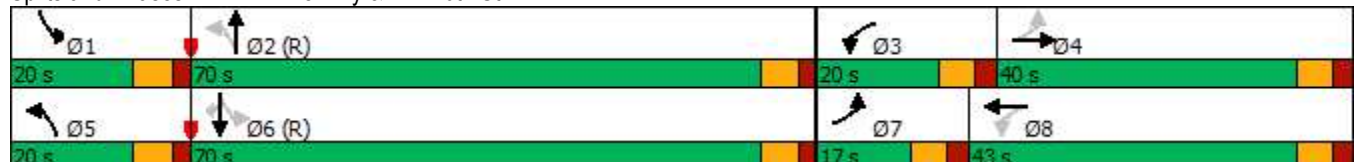
Intersection LOS: C

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St

2045 AM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	105	419	90	284	203	703	42	641	194
v/c Ratio	0.46	0.81	0.49	0.55	0.41	0.34	0.10	0.35	0.21
Control Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
Queue Length 50th (ft)	82	193	69	132	73	182	10	248	1
Queue Length 95th (ft)	126	245	109	170	129	265	m19	m320	m69
Internal Link Dist (ft)		417		733		683		6742	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	235	770	222	844	516	2044	530	1836	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.54	0.41	0.34	0.39	0.34	0.08	0.35	0.21

Intersection Summary






















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

HCM Signalized Intersection Capacity Analysis

2045 AM Build W Mitigation 1-1

2: N Dixie Hwy & NW 20th St






















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	288	118	87	235	41	197	594	88	41	622	188
Future Volume (vph)	102	288	118	87	235	41	197	594	88	41	622	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1683	3320		1752	3432		1770	3450		1770	3406	1583
Flt Permitted	0.46	1.00		0.24	1.00		0.33	1.00		0.37	1.00	1.00
Satd. Flow (perm)	809	3320		436	3432		622	3450		687	3406	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	105	297	122	90	242	42	203	612	91	42	641	194
RTOR Reduction (vph)	0	32	0	0	10	0	0	6	0	0	0	89
Lane Group Flow (vph)	105	387	0	90	274	0	203	697	0	42	641	105
Confl. Peds. (#/hr)	7					7						
Heavy Vehicles (%)	7%	4%	4%	3%	3%	0%	2%	3%	0%	2%	6%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	31.5	21.8		32.5	22.3		98.6	87.4		85.7	80.9	80.9
Effective Green, g (s)	31.5	21.8		32.5	22.3		98.6	87.4		85.7	80.9	80.9
Actuated g/C Ratio	0.21	0.15		0.22	0.15		0.66	0.58		0.57	0.54	0.54
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	226	482		183	510		495	2010		427	1836	853
v/s Ratio Prot	0.03	c0.12		c0.03	0.08		c0.03	0.20		0.00	0.19	
v/s Ratio Perm	0.07			0.07			c0.24			0.05		0.07
v/c Ratio	0.46	0.80		0.49	0.54		0.41	0.35		0.10	0.35	0.12
Uniform Delay, d1	50.0	62.0		49.0	59.1		11.1	16.4		14.2	19.6	17.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.98	0.87	0.75
Incremental Delay, d2	0.6	8.8		0.8	0.5		0.2	0.5		0.0	0.5	0.3
Delay (s)	50.6	70.8		49.8	59.6		11.3	16.8		13.9	17.6	13.0
Level of Service	D	E		D	E		B	B		B	B	B
Approach Delay (s)		66.8			57.3			15.6			16.4	
Approach LOS		E			E			B			B	
Intersection Summary												
HCM 2000 Control Delay			31.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			25.8			
Intersection Capacity Utilization			69.9%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
2: N Dixie Hwy & NW 20th St

2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	288	118	87	235	41	197	594	88	41	622	188
Future Volume (veh/h)	102	288	118	87	235	41	197	594	88	41	622	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1841	1841	1856	1856	1900	1870	1856	1900	1870	1811	1870
Adj Flow Rate, veh/h	105	297	122	90	242	42	203	612	91	42	641	194
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	4	4	3	3	0	2	3	0	2	6	2
Cap, veh/h	220	351	141	168	408	70	465	1847	274	469	1947	897
Arrive On Green	0.06	0.14	0.14	0.06	0.14	0.14	0.06	0.60	0.60	0.03	0.57	0.57
Sat Flow, veh/h	1711	2425	972	1767	3004	513	1781	3079	457	1781	3441	1585
Grp Volume(v), veh/h	105	212	207	90	140	144	203	350	353	42	641	194
Grp Sat Flow(s),veh/h/ln	1711	1749	1649	1767	1763	1754	1781	1763	1773	1781	1721	1585
Q Serve(g_s), s	7.8	17.7	18.4	6.5	11.2	11.6	7.1	14.9	14.9	1.5	14.9	9.1
Cycle Q Clear(g_c), s	7.8	17.7	18.4	6.5	11.2	11.6	7.1	14.9	14.9	1.5	14.9	9.1
Prop In Lane	1.00		0.59	1.00		0.29	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	220	253	239	168	239	238	465	1058	1064	469	1947	897
V/C Ratio(X)	0.48	0.84	0.87	0.54	0.59	0.60	0.44	0.33	0.33	0.09	0.33	0.22
Avail Cap(c_a), veh/h	229	391	368	228	429	427	516	1058	1064	582	1947	897
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	51.6	62.4	62.7	52.7	60.9	61.0	12.6	15.0	15.0	13.0	17.4	16.1
Incr Delay (d2), s/veh	0.6	5.4	8.3	1.0	0.9	0.9	0.2	0.8	0.8	0.0	0.4	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	3.4	8.2	8.2	2.9	5.1	5.2	2.8	6.1	6.1	0.6	5.9	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	67.8	71.0	53.7	61.7	61.9	12.9	15.8	15.8	13.1	17.8	16.6
LnGrp LOS	D	E	E	D	E	E	B	B	B	B	B	B
Approach Vol, veh/h		524			374			906			877	
Approach Delay, s/veh		65.9			59.9			15.2			17.3	
Approach LOS		E			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	96.4	14.9	28.2	15.6	91.3	16.2	26.9				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	63.6	13.5	33.5	13.6	63.6	10.5	36.5				
Max Q Clear Time (g_c+I1), s	3.5	16.9	8.5	20.4	9.1	16.9	9.8	13.6				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.3	0.1	3.4	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

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

Timings
3: NW 2nd Ave & NW 28th St

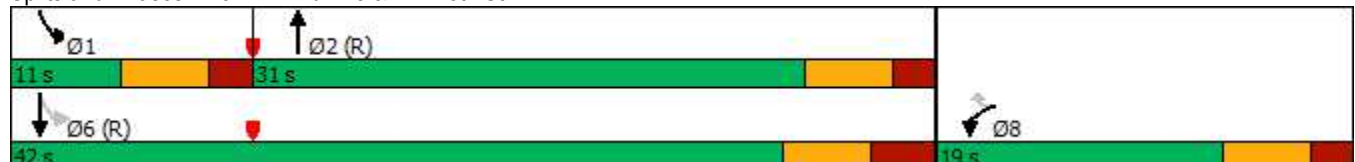
2045 AM Build W Mitigation 1-1
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↑↑	↘	↓↓
Traffic Volume (vph)	18	40	603	33	812
Future Volume (vph)	18	40	603	33	812
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	25.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.0	12.0	42.1	44.2	46.0
Actuated g/C Ratio	0.20	0.20	0.69	0.72	0.75
v/c Ratio	0.06	0.13	0.29	0.07	0.33
Control Delay	20.6	8.6	8.4	4.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	8.6	8.4	4.9	5.4
LOS	C	A	A	A	A
Approach Delay	12.3		8.4		5.4
Approach LOS	B		A		A

Intersection Summary

Cycle Length: 61
 Actuated Cycle Length: 61
 Offset: 55 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 6.9
 Intersection LOS: A
 Intersection Capacity Utilization 46.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St












2045 AM Build W Mitigation 1-1
09/28/2022

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	20	44	697	36	892
v/c Ratio	0.06	0.13	0.29	0.07	0.33
Control Delay	20.6	8.6	8.4	4.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	8.6	8.4	4.9	5.4
Queue Length 50th (ft)	6	0	56	5	83
Queue Length 95th (ft)	21	22	135	13	117
Internal Link Dist (ft)	443		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	356	368	2380	516	2668
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.29	0.07	0.33
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

3: NW 2nd Ave & NW 28th St












2045 AM Build W Mitigation 1-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	40	603	31	33	812
Future Volume (vph)	18	40	603	31	33	812
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	7.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1671	1568	3446		1736	3539
Flt Permitted	0.95	1.00	1.00		0.32	1.00
Satd. Flow (perm)	1671	1568	3446		579	3539
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	20	44	663	34	36	892
RTOR Reduction (vph)	0	39	4	0	0	0
Lane Group Flow (vph)	20	5	693	0	36	892
Heavy Vehicles (%)	8%	3%	4%	4%	4%	2%
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	7.2	7.2	33.7		40.8	40.8
Effective Green, g (s)	7.2	7.2	33.7		40.8	40.8
Actuated g/C Ratio	0.12	0.12	0.55		0.67	0.67
Clearance Time (s)	6.0	6.0	6.0		6.0	7.0
Vehicle Extension (s)	2.0	2.0	2.0		1.8	2.0
Lane Grp Cap (vph)	197	185	1903		427	2367
v/s Ratio Prot	c0.01		0.20		0.00	c0.25
v/s Ratio Perm		0.00			0.05	
v/c Ratio	0.10	0.03	0.36		0.08	0.38
Uniform Delay, d1	24.0	23.8	7.6		3.8	4.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	0.0	0.5		0.0	0.5
Delay (s)	24.1	23.8	8.2		3.9	4.9
Level of Service	C	C	A		A	A
Approach Delay (s)	23.9		8.2			4.9
Approach LOS	C		A			A
Intersection Summary						
HCM 2000 Control Delay			7.0		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.37			
Actuated Cycle Length (s)			61.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			46.8%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St



















2045 AM Build W Mitigation 1-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	18	40	603	31	33	812
Future Volume (veh/h)	18	40	603	31	33	812
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1781	1856	1841	1841	1841	1870
Adj Flow Rate, veh/h	20	44	663	34	36	892
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	8	3	4	4	4	2
Cap, veh/h	221	205	1763	90	481	2334
Arrive On Green	0.13	0.13	0.52	0.52	0.04	0.66
Sat Flow, veh/h	1697	1572	3477	173	1753	3647
Grp Volume(v), veh/h	20	44	342	355	36	892
Grp Sat Flow(s),veh/h/ln	1697	1572	1749	1809	1753	1777
Q Serve(g_s), s	0.6	1.5	7.1	7.1	0.5	7.0
Cycle Q Clear(g_c), s	0.6	1.5	7.1	7.1	0.5	7.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	221	205	911	943	481	2334
V/C Ratio(X)	0.09	0.21	0.38	0.38	0.07	0.38
Avail Cap(c_a), veh/h	362	335	911	943	559	2334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	0.66	0.66
Uniform Delay (d), s/veh	23.3	23.7	8.7	8.7	5.9	4.8
Incr Delay (d2), s/veh	0.1	0.2	1.1	1.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	2.4	2.5	0.1	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	23.9	9.8	9.8	5.9	5.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	64		697			928
Approach Delay, s/veh	23.8		9.8			5.1
Approach LOS	C		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	38.8			47.1	13.9
Change Period (Y+Rc), s	6.0	* 7			7.0	6.0
Max Green Setting (Gmax), s	5.0	* 25			35.0	13.0
Max Q Clear Time (g_c+I1), s	2.5	9.1			9.0	3.5
Green Ext Time (p_c), s	0.0	2.4			4.3	0.1
Intersection Summary						
HCM 6th Ctrl Delay			7.8			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Timings
5: NW 2nd Ave & Spanish River Blvd

2045 AM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	256	867	387	265	669	213	340	102	483
Future Volume (vph)	256	867	387	265	669	213	340	102	483
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	30.0	59.0	59.0	20.0	49.0	18.0	53.0	18.0	53.0
Total Split (%)	20.0%	39.3%	39.3%	13.3%	32.7%	12.0%	35.3%	12.0%	35.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	79.0	61.2	61.2	84.1	64.2	43.5	32.0	40.4	30.5
Actuated g/C Ratio	0.53	0.41	0.41	0.56	0.43	0.29	0.21	0.27	0.20
v/c Ratio	0.61	0.62	0.48	0.68	0.48	1.11	0.69	0.48	0.84
Control Delay	22.5	38.5	11.5	28.4	34.0	137.2	51.9	51.6	76.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	38.5	11.5	28.4	34.0	137.2	51.9	51.6	76.8
LOS	C	D	B	C	C	F	D	D	E
Approach Delay		28.9			32.5		76.7		73.1
Approach LOS		C			C		E		E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 39 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 46.5

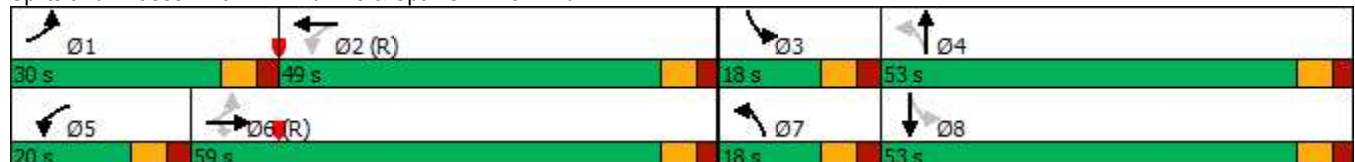
Intersection LOS: D

Intersection Capacity Utilization 88.9%

ICU Level of Service E

Analysis Period (min) 15

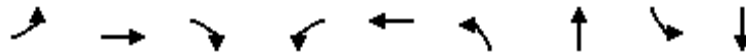
Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

2045 AM Build W Mitigation 1-1

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	259	876	391	268	733	215	524	103	598
v/c Ratio	0.61	0.62	0.48	0.68	0.48	1.11	0.69	0.48	0.84
Control Delay	22.5	38.5	11.5	28.4	34.0	137.2	51.9	51.6	76.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	38.5	11.5	28.4	34.0	137.2	51.9	51.6	76.8
Queue Length 50th (ft)	116	350	67	121	266	~181	222	90	309
Queue Length 95th (ft)	190	472	179	232	390	#330	272	m122	m356
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	501	1416	819	396	1512	193	1080	232	1079
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.62	0.48	0.68	0.48	1.11	0.49	0.44	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.


























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

HCM Signalized Intersection Capacity Analysis

5: NW 2nd Ave & Spanish River Blvd






















2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	256	867	387	265	669	56	213	340	179	102	483	109
Future Volume (vph)	256	867	387	265	669	56	213	340	179	102	483	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.95		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1769	3471	1599	1787	3526		1736	3340		1769	3442	
Flt Permitted	0.29	1.00	1.00	0.19	1.00		0.16	1.00		0.26	1.00	
Satd. Flow (perm)	537	3471	1599	353	3526		284	3340		479	3442	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	259	876	391	268	676	57	215	343	181	103	488	110
RTOR Reduction (vph)	0	0	167	0	3	0	0	52	0	0	15	0
Lane Group Flow (vph)	259	876	224	268	730	0	215	472	0	103	583	0
Confl. Peds. (#/hr)	2					2			1	1		
Heavy Vehicles (%)	2%	4%	1%	1%	1%	2%	4%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	79.0	61.2	61.2	85.0	64.2		43.5	32.0		40.5	30.5	
Effective Green, g (s)	79.0	61.2	61.2	85.0	64.2		43.5	32.0		40.5	30.5	
Actuated g/C Ratio	0.53	0.41	0.41	0.57	0.43		0.29	0.21		0.27	0.20	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0		1.8	2.0		1.8	2.0	
Lane Grp Cap (vph)	429	1416	652	398	1509		193	712		215	699	
v/s Ratio Prot	0.07	0.25		c0.09	0.21		c0.09	0.14		0.03	0.17	
v/s Ratio Perm	0.25		0.14	c0.29			c0.24			0.10		
v/c Ratio	0.60	0.62	0.34	0.67	0.48		1.11	0.66		0.48	0.83	
Uniform Delay, d1	20.7	35.2	30.6	20.9	30.9		47.1	54.1		43.1	57.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.31	1.26	
Incremental Delay, d2	1.6	2.0	1.4	3.5	1.1		98.7	1.8		0.4	5.4	
Delay (s)	22.4	37.2	32.0	24.4	32.1		145.8	55.9		56.9	77.5	
Level of Service	C	D	C	C	C		F	E		E	E	
Approach Delay (s)		33.3			30.0			82.0			74.4	
Approach LOS		C			C			F			E	
Intersection Summary												
HCM 2000 Control Delay			48.8			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)				26.0		
Intersection Capacity Utilization			88.9%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
5: NW 2nd Ave & Spanish River Blvd



















2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	867	387	265	669	56	213	340	179	102	483	109
Future Volume (veh/h)	256	867	387	265	669	56	213	340	179	102	483	109
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	1841	1885	1885	1885	1870	1841	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	259	876	391	268	676	57	215	343	181	103	488	110
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	4	1	1	1	2	4	2	2	2	2	2
Cap, veh/h	448	1628	743	336	1552	131	206	481	249	213	561	126
Arrive On Green	0.09	0.47	0.47	0.09	0.46	0.46	0.08	0.21	0.21	0.06	0.19	0.19
Sat Flow, veh/h	1781	3497	1596	1795	3343	282	1753	2263	1171	1781	2883	646
Grp Volume(v), veh/h	259	876	391	268	362	371	215	268	256	103	300	298
Grp Sat Flow(s),veh/h/ln	1781	1749	1596	1795	1791	1834	1753	1777	1658	1781	1777	1753
Q Serve(g_s), s	11.3	26.8	26.0	11.7	20.3	20.4	11.5	21.0	21.6	6.9	24.5	24.8
Cycle Q Clear(g_c), s	11.3	26.8	26.0	11.7	20.3	20.4	11.5	21.0	21.6	6.9	24.5	24.8
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.71	1.00		0.37
Lane Grp Cap(c), veh/h	448	1628	743	336	832	852	206	378	352	213	345	341
V/C Ratio(X)	0.58	0.54	0.53	0.80	0.44	0.44	1.04	0.71	0.73	0.48	0.87	0.88
Avail Cap(c_a), veh/h	565	1628	743	336	832	852	206	551	514	245	551	543
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	28.6	28.4	23.5	27.0	27.0	52.0	54.8	55.0	45.8	58.5	58.7
Incr Delay (d2), s/veh	0.4	1.3	2.7	11.7	1.7	1.6	73.8	0.9	1.1	0.6	5.1	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	11.5	10.5	5.9	9.1	9.3	6.6	9.5	9.1	3.1	11.5	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	29.9	31.0	35.2	28.6	28.6	125.8	55.7	56.1	46.4	63.6	64.4
LnGrp LOS	B	C	C	D	C	C	F	E	E	D	E	E
Approach Vol, veh/h		1526			1001			739			701	
Approach Delay, s/veh		28.5			30.4			76.2			61.4	
Approach LOS		C			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.2	76.1	15.3	38.4	20.0	76.3	18.0	35.7				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	23.5	42.5	11.5	46.5	13.5	52.5	11.5	46.5				
Max Q Clear Time (g_c+I1), s	13.3	22.4	8.9	23.6	13.7	28.8	13.5	26.8				
Green Ext Time (p_c), s	0.4	2.8	0.0	2.0	0.0	5.5	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			43.7									
HCM 6th LOS			D									

Timings
6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	150	758	87	612	252	446	60	430	193
Future Volume (vph)	150	758	87	612	252	446	60	430	193
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	28.0	50.0	21.0	43.0	28.0	64.0	15.0	51.0	51.0
Total Split (%)	18.7%	33.3%	14.0%	28.7%	18.7%	42.7%	10.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	61.9	48.8	54.1	44.9	72.6	61.2	55.5	48.2	48.2
Actuated g/C Ratio	0.41	0.33	0.36	0.30	0.48	0.41	0.37	0.32	0.32
v/c Ratio	0.59	0.93	0.61	0.66	0.62	0.41	0.21	0.42	0.32
Control Delay	36.4	62.8	46.2	49.8	31.2	34.4	20.6	34.1	8.7
Queue Delay	0.0	46.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	109.3	46.2	49.8	31.2	34.4	20.6	34.1	8.7
LOS	D	F	D	D	C	C	C	C	A
Approach Delay		99.5		49.4		33.3		25.7	
Approach LOS		F		D		C		C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 35 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 57.6

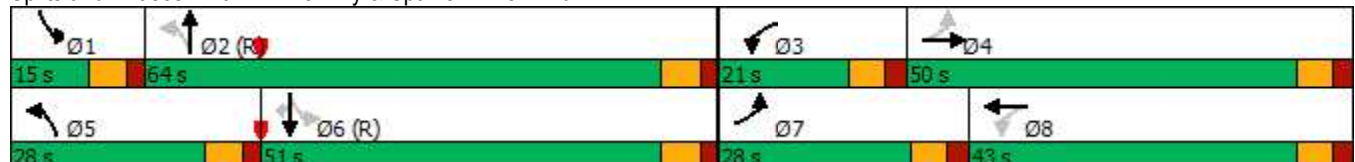
Intersection LOS: E

Intersection Capacity Utilization 92.6%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	163	1039	95	699	274	562	65	467	210
v/c Ratio	0.59	0.93	0.61	0.66	0.62	0.41	0.21	0.42	0.32
Control Delay	36.4	62.8	46.2	49.8	31.2	34.4	20.6	34.1	8.7
Queue Delay	0.0	46.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	109.3	46.2	49.8	31.2	34.4	20.6	34.1	8.7
Queue Length 50th (ft)	99	510	56	313	187	226	21	211	83
Queue Length 95th (ft)	152	#688	107	406	273	293	m37	m266	m110
Internal Link Dist (ft)		267		828		6742		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	360	1115	218	1063	466	1387	318	1114	656
Starvation Cap Reductn	0	400	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.45	0.44	0.66	0.59	0.41	0.20	0.42	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















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

HCM Signalized Intersection Capacity Analysis

6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 1-1






















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	758	198	87	612	31	252	446	71	60	430	193
Future Volume (vph)	150	758	198	87	612	31	252	446	71	60	430	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1786	3387		1752	3546		1752	3382		1543	3471	1593
Flt Permitted	0.19	1.00		0.09	1.00		0.34	1.00		0.44	1.00	1.00
Satd. Flow (perm)	363	3387		164	3546		629	3382		716	3471	1593
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	824	215	95	665	34	274	485	77	65	467	210
RTOR Reduction (vph)	0	15	0	0	2	0	0	8	0	0	0	143
Lane Group Flow (vph)	163	1024	0	95	697	0	274	554	0	65	467	67
Confl. Peds. (#/hr)	7		1	1		7	1					1
Heavy Vehicles (%)	1%	3%	3%	3%	1%	0%	3%	4%	8%	17%	4%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	61.9	48.8		54.1	44.9		72.6	59.9		54.5	48.2	48.2
Effective Green, g (s)	61.9	48.8		54.1	44.9		72.6	59.9		54.5	48.2	48.2
Actuated g/C Ratio	0.41	0.33		0.36	0.30		0.48	0.40		0.36	0.32	0.32
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	274	1101		156	1061		439	1350		294	1115	511
v/s Ratio Prot	c0.05	c0.30		0.04	0.20		c0.07	0.16		0.01	0.13	
v/s Ratio Perm	0.19			0.18			c0.23			0.07		0.04
v/c Ratio	0.59	0.93		0.61	0.66		0.62	0.41		0.22	0.42	0.13
Uniform Delay, d1	31.0	49.0		36.8	45.8		24.9	32.4		31.7	39.9	36.1
Progression Factor	1.00	1.00		1.00	1.00		1.04	1.06		0.86	0.81	1.67
Incremental Delay, d2	2.3	13.4		4.6	1.1		1.9	0.9		0.1	1.0	0.4
Delay (s)	33.3	62.3		41.4	47.0		27.8	35.2		27.5	33.4	60.8
Level of Service	C	E		D	D		C	D		C	C	E
Approach Delay (s)		58.4			46.3			32.7			40.6	
Approach LOS		E			D			C			D	
Intersection Summary												
HCM 2000 Control Delay			46.0			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			25.8			
Intersection Capacity Utilization			92.6%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 1-1






























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	758	198	87	612	31	252	446	71	60	430	193
Future Volume (veh/h)	150	758	198	87	612	31	252	446	71	60	430	193
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		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	1885	1856	1856	1856	1885	1900	1856	1841	1781	1648	1841	1900
Adj Flow Rate, veh/h	163	824	215	95	665	34	274	485	77	65	467	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	3	3	3	1	0	3	4	8	17	4	0
Cap, veh/h	257	801	209	139	906	46	451	1362	215	362	1327	610
Arrive On Green	0.08	0.29	0.29	0.05	0.26	0.26	0.11	0.45	0.45	0.04	0.38	0.38
Sat Flow, veh/h	1795	2762	720	1767	3465	177	1767	3025	478	1570	3497	1609
Grp Volume(v), veh/h	163	526	513	95	343	356	274	279	283	65	467	210
Grp Sat Flow(s),veh/h/ln	1795	1763	1720	1767	1791	1852	1767	1749	1754	1570	1749	1609
Q Serve(g_s), s	9.9	43.5	43.5	5.9	26.3	26.3	13.8	15.7	15.8	3.8	14.3	14.0
Cycle Q Clear(g_c), s	9.9	43.5	43.5	5.9	26.3	26.3	13.8	15.7	15.8	3.8	14.3	14.0
Prop In Lane	1.00		0.42	1.00		0.10	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	257	511	499	139	468	484	451	787	790	362	1327	610
V/C Ratio(X)	0.63	1.03	1.03	0.68	0.73	0.73	0.61	0.35	0.36	0.18	0.35	0.34
Avail Cap(c_a), veh/h	370	511	499	219	468	484	517	787	790	395	1327	610
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)	0.94	0.94	0.94	1.00	1.00	1.00	0.94	0.94	0.94	0.61	0.61	0.61
Uniform Delay (d), s/veh	38.7	53.3	53.3	42.5	50.6	50.6	23.6	27.0	27.0	26.8	33.3	33.2
Incr Delay (d2), s/veh	0.9	46.1	46.7	2.2	5.2	5.0	0.8	1.2	1.2	0.1	0.4	0.9
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	4.4	25.6	25.1	2.6	12.4	12.8	5.8	6.8	6.8	1.4	6.2	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	99.4	99.9	44.7	55.7	55.6	24.4	28.2	28.2	26.9	33.8	34.2
LnGrp LOS	D	F	F	D	E	E	C	C	C	C	C	C
Approach Vol, veh/h		1202			794			836			742	
Approach Delay, s/veh		91.5			54.4			27.0			33.3	
Approach LOS		F			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	73.9	14.3	50.0	22.4	63.3	18.5	45.7				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	14.5	43.5	21.6	44.6	21.5	36.5				
Max Q Clear Time (g_c+I1), s	5.8	17.8	7.9	45.5	15.8	16.3	11.9	28.3				
Green Ext Time (p_c), s	0.0	2.1	0.1	0.0	0.3	2.5	0.2	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			56.1									
HCM 6th LOS			E									

Timings
7: W Yamato Rd & NW 2nd Ave

2045 AM Build W Mitigation 1-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		  			  		 			 	 
Traffic Volume (vph)	138	1574	429	121	1366	151	322	350	85	253	513
Future Volume (vph)	138	1574	429	121	1366	151	322	350	85	253	513
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	5.0	18.0	18.0	5.0	18.0	18.0	7.0	12.0	12.0	7.0	12.0
Minimum Split (s)	14.0	40.8	40.8	14.0	37.8	37.8	14.0	42.0	42.0	14.0	41.0
Total Split (s)	19.0	56.0	56.0	19.0	56.0	56.0	31.0	40.0	40.0	35.0	44.0
Total Split (%)	12.7%	37.3%	37.3%	12.7%	37.3%	37.3%	20.7%	26.7%	26.7%	23.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	65.0	53.6	53.6	63.3	52.7	52.7	20.3	41.7	41.7	16.6	39.0
Actuated g/C Ratio	0.43	0.36	0.36	0.42	0.35	0.35	0.14	0.28	0.28	0.11	0.26
v/c Ratio	0.86	0.97	0.56	0.77	0.85	0.26	0.77	0.75	0.18	0.75	0.92
Control Delay	74.2	62.8	7.1	60.7	51.1	10.6	65.4	60.8	11.7	77.0	65.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.2	62.8	7.1	60.7	51.1	10.6	65.4	60.8	11.7	77.0	65.7
LOS	E	E	A	E	D	B	E	E	B	E	E
Approach Delay		52.4			48.1			57.3			68.6
Approach LOS		D			D			E			E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 14 (9%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 54.7

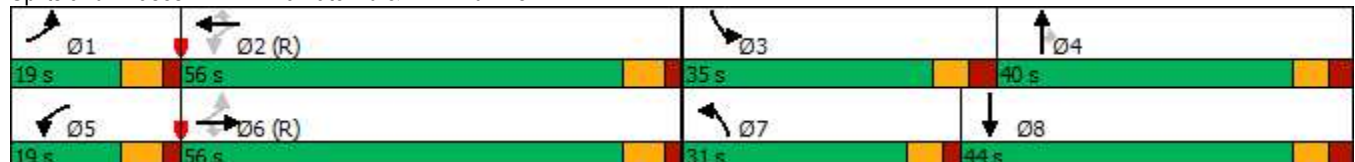
Intersection LOS: D

Intersection Capacity Utilization 90.3%

ICU Level of Service E

Analysis Period (min) 15












Splits and Phases: 7: W Yamato Rd & NW 2nd Ave



Queues
7: W Yamato Rd & NW 2nd Ave

2045 AM Build W Mitigation 1-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	153	1749	477	134	1518	168	358	389	94	281	837
v/c Ratio	0.86	0.97	0.56	0.77	0.85	0.26	0.77	0.75	0.18	0.75	0.92
Control Delay	74.2	62.8	7.1	60.7	51.1	10.6	65.4	60.8	11.7	77.0	65.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.2	62.8	7.1	60.7	51.1	10.6	65.4	60.8	11.7	77.0	65.7
Queue Length 50th (ft)	102	~678	19	81	521	24	184	367	15	139	390
Queue Length 95th (ft)	#230	#780	116	#172	588	81	223	493	50	185	#544
Internal Link Dist (ft)		1311			615			322			516
Turn Bay Length (ft)	350		400	415		280	280		200	250	
Base Capacity (vph)	188	1799	853	193	1787	653	572	517	527	634	918
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.97	0.56	0.69	0.85	0.26	0.63	0.75	0.18	0.44	0.91

Intersection Summary

























- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

7: W Yamato Rd & NW 2nd Ave
































2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	1574	429	121	1366	151	322	350	85	253	513	240
Future Volume (vph)	138	1574	429	121	1366	151	322	350	85	253	513	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1719	5036	1583	1770	5085	1615	3433	1863	1583	3400	3380	
Flt Permitted	0.07	1.00	1.00	0.08	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	135	5036	1583	141	5085	1615	3433	1863	1583	3400	3380	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	153	1749	477	134	1518	168	358	389	94	281	570	267
RTOR Reduction (vph)	0	0	289	0	0	86	0	0	68	0	36	0
Lane Group Flow (vph)	153	1749	188	134	1518	82	358	389	26	281	801	0
Confl. Peds. (#/hr)										2		
Heavy Vehicles (%)	5%	3%	2%	2%	2%	0%	2%	2%	2%	3%	2%	1%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			
Actuated Green, G (s)	65.0	53.6	53.6	63.2	52.7	52.7	20.3	41.7	41.7	16.6	39.0	
Effective Green, g (s)	65.0	53.6	53.6	63.2	52.7	52.7	20.3	41.7	41.7	16.6	39.0	
Actuated g/C Ratio	0.43	0.36	0.36	0.42	0.35	0.35	0.14	0.28	0.28	0.11	0.26	
Clearance Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	2.5	2.5	2.5	1.8	2.5	
Lane Grp Cap (vph)	178	1799	565	173	1786	567	464	517	440	376	878	
v/s Ratio Prot	c0.07	c0.35		0.05	0.30		c0.10	c0.21		0.08	c0.24	
v/s Ratio Perm	0.31		0.12	0.27		0.05			0.02			
v/c Ratio	0.86	0.97	0.33	0.77	0.85	0.15	0.77	0.75	0.06	0.75	0.91	
Uniform Delay, d1	37.4	47.5	35.2	35.1	45.0	33.3	62.6	49.4	39.8	64.7	53.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.87	1.03	3.68	1.00	1.00	
Incremental Delay, d2	30.5	15.6	1.6	17.7	5.3	0.5	7.0	5.5	0.0	6.9	13.6	
Delay (s)	67.9	63.0	36.8	52.8	50.3	33.8	61.7	56.6	146.4	71.6	67.4	
Level of Service	E	E	D	D	D	C	E	E	F	E	E	
Approach Delay (s)		58.1			48.9			68.8			68.4	
Approach LOS		E			D			E			E	
Intersection Summary												
HCM 2000 Control Delay			58.7				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			0.92									
Actuated Cycle Length (s)			150.0				Sum of lost time (s)			27.6		
Intersection Capacity Utilization			90.3%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
7: W Yamato Rd & NW 2nd Ave



























2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	138	1574	429	121	1366	151	322	350	85	253	513	240
Future Volume (veh/h)	138	1574	429	121	1366	151	322	350	85	253	513	240
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	1826	1856	1870	1870	1870	1900	1870	1870	1870	1856	1870	1885
Adj Flow Rate, veh/h	153	1749	477	134	1518	168	358	389	94	281	570	267
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	3	2	2	2	0	2	2	2	3	2	1
Cap, veh/h	200	2012	630	166	1989	627	416	492	417	334	579	271
Arrive On Green	0.07	0.40	0.40	0.06	0.39	0.39	0.12	0.26	0.26	0.10	0.25	0.25
Sat Flow, veh/h	1739	5066	1585	1781	5106	1610	3456	1870	1585	3428	2348	1098
Grp Volume(v), veh/h	153	1749	477	134	1518	168	358	389	94	281	431	406
Grp Sat Flow(s),veh/h/ln	1739	1689	1585	1781	1702	1610	1728	1870	1585	1714	1777	1670
Q Serve(g_s), s	7.9	47.7	38.9	6.7	38.7	10.7	15.2	29.0	7.0	12.1	36.2	36.3
Cycle Q Clear(g_c), s	7.9	47.7	38.9	6.7	38.7	10.7	15.2	29.0	7.0	12.1	36.2	36.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	200	2012	630	166	1989	627	416	492	417	334	438	412
V/C Ratio(X)	0.76	0.87	0.76	0.81	0.76	0.27	0.86	0.79	0.23	0.84	0.98	0.99
Avail Cap(c_a), veh/h	227	2012	630	207	1989	627	576	492	417	640	438	412
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	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	41.6	39.0	35.5	39.8	31.2	64.7	51.5	43.3	66.5	56.2	56.2
Incr Delay (d2), s/veh	10.6	5.4	8.3	13.0	2.6	1.0	8.6	8.3	0.2	2.2	38.5	40.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	20.2	16.5	3.4	16.2	4.4	7.2	14.7	2.8	5.4	20.8	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	47.1	47.3	48.5	42.4	32.2	73.3	59.8	43.5	68.7	94.7	96.6
LnGrp LOS	D	D	D	D	D	C	E	E	D	E	F	F
Approach Vol, veh/h		2379			1820			841			1118	
Approach Delay, s/veh		46.9			41.9			63.7			88.9	
Approach LOS		D			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	65.2	21.6	46.4	15.6	66.4	24.1	44.0				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	12.2	49.2	28.0	33.0	12.2	49.2	25.0	37.0				
Max Q Clear Time (g_c+l1), s	9.9	40.7	14.1	31.0	8.7	49.7	17.2	38.3				
Green Ext Time (p_c), s	0.1	4.7	0.5	0.5	0.1	0.0	0.8	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			55.3									
HCM 6th LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
8: N Dixie Hwy & W Yamato Rd

2045 AM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  	 	 		 	
Traffic Volume (vph)	227	1682	84	1130	287	261	36	332	212
Future Volume (vph)	227	1682	84	1130	287	261	36	332	212
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	15.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	59.0	22.0	56.0	25.0	46.0	23.0	44.0	44.0
Total Split (%)	16.7%	39.3%	14.7%	37.3%	16.7%	30.7%	15.3%	29.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	14.9	74.0	11.9	71.0	16.7	31.8	7.7	20.5	20.5
Actuated g/C Ratio	0.10	0.49	0.08	0.47	0.11	0.21	0.05	0.14	0.14
v/c Ratio	0.72	0.86	0.65	0.54	0.81	0.53	0.43	0.75	0.57
Control Delay	77.6	38.5	87.4	30.2	60.7	39.3	82.7	71.9	14.3
Queue Delay	0.0	47.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	85.7	87.4	30.2	60.7	39.3	82.7	71.9	14.3
LOS	E	F	F	C	E	D	F	E	B
Approach Delay		84.9		34.0		48.7		51.6	
Approach LOS		F		C		D		D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 26 (17%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 61.8

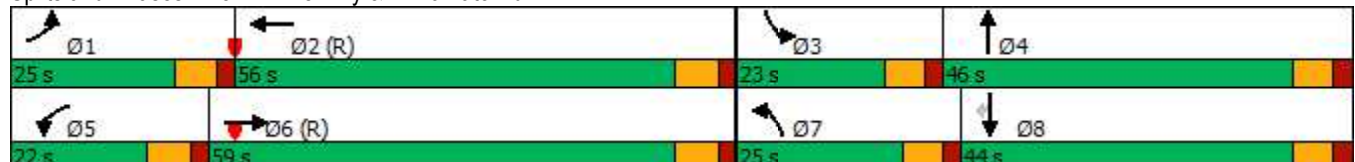
Intersection LOS: E

Intersection Capacity Utilization 83.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd

2045 AM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	247	2090	91	1289	312	397	39	361	230
v/c Ratio	0.72	0.86	0.65	0.54	0.81	0.53	0.43	0.75	0.57
Control Delay	77.6	38.5	87.4	30.2	60.7	39.3	82.7	71.9	14.3
Queue Delay	0.0	47.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	85.7	87.4	30.2	60.7	39.3	82.7	71.9	14.3
Queue Length 50th (ft)	123	651	88	325	130	182	38	181	12
Queue Length 95th (ft)	167	#892	146	426	168	236	77	228	92
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	421	2438	183	2389	425	910	195	875	554
Starvation Cap Reductn	0	862	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	1.33	0.50	0.54	0.73	0.44	0.20	0.41	0.42

Intersection Summary






















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

HCM Signalized Intersection Capacity Analysis

8: N Dixie Hwy & W Yamato Rd






























2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	1682	241	84	1130	56	287	261	104	36	332	212
Future Volume (vph)	227	1682	241	84	1130	56	287	261	104	36	332	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Lane Util. Factor	0.97	0.91		1.00	0.91		0.97	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4923		1770	5046		3433	3388		1770	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4923		1770	5046		3433	3388		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	247	1828	262	91	1228	61	312	284	113	39	361	230
RTOR Reduction (vph)	0	10	0	0	3	0	0	30	0	0	0	185
Lane Group Flow (vph)	247	2080	0	91	1286	0	312	367	0	39	361	45
Confl. Peds. (#/hr)	2					2						
Heavy Vehicles (%)	2%	3%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												8
Actuated Green, G (s)	14.9	72.7		11.9	69.7		16.7	31.8		6.7	21.8	21.8
Effective Green, g (s)	14.9	72.7		11.9	69.7		16.7	31.8		6.7	21.8	21.8
Actuated g/C Ratio	0.10	0.48		0.08	0.46		0.11	0.21		0.04	0.15	0.15
Clearance Time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	341	2386		140	2344		382	718		79	514	230
v/s Ratio Prot	c0.07	c0.42		0.05	0.25		c0.09	0.11		0.02	c0.10	
v/s Ratio Perm												0.03
v/c Ratio	0.72	0.87		0.65	0.55		0.82	0.51		0.49	0.70	0.20
Uniform Delay, d1	65.6	34.5		67.0	28.9		65.2	52.2		70.0	61.0	56.4
Progression Factor	1.00	1.00		1.00	1.00		0.68	0.78		1.00	1.00	1.00
Incremental Delay, d2	6.3	4.7		8.0	0.9		11.3	0.2		1.8	3.5	0.2
Delay (s)	71.9	39.2		75.0	29.8		55.9	40.9		71.8	64.6	56.6
Level of Service	E	D		E	C		E	D		E	E	E
Approach Delay (s)		42.7			32.8			47.5			62.1	
Approach LOS		D			C			D			E	
Intersection Summary												
HCM 2000 Control Delay			43.1			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			26.9			
Intersection Capacity Utilization			83.1%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 8: N Dixie Hwy & W Yamato Rd





















2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  		 	 			 	
Traffic Volume (veh/h)	227	1682	241	84	1130	56	287	261	104	36	332	212
Future Volume (veh/h)	227	1682	241	84	1130	56	287	261	104	36	332	212
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	1856	1811	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	247	1828	262	91	1228	61	312	284	113	39	361	230
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	6	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	2176	309	112	2306	115	362	610	237	50	596	266
Arrive On Green	0.09	0.49	0.49	0.06	0.46	0.46	0.03	0.08	0.08	0.03	0.17	0.17
Sat Flow, veh/h	3456	4481	637	1781	4982	247	3456	2501	972	1781	3554	1585
Grp Volume(v), veh/h	247	1374	716	91	839	450	312	200	197	39	361	230
Grp Sat Flow(s),veh/h/ln	1728	1689	1740	1781	1702	1825	1728	1777	1695	1781	1777	1585
Q Serve(g_s), s	10.6	52.9	54.0	7.6	26.4	26.4	13.5	16.1	16.7	3.3	14.1	21.2
Cycle Q Clear(g_c), s	10.6	52.9	54.0	7.6	26.4	26.4	13.5	16.1	16.7	3.3	14.1	21.2
Prop In Lane	1.00		0.37	1.00		0.14	1.00		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	295	1640	845	112	1576	845	362	434	414	50	596	266
V/C Ratio(X)	0.84	0.84	0.85	0.82	0.53	0.53	0.86	0.46	0.48	0.77	0.61	0.87
Avail Cap(c_a), veh/h	419	1640	845	181	1576	845	429	463	442	197	879	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	33.5	33.7	69.4	28.7	28.7	71.3	59.5	59.8	72.4	57.8	60.8
Incr Delay (d2), s/veh	5.8	4.4	8.7	5.8	1.3	2.4	11.6	0.3	0.3	9.0	0.4	9.1
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	4.8	21.7	23.8	3.6	10.7	11.8	6.9	7.8	7.7	1.6	6.4	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	37.9	42.4	75.3	30.0	31.1	82.9	59.8	60.1	81.3	58.2	69.9
LnGrp LOS	E	D	D	E	C	C	F	E	E	F	E	E
Approach Vol, veh/h	2337			1380			709			630		
Approach Delay, s/veh	43.0			33.4			70.1			63.9		
Approach LOS	D			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	76.2	10.6	43.5	16.2	79.6	22.1	32.0				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	49.2	16.6	39.1	15.2	52.2	18.6	37.1				
Max Q Clear Time (g_c+I1), s	12.6	28.4	5.3	18.7	9.6	56.0	15.5	23.2				
Green Ext Time (p_c), s	0.3	5.3	0.0	1.3	0.0	0.0	0.2	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	46.8											
HCM 6th LOS	D											

Timings
9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 1-1

09/28/2022

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	136	316	421	10	310	418	277	45	557	539
Future Volume (vph)	136	316	421	10	310	418	277	45	557	539
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Prot	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases			4	8				6		6
Detector Phase	7	4	5	3	8	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	12.0	12.0	5.0	12.0	12.0	5.0	18.0	5.0	18.0	12.0
Minimum Split (s)	24.5	24.5	12.0	24.5	24.5	12.0	25.0	9.5	25.0	24.5
Total Split (s)	24.5	24.5	21.0	24.5	24.5	21.0	49.0	12.0	40.0	24.5
Total Split (%)	22.3%	22.3%	19.1%	22.3%	22.3%	19.1%	44.5%	10.9%	36.4%	22.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	2.5	2.5	3.0	3.0	1.0	3.0	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
Total Lost Time (s)	6.5	6.5	7.0	6.5	6.5	7.0	7.0	4.5	7.0	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min	None
Act Effct Green (s)	13.2	31.5	50.9	27.5	15.5	19.8	52.1	43.6	34.4	54.6
Actuated g/C Ratio	0.12	0.29	0.46	0.25	0.14	0.18	0.47	0.40	0.31	0.50
v/c Ratio	0.35	0.33	0.48	0.03	0.69	0.72	0.20	0.11	1.01	0.67
Control Delay	46.5	32.5	4.3	23.9	51.9	50.7	18.0	13.6	77.9	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	32.5	4.3	23.9	51.9	50.7	18.0	13.6	77.9	19.4
LOS	D	C	A	C	D	D	B	B	E	B
Approach Delay		21.1			51.0		36.7		47.7	
Approach LOS		C			D		D		D	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 37.9

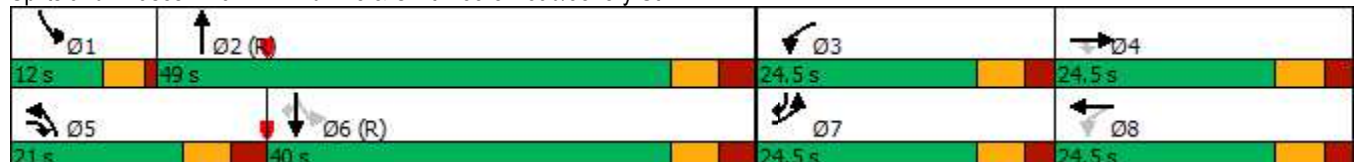
Intersection LOS: D

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

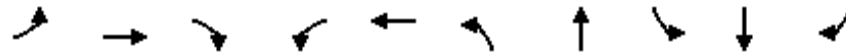
Splits and Phases: 9: NW 2nd Ave & Clint Moore Road/Jeffery St



Queues
9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 1-1

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	145	336	448	11	346	445	334	48	593	573
v/c Ratio	0.35	0.33	0.48	0.03	0.69	0.72	0.20	0.11	1.01	0.67
Control Delay	46.5	32.5	4.3	23.9	51.9	50.7	18.0	13.6	77.9	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	32.5	4.3	23.9	51.9	50.7	18.0	13.6	77.9	19.4
Queue Length 50th (ft)	50	94	10	5	122	150	68	14	~458	231
Queue Length 95th (ft)	76	153	82	17	168	#274	114	36	#674	322
Internal Link Dist (ft)		296			641		377		238	
Turn Bay Length (ft)	360		270	180		360		155		200
Base Capacity (vph)	561	1014	943	442	579	618	1637	468	589	924
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.33	0.48	0.02	0.60	0.72	0.20	0.10	1.01	0.62

Intersection Summary























- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: NW 2nd Ave & Clint Moore Road/Jeffery St

























2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	316	421	10	310	15	418	277	37	45	557	539
Future Volume (vph)	136	316	421	10	310	15	418	277	37	45	557	539
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	7.0	6.5	6.5		7.0	7.0		4.5	7.0	6.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		0.97	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.99	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1558	1801	3518		3433	3440		1790	1881	1583
Flt Permitted	0.95	1.00	1.00	0.55	1.00		0.95	1.00		0.55	1.00	1.00
Satd. Flow (perm)	3433	3539	1558	1042	3518		3433	3440		1037	1881	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	145	336	448	11	330	16	445	295	39	48	593	573
RTOR Reduction (vph)	0	0	221	0	3	0	0	9	0	0	0	91
Lane Group Flow (vph)	145	336	227	11	343	0	445	325	0	48	593	482
Confl. Peds. (#/hr)			2	2					14	14		
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	3%	0%	0%	1%	2%
Turn Type	Prot	NA	pm+ov	pm+pt	NA		Prot	NA		pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2		1	6	7
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.2	31.5	51.3	23.1	20.7		19.8	46.1		34.8	29.3	42.5
Effective Green, g (s)	13.2	31.5	51.3	23.1	20.7		19.8	46.1		34.8	29.3	42.5
Actuated g/C Ratio	0.12	0.29	0.47	0.21	0.19		0.18	0.42		0.32	0.27	0.39
Clearance Time (s)	6.5	6.5	7.0	6.5	6.5		7.0	7.0		4.5	7.0	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	411	1013	726	235	662		617	1441		365	501	611
v/s Ratio Prot	0.04	0.09	0.06	0.00	c0.10		c0.13	0.09		0.01	c0.32	c0.09
v/s Ratio Perm			0.09	0.01						0.03		0.21
v/c Ratio	0.35	0.33	0.31	0.05	0.52		0.72	0.23		0.13	1.18	0.79
Uniform Delay, d1	44.5	30.9	18.3	34.5	40.2		42.5	20.5		26.4	40.4	29.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2	0.2	0.1	0.7		4.1	0.4		0.2	101.5	6.7
Delay (s)	45.0	31.1	18.6	34.6	40.8		46.6	20.9		26.6	141.8	36.5
Level of Service	D	C	B	C	D		D	C		C	F	D
Approach Delay (s)		27.2			40.7			35.6			87.5	
Approach LOS		C			D			D			F	
Intersection Summary												
HCM 2000 Control Delay			53.0			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)				27.0		
Intersection Capacity Utilization			84.1%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

























HCM 6th Signalized Intersection Summary
9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	316	421	10	310	15	418	277	37	45	557	539
Future Volume (veh/h)	136	316	421	10	310	15	418	277	37	45	557	539
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		1.00	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	1900	1870	1900	1870	1856	1900	1900	1885	1870
Adj Flow Rate, veh/h	145	336	448	11	330	16	445	295	39	48	593	573
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	2	0	2	3	0	0	1	2
Cap, veh/h	377	582	460	316	565	27	440	1470	192	503	668	728
Arrive On Green	0.11	0.16	0.16	0.11	0.16	0.16	0.13	0.47	0.47	0.03	0.35	0.35
Sat Flow, veh/h	3456	3554	1575	1810	3450	167	3456	3131	410	1810	1885	1566
Grp Volume(v), veh/h	145	336	448	11	169	177	445	165	169	48	593	573
Grp Sat Flow(s),veh/h/ln	1728	1777	1575	1810	1777	1840	1728	1763	1777	1810	1885	1566
Q Serve(g_s), s	4.3	9.6	18.0	0.5	9.7	9.8	14.0	6.0	6.1	1.8	32.6	34.0
Cycle Q Clear(g_c), s	4.3	9.6	18.0	0.5	9.7	9.8	14.0	6.0	6.1	1.8	32.6	34.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	377	582	460	316	291	301	440	828	835	503	668	728
V/C Ratio(X)	0.38	0.58	0.97	0.03	0.58	0.59	1.01	0.20	0.20	0.10	0.89	0.79
Avail Cap(c_a), veh/h	565	582	460	415	291	301	440	828	835	563	668	728
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	45.6	42.5	38.6	29.7	42.5	42.6	48.0	17.1	17.1	21.1	33.4	25.0
Incr Delay (d2), s/veh	0.6	1.4	35.4	0.0	2.9	2.9	45.9	0.5	0.5	0.1	16.1	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.3	16.1	0.2	4.4	4.6	8.7	2.5	2.6	0.8	17.4	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	43.9	74.0	29.7	45.5	45.5	93.9	17.6	17.7	21.1	49.5	33.3
LnGrp LOS	D	D	E	C	D	D	F	B	B	C	D	C
Approach Vol, veh/h		929			357			779			1214	
Approach Delay, s/veh		58.8			45.0			61.2			40.8	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	58.7	18.5	24.5	21.0	46.0	18.5	24.5				
Change Period (Y+Rc), s	4.5	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	7.5	42.0	18.0	18.0	14.0	33.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	3.8	8.1	2.5	20.0	16.0	36.0	6.3	11.8				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	0.0	0.4	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			51.2									
HCM 6th LOS			D									

Timings
10: Congress Ave & Clint Moore Rd

2045 AM Build W Mitigation 1-1
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	417	552	418	198	652	218	374	332	22	474	1550	1192
Future Volume (vph)	417	552	418	198	652	218	374	332	22	474	1550	1192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	14.8	50.8	50.8
Total Split (s)	40.0	59.0	59.0	24.0	43.0	43.0	32.0	53.0	53.0	44.0	65.0	65.0
Total Split (%)	22.2%	32.8%	32.8%	13.3%	23.9%	23.9%	17.8%	29.4%	29.4%	24.4%	36.1%	36.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.1	51.8	51.8	14.4	39.1	39.1	23.1	52.2	52.2	30.4	59.5	59.5
Actuated g/C Ratio	0.15	0.29	0.29	0.08	0.22	0.22	0.13	0.29	0.29	0.17	0.33	0.33
v/c Ratio	0.86	0.40	0.66	0.77	0.90	0.45	0.90	0.25	0.04	0.87	0.99	1.73
Control Delay	91.1	52.6	22.1	99.9	83.6	11.6	101.3	50.6	0.1	88.9	78.9	361.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.1	52.6	22.1	99.9	83.6	11.6	101.3	50.6	0.1	88.9	78.9	361.4
LOS	F	D	C	F	F	B	F	D	A	F	E	F
Approach Delay		55.0			72.0			75.1			185.0	
Approach LOS		E			E			E			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 110 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.73

Intersection Signal Delay: 125.5

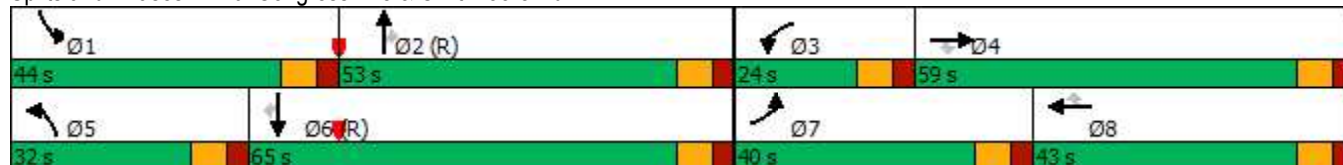
Intersection LOS: F

Intersection Capacity Utilization 122.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd

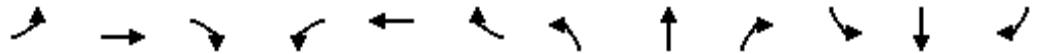


Queues

2045 AM Build W Mitigation 1-1

10: Congress Ave & Clint Moore Rd

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	444	587	445	211	694	232	398	353	23	504	1649	1268
v/c Ratio	0.86	0.40	0.66	0.77	0.90	0.45	0.90	0.25	0.04	0.87	0.99	1.73
Control Delay	91.1	52.6	22.1	99.9	83.6	11.6	101.3	50.6	0.1	88.9	78.9	361.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.1	52.6	22.1	99.9	83.6	11.6	101.3	50.6	0.1	88.9	78.9	361.4
Queue Length 50th (ft)	267	205	149	127	422	13	241	119	0	303	~760	~1961
Queue Length 95th (ft)	324	249	286	176	#583	99	#327	158	0	359	#853	#2230
Internal Link Dist (ft)		2199			619			1029			883	
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	614	1467	676	308	769	510	461	1432	607	690	1664	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.40	0.66	0.69	0.90	0.45	0.86	0.25	0.04	0.73	0.99	1.73

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

10: Congress Ave & Clint Moore Rd

























2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	417	552	418	198	652	218	374	332	22	474	1550	1192
Future Volume (vph)	417	552	418	198	652	218	374	332	22	474	1550	1192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Lane Util. Factor	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1599	3433	3539	1562	3433	4940	1562	3433	5036	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1599	3433	3539	1562	3433	4940	1562	3433	5036	1553
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	444	587	445	211	694	232	398	353	23	504	1649	1268
RTOR Reduction (vph)	0	0	216	0	0	171	0	0	16	0	0	219
Lane Group Flow (vph)	444	587	229	211	694	61	398	353	7	504	1649	1049
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	2%	2%	1%	2%	2%	2%	2%	5%	2%	2%	3%	4%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	27.1	51.8	51.8	14.4	39.1	39.1	23.1	52.2	52.2	30.4	59.5	59.5
Effective Green, g (s)	27.1	51.8	51.8	14.4	39.1	39.1	23.1	52.2	52.2	30.4	59.5	59.5
Actuated g/C Ratio	0.15	0.29	0.29	0.08	0.22	0.22	0.13	0.29	0.29	0.17	0.33	0.33
Clearance Time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	516	1463	460	274	768	339	440	1432	452	579	1664	513
v/s Ratio Prot	c0.13	0.12		0.06	c0.20		0.12	0.07		c0.15	0.33	
v/s Ratio Perm			0.14			0.04			0.00			c0.68
v/c Ratio	0.86	0.40	0.50	0.77	0.90	0.18	0.90	0.25	0.01	0.87	0.99	2.05
Uniform Delay, d1	74.6	51.6	53.3	81.2	68.6	57.4	77.4	48.9	45.6	72.9	60.0	60.2
Progression 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
Incremental Delay, d2	13.3	0.1	0.3	11.5	13.7	0.1	21.3	0.4	0.1	13.1	20.0	477.0
Delay (s)	87.9	51.7	53.6	92.7	82.3	57.5	98.6	49.3	45.6	86.0	80.0	537.3
Level of Service	F	D	D	F	F	E	F	D	D	F	F	F
Approach Delay (s)		63.2			79.2			74.5			250.4	
Approach LOS		E			E			E			F	
Intersection Summary												
HCM 2000 Control Delay			161.2				HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.38									
Actuated Cycle Length (s)			180.0				Sum of lost time (s)			31.2		
Intersection Capacity Utilization			122.5%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												























HCM 6th Signalized Intersection Summary 10: Congress Ave & Clint Moore Rd

2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	417	552	418	198	652	218	374	332	22	474	1550	1192
Future Volume (veh/h)	417	552	418	198	652	218	374	332	22	474	1550	1192
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	1885	1870	1870	1870	1870	1826	1870	1870	1856	1841
Adj Flow Rate, veh/h	444	587	445	211	694	232	398	353	23	504	1649	1268
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	1	2	2	2	2	5	2	2	3	4
Cap, veh/h	489	1452	454	250	765	341	435	1549	492	550	1743	536
Arrive On Green	0.14	0.28	0.28	0.07	0.22	0.22	0.13	0.31	0.31	0.16	0.34	0.34
Sat Flow, veh/h	3456	5106	1596	3456	3554	1583	3456	4985	1584	3456	5066	1559
Grp Volume(v), veh/h	444	587	445	211	694	232	398	353	23	504	1649	1268
Grp Sat Flow(s),veh/h/ln	1728	1702	1596	1728	1777	1583	1728	1662	1584	1728	1689	1559
Q Serve(g_s), s	22.8	16.7	49.8	10.9	34.3	24.3	20.5	9.5	1.8	25.8	57.0	61.9
Cycle Q Clear(g_c), s	22.8	16.7	49.8	10.9	34.3	24.3	20.5	9.5	1.8	25.8	57.0	61.9
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	489	1452	454	250	765	341	435	1549	492	550	1743	536
V/C Ratio(X)	0.91	0.40	0.98	0.85	0.91	0.68	0.91	0.23	0.05	0.92	0.95	2.36
Avail Cap(c_a), veh/h	618	1452	454	311	765	341	465	1549	492	695	1743	536
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	76.1	52.1	63.9	82.5	68.9	65.0	77.7	46.0	43.4	74.5	57.4	59.0
Incr Delay (d2), s/veh	13.2	0.1	36.9	13.5	14.3	4.5	21.0	0.3	0.2	13.1	12.1	620.0
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	11.0	7.2	24.7	5.3	17.0	10.2	10.3	4.0	0.8	12.3	25.8	116.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.4	52.1	100.8	96.0	83.2	69.5	98.7	46.4	43.6	87.5	69.5	679.0
LnGrp LOS	F	D	F	F	F	E	F	D	D	F	E	F
Approach Vol, veh/h	1476			1137			774			3421		
Approach Delay, s/veh	78.0			82.8			73.2			298.1		
Approach LOS	E			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.5	63.7	20.8	59.0	30.5	69.7	33.3	46.5				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	36.2	45.2	16.2	51.2	24.2	57.2	32.2	35.2				
Max Q Clear Time (g_c+I1), s	27.8	11.5	12.9	51.8	22.5	63.9	24.8	36.3				
Green Ext Time (p_c), s	0.8	1.5	0.1	0.0	0.2	0.0	0.7	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	188.8											
HCM 6th LOS	F											
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
11: N Federal Hwy & Jeffery St

2045 AM Build W Mitigation 1-1
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	9	364	146	42	50	97	1026	81	37	1328	58
Future Volume (vph)	9	364	146	42	50	97	1026	81	37	1328	58
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	11.8	38.8	38.8	11.8	28.8	28.8
Total Split (s)	40.0	40.0	40.0	40.0	40.0	25.0	75.0	75.0	25.0	75.0	75.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.9%	53.6%	53.6%	17.9%	53.6%	53.6%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Min	C-Min
Act Effct Green (s)	28.1	28.1	28.1	28.1	28.1	93.3	87.2	87.2	88.8	83.3	83.3
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.67	0.62	0.62	0.63	0.60	0.60
v/c Ratio	0.03	0.62	0.96	0.11	0.13	0.42	0.48	0.08	0.12	0.65	0.07
Control Delay	42.6	55.1	116.7	44.2	3.0	13.3	16.4	2.3	9.1	21.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	55.1	116.7	44.2	3.0	13.3	16.4	2.3	9.1	21.7	1.1
LOS	D	E	F	D	A	B	B	A	A	C	A
Approach Delay		54.8		80.0			15.2			20.5	
Approach LOS		D		F			B			C	

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 89 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 26.9

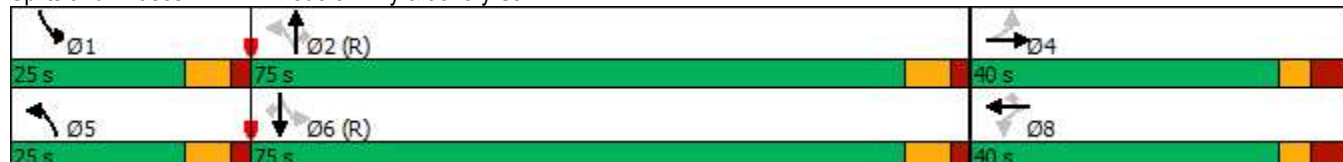
Intersection LOS: C

Intersection Capacity Utilization 86.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues

2045 AM Build W Mitigation 1-1

11: N Federal Hwy & Jeffery St

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	9	377	149	43	51	99	1047	83	38	1355	59
v/c Ratio	0.03	0.62	0.96	0.11	0.13	0.42	0.48	0.08	0.12	0.65	0.07
Control Delay	42.6	55.1	116.7	44.2	3.0	13.3	16.4	2.3	9.1	21.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	55.1	116.7	44.2	3.0	13.3	16.4	2.3	9.1	21.7	1.1
Queue Length 50th (ft)	6	160	131	31	0	29	286	0	11	436	0
Queue Length 95th (ft)	22	214	#259	65	12	51	354	20	24	548	8
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		350		230	225		170	250		145
Base Capacity (vph)	317	690	177	435	434	367	2183	1007	445	2084	787
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.55	0.84	0.10	0.12	0.27	0.48	0.08	0.09	0.65	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

11: N Federal Hwy & Jeffery St
























2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	364	6	146	42	50	97	1026	81	37	1328	58
Future Volume (vph)	9	364	6	146	42	50	97	1026	81	37	1328	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3009		1770	1900	1615	1805	3505	1562	1687	3505	1262
Flt Permitted	0.73	1.00		0.42	1.00	1.00	0.12	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	1385	3009		775	1900	1615	235	3505	1562	401	3505	1262
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	9	371	6	149	43	51	99	1047	83	38	1355	59
RTOR Reduction (vph)	0	1	0	0	0	41	0	0	32	0	0	24
Lane Group Flow (vph)	9	376	0	149	43	10	99	1047	51	38	1355	35
Confl. Peds. (#/hr)							6		1	1		6
Heavy Vehicles (%)	0%	20%	0%	2%	0%	0%	0%	3%	2%	7%	3%	25%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	28.1	28.1		28.1	28.1	28.1	93.0	85.9	85.9	87.8	83.3	83.3
Effective Green, g (s)	28.1	28.1		28.1	28.1	28.1	93.0	85.9	85.9	87.8	83.3	83.3
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.66	0.61	0.61	0.63	0.59	0.59
Clearance Time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	277	603		155	381	324	235	2150	958	292	2085	750
v/s Ratio Prot		0.13			0.02		c0.02	c0.30		0.00	c0.39	
v/s Ratio Perm	0.01			c0.19		0.01	0.26		0.03	0.08		0.03
v/c Ratio	0.03	0.62		0.96	0.11	0.03	0.42	0.49	0.05	0.13	0.65	0.05
Uniform Delay, d1	45.0	51.1		55.4	45.8	45.0	13.6	14.9	10.8	10.8	18.7	11.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	1.5		60.1	0.0	0.0	0.4	0.8	0.1	0.1	1.6	0.1
Delay (s)	45.0	52.6		115.5	45.8	45.0	14.0	15.7	10.9	10.8	20.3	11.9
Level of Service	D	D		F	D	D	B	B	B	B	C	B
Approach Delay (s)		52.4			88.4			15.2			19.7	
Approach LOS		D			F			B			B	
Intersection Summary												
HCM 2000 Control Delay			26.9				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			21.5		
Intersection Capacity Utilization			86.8%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 11: N Federal Hwy & Jeffery St





















2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	364	6	146	42	50	97	1026	81	37	1328	58
Future Volume (veh/h)	9	364	6	146	42	50	97	1026	81	37	1328	58
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	1900	1604	1900	1870	1900	1900	1900	1856	1870	1796	1856	1530
Adj Flow Rate, veh/h	9	371	6	149	43	51	99	1047	83	38	1355	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	20	0	2	0	0	0	3	2	7	3	25
Cap, veh/h	331	704	11	175	436	369	240	2079	932	298	2048	750
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.59	0.59	0.03	0.58	0.58
Sat Flow, veh/h	1323	3069	50	1006	1900	1610	1810	3526	1580	1711	3526	1292
Grp Volume(v), veh/h	9	184	193	149	43	51	99	1047	83	38	1355	59
Grp Sat Flow(s),veh/h/ln	1323	1523	1595	1006	1900	1610	1810	1763	1580	1711	1763	1292
Q Serve(g_s), s	0.8	14.8	14.9	17.2	2.5	3.5	3.1	24.3	3.2	1.2	36.6	2.8
Cycle Q Clear(g_c), s	3.3	14.8	14.9	32.1	2.5	3.5	3.1	24.3	3.2	1.2	36.6	2.8
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	349	366	175	436	369	240	2079	932	298	2048	750
V/C Ratio(X)	0.03	0.53	0.53	0.85	0.10	0.14	0.41	0.50	0.09	0.13	0.66	0.08
Avail Cap(c_a), veh/h	331	349	366	175	436	369	410	2079	932	473	2048	750
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)	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	47.3	47.3	62.8	42.5	42.9	17.3	16.8	12.4	13.0	20.0	12.9
Incr Delay (d2), s/veh	0.0	0.5	0.5	29.4	0.0	0.1	0.4	0.9	0.2	0.1	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.8	6.0	6.8	1.2	1.4	1.2	9.5	1.1	0.5	14.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	47.8	47.8	92.2	42.6	43.0	17.7	17.6	12.6	13.1	21.7	13.1
LnGrp LOS	D	D	D	F	D	D	B	B	B	B	C	B
Approach Vol, veh/h	386			243			1229			1452		
Approach Delay, s/veh	47.7			73.1			17.3			21.1		
Approach LOS	D			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	89.3		40.0	11.9	88.1		40.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	18.2	68.2		32.1	18.2	68.2		32.1				
Max Q Clear Time (g_c+I1), s	3.2	26.3		16.9	5.1	38.6		34.1				
Green Ext Time (p_c), s	0.0	5.3		1.4	0.1	7.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	26.6											
HCM 6th LOS	C											

Timings
12: N Dixie Hwy & Hidden Valley Blvd

2045 AM Build W Mitigation 1-1

09/28/2022

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	186	190	56	89	27	281	56	118	513	121
Future Volume (vph)	186	190	56	89	27	281	56	118	513	121
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases			8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	13.2	34.2	13.2	26.2	13.8	38.4	38.4	13.8	26.8	26.8
Total Split (s)	15.0	30.0	15.0	30.0	15.0	60.0	60.0	15.0	60.0	60.0
Total Split (%)	12.5%	25.0%	12.5%	25.0%	12.5%	50.0%	50.0%	12.5%	50.0%	50.0%
Yellow Time (s)	3.7	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	7.4	7.4	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.9	16.6	18.6	12.6	30.4	24.8	24.8	37.1	34.4	34.4
Actuated g/C Ratio	0.08	0.20	0.22	0.15	0.37	0.30	0.30	0.45	0.41	0.41
v/c Ratio	1.30	0.35	0.20	0.28	0.10	0.54	0.10	0.27	0.69	0.16
Control Delay	208.0	31.1	24.6	21.8	12.1	27.8	0.3	13.5	26.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	208.0	31.1	24.6	21.8	12.1	27.8	0.3	13.5	26.7	1.1
LOS	F	C	C	C	B	C	A	B	C	A
Approach Delay		108.1		22.6		22.4			20.5	
Approach LOS		F		C		C			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 83

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.30

Intersection Signal Delay: 42.5









Intersection LOS: D

Intersection Capacity Utilization 77.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd

 Ø1	 Ø2	 Ø3	 Ø4
15 s	60 s	15 s	30 s
 Ø5	 Ø6	 Ø7	 Ø8
15 s	60 s	15 s	30 s

Queues

2045 AM Build W Mitigation 1-1

09/28/2022

12: N Dixie Hwy & Hidden Valley Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	192	249	58	159	28	290	58	122	529	125
v/c Ratio	1.30	0.35	0.20	0.28	0.10	0.54	0.10	0.27	0.69	0.16
Control Delay	208.0	31.1	24.6	21.8	12.1	27.8	0.3	13.5	26.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	208.0	31.1	24.6	21.8	12.1	27.8	0.3	13.5	26.7	1.1
Queue Length 50th (ft)	~111	49	18	20	7	124	0	33	189	0
Queue Length 95th (ft)	#320	112	59	58	21	200	0	64	399	8
Internal Link Dist (ft)		221		597		5728			435	
Turn Bay Length (ft)	290		140		295		295	290		270
Base Capacity (vph)	148	988	313	931	321	1155	1074	456	1189	1097
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.25	0.19	0.17	0.09	0.25	0.05	0.27	0.44	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

12: N Dixie Hwy & Hidden Valley Blvd























2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	190	51	56	89	65	27	281	56	118	513	121
Future Volume (vph)	186	190	51	56	89	65	27	281	56	118	513	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.2	8.2		8.2	8.2		7.4	7.4	7.4	7.4	7.4	7.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	3450		1750	3302		1719	1792	1563	1787	1845	1599
Flt Permitted	0.95	1.00		0.60	1.00		0.30	1.00	1.00	0.43	1.00	1.00
Satd. Flow (perm)	1787	3450		1100	3302		541	1792	1563	817	1845	1599
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	192	196	53	58	92	67	28	290	58	122	529	125
RTOR Reduction (vph)	0	20	0	0	56	0	0	0	39	0	0	77
Lane Group Flow (vph)	192	229	0	58	103	0	28	290	19	122	529	48
Confl. Peds. (#/hr)	1		2	2		1			1	1		
Heavy Vehicles (%)	1%	1%	0%	3%	1%	2%	5%	6%	2%	1%	3%	1%
Turn Type	Prot	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases				8			2		2	6		6
Actuated Green, G (s)	6.9	16.6		19.3	14.5		31.9	29.7	29.7	41.3	34.4	34.4
Effective Green, g (s)	6.9	16.6		19.3	14.5		31.9	29.7	29.7	41.3	34.4	34.4
Actuated g/C Ratio	0.08	0.19		0.22	0.16		0.36	0.33	0.33	0.46	0.39	0.39
Clearance Time (s)	8.2	8.2		8.2	8.2		7.4	7.4	7.4	7.4	7.4	7.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	138	642		272	536		222	596	520	453	711	616
v/s Ratio Prot	c0.11	c0.07		0.01	0.03		0.00	0.16		c0.02	c0.29	
v/s Ratio Perm				0.03			0.04		0.01	0.10		0.03
v/c Ratio	1.39	0.36		0.21	0.19		0.13	0.49	0.04	0.27	0.74	0.08
Uniform Delay, d1	41.1	31.6		28.3	32.3		19.4	23.7	20.1	14.3	23.6	17.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	214.2	0.1		0.1	0.1		0.1	0.2	0.0	0.1	3.7	0.0
Delay (s)	255.4	31.8		28.5	32.3		19.5	23.9	20.1	14.4	27.3	17.4
Level of Service	F	C		C	C		B	C	C	B	C	B
Approach Delay (s)		129.1			31.3			23.0			23.7	
Approach LOS		F			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			50.1			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			89.2			Sum of lost time (s)			31.2			
Intersection Capacity Utilization			77.5%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 12: N Dixie Hwy & Hidden Valley Blvd

2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	190	51	56	89	65	27	281	56	118	513	121
Future Volume (veh/h)	186	190	51	56	89	65	27	281	56	118	513	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	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	1885	1885	1900	1856	1885	1870	1826	1811	1870	1885	1856	1885
Adj Flow Rate, veh/h	192	196	53	58	92	67	28	290	58	122	529	125
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	0	3	1	2	5	6	2	1	3	1
Cap, veh/h	158	551	145	325	318	212	186	519	454	372	604	519
Arrive On Green	0.09	0.20	0.20	0.05	0.15	0.15	0.03	0.29	0.29	0.07	0.33	0.33
Sat Flow, veh/h	1795	2801	738	1767	2050	1369	1739	1811	1583	1795	1856	1596
Grp Volume(v), veh/h	192	123	126	58	79	80	28	290	58	122	529	125
Grp Sat Flow(s),veh/h/ln	1795	1791	1748	1767	1791	1628	1739	1811	1583	1795	1856	1596
Q Serve(g_s), s	6.8	4.6	4.8	2.1	3.0	3.4	0.9	10.5	2.1	3.6	20.8	4.4
Cycle Q Clear(g_c), s	6.8	4.6	4.8	2.1	3.0	3.4	0.9	10.5	2.1	3.6	20.8	4.4
Prop In Lane	1.00		0.42	1.00		0.84	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	352	344	325	277	252	186	519	454	372	604	519
V/C Ratio(X)	1.22	0.35	0.37	0.18	0.29	0.32	0.15	0.56	0.13	0.33	0.88	0.24
Avail Cap(c_a), veh/h	158	504	492	398	504	458	306	1230	1075	426	1260	1084
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	35.3	26.8	26.9	25.6	28.9	29.1	20.6	23.5	20.5	18.1	24.7	19.1
Incr Delay (d2), s/veh	142.2	0.2	0.2	0.1	0.2	0.3	0.1	0.4	0.0	0.2	1.7	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	9.1	1.9	2.0	0.9	1.3	1.3	0.3	4.2	0.8	1.4	8.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	177.5	27.1	27.2	25.7	29.1	29.3	20.7	23.8	20.5	18.3	26.3	19.2
LnGrp LOS	F	C	C	C	C	C	C	C	C	B	C	B
Approach Vol, veh/h		441			217			376			776	
Approach Delay, s/veh		92.6			28.3			23.1			23.9	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	29.6	11.8	23.4	9.7	32.6	15.0	20.2				
Change Period (Y+Rc), s	7.4	7.4	* 8.2	* 8.2	7.4	7.4	* 8.2	* 8.2				
Max Green Setting (Gmax), s	7.6	52.6	* 6.8	* 22	7.6	52.6	* 6.8	* 22				
Max Q Clear Time (g_c+l1), s	5.6	12.5	4.1	6.8	2.9	22.8	8.8	5.4				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.8	0.0	2.4	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay 41.0
HCM 6th LOS D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
13: Jeffery St & N Dixie Hwy

2045 AM Build W Mitigation 1-1
09/28/2022

	→	←	↖	↑	↘	↓	↙
Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔	↖	↑	↘	↑	↙
Traffic Volume (vph)	338	119	69	418	4	553	142
Future Volume (vph)	338	119	69	418	4	553	142
Turn Type	NA	NA	Prot	NA	Prot	NA	Perm
Protected Phases	4	8	5	2	1	6	
Permitted Phases							6
Detector Phase	4	8	5	2	1	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	9.5	35.5	9.5	35.5	35.5
Total Split (%)	25.0%	25.0%	10.6%	39.4%	10.6%	39.4%	39.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	None	Max	Max
Act Effct Green (s)	15.6	9.6	9.4	49.0	5.9	39.6	39.6
Actuated g/C Ratio	0.17	0.11	0.10	0.54	0.07	0.44	0.44
v/c Ratio	0.71	0.45	0.41	0.48	0.04	0.73	0.20
Control Delay	40.6	40.3	44.0	16.7	40.2	30.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	40.3	44.0	16.7	40.2	30.9	6.4
LOS	D	D	D	B	D	C	A
Approach Delay	40.6	40.3		20.5		25.9	
Approach LOS	D	D		C		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 9.5 (11%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 29.0

Intersection LOS: C

Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: Jeffery St & N Dixie Hwy

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Queues
13: Jeffery St & N Dixie Hwy

2045 AM Build W Mitigation 1-1
09/28/2022



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	433	165	75	472	4	601	154
v/c Ratio	0.71	0.45	0.41	0.48	0.04	0.73	0.20
Control Delay	40.6	40.3	44.0	16.7	40.2	30.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	40.3	44.0	16.7	40.2	30.9	6.4
Queue Length 50th (ft)	119	45	40	146	2	294	9
Queue Length 95th (ft)	165	75	83	326	13	#537	51
Internal Link Dist (ft)	421	966		1902		5728	
Turn Bay Length (ft)			150		150		170
Base Capacity (vph)	704	686	184	992	89	819	767
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.24	0.41	0.48	0.04	0.73	0.20

Intersection Summary




















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

HCM Signalized Intersection Capacity Analysis

2045 AM Build W Mitigation 1-1




















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13: Jeffery St & N Dixie Hwy

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	338	37	27	119	6	69	418	17	4	553	142
Future Volume (vph)	24	338	37	27	119	6	69	418	17	4	553	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.99			0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3480			3414		1770	1819		1357	1863	1583
Flt Permitted		1.00			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3480			3414		1770	1819		1357	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	367	40	29	129	7	75	454	18	4	601	154
RTOR Reduction (vph)	0	9	0	0	4	0	0	1	0	0	0	72
Lane Group Flow (vph)	0	424	0	0	161	0	75	471	0	4	601	82
Heavy Vehicles (%)	2%	2%	2%	5%	2%	40%	2%	4%	0%	33%	2%	2%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		15.6			9.6		8.1	45.5		1.3	38.7	38.7
Effective Green, g (s)		15.6			9.6		8.1	45.5		1.3	38.7	38.7
Actuated g/C Ratio		0.17			0.11		0.09	0.51		0.01	0.43	0.43
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		603			364		159	919		19	801	680
v/s Ratio Prot		c0.12			c0.05		c0.04	0.26		0.00	c0.32	
v/s Ratio Perm												0.05
v/c Ratio		0.70			0.44		0.47	0.51		0.21	0.75	0.12
Uniform Delay, d1		35.0			37.7		38.9	14.8		43.8	21.6	15.4
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		3.7			0.9		2.2	2.0		5.5	6.4	0.4
Delay (s)		38.7			38.6		41.1	16.9		49.3	28.0	15.8
Level of Service		D			D		D	B		D	C	B
Approach Delay (s)		38.7			38.6			20.2			25.6	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM 2000 Control Delay		28.2			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.67										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			18.0				
Intersection Capacity Utilization		63.8%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
13: Jeffery St & N Dixie Hwy

2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	338	37	27	119	6	69	418	17	4	553	142
Future Volume (veh/h)	24	338	37	27	119	6	69	418	17	4	553	142
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	1826	1870	1307	1870	1841	1900	1411	1870	1870
Adj Flow Rate, veh/h	26	367	40	29	129	7	75	454	18	4	601	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	2	40	2	4	0	33	2	2
Cap, veh/h	32	468	53	44	207	12	96	1007	40	7	980	830
Arrive On Green	0.15	0.15	0.15	0.07	0.07	0.07	0.05	0.57	0.57	0.01	0.52	0.52
Sat Flow, veh/h	211	3101	354	618	2899	164	1781	1758	70	1344	1870	1585
Grp Volume(v), veh/h	229	0	204	86	0	79	75	0	472	4	601	154
Grp Sat Flow(s),veh/h/ln	1860	0	1807	1839	0	1841	1781	0	1828	1344	1870	1585
Q Serve(g_s), s	10.7	0.0	9.7	4.1	0.0	3.7	3.7	0.0	13.4	0.3	20.3	4.6
Cycle Q Clear(g_c), s	10.7	0.0	9.7	4.1	0.0	3.7	3.7	0.0	13.4	0.3	20.3	4.6
Prop In Lane	0.11		0.20	0.34		0.09	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	280	0	272	131	0	131	96	0	1047	7	980	830
V/C Ratio(X)	0.82	0.00	0.75	0.66	0.00	0.60	0.78	0.00	0.45	0.56	0.61	0.19
Avail Cap(c_a), veh/h	372	0	361	368	0	368	99	0	1047	75	980	830
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	0.00	1.00	0.98	0.00	0.98	1.00	0.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	37.0	0.0	36.6	40.7	0.0	40.5	42.0	0.0	11.1	44.7	15.0	11.3
Incr Delay (d2), s/veh	10.1	0.0	6.0	5.4	0.0	4.2	31.2	0.0	1.4	41.9	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	4.7	2.0	0.0	1.8	2.5	0.0	5.4	0.2	8.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	0.0	42.5	46.1	0.0	44.8	73.2	0.0	12.5	86.5	17.1	11.7
LnGrp LOS	D	A	D	D	A	D	E	A	B	F	B	B
Approach Vol, veh/h		433			165			547			759	
Approach Delay, s/veh		44.9			45.5			20.8			16.4	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	56.0		18.1	9.4	51.6		10.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	31.0		18.0	5.0	31.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	15.4		12.7	5.7	22.3		6.1				
Green Ext Time (p_c), s	0.0	1.8		0.8	0.0	2.4		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				26.7								
HCM 6th LOS				C								

Intersection				
Intersection Delay, s/veh	5.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	62	11	358	521
Demand Flow Rate, veh/h	62	11	368	526
Vehicles Circulating, veh/h	517	378	15	23
Vehicles Exiting, veh/h	32	5	564	366
Ped Vol Crossing Leg, #/h	2	17	0	2
Ped Cap Adj	1.000	0.998	1.000	1.000
Approach Delay, s/veh	5.2	3.9	5.1	6.4
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	62	11	368	526
Cap Entry Lane, veh/h	814	938	1359	1348
Entry HV Adj Factor	1.000	1.000	0.973	0.990
Flow Entry, veh/h	62	11	358	521
Cap Entry, veh/h	814	936	1322	1335
V/C Ratio	0.076	0.012	0.271	0.390
Control Delay, s/veh	5.2	3.9	5.1	6.4
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	2

Intersection						
Intersection Delay, s/veh	4.3					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	248	315	171		
Demand Flow Rate, veh/h	0	254	319	171		
Vehicles Circulating, veh/h	361	39	106	190		
Vehicles Exiting, veh/h	0	106	255	39		
Ped Vol Crossing Leg, #/h	10	3	1	1		
Ped Cap Adj	0.999	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	3.8	4.7	4.5		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	64	4.976	280	4.976
Entry Flow, veh/h	0	190	1326	39	1238	171
Cap Entry Lane, veh/h	955	1326	1.000	1238	0.990	1137
Entry HV Adj Factor	1.000	0.968	64	0.971	277	1.000
Flow Entry, veh/h	0	184	1325	38	1226	171
Cap Entry, veh/h	954	1284	0.048	1202	0.226	1137
V/C Ratio	0.000	0.143	3.1	0.031	4.9	0.150
Control Delay, s/veh	3.8	4.0	A	3.2	A	4.5
LOS	A	A	0	A	1	A
95th %tile Queue, veh	0	1		0		1

Timings
16: RR Crossing & Hidden Valley Blvd

2045 AM Build W Mitigation 1-1
09/28/2022

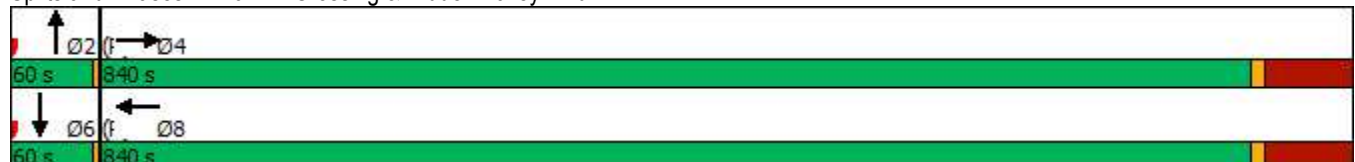
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	427	237	1	1
Future Volume (vph)	427	237	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.15	0.09	0.01	0.01
Control Delay	10.9	10.2	397.0	397.0
Queue Delay	0.0	11.5	0.0	0.0
Total Delay	10.9	21.7	397.0	397.0
LOS	B	C	F	F
Approach Delay	10.9	21.7	397.0	397.0
Approach LOS	B	C	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 175
 Control Type: Pretimed
 Maximum v/c Ratio: 0.15
 Intersection Signal Delay: 15.8
 Intersection Capacity Utilization 78.1%
 Analysis Period (min) 15

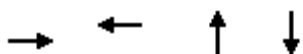
Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 16: RR Crossing & Hidden Valley Blvd



Queues
16: RR Crossing & Hidden Valley Blvd

2045 AM Build W Mitigation 1-1
09/28/2022















Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	464	258	1	1
v/c Ratio	0.15	0.09	0.01	0.01
Control Delay	10.9	10.2	397.0	397.0
Queue Delay	0.0	11.5	0.0	0.0
Total Delay	10.9	21.7	397.0	397.0
Queue Length 50th (ft)	242	126	6	6
Queue Length 95th (ft)	252	137	23	23
Internal Link Dist (ft)	844	221	246	225
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	0	2735	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.88	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

16: RR Crossing & Hidden Valley Blvd

2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	427	0	0	237	0	0	1	0	0	1	0
Future Volume (vph)	0	427	0	0	237	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	464	0	0	258	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	464	0	0	258	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		c0.13			0.07			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.15			0.09			0.01			0.01	
Uniform Delay, d1		10.8			10.1			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		10.9			10.2			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		10.9			10.2			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		11.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.14										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		78.1%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
17: RR Crossing & W Yamato Rd

2045 AM Build W Mitigation 1-1
09/28/2022

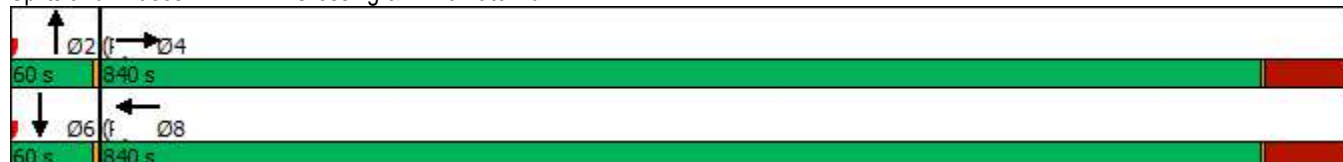
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑↑	↑↑↑	↑	↑
Traffic Volume (vph)	2150	1621	1	1
Future Volume (vph)	2150	1621	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	81.5	81.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.53	0.40	0.01	0.01
Control Delay	16.2	13.3	397.0	397.0
Queue Delay	30.6	40.6	0.0	0.0
Total Delay	46.8	53.9	397.0	397.0
LOS	D	D	F	F
Approach Delay	46.8	53.9	397.0	397.0
Approach LOS	D	D	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 145
 Control Type: Pretimed
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 50.0
 Intersection Capacity Utilization 102.4%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service G

Splits and Phases: 17: RR Crossing & W Yamato Rd



Queues
17: RR Crossing & W Yamato Rd













2045 AM Build W Mitigation 1-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	2337	1762	1	1
v/c Ratio	0.53	0.40	0.01	0.01
Control Delay	16.2	13.3	397.0	397.0
Queue Delay	30.6	40.6	0.0	0.0
Total Delay	46.8	53.9	397.0	397.0
Queue Length 50th (ft)	1293	806	6	6
Queue Length 95th (ft)	1202	769	23	23
Internal Link Dist (ft)	615	274	189	249
Turn Bay Length (ft)				
Base Capacity (vph)	4387	4387	114	114
Starvation Cap Reductn	2182	2758	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.06	1.08	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

17: RR Crossing & W Yamato Rd

2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↑			↑	
Traffic Volume (vph)	0	2150	0	0	1621	0	0	1	0	0	1	0
Future Volume (vph)	0	2150	0	0	1621	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		5085			5085			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		5085			5085			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2337	0	0	1762	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2337	0	0	1762	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		4387			4387			114			114	
v/s Ratio Prot		c0.46			0.35			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.53			0.40			0.01			0.01	
Uniform Delay, d1		15.7			13.0			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.3			0.1			0.1	
Delay (s)		16.1			13.2			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		16.1			13.2			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		15.1			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		102.4%			ICU Level of Service			G				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
18: RR Crossing & Spanish River Blvd

2045 AM Build W Mitigation 1-1
09/28/2022

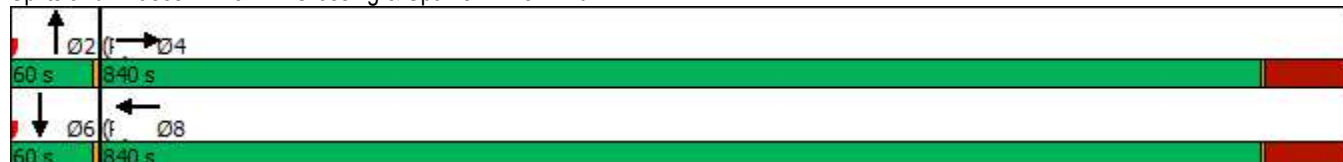
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	998	917	1	1
Future Volume (vph)	998	917	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	141.5	141.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.36	0.33	0.01	0.01
Control Delay	12.6	12.1	397.0	397.0
Queue Delay	11.4	35.0	0.0	0.0
Total Delay	24.0	47.1	397.0	397.0
LOS	C	D	F	F
Approach Delay	24.0	47.1	397.0	397.0
Approach LOS	C	D	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 165
 Control Type: Pretimed
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 35.4
 Intersection Capacity Utilization 88.4%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 18: RR Crossing & Spanish River Blvd















Queues
18: RR Crossing & Spanish River Blvd

2045 AM Build W Mitigation 1-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1085	997	1	1
v/c Ratio	0.36	0.33	0.01	0.01
Control Delay	12.6	12.1	397.0	397.0
Queue Delay	11.4	35.0	0.0	0.0
Total Delay	24.0	47.1	397.0	397.0
Queue Length 50th (ft)	672	596	6	6
Queue Length 95th (ft)	662	591	23	23
Internal Link Dist (ft)	31	267	152	280
Turn Bay Length (ft)				
Base Capacity (vph)	3053	3053	114	114
Starvation Cap Reductn	1950	2113	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.98	1.06	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis 18: RR Crossing & Spanish River Blvd

2045 AM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	998	0	0	917	0	0	1	0	0	1	0
Future Volume (vph)	0	998	0	0	917	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1085	0	0	997	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1085	0	0	997	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		3053			3053			114			114	
v/s Ratio Prot		c0.31			0.28			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.36			0.33			0.01			0.01	
Uniform Delay, d1		12.2			11.8			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.3			0.1			0.1	
Delay (s)		12.5			12.1			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		12.5			12.1			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		12.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		88.4%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
20: RR Crossing & NW 20th St

2045 AM Build W Mitigation 1-1

09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	470	559	1	1
Future Volume (vph)	470	559	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.17	0.20	0.01	0.01
Control Delay	11.1	11.5	397.0	397.0
Queue Delay	1.4	10.2	0.0	0.0
Total Delay	12.5	21.7	397.0	397.0
LOS	B	C	F	F
Approach Delay	12.5	21.7	397.0	397.0
Approach LOS	B	C	F	F

Intersection Summary

Cycle Length: 900

Actuated Cycle Length: 900

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 175

Control Type: Pretimed

Maximum v/c Ratio: 0.20

Intersection Signal Delay: 18.2

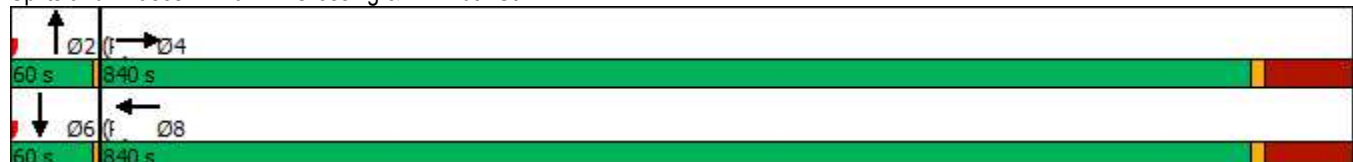
Intersection LOS: B

Intersection Capacity Utilization 81.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 20: RR Crossing & NW 20th St



Queues
20: RR Crossing & NW 20th St

2045 AM Build W Mitigation 1-1
09/28/2022













	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	511	608	1	1
v/c Ratio	0.17	0.20	0.01	0.01
Control Delay	11.1	11.5	397.0	397.0
Queue Delay	1.4	10.2	0.0	0.0
Total Delay	12.5	21.7	397.0	397.0
Queue Length 50th (ft)	270	332	6	6
Queue Length 95th (ft)	280	340	23	23
Internal Link Dist (ft)	941	417	469	497
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	2260	2384	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.67	0.95	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

20: RR Crossing & NW 20th St

2045 AM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	470	0	0	559	0	0	1	0	0	1	0
Future Volume (vph)	0	470	0	0	559	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	511	0	0	608	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	511	0	0	608	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		0.14			c0.17			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.17			0.20			0.01			0.01	
Uniform Delay, d1		11.0			11.3			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		11.1			11.5			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		11.1			11.5			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		12.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.19										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		81.7%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
35: RR Crossing & Jeffery St

2045 AM Build W Mitigation 1-1
09/28/2022

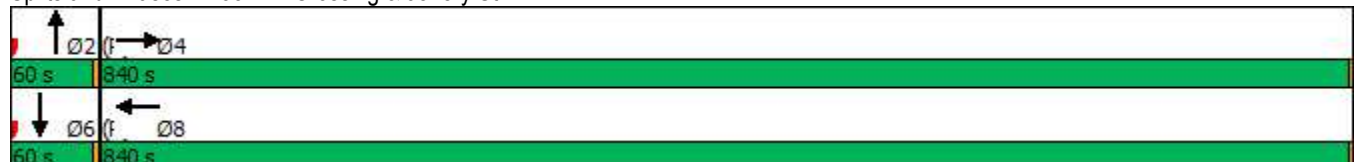
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	399	330	1	1
Future Volume (vph)	399	330	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	835.5	835.5	55.5	55.5
Actuated g/C Ratio	0.93	0.93	0.06	0.06
v/c Ratio	0.13	0.11	0.01	0.01
Control Delay	2.7	2.6	397.0	397.0
Queue Delay	2.4	3.9	0.0	0.0
Total Delay	5.1	6.5	397.0	397.0
LOS	A	A	F	F
Approach Delay	5.1	6.5	397.0	397.0
Approach LOS	A	A	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 45
 Control Type: Pretimed
 Maximum v/c Ratio: 0.13
 Intersection Signal Delay: 6.7
 Intersection Capacity Utilization 22.7%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 35: RR Crossing & Jeffery St



Queues
35: RR Crossing & Jeffery St

2045 AM Build W Mitigation 1-1
09/28/2022













	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	434	359	1	1
v/c Ratio	0.13	0.11	0.01	0.01
Control Delay	2.7	2.6	397.0	397.0
Queue Delay	2.4	3.9	0.0	0.0
Total Delay	5.1	6.5	397.0	397.0
Queue Length 50th (ft)	105	85	6	6
Queue Length 95th (ft)	111	91	23	23
Internal Link Dist (ft)	641	421	404	325
Turn Bay Length (ft)				
Base Capacity (vph)	3285	3285	114	114
Starvation Cap Reductn	2691	2822	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	0.78	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

35: RR Crossing & Jeffery St

2045 AM Build W Mitigation 1-1



















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	399	0	0	330	0	0	1	0	0	1	0
Future Volume (vph)	0	399	0	0	330	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	434	0	0	359	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	434	0	0	359	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		835.5			835.5			55.5			55.5	
Effective Green, g (s)		835.5			835.5			55.5			55.5	
Actuated g/C Ratio		0.93			0.93			0.06			0.06	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Lane Grp Cap (vph)		3285			3285			114			114	
v/s Ratio Prot		c0.12			0.10			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.13			0.11			0.01			0.01	
Uniform Delay, d1		2.6			2.6			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		2.7			2.6			396.6			396.6	
Level of Service		A			A			F			F	
Approach Delay (s)		2.7			2.6			396.6			396.6	
Approach LOS		A			A			F			F	
Intersection Summary												
HCM 2000 Control Delay		3.7			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.12										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			9.0				
Intersection Capacity Utilization		22.7%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology does not support cycle length greater than 55 seconds.

Timings
1: NW 2nd Ave & NW 20th St

2045 PM Build W Mitigation 1-1
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	107	286	189	314	84	439	169	148	598
Future Volume (vph)	107	286	189	314	84	439	169	148	598
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	17.0	34.0	18.0	35.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	14.2%	28.3%	15.0%	29.2%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.9	20.9	33.6	22.7	56.9	50.9	50.9	63.6	54.2
Actuated g/C Ratio	0.25	0.17	0.28	0.19	0.47	0.42	0.42	0.53	0.45
v/c Ratio	0.60	0.69	0.78	0.86	0.26	0.32	0.24	0.35	0.46
Control Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
LOS	D	D	D	D	B	C	A	B	C
Approach Delay		46.2		47.4		19.0			23.0
Approach LOS		D		D		B			C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 9 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 33.1

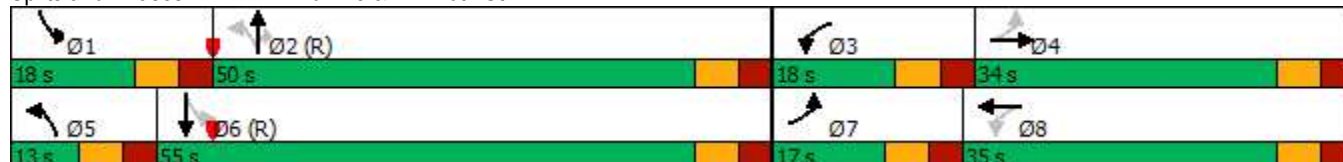
Intersection LOS: C

Intersection Capacity Utilization 73.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues
1: NW 2nd Ave & NW 20th St

2045 PM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	118	430	208	664	92	482	186	163	728
v/c Ratio	0.60	0.69	0.78	0.86	0.26	0.32	0.24	0.35	0.46
Control Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
Queue Length 50th (ft)	65	148	121	196	32	132	0	60	202
Queue Length 95th (ft)	104	194	#186	255	65	192	48	108	276
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	211	791	268	907	353	1500	784	494	1598
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.54	0.78	0.73	0.26	0.32	0.24	0.33	0.46

Intersection Summary























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

HCM Signalized Intersection Capacity Analysis

2045 PM Build W Mitigation 1-1

1: NW 2nd Ave & NW 20th St























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	286	106	189	314	290	84	439	169	148	598	65
Future Volume (vph)	107	286	106	189	314	290	84	439	169	148	598	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.93		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3377		1768	3294		1805	3539	1599	1719	3525	
Flt Permitted	0.19	1.00		0.30	1.00		0.32	1.00	1.00	0.41	1.00	
Satd. Flow (perm)	360	3377		561	3294		609	3539	1599	740	3525	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	118	314	116	208	345	319	92	482	186	163	657	71
RTOR Reduction (vph)	0	34	0	0	147	0	0	0	107	0	6	0
Lane Group Flow (vph)	118	396	0	208	517	0	92	482	79	163	722	0
Confl. Peds. (#/hr)	2		9	9		2						
Heavy Vehicles (%)	1%	2%	2%	2%	1%	1%	0%	2%	1%	5%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	29.9	20.9		33.5	22.7		56.9	50.9	50.9	63.7	54.3	
Effective Green, g (s)	29.9	20.9		33.5	22.7		56.9	50.9	50.9	63.7	54.3	
Actuated g/C Ratio	0.25	0.17		0.28	0.19		0.47	0.42	0.42	0.53	0.45	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.0	2.0	2.0	1.8	2.0	
Lane Grp Cap (vph)	196	588		265	623		348	1501	678	469	1595	
v/s Ratio Prot	0.04	0.12		c0.07	c0.16		0.01	0.14		c0.03	c0.20	
v/s Ratio Perm	0.10			0.15			0.11		0.05	0.16		
v/c Ratio	0.60	0.67		0.78	0.83		0.26	0.32	0.12	0.35	0.45	
Uniform Delay, d1	37.2	46.4		36.3	46.8		17.7	23.0	20.9	14.9	22.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.5	2.4		13.1	8.8		0.1	0.6	0.3	0.2	0.9	
Delay (s)	40.7	48.8		49.4	55.6		17.9	23.6	21.3	15.1	23.5	
Level of Service	D	D		D	E		B	C	C	B	C	
Approach Delay (s)		47.0			54.1			22.3			22.0	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM 2000 Control Delay	35.7			HCM 2000 Level of Service			D					
HCM 2000 Volume to Capacity ratio	0.60											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)			28.0					
Intersection Capacity Utilization	73.2%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St



















2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	286	106	189	314	290	84	439	169	148	598	65
Future Volume (veh/h)	107	286	106	189	314	290	84	439	169	148	598	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	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	1885	1870	1870	1870	1885	1885	1900	1870	1885	1826	1885	1900
Adj Flow Rate, veh/h	118	314	116	208	345	319	92	482	186	163	657	71
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	2	2	2	1	1	0	2	1	5	1	0
Cap, veh/h	200	503	182	301	398	350	354	1444	649	418	1413	153
Arrive On Green	0.07	0.20	0.20	0.09	0.22	0.22	0.04	0.41	0.41	0.07	0.43	0.43
Sat Flow, veh/h	1795	2546	921	1781	1791	1578	1810	3554	1598	1739	3261	352
Grp Volume(v), veh/h	118	217	213	208	345	319	92	482	186	163	360	368
Grp Sat Flow(s),veh/h/ln	1795	1777	1690	1781	1791	1578	1810	1777	1598	1739	1791	1822
Q Serve(g_s), s	6.2	13.4	13.9	11.0	22.3	23.7	3.5	11.2	9.4	6.5	17.1	17.2
Cycle Q Clear(g_c), s	6.2	13.4	13.9	11.0	22.3	23.7	3.5	11.2	9.4	6.5	17.1	17.2
Prop In Lane	1.00		0.54	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	200	351	334	301	398	350	354	1444	649	418	776	790
V/C Ratio(X)	0.59	0.62	0.64	0.69	0.87	0.91	0.26	0.33	0.29	0.39	0.46	0.47
Avail Cap(c_a), veh/h	229	400	380	301	418	368	365	1444	649	454	776	790
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	0.99	0.99	0.99
Uniform Delay (d), s/veh	36.8	44.0	44.2	35.6	45.0	45.5	20.0	24.5	23.9	18.7	24.1	24.1
Incr Delay (d2), s/veh	1.4	1.3	1.8	5.5	15.9	24.5	0.1	0.6	1.1	0.2	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.0	5.9	5.3	11.5	11.5	1.5	4.8	3.7	2.6	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	45.3	46.0	41.1	60.9	70.0	20.2	25.1	25.0	19.0	26.1	26.1
LnGrp LOS	D	D	D	D	E	E	C	C	C	B	C	C
Approach Vol, veh/h		548			872			760			891	
Approach Delay, s/veh		44.0			59.5			24.5			24.8	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	55.8	18.0	30.7	12.3	59.0	15.1	33.6				
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	11.0	43.0	11.0	27.0	6.0	48.0	10.0	28.0				
Max Q Clear Time (g_c+I1), s	8.5	13.2	13.0	15.9	5.5	19.2	8.2	25.7				
Green Ext Time (p_c), s	0.1	1.8	0.0	0.8	0.0	1.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			38.0									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
2: N Dixie Hwy & NW 20th St

2045 PM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	134	308	102	273	236	989	93	1029	182
Future Volume (vph)	134	308	102	273	236	989	93	1029	182
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	41.5	11.5	45.5	11.4	42.4	11.4	24.4	24.4
Total Split (s)	25.0	33.0	22.0	30.0	20.0	85.0	20.0	85.0	85.0
Total Split (%)	15.6%	20.6%	13.8%	18.8%	12.5%	53.1%	12.5%	53.1%	53.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	C-Max	Max	C-Max	C-Max
Act Effect Green (s)	45.0	26.5	39.0	23.5	92.2	78.6	92.2	78.6	78.6
Actuated g/C Ratio	0.28	0.17	0.24	0.15	0.58	0.49	0.58	0.49	0.49
v/c Ratio	0.49	0.81	0.47	0.67	0.90	0.72	0.39	0.64	0.22
Control Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
LOS	D	E	D	E	D	C	C	D	B
Approach Delay		65.8		64.7		38.0		41.9	
Approach LOS		E		E		D		D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 15 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 46.8

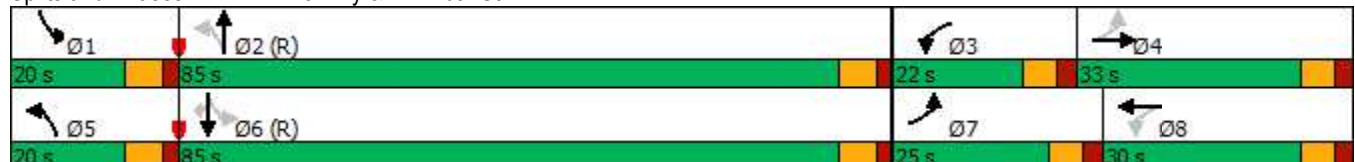
Intersection LOS: D

Intersection Capacity Utilization 102.9%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St

2045 PM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	146	482	111	349	257	1233	101	1118	198
v/c Ratio	0.49	0.81	0.47	0.67	0.90	0.72	0.39	0.64	0.22
Control Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
Queue Length 50th (ft)	117	240	87	179	118	520	66	558	78
Queue Length 95th (ft)	180	309	141	238	#289	606	m91	m630	m109
Internal Link Dist (ft)		417		733		683		6742	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	299	593	237	521	285	1714	256	1738	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.81	0.47	0.67	0.90	0.72	0.39	0.64	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















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

HCM Signalized Intersection Capacity Analysis

2045 PM Build W Mitigation 1-1

2: N Dixie Hwy & NW 20th St






















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	308	135	102	273	48	236	989	145	93	1029	182
Future Volume (vph)	134	308	135	102	273	48	236	989	145	93	1029	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	3397		1805	3493		1770	3476		1787	3539	1615
Flt Permitted	0.30	1.00		0.23	1.00		0.15	1.00		0.11	1.00	1.00
Satd. Flow (perm)	558	3397		428	3493		275	3476		213	3539	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	146	335	147	111	297	52	257	1075	158	101	1118	198
RTOR Reduction (vph)	0	31	0	0	9	0	0	7	0	0	0	101
Lane Group Flow (vph)	146	451	0	111	340	0	257	1226	0	101	1118	97
Confl. Peds. (#/hr)	1		1	1		1						
Heavy Vehicles (%)	1%	1%	1%	0%	1%	0%	2%	2%	1%	1%	2%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	45.0	26.5		39.0	23.5		92.2	78.6		92.2	78.6	78.6
Effective Green, g (s)	45.0	26.5		39.0	23.5		92.2	78.6		92.2	78.6	78.6
Actuated g/C Ratio	0.28	0.17		0.24	0.15		0.58	0.49		0.58	0.49	0.49
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	299	562		237	513		285	1707		256	1738	793
v/s Ratio Prot	c0.06	c0.13		0.05	0.10		c0.08	0.35		0.03	0.32	
v/s Ratio Perm	0.08			0.07			c0.44			0.19		0.06
v/c Ratio	0.49	0.80		0.47	0.66		0.90	0.72		0.39	0.64	0.12
Uniform Delay, d1	45.5	64.2		49.3	64.5		24.3	32.0		21.6	30.3	22.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.56	1.53	6.17
Incremental Delay, d2	5.6	11.5		6.5	6.6		33.1	2.6		3.4	1.4	0.2
Delay (s)	51.1	75.8		55.8	71.1		57.4	34.6		37.2	47.6	136.1
Level of Service	D	E		E	E		E	C		D	D	F
Approach Delay (s)		70.0			67.4			38.6			59.2	
Approach LOS		E			E			D			E	
Intersection Summary												
HCM 2000 Control Delay			54.2			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			25.8			
Intersection Capacity Utilization			102.9%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	308	135	102	273	48	236	989	145	93	1029	182
Future Volume (veh/h)	134	308	135	102	273	48	236	989	145	93	1029	182
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	1885	1885	1885	1900	1885	1900	1870	1870	1885	1885	1870	1900
Adj Flow Rate, veh/h	146	335	147	111	297	52	257	1075	158	101	1118	198
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	1	0	2	2	1	1	2	0
Cap, veh/h	308	404	174	248	448	78	304	1527	224	299	1746	791
Arrive On Green	0.12	0.17	0.17	0.10	0.15	0.15	0.09	0.49	0.49	0.09	0.49	0.49
Sat Flow, veh/h	1795	2436	1049	1810	3052	528	1781	3109	456	1795	3554	1610
Grp Volume(v), veh/h	146	245	237	111	173	176	257	614	619	101	1118	198
Grp Sat Flow(s),veh/h/ln	1795	1791	1694	1810	1791	1789	1781	1777	1788	1795	1777	1610
Q Serve(g_s), s	10.4	21.1	21.8	7.9	14.6	14.9	11.4	42.9	43.1	4.0	37.4	11.4
Cycle Q Clear(g_c), s	10.4	21.1	21.8	7.9	14.6	14.9	11.4	42.9	43.1	4.0	37.4	11.4
Prop In Lane	1.00		0.62	1.00		0.30	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	308	297	281	248	263	263	304	873	878	299	1746	791
V/C Ratio(X)	0.47	0.82	0.85	0.45	0.66	0.67	0.85	0.70	0.71	0.34	0.64	0.25
Avail Cap(c_a), veh/h	308	297	281	248	263	263	304	873	878	299	1746	791
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)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	48.2	64.5	64.8	50.0	64.4	64.6	27.5	31.6	31.7	22.7	30.2	23.6
Incr Delay (d2), s/veh	5.0	21.9	25.3	5.8	12.1	12.8	24.1	4.7	4.7	2.0	1.2	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	5.1	11.4	11.4	4.0	7.5	7.7	6.7	19.2	19.4	1.8	16.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	86.4	90.1	55.8	76.6	77.4	51.5	36.3	36.4	24.7	31.4	24.1
LnGrp LOS	D	F	F	E	E	E	D	D	D	C	C	C
Approach Vol, veh/h	628			460			1490			1417		
Approach Delay, s/veh	80.1			71.9			39.0			29.9		
Approach LOS	F			E			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	85.0	22.0	33.0	20.0	85.0	25.0	30.0				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	78.6	15.5	26.5	13.6	78.6	18.5	23.5				
Max Q Clear Time (g_c+I1), s	6.0	45.1	9.9	23.8	13.4	39.4	12.4	16.9				
Green Ext Time (p_c), s	0.1	3.0	0.1	0.4	0.0	4.0	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay 46.0

HCM 6th LOS D

Notes

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

Timings
3: NW 2nd Ave & NW 28th St

2045 PM Build W Mitigation 1-1
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↑↑	↘	↓↓
Traffic Volume (vph)	21	74	633	44	563
Future Volume (vph)	21	74	633	44	563
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	24.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.0	12.0	39.4	43.6	46.0
Actuated g/C Ratio	0.20	0.20	0.65	0.71	0.75
v/c Ratio	0.06	0.20	0.30	0.09	0.22
Control Delay	20.6	7.6	10.0	5.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	7.6	10.0	5.3	4.8
LOS	C	A	A	A	A
Approach Delay	10.5		10.0		4.8
Approach LOS	B		A		A

Intersection Summary

Cycle Length: 61

Actuated Cycle Length: 61

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 7.7

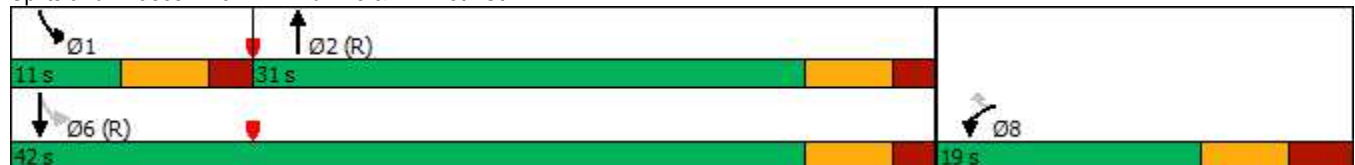
Intersection LOS: A






Intersection Capacity Utilization 50.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: NW 2nd Ave & NW 28th St














					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	22	77	681	46	586
v/c Ratio	0.06	0.20	0.30	0.09	0.22
Control Delay	20.6	7.6	10.0	5.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	7.6	10.0	5.3	4.8
Queue Length 50th (ft)	7	0	91	6	48
Queue Length 95th (ft)	23	29	133	17	72
Internal Link Dist (ft)	439		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	344	376	2299	508	2668
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.20	0.30	0.09	0.22
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

3: NW 2nd Ave & NW 28th St

2045 PM Build W Mitigation 1-1
09/28/2022












						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	21	74	633	21	44	563
Future Volume (vph)	21	74	633	21	44	563
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1599	3556		1735	3539
Flt Permitted	0.95	1.00	1.00		0.32	1.00
Satd. Flow (perm)	1752	1599	3556		580	3539
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	22	77	659	22	46	586
RTOR Reduction (vph)	0	68	3	0	0	0
Lane Group Flow (vph)	22	9	678	0	46	586
Confl. Peds. (#/hr)				2	2	
Heavy Vehicles (%)	3%	1%	1%	0%	4%	2%
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	7.2	7.2	31.8		40.8	40.8
Effective Green, g (s)	7.2	7.2	31.8		40.8	40.8
Actuated g/C Ratio	0.12	0.12	0.52		0.67	0.67
Clearance Time (s)	7.0	7.0	6.0		6.0	6.0
Vehicle Extension (s)	2.0	2.0	2.0		1.8	2.0
Lane Grp Cap (vph)	206	188	1853		444	2367
v/s Ratio Prot	c0.01		c0.19		0.01	c0.17
v/s Ratio Perm		0.01			0.06	
v/c Ratio	0.11	0.05	0.37		0.10	0.25
Uniform Delay, d1	24.0	23.9	8.6		3.9	4.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	0.0	0.6		0.0	0.3
Delay (s)	24.1	23.9	9.2		3.9	4.3
Level of Service	C	C	A		A	A
Approach Delay (s)	23.9		9.2			4.2
Approach LOS	C		A			A
Intersection Summary						
HCM 2000 Control Delay			8.0		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.33			
Actuated Cycle Length (s)			61.0		Sum of lost time (s)	19.0
Intersection Capacity Utilization			50.8%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St



















2045 PM Build W Mitigation 1-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	74	633	21	44	563
Future Volume (veh/h)	21	74	633	21	44	563
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1885	1885	1900	1841	1870
Adj Flow Rate, veh/h	22	77	659	22	46	586
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	1	0	4	2
Cap, veh/h	283	256	1712	57	469	2228
Arrive On Green	0.16	0.16	0.48	0.48	0.04	0.63
Sat Flow, veh/h	1767	1598	3631	118	1753	3647
Grp Volume(v), veh/h	22	77	334	347	46	586
Grp Sat Flow(s),veh/h/ln	1767	1598	1791	1864	1753	1777
Q Serve(g_s), s	0.6	2.6	7.2	7.2	0.7	4.5
Cycle Q Clear(g_c), s	0.6	2.6	7.2	7.2	0.7	4.5
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	283	256	867	902	469	2228
V/C Ratio(X)	0.08	0.30	0.38	0.39	0.10	0.26
Avail Cap(c_a), veh/h	348	314	867	902	535	2228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	0.83	0.83
Uniform Delay (d), s/veh	21.8	22.6	10.0	10.0	6.8	5.1
Incr Delay (d2), s/veh	0.0	0.2	1.2	1.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	2.6	2.7	0.2	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.8	22.9	11.2	11.1	6.8	5.3
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	99		681			632
Approach Delay, s/veh	22.6		11.2			5.4
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.7	35.5			44.2	16.8
Change Period (Y+Rc), s	6.0	6.0			6.0	7.0
Max Green Setting (Gmax), s	5.0	25.0			36.0	12.0
Max Q Clear Time (g_c+I1), s	2.7	9.2			6.5	4.6
Green Ext Time (p_c), s	0.0	1.4			1.6	0.1
Intersection Summary						
HCM 6th Ctrl Delay			9.4			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						

Timings
5: NW 2nd Ave & Spanish River Blvd

2045 PM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	141	816	209	213	1063	246	533	74	330
Future Volume (vph)	141	816	209	213	1063	246	533	74	330
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4	4	8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	18.0	18.0	5.0	18.0	5.0	12.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	40.0	64.0	64.0	24.0	48.0	22.0	50.0	22.0	50.0
Total Split (%)	25.0%	40.0%	40.0%	15.0%	30.0%	13.8%	31.3%	13.8%	31.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	Min
Act Effct Green (s)	83.8	71.1	71.1	86.7	72.5	54.3	39.7	42.3	33.2
Actuated g/C Ratio	0.52	0.44	0.44	0.54	0.45	0.34	0.25	0.26	0.21
v/c Ratio	0.67	0.54	0.28	0.67	0.76	0.89	0.89	0.53	0.61
Control Delay	37.9	36.0	7.5	28.6	41.8	71.5	68.7	48.7	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	36.0	7.5	28.6	41.8	71.5	68.7	48.7	40.6
LOS	D	D	A	C	D	E	E	D	D
Approach Delay		31.1			39.8		69.4		41.8
Approach LOS		C			D		E		D

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 145 (91%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 44.7

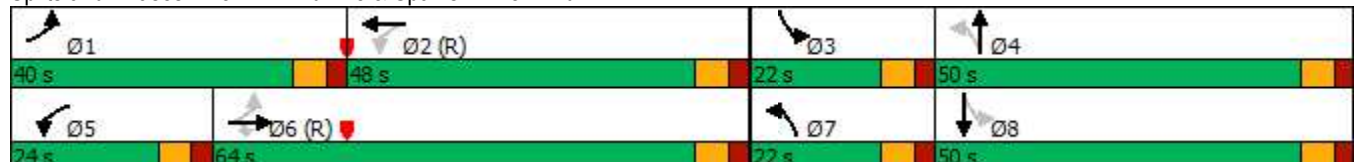
Intersection LOS: D

Intersection Capacity Utilization 90.6%

ICU Level of Service E

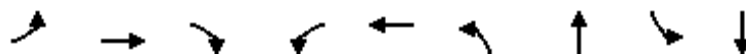
Analysis Period (min) 15

Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

2045 PM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	148	859	220	224	1223	259	774	78	440
v/c Ratio	0.67	0.54	0.28	0.67	0.76	0.89	0.89	0.53	0.61
Control Delay	37.9	36.0	7.5	28.6	41.8	71.5	68.7	48.7	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	36.0	7.5	28.6	41.8	71.5	68.7	48.7	40.6
Queue Length 50th (ft)	70	344	19	111	554	208	400	34	194
Queue Length 95th (ft)	150	475	85	187	#832	#302	454	m54	m180
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	437	1587	794	370	1601	292	961	217	946
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.54	0.28	0.61	0.76	0.89	0.81	0.36	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.























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

HCM Signalized Intersection Capacity Analysis

5: NW 2nd Ave & Spanish River Blvd























2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	816	209	213	1063	99	246	533	202	74	330	88
Future Volume (vph)	141	816	209	213	1063	99	246	533	202	74	330	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3574	1553	1752	3526		1787	3389		1770	3427	
Flt Permitted	0.10	1.00	1.00	0.22	1.00		0.26	1.00		0.12	1.00	
Satd. Flow (perm)	182	3574	1553	401	3526		494	3389		224	3427	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	859	220	224	1119	104	259	561	213	78	347	93
RTOR Reduction (vph)	0	0	104	0	3	0	0	26	0	0	17	0
Lane Group Flow (vph)	148	859	116	224	1220	0	259	748	0	78	423	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	2%	1%	4%	3%	1%	2%	1%	2%	1%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4	4		8		
Actuated Green, G (s)	83.9	71.1	71.1	86.7	72.5		55.2	39.7		42.2	33.2	
Effective Green, g (s)	83.9	71.1	71.1	86.7	72.5		55.2	39.7		42.2	33.2	
Actuated g/C Ratio	0.52	0.44	0.44	0.54	0.45		0.35	0.25		0.26	0.21	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0		1.8	2.0		1.8	2.0	
Lane Grp Cap (vph)	222	1588	690	337	1597		295	840		146	711	
v/s Ratio Prot	0.05	0.24		c0.06	c0.35		c0.08	c0.22		0.03	0.12	
v/s Ratio Perm	0.30		0.07	0.30			0.22			0.11		
v/c Ratio	0.67	0.54	0.17	0.66	0.76		0.88	0.89		0.53	0.60	
Uniform Delay, d1	27.7	32.5	26.7	22.3	36.6		43.9	58.1		47.1	57.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.14	0.71	
Incremental Delay, d2	5.7	1.3	0.5	3.8	3.5		23.5	11.4		1.3	0.6	
Delay (s)	33.5	33.8	27.2	26.1	40.1		67.5	69.5		54.8	41.3	
Level of Service	C	C	C	C	D		E	E		D	D	
Approach Delay (s)		32.6			37.9			69.0			43.4	
Approach LOS		C			D			E			D	
Intersection Summary												
HCM 2000 Control Delay			44.6			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)				26.0		
Intersection Capacity Utilization			90.6%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 5: NW 2nd Ave & Spanish River Blvd



















2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	816	209	213	1063	99	246	533	202	74	330	88
Future Volume (veh/h)	141	816	209	213	1063	99	246	533	202	74	330	88
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	1885	1841	1856	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	148	859	220	224	1119	104	259	561	213	78	347	93
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	4	3	1	2	1	2	1	2	2	2
Cap, veh/h	254	1697	739	344	1643	153	286	602	228	142	523	138
Arrive On Green	0.06	0.47	0.47	0.08	0.50	0.50	0.10	0.24	0.24	0.05	0.19	0.19
Sat Flow, veh/h	1781	3582	1560	1767	3313	308	1795	2520	954	1781	2779	735
Grp Volume(v), veh/h	148	859	220	224	604	619	259	395	379	78	220	220
Grp Sat Flow(s),veh/h/ln	1781	1791	1560	1767	1791	1830	1795	1777	1697	1781	1777	1737
Q Serve(g_s), s	6.8	26.6	13.8	10.4	41.1	41.2	15.5	34.8	35.0	5.6	18.4	18.8
Cycle Q Clear(g_c), s	6.8	26.6	13.8	10.4	41.1	41.2	15.5	34.8	35.0	5.6	18.4	18.8
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.56	1.00		0.42
Lane Grp Cap(c), veh/h	254	1697	739	344	888	907	286	424	405	142	335	327
V/C Ratio(X)	0.58	0.51	0.30	0.65	0.68	0.68	0.90	0.93	0.93	0.55	0.66	0.67
Avail Cap(c_a), veh/h	527	1697	739	398	888	907	286	483	461	231	483	472
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	29.2	25.8	22.2	30.7	30.7	51.7	59.6	59.7	51.6	60.2	60.3
Incr Delay (d2), s/veh	0.8	1.1	1.0	1.9	4.2	4.1	28.5	21.8	23.2	1.2	0.8	0.9
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	2.9	11.7	5.4	4.5	18.6	19.1	5.2	18.2	17.6	2.6	8.4	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	30.2	26.8	24.1	34.9	34.9	80.2	81.4	82.9	52.8	61.0	61.3
LnGrp LOS	C	C	C	C	C	C	F	F	F	D	E	E
Approach Vol, veh/h		1227			1447			1033			518	
Approach Delay, s/veh		29.2			33.2			81.6			59.9	
Approach LOS		C			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	85.8	13.9	44.7	19.1	82.3	22.0	36.6				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	33.5	41.5	15.5	43.5	17.5	57.5	15.5	43.5				
Max Q Clear Time (g_c+I1), s	8.8	43.2	7.6	37.0	12.4	28.6	17.5	20.8				
Green Ext Time (p_c), s	0.2	0.0	0.1	1.2	0.2	3.1	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			47.2									
HCM 6th LOS			D									

Timings
6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	209	746	148	862	311	837	58	668	193
Future Volume (vph)	209	746	148	862	311	837	58	668	193
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	22.0	59.0	22.0	59.0	23.0	64.0	15.0	56.0	56.0
Total Split (%)	13.8%	36.9%	13.8%	36.9%	14.4%	40.0%	9.4%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Min	Max	Min	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	68.0	52.5	68.0	52.5	72.6	57.6	58.2	49.6	49.6
Actuated g/C Ratio	0.42	0.33	0.42	0.33	0.45	0.36	0.36	0.31	0.31
v/c Ratio	1.08	0.99	0.76	0.88	1.22	0.81	0.41	0.69	0.34
Control Delay	127.0	75.9	61.1	60.1	158.6	32.7	48.3	78.6	29.8
Queue Delay	0.0	39.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.0	115.4	61.1	60.1	158.6	32.7	48.3	78.6	29.8
LOS	F	F	E	E	F	C	D	E	C
Approach Delay		117.4		60.2		64.7		66.4	
Approach LOS		F		E		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 150 (94%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay: 78.5

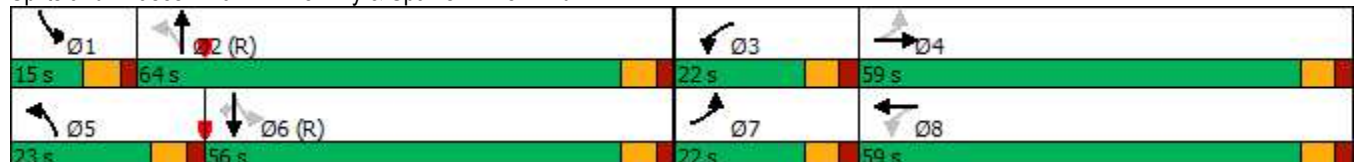
Intersection LOS: E

Intersection Capacity Utilization 94.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 1-1

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	238	1141	168	1023	353	1037	66	759	219
v/c Ratio	1.08	0.99	0.76	0.88	1.22	0.81	0.41	0.69	0.34
Control Delay	127.0	75.9	61.1	60.1	158.6	32.7	48.3	78.6	29.8
Queue Delay	0.0	39.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.0	115.4	61.1	60.1	158.6	32.7	48.3	78.6	29.8
Queue Length 50th (ft)	~226	614	121	531	~324	531	57	438	92
Queue Length 95th (ft)	#395	#741	#224	604	#513	522	m80	496	137
Internal Link Dist (ft)		267		828		6742		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	220	1151	220	1168	290	1276	160	1107	651
Starvation Cap Reductn	0	441	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	1.61	0.76	0.88	1.22	0.81	0.41	0.69	0.34






















Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis






















6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	746	258	148	862	38	311	837	76	58	668	193
Future Volume (vph)	209	746	258	148	862	38	311	837	76	58	668	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	3445		1787	3553		1787	3533		1805	3574	1615
Flt Permitted	0.08	1.00		0.08	1.00		0.16	1.00		0.11	1.00	1.00
Satd. Flow (perm)	143	3445		143	3553		300	3533		206	3574	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	238	848	293	168	980	43	353	951	86	66	759	219
RTOR Reduction (vph)	0	22	0	0	2	0	0	4	0	0	0	151
Lane Group Flow (vph)	238	1120	0	168	1021	0	353	1033	0	66	759	68
Confl. Peds. (#/hr)			4	4								
Heavy Vehicles (%)	1%	0%	1%	1%	1%	0%	1%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	68.0	52.5		68.0	52.5		72.6	57.6		58.2	49.6	49.6
Effective Green, g (s)	68.0	52.5		68.0	52.5		72.6	57.6		58.2	49.6	49.6
Actuated g/C Ratio	0.42	0.33		0.42	0.33		0.45	0.36		0.36	0.31	0.31
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	220	1130		220	1165		290	1271		160	1107	500
v/s Ratio Prot	c0.10	0.32		0.07	0.29		c0.13	0.29		0.02	0.21	
v/s Ratio Perm	c0.35			0.25			c0.43			0.13		0.04
v/c Ratio	1.08	0.99		0.76	0.88		1.22	0.81		0.41	0.69	0.14
Uniform Delay, d1	49.5	53.5		42.0	50.7		34.5	46.3		36.9	48.4	39.8
Progression Factor	1.00	1.00		1.00	1.00		1.54	0.61		1.60	1.56	6.13
Incremental Delay, d2	84.2	24.4		14.5	7.6		119.7	4.5		6.3	2.8	0.5
Delay (s)	133.7	77.9		56.5	58.3		172.9	32.6		65.4	78.0	244.3
Level of Service	F	E		E	E		F	C		E	E	F
Approach Delay (s)		87.6			58.1			68.3			112.1	
Approach LOS		F			E			E			F	
Intersection Summary												
HCM 2000 Control Delay	80.3			HCM 2000 Level of Service			F					
HCM 2000 Volume to Capacity ratio	1.18											
Actuated Cycle Length (s)	160.0			Sum of lost time (s)			25.8					
Intersection Capacity Utilization	94.4%			ICU Level of Service			F					
Analysis Period (min)	15											
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd























2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	746	258	148	862	38	311	837	76	58	668	193
Future Volume (veh/h)	209	746	258	148	862	38	311	837	76	58	668	193
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	1885	1900	1885	1885	1885	1900	1885	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	238	848	293	168	980	43	353	951	86	66	759	219
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	0	1	1	1	0	1	1	0	0	1	0
Cap, veh/h	256	863	298	223	1147	50	303	1196	108	199	1110	499
Arrive On Green	0.10	0.33	0.33	0.10	0.33	0.33	0.10	0.36	0.36	0.05	0.31	0.31
Sat Flow, veh/h	1795	2631	907	1795	3495	153	1795	3322	300	1810	3582	1610
Grp Volume(v), veh/h	238	581	560	168	502	521	353	513	524	66	759	219
Grp Sat Flow(s),veh/h/ln	1795	1805	1733	1795	1791	1857	1795	1791	1831	1810	1791	1610
Q Serve(g_s), s	14.1	51.1	51.3	10.1	41.9	41.9	16.6	41.1	41.1	3.9	29.7	17.4
Cycle Q Clear(g_c), s	14.1	51.1	51.3	10.1	41.9	41.9	16.6	41.1	41.1	3.9	29.7	17.4
Prop In Lane	1.00		0.52	1.00		0.08	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	256	592	569	223	588	609	303	645	659	199	1110	499
V/C Ratio(X)	0.93	0.98	0.98	0.75	0.85	0.85	1.16	0.80	0.80	0.33	0.68	0.44
Avail Cap(c_a), veh/h	256	592	569	223	588	609	303	645	659	199	1110	499
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)	0.92	0.92	0.92	1.00	1.00	1.00	0.66	0.66	0.66	0.49	0.49	0.49
Uniform Delay (d), s/veh	38.3	53.3	53.3	41.6	50.2	50.2	40.9	45.9	45.9	37.5	48.3	44.1
Incr Delay (d2), s/veh	38.8	30.8	32.1	20.9	11.8	11.4	95.1	6.7	6.5	2.2	1.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	28.0	27.2	5.4	20.6	21.3	16.1	19.2	19.6	1.8	13.4	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	84.0	85.4	62.5	62.0	61.6	135.9	52.6	52.5	39.7	50.0	45.5
LnGrp LOS	E	F	F	E	E	E	F	D	D	D	D	D
Approach Vol, veh/h	1379			1191			1390			1044		
Approach Delay, s/veh	83.4			61.9			73.7			48.4		
Approach LOS	F			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	64.0	22.0	59.0	23.0	56.0	22.0	59.0				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	15.5	52.5	16.6	49.6	15.5	52.5				
Max Q Clear Time (g_c+I1), s	5.9	43.1	12.1	53.3	18.6	31.7	16.1	43.9				
Green Ext Time (p_c), s	0.0	3.9	0.2	0.0	0.0	4.3	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay	68.3											
HCM 6th LOS	E											

Timings
7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 1-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	336	1774	413	133	1502	194	615	515	130	263	499
Future Volume (vph)	336	1774	413	133	1502	194	615	515	130	263	499
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0
Minimum Split (s)	14.8	40.8	40.8	14.8	37.8	37.8	14.0	42.0	42.0	14.0	41.0
Total Split (s)	26.0	50.0	50.0	26.0	50.0	50.0	48.0	56.0	56.0	28.0	36.0
Total Split (%)	16.3%	31.3%	31.3%	16.3%	31.3%	31.3%	30.0%	35.0%	35.0%	17.5%	22.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	67.7	49.8	49.8	56.2	43.2	43.2	35.1	52.7	52.7	16.9	35.5
Actuated g/C Ratio	0.42	0.31	0.31	0.35	0.27	0.27	0.22	0.33	0.33	0.11	0.22
v/c Ratio	1.35	1.16	0.60	0.74	1.14	0.37	0.86	0.88	0.23	0.77	0.87
Control Delay	216.2	125.7	15.2	58.3	123.7	13.3	74.7	54.0	3.1	83.5	70.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	216.2	125.7	15.2	58.3	123.7	13.3	74.7	54.0	3.1	83.5	70.4
LOS	F	F	B	E	F	B	E	D	A	F	E
Approach Delay		119.7			107.3			58.9			74.2
Approach LOS		F			F			E			E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 50 (31%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.35

Intersection Signal Delay: 98.2

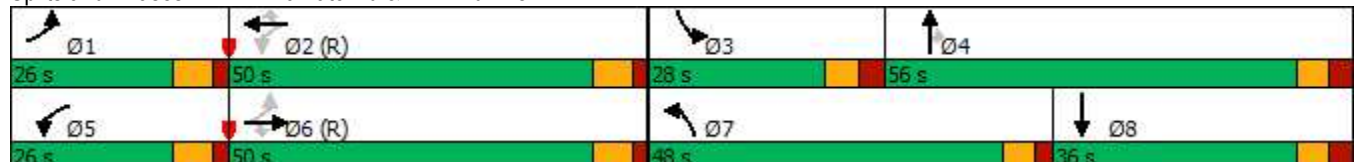
Intersection LOS: F

Intersection Capacity Utilization 105.8%

ICU Level of Service G

Analysis Period (min) 15












Splits and Phases: 7: W Yamato Rd & NW 2nd Ave



Queues
7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 1-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	354	1867	435	140	1581	204	647	542	137	277	668
v/c Ratio	1.35	1.16	0.60	0.74	1.14	0.37	0.86	0.88	0.23	0.77	0.87
Control Delay	216.2	125.7	15.2	58.3	123.7	13.3	74.7	54.0	3.1	83.5	70.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	216.2	125.7	15.2	58.3	123.7	13.3	74.7	54.0	3.1	83.5	70.4
Queue Length 50th (ft)	~435	~841	83	93	~704	33	282	543	0	147	347
Queue Length 95th (ft)	#661	#1016	217	163	#800	106	325	#798	m11	194	#524
Internal Link Dist (ft)		1311			615			322			527
Turn Bay Length (ft)	350		400	415		280	280		200	225	
Base Capacity (vph)	263	1614	722	259	1386	554	901	613	594	450	772
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.35	1.16	0.60	0.54	1.14	0.37	0.72	0.88	0.23	0.62	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

























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

HCM Signalized Intersection Capacity Analysis

7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 1-1
































09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	336	1774	413	133	1502	194	615	515	130	263	499	136
Future Volume (vph)	336	1774	413	133	1502	194	615	515	130	263	499	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	5187	1583	1770	5136	1615	3433	1863	1562	3433	3416	
Flt Permitted	0.08	1.00	1.00	0.09	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	151	5187	1583	172	5136	1615	3433	1863	1562	3433	3416	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	354	1867	435	140	1581	204	647	542	137	277	525	143
RTOR Reduction (vph)	0	0	229	0	0	118	0	0	80	0	15	0
Lane Group Flow (vph)	354	1867	206	140	1581	86	647	542	57	277	653	0
Confl. Peds. (#/hr)							1		1	1		1
Heavy Vehicles (%)	1%	0%	2%	2%	1%	0%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			
Actuated Green, G (s)	69.4	49.8	49.8	56.2	43.2	43.2	35.1	52.7	52.7	16.9	35.5	
Effective Green, g (s)	69.4	49.8	49.8	56.2	43.2	43.2	35.1	52.7	52.7	16.9	35.5	
Actuated g/C Ratio	0.43	0.31	0.31	0.35	0.27	0.27	0.22	0.33	0.33	0.11	0.22	
Clearance Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	2.5	2.5	2.5	1.8	2.5	
Lane Grp Cap (vph)	265	1614	492	190	1386	436	753	613	514	362	757	
v/s Ratio Prot	c0.16	c0.36		0.06	0.31		c0.19	c0.29		0.08	0.19	
v/s Ratio Perm	c0.41		0.13	0.20		0.05			0.04			
v/c Ratio	1.34	1.16	0.42	0.74	1.14	0.20	0.86	0.88	0.11	0.77	0.86	
Uniform Delay, d1	52.0	55.1	43.6	41.8	58.4	45.0	60.1	50.8	37.3	69.6	59.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.06	0.74	0.26	1.00	1.00	
Incremental Delay, d2	174.5	78.0	2.6	12.0	72.5	1.0	8.8	13.2	0.1	8.4	9.9	
Delay (s)	226.5	133.1	46.2	53.8	130.9	46.0	72.7	50.6	9.9	78.0	69.8	
Level of Service	F	F	D	D	F	D	E	D	A	E	E	
Approach Delay (s)		131.3			116.3			57.2			72.2	
Approach LOS		F			F			E			E	
Intersection Summary												
HCM 2000 Control Delay			104.6			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			1.16									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			27.6			
Intersection Capacity Utilization			105.8%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

7: W Yamato Rd & NW 2nd Ave



















2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	336	1774	413	133	1502	194	615	515	130	263	499	136
Future Volume (veh/h)	336	1774	413	133	1502	194	615	515	130	263	499	136
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	1885	1900	1870	1870	1885	1900	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	1867	435	140	1581	204	647	542	137	277	525	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	2	2	1	0	2	2	2	2	2	2
Cap, veh/h	263	1905	582	166	1613	505	716	562	476	324	533	145
Arrive On Green	0.12	0.37	0.37	0.07	0.31	0.31	0.21	0.30	0.30	0.09	0.19	0.19
Sat Flow, veh/h	1795	5187	1585	1781	5147	1610	3456	1870	1583	3456	2762	749
Grp Volume(v), veh/h	354	1867	435	140	1581	204	647	542	137	277	337	331
Grp Sat Flow(s),veh/h/ln	1795	1729	1585	1781	1716	1610	1728	1870	1583	1728	1777	1734
Q Serve(g_s), s	19.2	56.9	38.3	8.5	48.7	15.9	29.2	45.7	10.6	12.6	30.2	30.5
Cycle Q Clear(g_c), s	19.2	56.9	38.3	8.5	48.7	15.9	29.2	45.7	10.6	12.6	30.2	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	263	1905	582	166	1613	505	716	562	476	324	343	335
V/C Ratio(X)	1.35	0.98	0.75	0.85	0.98	0.40	0.90	0.96	0.29	0.86	0.98	0.99
Avail Cap(c_a), veh/h	263	1905	582	262	1613	505	907	573	485	454	343	335
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	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	50.0	44.1	41.3	54.4	43.2	61.9	55.1	42.9	71.4	64.3	64.4
Incr Delay (d2), s/veh	179.2	16.4	8.5	6.9	16.8	2.1	9.9	28.5	0.2	8.3	43.5	46.0
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	23.7	26.8	16.4	4.0	23.0	6.7	13.8	25.8	4.2	6.0	17.8	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	231.9	66.4	52.6	48.2	71.3	45.3	71.8	83.6	43.1	79.7	107.8	110.4
LnGrp LOS	F	E	D	D	E	D	E	F	D	E	F	F
Approach Vol, veh/h		2656			1925			1326			945	
Approach Delay, s/veh		86.2			66.8			73.7			100.5	
Approach LOS		F			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	56.9	22.0	55.1	17.4	65.6	39.2	37.9				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	19.2	43.2	21.0	49.0	19.2	43.2	42.0	29.0				
Max Q Clear Time (g_c+I1), s	21.2	50.7	14.6	47.7	10.5	58.9	31.2	32.5				
Green Ext Time (p_c), s	0.0	0.0	0.4	0.4	0.1	0.0	1.9	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			80.3									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
8: N Dixie Hwy & W Yamato Rd

2045 PM Build W Mitigation 1-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	232	1246	60	1171	422	610	43	521	283
Future Volume (vph)	232	1246	60	1171	422	610	43	521	283
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	13.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	60.0	20.0	55.0	33.0	59.0	21.0	47.0	47.0
Total Split (%)	15.6%	37.5%	12.5%	34.4%	20.6%	36.9%	13.1%	29.4%	29.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	15.5	72.2	9.8	64.0	23.9	47.5	8.4	29.7	29.7
Actuated g/C Ratio	0.10	0.45	0.06	0.40	0.15	0.30	0.05	0.19	0.19
v/c Ratio	0.73	0.73	0.57	0.62	0.87	0.75	0.49	0.83	0.67
Control Delay	83.3	39.4	92.3	41.6	77.9	85.3	90.4	74.2	29.2
Queue Delay	0.0	48.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.3	87.7	92.3	41.6	77.9	85.3	90.4	74.2	29.2
LOS	F	F	F	D	E	F	F	E	C
Approach Delay		87.1		44.0		82.6		60.0	
Approach LOS		F		D		F		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 71 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 70.8

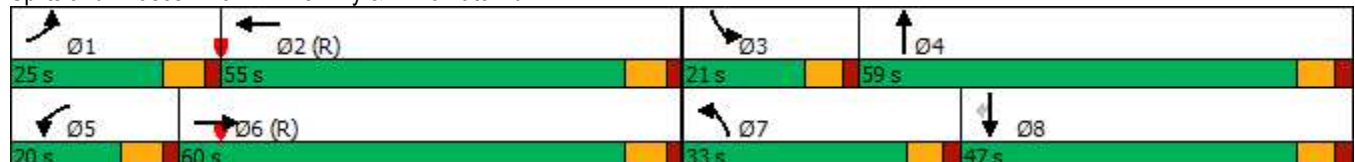
Intersection LOS: E

Intersection Capacity Utilization 84.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd

2045 PM Build W Mitigation 1-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	244	1652	63	1273	444	782	45	548	298
v/c Ratio	0.73	0.73	0.57	0.62	0.87	0.75	0.49	0.83	0.67
Control Delay	83.3	39.4	92.3	41.6	77.9	85.3	90.4	74.2	29.2
Queue Delay	0.0	48.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.3	87.7	92.3	41.6	77.9	85.3	90.4	74.2	29.2
Queue Length 50th (ft)	130	523	65	393	250	448	47	293	109
Queue Length 95th (ft)	174	667	117	505	m293	m499	90	347	211
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	397	2268	150	2044	570	1134	161	886	536
Starvation Cap Reductn	0	867	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	1.18	0.42	0.62	0.78	0.69	0.28	0.62	0.56

Intersection Summary

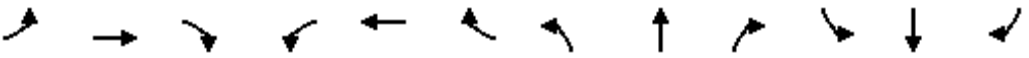









m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

8: N Dixie Hwy & W Yamato Rd





















2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	1246	323	60	1171	38	422	610	133	43	521	283
Future Volume (vph)	232	1246	323	60	1171	38	422	610	133	43	521	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Lane Util. Factor	0.97	0.91		1.00	0.91		0.97	0.95		1.00	0.95	1.00
Frt	1.00	0.97		1.00	1.00		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4977		1805	5110		3433	3450		1770	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4977		1805	5110		3433	3450		1770	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	244	1312	340	63	1233	40	444	642	140	45	548	298
RTOR Reduction (vph)	0	24	0	0	2	0	0	12	0	0	0	150
Lane Group Flow (vph)	244	1628	0	63	1271	0	444	770	0	45	548	148
Heavy Vehicles (%)	2%	1%	1%	0%	1%	2%	2%	2%	1%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												8
Actuated Green, G (s)	15.5	69.5		8.7	62.7		23.9	47.5		7.4	31.0	31.0
Effective Green, g (s)	15.5	69.5		8.7	62.7		23.9	47.5		7.4	31.0	31.0
Actuated g/C Ratio	0.10	0.43		0.05	0.39		0.15	0.30		0.05	0.19	0.19
Clearance Time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	332	2161		98	2002		512	1024		81	685	306
v/s Ratio Prot	c0.07	c0.33		0.03	0.25		c0.13	c0.22		0.03	0.15	
v/s Ratio Perm												0.09
v/c Ratio	0.73	0.75		0.64	0.63		0.87	0.75		0.56	0.80	0.48
Uniform Delay, d1	70.3	38.0		74.1	39.4		66.5	50.9		74.7	61.5	57.4
Progression Factor	1.00	1.00		1.00	1.00		1.03	1.66		1.00	1.00	1.00
Incremental Delay, d2	7.1	2.5		10.3	1.5		7.2	1.3		4.6	6.3	0.4
Delay (s)	77.3	40.5		84.4	40.9		75.9	85.9		79.3	67.8	57.8
Level of Service	E	D		F	D		E	F		E	E	E
Approach Delay (s)		45.3			43.0			82.3			65.1	
Approach LOS		D			D			F			E	
Intersection Summary												
HCM 2000 Control Delay			56.5			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			26.9			
Intersection Capacity Utilization			84.3%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
8: N Dixie Hwy & W Yamato Rd





















2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	1246	323	60	1171	38	422	610	133	43	521	283
Future Volume (veh/h)	232	1246	323	60	1171	38	422	610	133	43	521	283
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	1885	1885	1900	1885	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	244	1312	340	63	1233	40	444	642	140	45	548	298
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	1	2	2	2	1	2	2	2
Cap, veh/h	289	1780	461	80	2036	66	495	923	201	58	737	329
Arrive On Green	0.08	0.44	0.44	0.04	0.40	0.40	0.05	0.10	0.10	0.03	0.21	0.21
Sat Flow, veh/h	3456	4073	1054	1810	5120	166	3456	2902	632	1781	3554	1585
Grp Volume(v), veh/h	244	1105	547	63	826	447	444	393	389	45	548	298
Grp Sat Flow(s),veh/h/ln	1728	1716	1695	1810	1716	1855	1728	1777	1757	1781	1777	1585
Q Serve(g_s), s	11.1	42.8	42.9	5.5	30.6	30.6	20.5	34.1	34.2	4.0	23.1	29.4
Cycle Q Clear(g_c), s	11.1	42.8	42.9	5.5	30.6	30.6	20.5	34.1	34.2	4.0	23.1	29.4
Prop In Lane	1.00		0.62	1.00		0.09	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	289	1499	741	80	1364	738	495	565	559	58	737	329
V/C Ratio(X)	0.84	0.74	0.74	0.79	0.61	0.61	0.90	0.70	0.70	0.77	0.74	0.91
Avail Cap(c_a), veh/h	393	1499	741	149	1364	738	575	579	572	163	891	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.3	37.4	37.4	75.7	38.2	38.2	75.0	64.1	64.2	76.8	59.4	61.9
Incr Delay (d2), s/veh	8.2	3.0	5.9	6.2	2.0	3.7	6.3	1.2	1.2	7.9	2.0	19.6
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	5.2	18.1	18.5	2.7	13.0	14.4	10.0	16.6	16.4	2.0	10.7	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	40.4	43.3	81.9	40.2	41.9	81.3	65.3	65.3	84.7	61.5	81.6
LnGrp LOS	F	D	D	F	D	D	F	E	E	F	E	F
Approach Vol, veh/h	1896			1336			1226			891		
Approach Delay, s/veh	46.4			42.8			71.1			69.4		
Approach LOS	D			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.2	70.4	11.6	57.8	13.9	76.7	29.3	40.1				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	48.2	14.6	52.1	13.2	53.2	26.6	40.1				
Max Q Clear Time (g_c+I1), s	13.1	32.6	6.0	36.2	7.5	44.9	22.5	31.4				
Green Ext Time (p_c), s	0.2	3.0	0.0	1.6	0.0	3.3	0.5	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	55.0											
HCM 6th LOS	D											

Timings
9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

2045 PM Build W Mitigation 1-1

09/28/2022

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	361	505	524	13	427	382	501	44	307	204
Future Volume (vph)	361	505	524	13	427	382	501	44	307	204
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Prot	NA	pm+pt	NA	Perm
Protected Phases	7	4	5	3	8	5	2	1	6	
Permitted Phases			4	8				6		6
Detector Phase	7	4	5	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	12.0	12.0	5.0	12.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	22.5	24.5	12.0	22.5	24.5	12.0	33.0	9.5	39.0	39.0
Total Split (s)	24.5	24.5	21.0	24.5	24.5	21.0	49.0	12.0	40.0	40.0
Total Split (%)	22.3%	22.3%	19.1%	22.3%	22.3%	19.1%	44.5%	10.9%	36.4%	36.4%
Yellow Time (s)	3.5	4.0	4.0	3.5	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.0	2.5	3.0	1.0	2.5	3.0	3.0	1.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	7.0	4.5	6.5	7.0	7.0	4.5	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min	C-Min
Act Effect Green (s)	16.9	35.6	58.1	31.5	17.5	16.0	48.4	43.7	34.6	34.6
Actuated g/C Ratio	0.15	0.32	0.53	0.29	0.16	0.15	0.44	0.40	0.31	0.31
v/c Ratio	0.71	0.46	0.50	0.04	0.81	0.80	0.38	0.12	0.55	0.33
Control Delay	52.0	31.6	3.2	20.8	56.4	58.5	22.7	15.1	36.8	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	31.6	3.2	20.8	56.4	58.5	22.7	15.1	36.8	5.6
LOS	D	C	A	C	E	E	C	B	D	A
Approach Delay		26.2			55.3		37.1		23.6	
Approach LOS		C			E		D		C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 30 (27%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 32.8

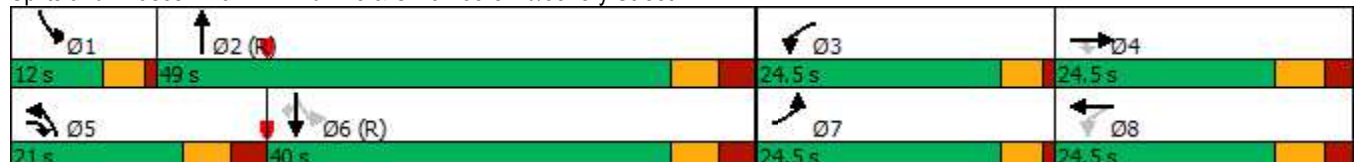
Intersection LOS: C

Intersection Capacity Utilization 74.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

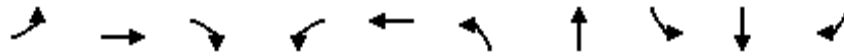


Queues

2045 PM Build W Mitigation 1-1

9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	376	526	546	14	456	398	590	46	320	213
v/c Ratio	0.71	0.46	0.50	0.04	0.81	0.80	0.38	0.12	0.55	0.33
Control Delay	52.0	31.6	3.2	20.8	56.4	58.5	22.7	15.1	36.8	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	31.6	3.2	20.8	56.4	58.5	22.7	15.1	36.8	5.6
Queue Length 50th (ft)	131	143	0	6	162	137	148	15	198	0
Queue Length 95th (ft)	176	234	63	19	#233	#234	206	35	283	54
Internal Link Dist (ft)		296			594		353		238	
Turn Bay Length (ft)	360		270	180		360		155		200
Base Capacity (vph)	624	1145	1094	477	598	501	1561	395	609	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.46	0.50	0.03	0.76	0.79	0.38	0.12	0.53	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

2045 PM Build W Mitigation 1-1























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	505	524	13	427	11	382	501	65	44	307	204
Future Volume (vph)	361	505	524	13	427	11	382	501	65	44	307	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	6.5	7.0	4.5	6.5		7.0	7.0		4.5	7.0	7.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		0.97	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1805	3528		3433	3507		1801	1863	1583
Flt Permitted	0.95	1.00	1.00	0.46	1.00		0.95	1.00		0.43	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	868	3528		3433	3507		814	1863	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	376	526	546	14	445	11	398	522	68	46	320	212
RTOR Reduction (vph)	0	0	290	0	2	0	0	9	0	0	0	153
Lane Group Flow (vph)	376	526	256	14	454	0	398	581	0	46	320	60
Confl. Peds. (#/hr)									7	7		
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	1%	0%	0%	2%	2%
Turn Type	Prot	NA	pm+ov	pm+pt	NA		Prot	NA		pm+pt	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4	8						6		6
Actuated Green, G (s)	16.9	35.6	51.6	23.5	21.1		16.0	43.9		36.6	31.0	31.0
Effective Green, g (s)	16.9	35.6	51.6	23.5	21.1		16.0	43.9		36.6	31.0	31.0
Actuated g/C Ratio	0.15	0.32	0.47	0.21	0.19		0.15	0.40		0.33	0.28	0.28
Clearance Time (s)	4.5	6.5	7.0	4.5	6.5		7.0	7.0		4.5	7.0	7.0
Vehicle Extension (s)	3.0	2.0	1.8	3.0	2.0		1.8	3.5		3.0	3.5	3.5
Lane Grp Cap (vph)	527	1145	742	205	676		499	1399		321	525	446
v/s Ratio Prot	c0.11	0.15	0.05	0.00	c0.13		c0.12	0.17		0.01	c0.17	
v/s Ratio Perm			0.11	0.01						0.04		0.04
v/c Ratio	0.71	0.46	0.35	0.07	0.67		0.80	0.42		0.14	0.61	0.13
Uniform Delay, d1	44.2	29.6	18.5	34.3	41.2		45.4	23.8		25.1	34.3	29.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.6	0.1	0.1	0.1	2.1		8.1	0.9		0.2	5.2	0.6
Delay (s)	48.8	29.7	18.6	34.4	43.3		53.5	24.7		25.3	39.4	30.1
Level of Service	D	C	B	C	D		D	C		C	D	C
Approach Delay (s)		30.5			43.1			36.3			34.9	
Approach LOS		C			D			D			C	
Intersection Summary												
HCM 2000 Control Delay			34.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)			25.0			
Intersection Capacity Utilization			74.0%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	505	524	13	427	11	382	501	65	44	307	204
Future Volume (veh/h)	361	505	524	13	427	11	382	501	65	44	307	204
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		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	1900	1870	1900	1870	1885	1900	1900	1870	1870
Adj Flow Rate, veh/h	376	526	546	14	445	11	398	522	68	46	320	212
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	0	2	0	2	1	0	0	2	2
Cap, veh/h	458	848	580	191	510	13	440	1544	200	436	690	581
Arrive On Green	0.13	0.24	0.24	0.04	0.14	0.14	0.13	0.48	0.48	0.03	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	1810	3544	87	3456	3186	414	1810	1870	1576
Grp Volume(v), veh/h	376	526	546	14	223	233	398	293	297	46	320	212
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1810	1777	1855	1728	1791	1809	1810	1870	1576
Q Serve(g_s), s	11.6	14.5	26.3	0.7	13.5	13.5	12.5	11.1	11.2	1.7	14.3	10.8
Cycle Q Clear(g_c), s	11.6	14.5	26.3	0.7	13.5	13.5	12.5	11.1	11.2	1.7	14.3	10.8
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	458	848	580	191	256	267	440	868	876	436	690	581
V/C Ratio(X)	0.82	0.62	0.94	0.07	0.87	0.87	0.90	0.34	0.34	0.11	0.46	0.36
Avail Cap(c_a), veh/h	628	848	580	451	291	303	440	868	876	498	690	581
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	46.4	37.4	33.7	37.2	46.1	46.1	47.3	17.5	17.5	20.1	26.4	25.3
Incr Delay (d2), s/veh	6.2	1.0	23.5	0.2	20.1	19.8	21.4	1.1	1.1	0.1	2.2	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	6.4	17.3	0.3	7.3	7.6	6.6	4.7	4.8	0.7	6.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	38.5	57.2	37.3	66.2	65.9	68.8	18.5	18.5	20.2	28.7	27.1
LnGrp LOS	D	D	E	D	E	E	E	B	B	C	C	C
Approach Vol, veh/h		1448			470			988			578	
Approach Delay, s/veh		49.2			65.2			38.8			27.4	
Approach LOS		D			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	60.3	8.7	32.8	21.0	47.6	19.1	22.3				
Change Period (Y+Rc), s	4.5	7.0	4.5	6.5	7.0	7.0	4.5	6.5				
Max Green Setting (Gmax), s	7.5	42.0	20.0	18.0	14.0	33.0	20.0	18.0				
Max Q Clear Time (g_c+I1), s	3.7	13.2	2.7	28.3	14.5	16.3	13.6	15.5				
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	2.5	0.9	0.3				

Intersection Summary

























HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

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

Timings
10: Congress Ave & Clint Moore Rd

2045 PM Build W Mitigation 1-1
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	977	836	347	67	789	537	375	1542	31	327	702	895
Future Volume (vph)	977	836	347	67	789	537	375	1542	31	327	702	895
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	22.5	50.8	50.8
Total Split (s)	55.0	72.0	72.0	20.0	37.0	37.0	32.0	60.0	60.0	28.0	56.0	56.0
Total Split (%)	30.6%	40.0%	40.0%	11.1%	20.6%	20.6%	17.8%	33.3%	33.3%	15.6%	31.1%	31.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	47.2	67.1	67.1	9.3	29.2	29.2	23.7	52.2	52.2	20.2	48.7	48.7
Actuated g/C Ratio	0.26	0.37	0.37	0.05	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
v/c Ratio	1.21	0.49	0.48	0.42	1.51	1.39	0.91	1.15	0.06	0.93	0.56	1.25
Control Delay	157.2	44.5	9.1	89.4	285.1	220.9	101.4	130.9	0.2	109.5	58.3	148.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.2	44.5	9.1	89.4	285.1	220.9	101.4	130.9	0.2	109.5	58.3	148.1
LOS	F	D	A	F	F	F	F	F	A	F	E	F
Approach Delay		89.8			250.9			123.1			108.8	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 88 (49%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 133.7

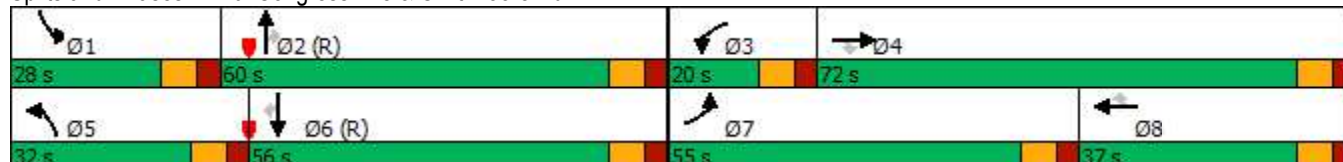
Intersection LOS: F

Intersection Capacity Utilization 120.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd















Queues

2045 PM Build W Mitigation 1-1

10: Congress Ave & Clint Moore Rd

09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1074	919	381	74	867	590	412	1695	34	359	771	984
v/c Ratio	1.21	0.49	0.48	0.42	1.51	1.39	0.91	1.15	0.06	0.93	0.56	1.25
Control Delay	157.2	44.5	9.1	89.4	285.1	220.9	101.4	130.9	0.2	109.5	58.3	148.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.2	44.5	9.1	89.4	285.1	220.9	101.4	130.9	0.2	109.5	58.3	148.1
Queue Length 50th (ft)	~791	305	42	44	~746	~711	251	~857	0	220	290	~1005
Queue Length 95th (ft)	#930	358	139	74	#886	#963	#345	#950	0	#321	338	#1276
Internal Link Dist (ft)	2199			619			1029			883		
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	891	1894	800	232	574	425	461	1474	573	385	1388	788
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.49	0.48	0.32	1.51	1.39	0.89	1.15	0.06	0.93	0.56	1.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

10: Congress Ave & Clint Moore Rd

























2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	977	836	347	67	789	537	375	1542	31	327	702	895
Future Volume (vph)	977	836	347	67	789	537	375	1542	31	327	702	895
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Lane Util. Factor	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	5085	1599	3433	3539	1562	3433	5085	1560	3433	5136	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	5085	1599	3433	3539	1562	3433	5085	1560	3433	5136	1599
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1074	919	381	74	867	590	412	1695	34	359	771	984
RTOR Reduction (vph)	0	0	204	0	0	173	0	0	24	0	0	356
Lane Group Flow (vph)	1074	919	177	74	867	417	412	1695	10	359	771	628
Confl. Peds. (#/hr)	1					1			2	2		
Heavy Vehicles (%)	3%	2%	1%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	47.2	67.1	67.1	9.3	29.2	29.2	23.7	52.2	52.2	20.2	48.7	48.7
Effective Green, g (s)	47.2	67.1	67.1	9.3	29.2	29.2	23.7	52.2	52.2	20.2	48.7	48.7
Actuated g/C Ratio	0.26	0.37	0.37	0.05	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
Clearance Time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	891	1895	596	177	574	253	452	1474	452	385	1389	432
v/s Ratio Prot	c0.32	0.18		0.02	0.24		c0.12	c0.33		0.10	0.15	
v/s Ratio Perm			0.11			c0.27			0.01			c0.39
v/c Ratio	1.21	0.48	0.30	0.42	1.51	1.65	0.91	1.15	0.02	0.93	0.56	1.45
Uniform Delay, d1	66.4	43.2	39.8	82.7	75.4	75.4	77.1	63.9	45.7	79.2	56.4	65.7
Progression 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
Incremental Delay, d2	103.1	0.2	0.3	1.6	238.6	309.5	22.5	75.8	0.1	29.2	1.6	216.8
Delay (s)	169.5	43.4	40.1	84.3	314.0	384.9	99.6	139.7	45.7	108.4	58.0	282.4
Level of Service	F	D	D	F	F	F	F	F	D	F	E	F
Approach Delay (s)		99.9			330.2			130.5			171.0	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM 2000 Control Delay	169.6			HCM 2000 Level of Service					F			
HCM 2000 Volume to Capacity ratio	1.33											
Actuated Cycle Length (s)	180.0			Sum of lost time (s)					31.2			
Intersection Capacity Utilization	120.4%			ICU Level of Service					H			
Analysis Period (min)	15											
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 10: Congress Ave & Clint Moore Rd

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	977	836	347	67	789	537	375	1542	31	327	702	895
Future Volume (veh/h)	977	836	347	67	789	537	375	1542	31	327	702	895
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	1870	1885	1870	1870	1870	1870	1870	1870	1870	1885	1885
Adj Flow Rate, veh/h	1074	919	381	74	867	590	412	1695	34	359	771	984
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	1	2	2	2	2	2	2	2	1	1
Cap, veh/h	899	1974	617	131	576	257	449	1481	459	388	1401	434
Arrive On Green	0.26	0.39	0.39	0.04	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
Sat Flow, veh/h	3428	5106	1596	3456	3554	1582	3456	5106	1582	3456	5147	1594
Grp Volume(v), veh/h	1074	919	381	74	867	590	412	1695	34	359	771	984
Grp Sat Flow(s),veh/h/ln	1714	1702	1596	1728	1777	1582	1728	1702	1582	1728	1716	1594
Q Serve(g_s), s	47.2	24.2	34.6	3.8	29.2	29.2	21.2	52.2	2.8	18.5	23.1	49.0
Cycle Q Clear(g_c), s	47.2	24.2	34.6	3.8	29.2	29.2	21.2	52.2	2.8	18.5	23.1	49.0
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	899	1974	617	131	576	257	449	1481	459	388	1401	434
V/C Ratio(X)	1.19	0.47	0.62	0.56	1.50	2.30	0.92	1.14	0.07	0.93	0.55	2.27
Avail Cap(c_a), veh/h	899	1974	617	234	576	257	465	1481	459	388	1401	434
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	66.4	41.3	44.5	85.1	75.4	75.4	77.3	63.9	46.4	79.2	56.1	65.5
Incr Delay (d2), s/veh	98.5	0.2	1.9	3.8	235.7	596.6	22.7	73.6	0.3	27.9	1.6	577.8
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	32.7	10.3	14.0	1.8	32.1	54.3	10.7	32.3	1.2	9.7	10.1	89.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	164.9	41.5	46.4	88.9	311.1	672.0	100.0	137.5	46.7	107.0	57.6	643.3
LnGrp LOS	F	D	D	F	F	F	F	F	D	F	E	F
Approach Vol, veh/h	2374			1531			2141			2114		
Approach Delay, s/veh	98.1			439.5			128.9			338.6		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	60.0	14.6	77.4	31.2	56.8	55.0	37.0				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	20.2	52.2	12.2	64.2	24.2	48.2	47.2	29.2				
Max Q Clear Time (g_c+I1), s	20.5	54.2	5.8	36.6	23.2	51.0	49.2	31.2				
Green Ext Time (p_c), s	0.0	0.0	0.1	6.9	0.2	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 232.5

HCM 6th LOS F























Notes

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

Timings
11: N Federal Hwy & Jeffery St

2045 PM Build W Mitigation 1-1

09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	65	752	120	44	51	128	1705	141	68	1293	64
Future Volume (vph)	65	752	120	44	51	128	1705	141	68	1293	64
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	11.8	38.8	38.8	11.8	28.8	28.8
Total Split (s)	64.0	64.0	64.0	64.0	64.0	15.6	79.2	79.2	11.8	75.4	75.4
Total Split (%)	41.3%	41.3%	41.3%	41.3%	41.3%	10.1%	51.1%	51.1%	7.6%	48.6%	48.6%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	56.1	56.1	56.1	56.1	56.1	81.2	72.4	72.4	73.6	68.6	68.6
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.52	0.47	0.47	0.47	0.44	0.44
v/c Ratio	0.14	0.69	1.19	0.07	0.09	0.93	1.12	0.20	0.71	0.90	0.09
Control Delay	34.3	45.1	187.6	32.9	3.4	92.6	102.3	11.9	56.1	48.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	45.1	187.6	32.9	3.4	92.6	102.3	11.9	56.1	48.8	3.7
LOS	C	D	F	C	A	F	F	B	E	D	A
Approach Delay		44.3		112.4			95.2			47.2	
Approach LOS		D		F			F			D	

Intersection Summary

Cycle Length: 155

Actuated Cycle Length: 155

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay: 70.9

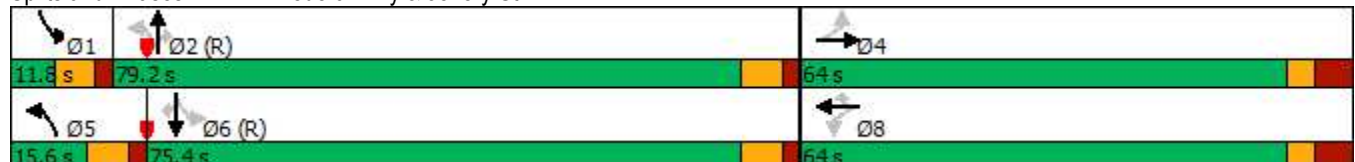
Intersection LOS: E

Intersection Capacity Utilization 108.5%

ICU Level of Service G

Analysis Period (min) 15












Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues
11: N Federal Hwy & Jeffery St

2045 PM Build W Mitigation 1-1

09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	891	132	48	56	141	1874	155	75	1421	70
v/c Ratio	0.14	0.69	1.19	0.07	0.09	0.93	1.12	0.20	0.71	0.90	0.09
Control Delay	34.3	45.1	187.6	32.9	3.4	92.6	102.3	11.9	56.1	48.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	45.1	187.6	32.9	3.4	92.6	102.3	11.9	56.1	48.8	3.7
Queue Length 50th (ft)	48	400	~160	32	0	92	~1147	41	35	693	0
Queue Length 95th (ft)	88	478	#304	63	19	#236	#1281	87	#109	803	23
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		220		230	225		170	250		145
Base Capacity (vph)	499	1295	111	687	632	151	1669	783	106	1581	750
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.69	1.19	0.07	0.09	0.93	1.12	0.20	0.71	0.90	0.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

11: N Federal Hwy & Jeffery St
























2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	752	59	120	44	51	128	1705	141	68	1293	64
Future Volume (vph)	65	752	59	120	44	51	128	1705	141	68	1293	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3570		1770	1900	1615	1805	3574	1583	1805	3574	1592
Flt Permitted	0.73	1.00		0.17	1.00	1.00	0.06	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	1379	3570		309	1900	1615	105	3574	1583	111	3574	1592
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	71	826	65	132	48	56	141	1874	155	75	1421	70
RTOR Reduction (vph)	0	4	0	0	0	36	0	0	44	0	0	39
Lane Group Flow (vph)	71	887	0	132	48	20	141	1874	111	75	1421	31
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	1%	2%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	56.1	56.1		56.1	56.1	56.1	81.2	72.4	72.4	73.6	68.6	68.6
Effective Green, g (s)	56.1	56.1		56.1	56.1	56.1	81.2	72.4	72.4	73.6	68.6	68.6
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36	0.52	0.47	0.47	0.47	0.44	0.44
Clearance Time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	499	1292		111	687	584	151	1669	739	107	1581	704
v/s Ratio Prot		0.25			0.03		c0.05	c0.52		0.02	0.40	
v/s Ratio Perm	0.05			c0.43		0.01	0.43		0.07	0.31		0.02
v/c Ratio	0.14	0.69		1.19	0.07	0.03	0.93	1.12	0.15	0.70	0.90	0.04
Uniform Delay, d1	33.3	42.0		49.5	32.4	32.0	43.2	41.3	23.7	36.3	40.0	24.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	3.0		145.0	0.2	0.1	57.4	63.8	0.4	31.9	8.5	0.1
Delay (s)	33.9	45.0		194.4	32.6	32.1	100.6	105.1	24.1	68.2	48.5	24.7
Level of Service	C	D		F	C	C	F	F	C	E	D	C
Approach Delay (s)		44.2			123.0			99.0			48.4	
Approach LOS		D			F			F			D	
Intersection Summary												
HCM 2000 Control Delay			73.4									
HCM 2000 Volume to Capacity ratio			1.17									
Actuated Cycle Length (s)			155.0									
Intersection Capacity Utilization			108.5%									
Analysis Period (min)			15									
c Critical Lane Group												





















HCM 6th Signalized Intersection Summary 11: N Federal Hwy & Jeffery St

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	752	59	120	44	51	128	1705	141	68	1293	64
Future Volume (veh/h)	65	752	59	120	44	51	128	1705	141	68	1293	64
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	1900	1900	1900	1870	1900	1900	1900	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	71	826	65	132	48	56	141	1874	155	75	1421	70
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	2	0	0	0	1	2	0	1	0
Cap, veh/h	499	1227	97	144	688	583	176	1673	740	105	1585	712
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.06	0.47	0.47	0.03	0.44	0.44
Sat Flow, veh/h	1311	3390	267	624	1900	1610	1810	3582	1584	1810	3582	1609
Grp Volume(v), veh/h	71	440	451	132	48	56	141	1874	155	75	1421	70
Grp Sat Flow(s),veh/h/ln	1311	1805	1852	624	1900	1610	1810	1791	1584	1810	1791	1609
Q Serve(g_s), s	5.8	31.9	31.9	24.2	2.6	3.6	6.6	72.4	9.0	3.5	56.8	3.9
Cycle Q Clear(g_c), s	8.4	31.9	31.9	56.1	2.6	3.6	6.6	72.4	9.0	3.5	56.8	3.9
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	499	653	670	144	688	583	176	1673	740	105	1585	712
V/C Ratio(X)	0.14	0.67	0.67	0.92	0.07	0.10	0.80	1.12	0.21	0.72	0.90	0.10
Avail Cap(c_a), veh/h	499	653	670	144	688	583	176	1673	740	105	1585	712
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	41.7	41.7	68.5	32.4	32.7	35.1	41.3	24.4	37.5	39.9	25.2
Incr Delay (d2), s/veh	0.1	0.5	0.5	55.4	0.2	0.3	30.4	62.7	0.6	34.1	8.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	14.5	14.9	7.5	1.3	1.5	4.2	45.0	3.5	2.5	25.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	42.2	42.2	123.9	32.6	33.0	65.5	104.0	25.0	71.6	48.2	25.5
LnGrp LOS	D	D	D	F	C	C	E	F	C	E	D	C
Approach Vol, veh/h	962			236			2170			1566		
Approach Delay, s/veh	41.7			83.8			95.8			48.3		
Approach LOS	D			F			F			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	79.2		64.0	15.6	75.4		64.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	5.0	72.4		56.1	8.8	68.6		56.1				
Max Q Clear Time (g_c+I1), s	5.5	74.4		33.9	8.6	58.8		58.1				
Green Ext Time (p_c), s	0.0	0.0		2.4	0.0	3.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	69.6											
HCM 6th LOS	E											

Timings
12: N Dixie Hwy & Hidden Valley Blvd

2045 PM Build W Mitigation 1-1
09/28/2022

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	151	174	97	237	58	676	135	118	465	179
Future Volume (vph)	151	174	97	237	58	676	135	118	465	179
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases			8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	13.2	34.2	13.2	26.2	13.8	38.4	38.4	13.8	26.8	26.8
Total Split (s)	15.0	30.0	15.0	30.0	15.0	60.0	60.0	15.0	60.0	60.0
Total Split (%)	12.5%	25.0%	12.5%	25.0%	12.5%	50.0%	50.0%	12.5%	50.0%	50.0%
Yellow Time (s)	3.7	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	7.4	7.4	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	6.9	16.1	22.3	15.7	52.9	46.8	46.8	56.7	50.9	50.9
Actuated g/C Ratio	0.06	0.15	0.21	0.15	0.49	0.43	0.43	0.52	0.47	0.47
v/c Ratio	1.50	0.41	0.40	0.74	0.17	0.93	0.19	0.66	0.59	0.24
Control Delay	303.4	43.4	36.6	41.6	12.1	49.0	1.7	33.2	25.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	303.4	43.4	36.6	41.6	12.1	49.0	1.7	33.2	25.8	3.4
LOS	F	D	D	D	B	D	A	C	C	A
Approach Delay		156.8		40.6		39.2			21.7	
Approach LOS		F		D		D			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 108.2

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.50

Intersection Signal Delay: 50.6









Intersection LOS: D

Intersection Capacity Utilization 88.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd

			
15 s	60 s	15 s	30 s
			
15 s	60 s	15 s	30 s

Queues

2045 PM Build W Mitigation 1-1

09/28/2022

12: N Dixie Hwy & Hidden Valley Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	168	217	108	434	64	751	150	131	517	199
v/c Ratio	1.50	0.41	0.40	0.74	0.17	0.93	0.19	0.66	0.59	0.24
Control Delay	303.4	43.4	36.6	41.6	12.1	49.0	1.7	33.2	25.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	303.4	43.4	36.6	41.6	12.1	49.0	1.7	33.2	25.8	3.4
Queue Length 50th (ft)	~175	74	62	122	18	482	0	39	266	0
Queue Length 95th (ft)	#332	112	109	178	42	#783	20	#124	422	42
Internal Link Dist (ft)		221		597		5728			435	
Turn Bay Length (ft)	290		140		295		295	290		270
Base Capacity (vph)	112	723	278	779	405	915	889	205	923	877
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.50	0.30	0.39	0.56	0.16	0.82	0.17	0.64	0.56	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

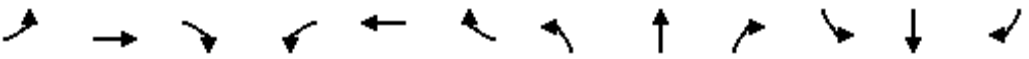










Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

12: N Dixie Hwy & Hidden Valley Blvd

2045 PM Build W Mitigation 1-1























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	151	174	22	97	237	154	58	676	135	118	465	179
Future Volume (vph)	151	174	22	97	237	154	58	676	135	118	465	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.2	8.2		8.2	8.2		7.4	7.4	7.4	7.4	7.4	7.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3513		1768	3397		1805	1863	1615	1787	1863	1568
Flt Permitted	0.95	1.00		0.62	1.00		0.34	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1770	3513		1146	3397		640	1863	1615	173	1863	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	168	193	24	108	263	171	64	751	150	131	517	199
RTOR Reduction (vph)	0	9	0	0	94	0	0	0	83	0	0	107
Lane Group Flow (vph)	168	208	0	108	340	0	64	751	67	131	517	92
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	2%	1%	0%	2%	0%	0%	0%	2%	0%	1%	2%	3%
Turn Type	Prot	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases				8			2		2	6		6
Actuated Green, G (s)	6.9	16.1		22.4	15.8		53.6	48.7	48.7	58.2	51.0	51.0
Effective Green, g (s)	6.9	16.1		22.4	15.8		53.6	48.7	48.7	58.2	51.0	51.0
Actuated g/C Ratio	0.06	0.15		0.20	0.14		0.49	0.44	0.44	0.53	0.46	0.46
Clearance Time (s)	8.2	8.2		8.2	8.2		7.4	7.4	7.4	7.4	7.4	7.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	111	515		271	488		364	826	716	197	865	728
v/s Ratio Prot	c0.09	0.06		0.02	c0.10		0.01	c0.40		c0.04	0.28	
v/s Ratio Perm				0.06			0.08		0.04	0.31		0.06
v/c Ratio	1.51	0.40		0.40	0.70		0.18	0.91	0.09	0.66	0.60	0.13
Uniform Delay, d1	51.4	42.5		37.0	44.7		15.9	28.5	17.7	21.4	21.8	16.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	271.7	0.2		0.4	3.5		0.1	13.5	0.0	6.4	0.7	0.0
Delay (s)	323.2	42.7		37.4	48.2		16.0	41.9	17.8	27.8	22.5	16.8
Level of Service	F	D		D	D		B	D	B	C	C	B
Approach Delay (s)		165.1			46.0			36.5			22.0	
Approach LOS		F			D			D			C	
Intersection Summary												
HCM 2000 Control Delay			52.0			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			109.8			Sum of lost time (s)			31.2			
Intersection Capacity Utilization			88.0%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

12: N Dixie Hwy & Hidden Valley Blvd

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	174	22	97	237	154	58	676	135	118	465	179
Future Volume (veh/h)	151	174	22	97	237	154	58	676	135	118	465	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1885	1900	1870	1900	1900	1900	1870	1900	1885	1870	1856
Adj Flow Rate, veh/h	168	193	24	108	263	171	64	751	150	131	517	199
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	1	0	2	0	0	0	2	0	1	2	3
Cap, veh/h	117	483	59	297	320	201	314	792	682	198	826	695
Arrive On Green	0.07	0.15	0.15	0.07	0.15	0.15	0.04	0.42	0.42	0.06	0.44	0.44
Sat Flow, veh/h	1781	3209	394	1781	2122	1332	1810	1870	1610	1795	1870	1572
Grp Volume(v), veh/h	168	107	110	108	222	212	64	751	150	131	517	199
Grp Sat Flow(s),veh/h/ln	1781	1791	1812	1781	1805	1650	1810	1870	1610	1795	1870	1572
Q Serve(g_s), s	6.8	5.6	5.7	5.2	12.4	13.0	2.0	40.1	6.1	4.2	22.1	8.4
Cycle Q Clear(g_c), s	6.8	5.6	5.7	5.2	12.4	13.0	2.0	40.1	6.1	4.2	22.1	8.4
Prop In Lane	1.00		0.22	1.00		0.81	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	270	273	297	272	249	314	792	682	198	826	695
V/C Ratio(X)	1.44	0.40	0.40	0.36	0.82	0.85	0.20	0.95	0.22	0.66	0.63	0.29
Avail Cap(c_a), veh/h	117	377	381	297	380	347	373	950	818	224	950	799
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	48.4	39.7	39.8	34.0	42.6	42.9	17.6	28.8	19.0	23.9	22.3	18.5
Incr Delay (d2), s/veh	238.2	0.3	0.4	0.3	6.5	10.2	0.1	15.4	0.1	4.1	0.6	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	10.7	2.5	2.6	2.3	5.9	5.9	0.8	20.0	2.3	1.8	9.2	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	286.6	40.1	40.1	34.3	49.1	53.1	17.7	44.1	19.0	28.0	22.9	18.6
LnGrp LOS	F	D	D	C	D	D	B	D	B	C	C	B
Approach Vol, veh/h	385				542				965			
Approach Delay, s/veh	147.7				47.7				38.5			
Approach LOS	F				D				D			
Timer - Assigned Phs												
Phs Duration (G+Y+Rc), s	13.5	51.3	15.0	23.8	11.6	53.2	15.0	23.8				
Change Period (Y+Rc), s	7.4	7.4	* 8.2	* 8.2	7.4	7.4	* 8.2	* 8.2				
Max Green Setting (Gmax), s	7.6	52.6	* 6.8	* 22	7.6	52.6	* 6.8	* 22				
Max Q Clear Time (g_c+I1), s	6.2	42.1	7.2	7.7	4.0	24.1	8.8	15.0				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.4	0.0	1.6	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	50.8											
HCM 6th LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
13: N Dixie Hwy & Jeffery St

2045 PM Build W Mitigation 1-1
09/28/2022

	→	←	↖	↑	↘	↓	↙
Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔	↖	↗	↖	↗	↗
Traffic Volume (vph)	285	134	103	786	14	439	188
Future Volume (vph)	285	134	103	786	14	439	188
Turn Type	NA	NA	Prot	NA	Prot	NA	Perm
Protected Phases	4	8	5	2	1	6	
Permitted Phases							6
Detector Phase	4	8	5	2	1	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.6	52.5	22.5	52.4	52.4
Total Split (%)	18.8%	18.8%	18.8%	43.8%	18.8%	43.7%	43.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	None	Max	Max
Act Effct Green (s)	18.0	11.4	12.9	72.2	6.7	59.7	59.7
Actuated g/C Ratio	0.15	0.10	0.11	0.60	0.06	0.50	0.50
v/c Ratio	1.07	0.54	0.59	0.85	0.16	0.55	0.24
Control Delay	105.8	56.1	63.0	30.1	57.1	24.9	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	56.1	63.0	30.1	57.1	24.9	6.2
LOS	F	E	E	C	E	C	A
Approach Delay	105.8	56.1		33.5		20.3	
Approach LOS	F	E		C		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 22.5 (19%), Referenced to phase 2:NBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 47.6
 Intersection Capacity Utilization 82.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 13: N Dixie Hwy & Jeffery St

↖ Ø1 22.5 s	↑ Ø2 (R) 52.5 s	↘ Ø4 22.5 s	↙ Ø8 22.5 s
↖ Ø5 22.6 s	↓ Ø6 52.4 s		

Queues
13: N Dixie Hwy & Jeffery St

2045 PM Build W Mitigation 1-1
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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	571	182	112	951	16	510	204
v/c Ratio	1.07	0.54	0.59	0.85	0.16	0.55	0.24
Control Delay	105.8	56.1	63.0	30.1	57.1	24.9	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	56.1	63.0	30.1	57.1	24.9	6.2
Queue Length 50th (ft)	~247	70	84	496	12	264	19
Queue Length 95th (ft)	#364	105	139	#938	34	394	69
Internal Link Dist (ft)	468	966		1902		5728	
Turn Bay Length (ft)			150				170
Base Capacity (vph)	532	528	266	1124	270	935	865
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.34	0.42	0.85	0.06	0.55	0.24

Intersection Summary




















- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

13: N Dixie Hwy & Jeffery St




















2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	285	130	21	134	10	103	786	32	14	439	188
Future Volume (vph)	110	285	130	21	134	10	103	786	32	14	439	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.96			0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3373			3495		1770	1869		1805	1881	1583
Flt Permitted		0.99			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3373			3495		1770	1869		1805	1881	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.92	0.86	0.92	0.86	0.86	0.86	0.86	0.92
Adj. Flow (vph)	120	310	141	24	146	12	112	914	37	16	510	204
RTOR Reduction (vph)	0	26	0	0	5	0	0	1	0	0	0	78
Lane Group Flow (vph)	0	545	0	0	177	0	112	950	0	16	510	126
Confl. Peds. (#/hr)									4	4		
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	1%	0%	0%	1%	2%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		18.0			11.4		12.9	69.5		3.1	59.7	59.7
Effective Green, g (s)		18.0			11.4		12.9	69.5		3.1	59.7	59.7
Actuated g/C Ratio		0.15			0.10		0.11	0.58		0.03	0.50	0.50
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		505			332		190	1082		46	935	787
v/s Ratio Prot		c0.16			c0.05		c0.06	c0.51		0.01	0.27	
v/s Ratio Perm												0.08
v/c Ratio		1.08			0.53		0.59	0.88		0.35	0.55	0.16
Uniform Delay, d1		51.0			51.8		51.0	21.6		57.5	20.8	16.5
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		62.9			1.7		4.6	10.1		4.5	2.3	0.4
Delay (s)		113.9			53.4		55.6	31.7		62.0	23.1	16.9
Level of Service		F			D		E	C		E	C	B
Approach Delay (s)		113.9			53.4			34.3			22.2	
Approach LOS		F			D			C			C	
Intersection Summary												
HCM 2000 Control Delay		50.0			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.88										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)			18.0				
Intersection Capacity Utilization		82.4%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
13: N Dixie Hwy & Jeffery St

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	285	130	21	134	10	103	786	32	14	439	188
Future Volume (veh/h)	110	285	130	21	134	10	103	786	32	14	439	188
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	1900	1870	1900	1870	1885	1900	1900	1885	1870
Adj Flow Rate, veh/h	120	310	141	24	146	12	112	914	37	16	510	204
Peak Hour Factor	0.92	0.92	0.92	0.86	0.92	0.86	0.92	0.86	0.86	0.86	0.86	0.92
Percent Heavy Veh, %	2	2	2	0	2	0	2	1	0	0	1	2
Cap, veh/h	107	287	137	33	209	18	143	1057	43	75	1035	869
Arrive On Green	0.15	0.15	0.15	0.07	0.07	0.07	0.08	0.59	0.59	0.04	0.55	0.55
Sat Flow, veh/h	716	1912	913	464	2955	253	1781	1799	73	1810	1885	1582
Grp Volume(v), veh/h	308	0	263	95	0	87	112	0	951	16	510	204
Grp Sat Flow(s),veh/h/ln	1835	0	1706	1847	0	1825	1781	0	1872	1810	1885	1582
Q Serve(g_s), s	18.0	0.0	18.0	6.1	0.0	5.6	7.4	0.0	51.1	1.0	20.1	8.0
Cycle Q Clear(g_c), s	18.0	0.0	18.0	6.1	0.0	5.6	7.4	0.0	51.1	1.0	20.1	8.0
Prop In Lane	0.39		0.54	0.25		0.14	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	275	0	256	131	0	129	143	0	1100	75	1035	869
V/C Ratio(X)	1.12	0.00	1.03	0.73	0.00	0.67	0.79	0.00	0.86	0.21	0.49	0.23
Avail Cap(c_a), veh/h	275	0	256	277	0	274	269	0	1100	271	1035	869
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)	0.99	0.00	0.99	0.82	0.00	0.82	1.00	0.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	51.0	0.0	51.0	54.6	0.0	54.4	54.2	0.0	20.7	55.6	16.7	14.0
Incr Delay (d2), s/veh	89.4	0.0	63.8	6.3	0.0	4.9	9.1	0.0	9.1	1.1	1.4	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	15.1	0.0	12.2	3.1	0.0	2.7	3.7	0.0	23.8	0.5	8.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	140.4	0.0	114.8	61.0	0.0	59.3	63.3	0.0	29.8	56.7	18.1	14.5
LnGrp LOS	F	A	F	E	A	E	E	A	C	E	B	B
Approach Vol, veh/h		571			182			1063			730	
Approach Delay, s/veh		128.6			60.2			33.3			17.9	
Approach LOS		F			E			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	75.0		22.5	14.1	70.4		13.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	18.0	48.0		18.0	18.1	47.9		18.0				
Max Q Clear Time (g_c+I1), s	3.0	53.1		20.0	9.4	22.1		8.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.2	3.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				52.2								
HCM 6th LOS				D								

Intersection				
Intersection Delay, s/veh	6.1			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	42	12	543	417
Demand Flow Rate, veh/h	42	12	548	425
Vehicles Circulating, veh/h	412	555	15	48
Vehicles Exiting, veh/h	61	8	439	519
Ped Vol Crossing Leg, #/h	1	5	0	1
Ped Cap Adj	1.000	0.999	1.000	1.000
Approach Delay, s/veh	4.4	4.7	6.5	5.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	42	12	548	425
Cap Entry Lane, veh/h	906	783	1359	1314
Entry HV Adj Factor	1.000	1.000	0.991	0.982
Flow Entry, veh/h	42	12	543	417
Cap Entry, veh/h	906	783	1346	1290
V/C Ratio	0.046	0.015	0.403	0.324
Control Delay, s/veh	4.4	4.7	6.5	5.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	1

Intersection						
Intersection Delay, s/veh	4.8					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	472	361	184		
Demand Flow Rate, veh/h	0	478	367	188		
Vehicles Circulating, veh/h	500	75	119	312		
Vehicles Exiting, veh/h	0	119	381	75		
Ped Vol Crossing Leg, #/h	2	1	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	4.6	4.8	5.4		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	166	4.976	292	4.976
Entry Flow, veh/h	0	312	1278	75	1222	188
Cap Entry Lane, veh/h	829	1278	0.980	1222	0.990	1004
Entry HV Adj Factor	1.000	0.990	163	0.962	289	0.979
Flow Entry, veh/h	0	309	1253	72	1210	184
Cap Entry, veh/h	828	1266	0.130	1175	0.239	982
V/C Ratio	0.000	0.244	4.0	0.061	5.1	0.187
Control Delay, s/veh	4.3	5.0	A	3.6	A	5.4
LOS	A	A	0	A	1	A
95th %tile Queue, veh	0	1		0		1

Timings
16: RR Crossing & Hidden Valley Blvd

2045 PM Build W Mitigation 1-1

09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	347	474	1	1
Future Volume (vph)	347	474	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	81.5	81.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.12	0.17	0.01	0.01
Control Delay	9.6	10.0	397.0	397.0
Queue Delay	0.0	21.7	0.0	0.0
Total Delay	9.6	31.7	397.0	397.0
LOS	A	C	F	F
Approach Delay	9.6	31.7	397.0	397.0
Approach LOS	A	C	F	F

Intersection Summary

Cycle Length: 900

Actuated Cycle Length: 900

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 105

Control Type: Pretimed

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 23.2

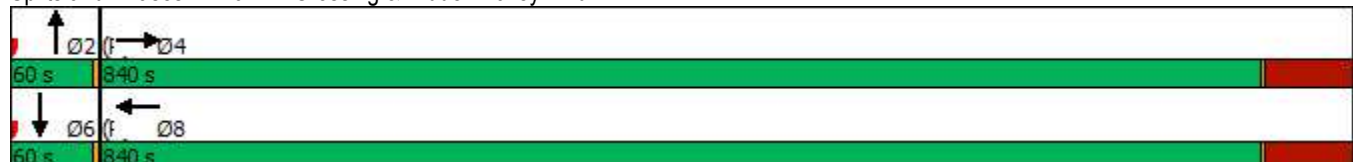
Intersection LOS: C

Intersection Capacity Utilization 73.9%

ICU Level of Service D

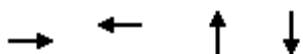
Analysis Period (min) 15

Splits and Phases: 16: RR Crossing & Hidden Valley Blvd



Queues
16: RR Crossing & Hidden Valley Blvd

2045 PM Build W Mitigation 1-1
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







Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	377	515	1	1
v/c Ratio	0.12	0.17	0.01	0.01
Control Delay	9.6	10.0	397.0	397.0
Queue Delay	0.0	21.7	0.0	0.0
Total Delay	9.6	31.7	397.0	397.0
Queue Length 50th (ft)	181	258	6	6
Queue Length 95th (ft)	192	268	23	23
Internal Link Dist (ft)	844	221	246	225
Turn Bay Length (ft)				
Base Capacity (vph)	3053	3053	114	114
Starvation Cap Reductn	0	2538	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.12	1.00	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

16: RR Crossing & Hidden Valley Blvd

2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	347	0	0	474	0	0	1	0	0	1	0
Future Volume (vph)	0	347	0	0	474	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	377	0	0	515	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	377	0	0	515	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		3053			3053			114			114	
v/s Ratio Prot		0.11			c0.15			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.12			0.17			0.01			0.01	
Uniform Delay, d1		9.5			9.9			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		9.6			10.0			396.6			396.6	
Level of Service		A			B			F			F	
Approach Delay (s)		9.6			10.0			396.6			396.6	
Approach LOS		A			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		10.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.16										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		73.9%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
17: RR Crossing & W Yamato Rd

2045 PM Build W Mitigation 1-1
09/28/2022

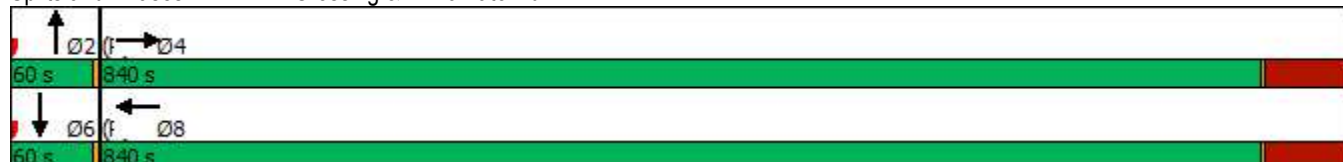
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑↑	↑↑↑	↑	↑
Traffic Volume (vph)	1801	1876	1	1
Future Volume (vph)	1801	1876	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	81.5	81.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.45	0.46	0.01	0.01
Control Delay	14.1	14.5	397.0	397.0
Queue Delay	20.7	45.3	0.0	0.0
Total Delay	34.9	59.8	397.0	397.0
LOS	C	E	F	F
Approach Delay	34.9	59.8	397.0	397.0
Approach LOS	C	E	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 145
 Control Type: Pretimed
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 47.8
 Intersection Capacity Utilization 97.1%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 17: RR Crossing & W Yamato Rd



Queues
17: RR Crossing & W Yamato Rd













2045 PM Build W Mitigation 1-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1958	2039	1	1
v/c Ratio	0.45	0.46	0.01	0.01
Control Delay	14.1	14.5	397.0	397.0
Queue Delay	20.7	45.3	0.0	0.0
Total Delay	34.9	59.8	397.0	397.0
Queue Length 50th (ft)	952	1017	6	6
Queue Length 95th (ft)	902	960	23	23
Internal Link Dist (ft)	615	274	189	249
Turn Bay Length (ft)				
Base Capacity (vph)	4387	4387	114	114
Starvation Cap Reductn	2490	2523	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.03	1.09	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

17: RR Crossing & W Yamato Rd

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↑			↑	
Traffic Volume (vph)	0	1801	0	0	1876	0	0	1	0	0	1	0
Future Volume (vph)	0	1801	0	0	1876	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		5085			5085			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		5085			5085			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1958	0	0	2039	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1958	0	0	2039	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		4387			4387			114			114	
v/s Ratio Prot		0.39			c0.40			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.45			0.46			0.01			0.01	
Uniform Delay, d1		13.8			14.1			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.4			0.1			0.1	
Delay (s)		14.1			14.5			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		14.1			14.5			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		14.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		97.1%			ICU Level of Service			F				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
18: RR Crossing & Spanish River Blvd

2045 PM Build W Mitigation 1-1
09/28/2022

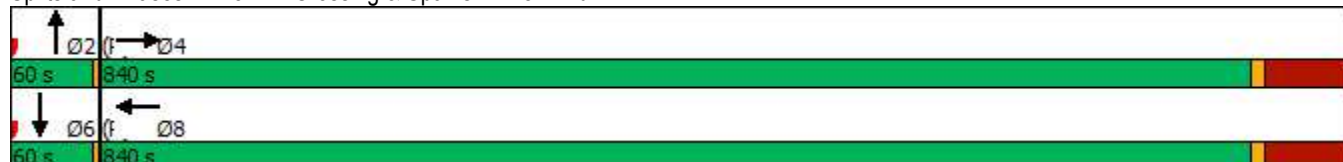
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	1136	1288	1	1
Future Volume (vph)	1136	1288	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.41	0.46	0.01	0.01
Control Delay	14.9	16.1	397.0	397.0
Queue Delay	18.1	49.0	0.0	0.0
Total Delay	32.9	65.1	397.0	397.0
LOS	C	E	F	F
Approach Delay	32.9	65.1	397.0	397.0
Approach LOS	C	E	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 175
 Control Type: Pretimed
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 50.3
 Intersection Capacity Utilization 101.9%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service G

Splits and Phases: 18: RR Crossing & Spanish River Blvd




Queues
18: RR Crossing & Spanish River Blvd

2045 PM Build W Mitigation 1-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1235	1400	1	1
v/c Ratio	0.41	0.46	0.01	0.01
Control Delay	14.9	16.1	397.0	397.0
Queue Delay	18.1	49.0	0.0	0.0
Total Delay	32.9	65.1	397.0	397.0
Queue Length 50th (ft)	859	1050	6	6
Queue Length 95th (ft)	840	1014	23	23
Internal Link Dist (ft)	31	267	152	280
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	1811	1754	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.02	1.10	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis 18: RR Crossing & Spanish River Blvd

2045 PM Build W Mitigation 1-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	1136	0	0	1288	0	0	1	0	0	1	0
Future Volume (vph)	0	1136	0	0	1288	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1235	0	0	1400	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1235	0	0	1400	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		0.35			c0.40			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.41			0.46			0.01			0.01	
Uniform Delay, d1		14.4			15.5			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.5			0.1			0.1	
Delay (s)		14.8			16.0			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		14.8			16.0			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		15.8			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		101.9%			ICU Level of Service			G				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
20: RR Crossing & NW 20th St

2045 PM Build W Mitigation 1-1
09/28/2022

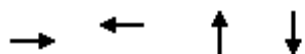
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	694	688	1	1
Future Volume (vph)	694	688	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.25	0.25	0.01	0.01
Control Delay	12.1	12.1	397.0	397.0
Queue Delay	2.1	14.5	0.0	0.0
Total Delay	14.2	26.6	397.0	397.0
LOS	B	C	F	F
Approach Delay	14.2	26.6	397.0	397.0
Approach LOS	B	C	F	F
Intersection Summary				
Cycle Length: 900				
Actuated Cycle Length: 900				
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green				
Natural Cycle: 175				
Control Type: Pretimed				
Maximum v/c Ratio: 0.25				
Intersection Signal Delay: 20.9			Intersection LOS: C	
Intersection Capacity Utilization 85.4%			ICU Level of Service E	
Analysis Period (min) 15				

Splits and Phases: 20: RR Crossing & NW 20th St



Queues
20: RR Crossing & NW 20th St

2045 PM Build W Mitigation 1-1
09/28/2022















Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	754	748	1	1
v/c Ratio	0.25	0.25	0.01	0.01
Control Delay	12.1	12.1	397.0	397.0
Queue Delay	2.1	14.5	0.0	0.0
Total Delay	14.2	26.6	397.0	397.0
Queue Length 50th (ft)	434	430	6	6
Queue Length 95th (ft)	438	434	23	23
Internal Link Dist (ft)	941	417	469	497
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	2075	2267	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.79	0.98	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

20: RR Crossing & NW 20th St

2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	694	0	0	688	0	0	1	0	0	1	0
Future Volume (vph)	0	694	0	0	688	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	754	0	0	748	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	754	0	0	748	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		c0.21			0.21			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.25			0.25			0.01			0.01	
Uniform Delay, d1		11.9			11.9			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			0.1			0.1	
Delay (s)		12.1			12.1			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		12.1			12.1			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		12.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		85.4%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
35: RR Crossing & Jeffery Street /Jeffery St

2045 PM Build W Mitigation 1-1
09/28/2022

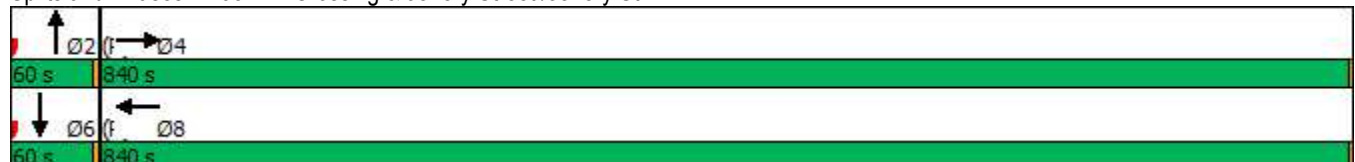
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	525	425	1	1
Future Volume (vph)	525	425	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	835.5	835.5	55.5	55.5
Actuated g/C Ratio	0.93	0.93	0.06	0.06
v/c Ratio	0.17	0.14	0.01	0.01
Control Delay	2.9	2.7	397.0	397.0
Queue Delay	3.2	3.8	0.0	0.0
Total Delay	6.1	6.6	397.0	397.0
LOS	A	A	F	F
Approach Delay	6.1	6.6	397.0	397.0
Approach LOS	A	A	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 45
 Control Type: Pretimed
 Maximum v/c Ratio: 0.17
 Intersection Signal Delay: 7.1
 Intersection Capacity Utilization 26.2%
 Analysis Period (min) 15

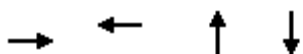
Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 35: RR Crossing & Jeffery Street /Jeffery St



Queues
35: RR Crossing & Jeffery Street /Jeffery St

2045 PM Build W Mitigation 1-1
09/28/2022















Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	571	462	1	1
v/c Ratio	0.17	0.14	0.01	0.01
Control Delay	2.9	2.7	397.0	397.0
Queue Delay	3.2	3.8	0.0	0.0
Total Delay	6.1	6.6	397.0	397.0
Queue Length 50th (ft)	145	113	6	6
Queue Length 95th (ft)	150	118	23	23
Internal Link Dist (ft)	594	468	551	549
Turn Bay Length (ft)				
Base Capacity (vph)	3285	3285	114	114
Starvation Cap Reductn	2583	2715	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.81	0.81	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis
35: RR Crossing & Jeffery Street /Jeffery St

2045 PM Build W Mitigation 1-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	525	0	0	425	0	0	1	0	0	1	0
Future Volume (vph)	0	525	0	0	425	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	571	0	0	462	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	571	0	0	462	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		835.5			835.5			55.5			55.5	
Effective Green, g (s)		835.5			835.5			55.5			55.5	
Actuated g/C Ratio		0.93			0.93			0.06			0.06	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Lane Grp Cap (vph)		3285			3285			114			114	
v/s Ratio Prot		c0.16			0.13			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.17			0.14			0.01			0.01	
Uniform Delay, d1		2.8			2.7			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		2.9			2.7			396.6			396.6	
Level of Service		A			A			F			F	
Approach Delay (s)		2.9			2.7			396.6			396.6	
Approach LOS		A			A			F			F	
Intersection Summary												
HCM 2000 Control Delay		3.6			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.16										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			9.0				
Intersection Capacity Utilization		26.2%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology does not support cycle length greater than 55 seconds.



APPENDIX L:
2045 BUILD SYNCHRO REPORTS (2:1 CLOSURE)

Timings
1: NW 2nd Ave & NW 20th St

2045 AM Build W Mitigation 2-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	←	↑↑	←	↑↑	←	↑↑	←	←	↑↑
Traffic Volume (vph)	92	209	172	209	80	558	160	204	666
Future Volume (vph)	92	209	172	209	80	558	160	204	666
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	12.0	34.0	18.0	40.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	10.0%	28.3%	15.0%	33.3%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	20.4	15.4	32.1	21.2	61.5	53.5	53.5	70.9	60.3
Actuated g/C Ratio	0.17	0.13	0.27	0.18	0.51	0.45	0.45	0.59	0.50
v/c Ratio	0.54	0.70	0.77	0.60	0.23	0.38	0.22	0.45	0.46
Control Delay	46.9	44.2	56.4	27.3	12.9	24.2	4.3	14.3	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	44.2	56.4	27.3	12.9	24.2	4.3	14.3	21.6
LOS	D	D	E	C	B	C	A	B	C
Approach Delay		44.8		35.9		19.1			20.0
Approach LOS		D		D		B			C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 26.9

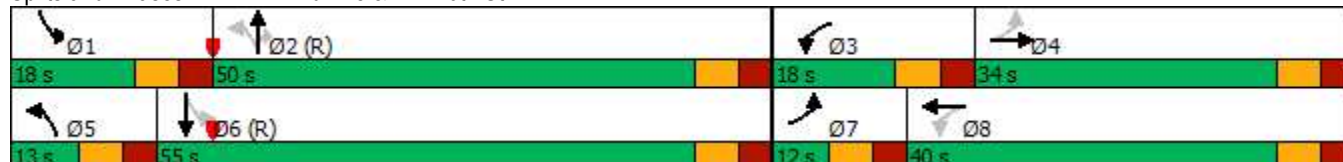
Intersection LOS: C

Intersection Capacity Utilization 80.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues

2045 AM Build W Mitigation 2-1

09/28/2022

1: NW 2nd Ave & NW 20th St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	353	183	435	85	594	170	217	790
v/c Ratio	0.54	0.70	0.77	0.60	0.23	0.38	0.22	0.45	0.46
Control Delay	46.9	44.2	56.4	27.3	12.9	24.2	4.3	14.3	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	44.2	56.4	27.3	12.9	24.2	4.3	14.3	21.6
Queue Length 50th (ft)	58	103	115	87	25	156	0	70	206
Queue Length 95th (ft)	98	148	#187	136	53	236	45	122	295
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	182	820	241	1012	367	1561	790	494	1720
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.43	0.76	0.43	0.23	0.38	0.22	0.44	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2045 AM Build W Mitigation 2-1

1: NW 2nd Ave & NW 20th St























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	209	123	172	209	200	80	558	160	204	666	76
Future Volume (vph)	92	209	123	172	209	200	80	558	160	204	666	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.94		1.00	0.93		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1783	3330		1719	3152		1718	3505	1562	1769	3408	
Flt Permitted	0.45	1.00		0.26	1.00		0.31	1.00	1.00	0.34	1.00	
Satd. Flow (perm)	847	3330		476	3152		568	3505	1562	627	3408	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	98	222	131	183	222	213	85	594	170	217	709	81
RTOR Reduction (vph)	0	80	0	0	165	0	0	0	94	0	6	0
Lane Group Flow (vph)	98	273	0	183	271	0	85	594	76	217	784	0
Confl. Peds. (#/hr)	8		1	1		8	5		1	1		5
Heavy Vehicles (%)	1%	3%	0%	5%	5%	5%	5%	3%	2%	2%	4%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	20.4	15.4		32.2	21.3		60.2	53.4	53.4	71.2	58.9	
Effective Green, g (s)	20.4	15.4		32.2	21.3		60.2	53.4	53.4	71.2	58.9	
Actuated g/C Ratio	0.17	0.13		0.27	0.18		0.50	0.44	0.44	0.59	0.49	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	182	427		240	559		350	1559	695	489	1672	
v/s Ratio Prot	0.02	0.08		c0.07	0.09		0.01	0.17		c0.05	c0.23	
v/s Ratio Perm	0.07			c0.14			0.11		0.05	0.22		
v/c Ratio	0.54	0.64		0.76	0.48		0.24	0.38	0.11	0.44	0.47	
Uniform Delay, d1	44.0	49.7		36.6	44.4		15.8	22.3	19.4	12.2	20.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	3.1		13.4	0.7		0.4	0.7	0.3	0.6	0.9	
Delay (s)	47.0	52.8		49.9	45.1		16.2	23.0	19.7	12.8	21.2	
Level of Service	D	D		D	D		B	C	B	B	C	
Approach Delay (s)		51.5			46.5			21.6			19.4	
Approach LOS		D			D			C			B	
Intersection Summary												
HCM 2000 Control Delay			30.7			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			28.0			
Intersection Capacity Utilization			80.2%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St



















2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	209	123	172	209	200	80	558	160	204	666	76
Future Volume (veh/h)	92	209	123	172	209	200	80	558	160	204	666	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	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	1885	1856	1900	1826	1826	1826	1826	1856	1870	1870	1841	1826
Adj Flow Rate, veh/h	98	222	131	183	222	213	85	594	170	217	709	81
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	3	0	5	5	5	5	3	2	2	4	5
Cap, veh/h	204	327	184	268	349	308	354	1553	696	438	1527	174
Arrive On Green	0.04	0.15	0.15	0.09	0.20	0.20	0.04	0.44	0.44	0.08	0.48	0.48
Sat Flow, veh/h	1795	2158	1218	1739	1735	1529	1739	3526	1580	1781	3162	361
Grp Volume(v), veh/h	98	180	173	183	222	213	85	594	170	217	392	398
Grp Sat Flow(s),veh/h/ln	1795	1763	1613	1739	1735	1529	1739	1763	1580	1781	1749	1774
Q Serve(g_s), s	5.0	11.5	12.3	10.6	14.1	15.5	3.2	13.6	8.1	7.9	17.9	18.0
Cycle Q Clear(g_c), s	5.0	11.5	12.3	10.6	14.1	15.5	3.2	13.6	8.1	7.9	17.9	18.0
Prop In Lane	1.00		0.76	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	204	267	244	268	349	308	354	1553	696	438	844	857
V/C Ratio(X)	0.48	0.67	0.71	0.68	0.64	0.69	0.24	0.38	0.24	0.50	0.46	0.46
Avail Cap(c_a), veh/h	204	397	363	268	477	420	370	1553	696	453	844	857
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	0.95	0.95	0.95
Uniform Delay (d), s/veh	42.7	48.1	48.4	38.5	43.9	44.5	17.8	22.6	21.1	16.6	20.7	20.7
Incr Delay (d2), s/veh	1.8	2.9	3.8	6.9	1.9	2.9	0.3	0.7	0.8	0.8	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.2	5.2	5.0	6.2	6.1	1.3	5.7	3.1	3.2	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	51.1	52.2	45.4	45.8	47.4	18.1	23.3	21.9	17.4	22.4	22.4
LnGrp LOS	D	D	D	D	D	D	B	C	C	B	C	C
Approach Vol, veh/h	451			618			849			1007		
Approach Delay, s/veh	50.1			46.2			22.5			21.3		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.8	18.0	25.2	11.9	64.9	12.0	31.2				
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	11.0	43.0	11.0	27.0	6.0	48.0	5.0	33.0				
Max Q Clear Time (g_c+I1), s	9.9	15.6	12.6	14.3	5.2	20.0	7.0	17.5				
Green Ext Time (p_c), s	0.1	3.7	0.0	1.1	0.0	3.4	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	31.4											
HCM 6th LOS	C											

Timings
2: N Dixie Hwy & NW 20th St

2045 AM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	102	288	87	235	197	594	41	622	188
Future Volume (vph)	102	288	87	235	197	594	41	622	188
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	24.5	11.5	45.5	11.4	42.4	11.4	41.4	41.4
Total Split (s)	17.0	40.0	20.0	43.0	20.0	70.0	20.0	70.0	70.0
Total Split (%)	11.3%	26.7%	13.3%	28.7%	13.3%	46.7%	13.3%	46.7%	46.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	31.6	21.8	32.5	22.3	97.9	88.6	86.6	80.9	80.9
Actuated g/C Ratio	0.21	0.15	0.22	0.15	0.65	0.59	0.58	0.54	0.54
v/c Ratio	0.46	0.81	0.49	0.55	0.41	0.34	0.10	0.35	0.21
Control Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
LOS	D	E	D	E	B	B	B	B	A
Approach Delay		65.2		57.6		16.7		15.0	
Approach LOS		E		E		B		B	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 20 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 31.3

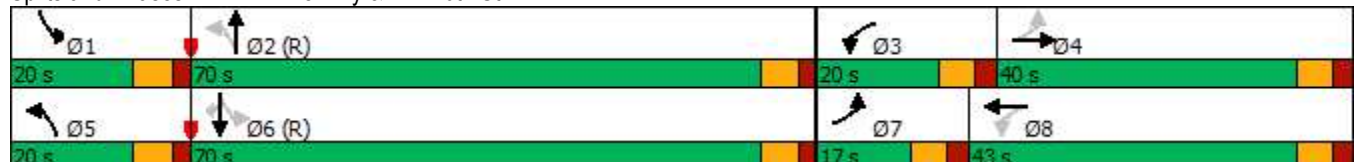
Intersection LOS: C

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St

2045 AM Build W Mitigation 2-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	105	419	90	284	203	703	42	641	194
v/c Ratio	0.46	0.81	0.49	0.55	0.41	0.34	0.10	0.35	0.21
Control Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	69.1	51.0	59.7	13.7	17.5	11.7	19.0	2.6
Queue Length 50th (ft)	82	193	69	132	73	182	10	246	1
Queue Length 95th (ft)	126	245	109	170	129	265	m19	m320	m70
Internal Link Dist (ft)		417		733		683		6742	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	235	770	222	844	516	2044	530	1836	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.54	0.41	0.34	0.39	0.34	0.08	0.35	0.21

Intersection Summary






















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

HCM Signalized Intersection Capacity Analysis

2045 AM Build W Mitigation 2-1






















2: N Dixie Hwy & NW 20th St

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	288	118	87	235	41	197	594	88	41	622	188
Future Volume (vph)	102	288	118	87	235	41	197	594	88	41	622	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1683	3320		1752	3432		1770	3450		1770	3406	1583
Flt Permitted	0.46	1.00		0.24	1.00		0.33	1.00		0.37	1.00	1.00
Satd. Flow (perm)	809	3320		436	3432		622	3450		687	3406	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	105	297	122	90	242	42	203	612	91	42	641	194
RTOR Reduction (vph)	0	32	0	0	10	0	0	6	0	0	0	89
Lane Group Flow (vph)	105	387	0	90	274	0	203	697	0	42	641	105
Confl. Peds. (#/hr)	7					7						
Heavy Vehicles (%)	7%	4%	4%	3%	3%	0%	2%	3%	0%	2%	6%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	31.5	21.8		32.5	22.3		98.6	87.4		85.7	80.9	80.9
Effective Green, g (s)	31.5	21.8		32.5	22.3		98.6	87.4		85.7	80.9	80.9
Actuated g/C Ratio	0.21	0.15		0.22	0.15		0.66	0.58		0.57	0.54	0.54
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	226	482		183	510		495	2010		427	1836	853
v/s Ratio Prot	0.03	c0.12		c0.03	0.08		c0.03	0.20		0.00	0.19	
v/s Ratio Perm	0.07			0.07			c0.24			0.05		0.07
v/c Ratio	0.46	0.80		0.49	0.54		0.41	0.35		0.10	0.35	0.12
Uniform Delay, d1	50.0	62.0		49.0	59.1		11.1	16.4		14.2	19.6	17.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.98	0.87	0.75
Incremental Delay, d2	0.6	8.8		0.8	0.5		0.2	0.5		0.0	0.5	0.3
Delay (s)	50.6	70.8		49.8	59.6		11.3	16.8		13.9	17.5	13.0
Level of Service	D	E		D	E		B	B		B	B	B
Approach Delay (s)		66.8			57.3			15.6			16.4	
Approach LOS		E			E			B			B	
Intersection Summary												
HCM 2000 Control Delay			31.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			25.8			
Intersection Capacity Utilization			69.9%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	288	118	87	235	41	197	594	88	41	622	188
Future Volume (veh/h)	102	288	118	87	235	41	197	594	88	41	622	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1841	1841	1856	1856	1900	1870	1856	1900	1870	1811	1870
Adj Flow Rate, veh/h	105	297	122	90	242	42	203	612	91	42	641	194
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	4	4	3	3	0	2	3	0	2	6	2
Cap, veh/h	217	344	138	165	399	68	467	1856	275	472	1958	902
Arrive On Green	0.07	0.14	0.14	0.06	0.13	0.13	0.06	0.60	0.60	0.03	0.57	0.57
Sat Flow, veh/h	1711	2425	972	1767	3003	513	1781	3079	457	1781	3441	1585
Grp Volume(v), veh/h	105	212	207	90	140	144	203	350	353	42	641	194
Grp Sat Flow(s),veh/h/ln	1711	1749	1649	1767	1763	1754	1781	1763	1773	1781	1721	1585
Q Serve(g_s), s	7.9	17.8	18.5	6.5	11.3	11.6	7.0	14.8	14.8	1.5	14.8	9.0
Cycle Q Clear(g_c), s	7.9	17.8	18.5	6.5	11.3	11.6	7.0	14.8	14.8	1.5	14.8	9.0
Prop In Lane	1.00		0.59	1.00		0.29	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	217	248	234	165	234	233	467	1062	1069	472	1958	902
V/C Ratio(X)	0.48	0.85	0.88	0.55	0.60	0.62	0.44	0.33	0.33	0.09	0.33	0.22
Avail Cap(c_a), veh/h	226	391	368	225	429	427	519	1062	1069	584	1958	902
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	51.9	62.8	63.2	53.1	61.3	61.4	12.5	14.8	14.8	12.8	17.1	15.9
Incr Delay (d2), s/veh	0.6	6.1	9.6	1.1	0.9	1.0	0.2	0.8	0.8	0.0	0.4	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	3.4	8.3	8.3	3.0	5.1	5.2	2.7	6.0	6.1	0.6	5.9	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	69.0	72.7	54.2	62.2	62.4	12.7	15.6	15.6	12.9	17.5	16.4
LnGrp LOS	D	E	E	D	E	E	B	B	B	B	B	B
Approach Vol, veh/h		524			374			906			877	
Approach Delay, s/veh		67.2			60.4			15.0			17.0	
Approach LOS		E			E			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	96.8	14.9	27.8	15.6	91.7	16.3	26.4				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	63.6	13.5	33.5	13.6	63.6	10.5	36.5				
Max Q Clear Time (g_c+I1), s	3.5	16.8	8.5	20.5	9.0	16.8	9.9	13.6				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.8	0.1	2.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			32.2									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
3: NW 2nd Ave & NW 28th St

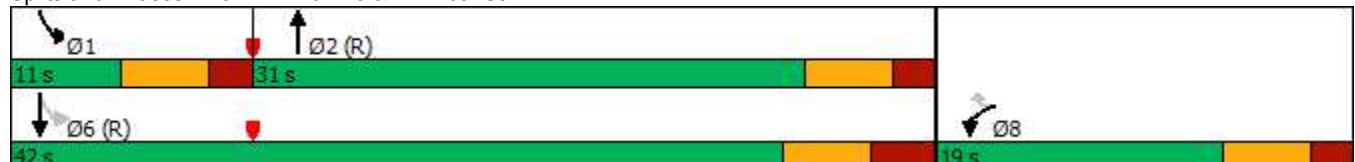
2045 AM Build W Mitigation 2-1
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↑↑	↘	↓↓
Traffic Volume (vph)	18	40	603	33	812
Future Volume (vph)	18	40	603	33	812
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	31.0	31.0	31.0	11.0	25.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.0	12.0	42.1	44.2	46.0
Actuated g/C Ratio	0.20	0.20	0.69	0.72	0.75
v/c Ratio	0.06	0.13	0.29	0.07	0.33
Control Delay	20.6	8.6	8.4	4.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	8.6	8.4	4.9	5.4
LOS	C	A	A	A	A
Approach Delay	12.3		8.4		5.4
Approach LOS	B		A		A

Intersection Summary

Cycle Length: 61
 Actuated Cycle Length: 61
 Offset: 10 (16%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 6.9
 Intersection LOS: A
 Intersection Capacity Utilization 46.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St













2045 AM Build W Mitigation 2-1
09/28/2022

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	20	44	697	36	892
v/c Ratio	0.06	0.13	0.29	0.07	0.33
Control Delay	20.6	8.6	8.4	4.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	8.6	8.4	4.9	5.4
Queue Length 50th (ft)	6	0	56	5	83
Queue Length 95th (ft)	21	22	135	13	117
Internal Link Dist (ft)	443		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	356	368	2380	516	2668
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.29	0.07	0.33
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

3: NW 2nd Ave & NW 28th St












2045 AM Build W Mitigation 2-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Traffic Volume (vph)	18	40	603	31	33	812
Future Volume (vph)	18	40	603	31	33	812
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	7.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1671	1568	3446		1736	3539
Flt Permitted	0.95	1.00	1.00		0.32	1.00
Satd. Flow (perm)	1671	1568	3446		579	3539
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	20	44	663	34	36	892
RTOR Reduction (vph)	0	39	4	0	0	0
Lane Group Flow (vph)	20	5	693	0	36	892
Heavy Vehicles (%)	8%	3%	4%	4%	4%	2%
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	7.2	7.2	33.7		40.8	40.8
Effective Green, g (s)	7.2	7.2	33.7		40.8	40.8
Actuated g/C Ratio	0.12	0.12	0.55		0.67	0.67
Clearance Time (s)	6.0	6.0	6.0		6.0	7.0
Vehicle Extension (s)	2.0	2.0	2.0		1.8	2.0
Lane Grp Cap (vph)	197	185	1903		427	2367
v/s Ratio Prot	c0.01		0.20		0.00	c0.25
v/s Ratio Perm		0.00			0.05	
v/c Ratio	0.10	0.03	0.36		0.08	0.38
Uniform Delay, d1	24.0	23.8	7.6		3.8	4.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	0.0	0.5		0.0	0.5
Delay (s)	24.1	23.8	8.2		3.9	4.9
Level of Service	C	C	A		A	A
Approach Delay (s)	23.9		8.2			4.9
Approach LOS	C		A			A
Intersection Summary						
HCM 2000 Control Delay			7.0		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.37			
Actuated Cycle Length (s)			61.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			46.8%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St























2045 AM Build W Mitigation 2-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	18	40	603	31	33	812
Future Volume (veh/h)	18	40	603	31	33	812
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1781	1856	1841	1841	1841	1870
Adj Flow Rate, veh/h	20	44	663	34	36	892
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	8	3	4	4	4	2
Cap, veh/h	221	205	1763	90	481	2334
Arrive On Green	0.13	0.13	0.52	0.52	0.04	0.66
Sat Flow, veh/h	1697	1572	3477	173	1753	3647
Grp Volume(v), veh/h	20	44	342	355	36	892
Grp Sat Flow(s),veh/h/ln	1697	1572	1749	1809	1753	1777
Q Serve(g_s), s	0.6	1.5	7.1	7.1	0.5	7.0
Cycle Q Clear(g_c), s	0.6	1.5	7.1	7.1	0.5	7.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	221	205	911	943	481	2334
V/C Ratio(X)	0.09	0.21	0.38	0.38	0.07	0.38
Avail Cap(c_a), veh/h	362	335	911	943	559	2334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	0.66	0.66
Uniform Delay (d), s/veh	23.3	23.7	8.7	8.7	5.9	4.8
Incr Delay (d2), s/veh	0.1	0.2	1.1	1.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	2.4	2.5	0.1	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	23.9	9.8	9.8	5.9	5.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	64		697			928
Approach Delay, s/veh	23.8		9.8			5.1
Approach LOS	C		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	38.8			47.1	13.9
Change Period (Y+Rc), s	6.0	* 7			7.0	6.0
Max Green Setting (Gmax), s	5.0	* 25			35.0	13.0
Max Q Clear Time (g_c+I1), s	2.5	9.1			9.0	3.5
Green Ext Time (p_c), s	0.0	1.4			2.6	0.1
Intersection Summary						
HCM 6th Ctrl Delay			7.8			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Timings
5: NW 2nd Ave & Spanish River Blvd

2045 AM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		 			 		 		 
Traffic Volume (vph)	256	867	387	265	669	213	340	102	483
Future Volume (vph)	256	867	387	265	669	213	340	102	483
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	11.5	39.5
Total Split (s)	30.0	59.0	59.0	20.0	49.0	18.0	53.0	18.0	53.0
Total Split (%)	20.0%	39.3%	39.3%	13.3%	32.7%	12.0%	35.3%	12.0%	35.3%
Yellow Time (s)	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	2.5	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
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	79.2	61.4	61.4	84.5	64.5	43.2	31.7	40.1	30.2
Actuated g/C Ratio	0.53	0.41	0.41	0.56	0.43	0.29	0.21	0.27	0.20
v/c Ratio	0.60	0.62	0.48	0.67	0.48	1.13	0.69	0.48	0.85
Control Delay	22.2	38.3	11.4	27.7	33.7	140.5	52.4	52.1	77.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	38.3	11.4	27.7	33.7	140.5	52.4	52.1	77.7
LOS	C	D	B	C	C	F	D	D	E
Approach Delay		28.7			32.1		78.0		74.0
Approach LOS		C			C		E		E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 39 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 46.7

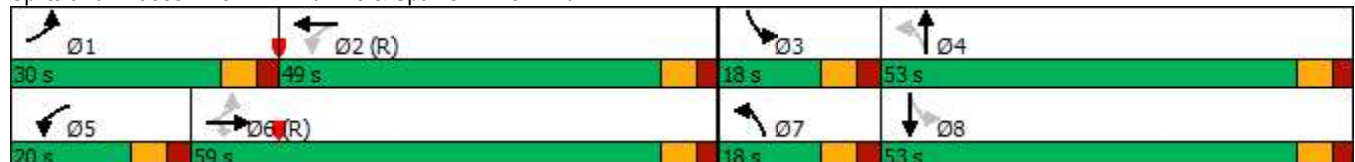
Intersection LOS: D

Intersection Capacity Utilization 88.9%

ICU Level of Service E

Analysis Period (min) 15

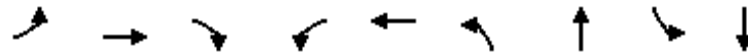
Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

2045 AM Build W Mitigation 2-1

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	259	876	391	268	733	215	524	103	598
v/c Ratio	0.60	0.62	0.48	0.67	0.48	1.13	0.69	0.48	0.85
Control Delay	22.2	38.3	11.4	27.7	33.7	140.5	52.4	52.1	77.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	38.3	11.4	27.7	33.7	140.5	52.4	52.1	77.7
Queue Length 50th (ft)	116	350	66	121	266	~183	222	91	310
Queue Length 95th (ft)	188	472	178	226	387	#336	274	m121	m355
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	504	1421	821	399	1520	191	1080	231	1079
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.62	0.48	0.67	0.48	1.13	0.49	0.45	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















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

HCM Signalized Intersection Capacity Analysis

5: NW 2nd Ave & Spanish River Blvd

2045 AM Build W Mitigation 2-1

09/28/2022






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	867	387	265	669	56	213	340	179	102	483	109
Future Volume (vph)	256	867	387	265	669	56	213	340	179	102	483	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.95		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1769	3471	1599	1787	3526		1736	3340		1769	3442	
Flt Permitted	0.29	1.00	1.00	0.19	1.00		0.15	1.00		0.25	1.00	
Satd. Flow (perm)	540	3471	1599	353	3526		278	3340		474	3442	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	259	876	391	268	676	57	215	343	181	103	488	110
RTOR Reduction (vph)	0	0	167	0	3	0	0	52	0	0	15	0
Lane Group Flow (vph)	259	876	224	268	730	0	215	472	0	103	583	0
Confl. Peds. (#/hr)	2					2			1	1		
Heavy Vehicles (%)	2%	4%	1%	1%	1%	2%	4%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	79.2	61.4	61.4	85.4	64.5		43.2	31.7		40.2	30.2	
Effective Green, g (s)	79.2	61.4	61.4	85.4	64.5		43.2	31.7		40.2	30.2	
Actuated g/C Ratio	0.53	0.41	0.41	0.57	0.43		0.29	0.21		0.27	0.20	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0		1.8	2.0		1.8	2.0	
Lane Grp Cap (vph)	430	1420	654	400	1516		191	705		213	692	
v/s Ratio Prot	0.07	0.25		c0.09	0.21		c0.09	0.14		0.03	0.17	
v/s Ratio Perm	0.25		0.14	c0.29			c0.24			0.10		
v/c Ratio	0.60	0.62	0.34	0.67	0.48		1.13	0.67		0.48	0.84	
Uniform Delay, d1	20.6	35.0	30.4	20.7	30.7		47.2	54.3		43.4	57.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.32	1.26	
Incremental Delay, d2	1.6	2.0	1.4	3.4	1.1		102.9	1.9		0.4	5.7	
Delay (s)	22.2	37.0	31.9	24.2	31.8		150.1	56.2		57.4	78.4	
Level of Service	C	D	C	C	C		F	E		E	E	
Approach Delay (s)		33.2			29.8			83.5			75.3	
Approach LOS		C			C			F			E	
Intersection Summary												
HCM 2000 Control Delay			49.1			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)				26.0		
Intersection Capacity Utilization			88.9%			ICU Level of Service				E		
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th Signalized Intersection Summary
5: NW 2nd Ave & Spanish River Blvd

2045 AM Build W Mitigation 2-1



















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	867	387	265	669	56	213	340	179	102	483	109
Future Volume (veh/h)	256	867	387	265	669	56	213	340	179	102	483	109
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	1841	1885	1885	1885	1870	1841	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	259	876	391	268	676	57	215	343	181	103	488	110
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	4	1	1	1	2	4	2	2	2	2	2
Cap, veh/h	452	1646	751	339	1572	132	201	469	243	208	546	122
Arrive On Green	0.09	0.47	0.47	0.09	0.47	0.47	0.08	0.21	0.21	0.06	0.19	0.19
Sat Flow, veh/h	1781	3497	1596	1795	3343	282	1753	2263	1171	1781	2883	646
Grp Volume(v), veh/h	259	876	391	268	362	371	215	268	256	103	300	298
Grp Sat Flow(s),veh/h/ln	1781	1749	1596	1795	1791	1834	1753	1777	1657	1781	1777	1753
Q Serve(g_s), s	11.2	26.5	25.8	11.6	20.1	20.2	11.5	21.1	21.7	6.9	24.7	24.9
Cycle Q Clear(g_c), s	11.2	26.5	25.8	11.6	20.1	20.2	11.5	21.1	21.7	6.9	24.7	24.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.71	1.00		0.37
Lane Grp Cap(c), veh/h	452	1646	751	339	842	862	201	368	343	208	336	332
V/C Ratio(X)	0.57	0.53	0.52	0.79	0.43	0.43	1.07	0.73	0.75	0.50	0.89	0.90
Avail Cap(c_a), veh/h	570	1646	751	339	842	862	201	551	514	239	551	543
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	28.0	27.8	23.0	26.4	26.4	52.0	55.5	55.8	46.4	59.3	59.4
Incr Delay (d2), s/veh	0.4	1.2	2.6	11.0	1.6	1.6	82.2	1.0	1.2	0.7	6.2	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	11.4	10.3	5.8	9.0	9.2	6.7	9.5	9.2	3.1	11.6	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	29.3	30.4	34.0	28.0	28.0	134.2	56.5	56.9	47.0	65.5	66.5
LnGrp LOS	B	C	C	C	C	C	F	E	E	D	E	E
Approach Vol, veh/h		1526			1001			739			701	
Approach Delay, s/veh		27.9			29.6			79.3			63.2	
Approach LOS		C			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.1	77.0	15.3	37.6	20.0	77.1	18.0	34.9				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	23.5	42.5	11.5	46.5	13.5	52.5	11.5	46.5				
Max Q Clear Time (g_c+I1), s	13.2	22.2	8.9	23.7	13.6	28.5	13.5	26.9				
Green Ext Time (p_c), s	0.4	1.6	0.0	1.1	0.0	3.7	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			44.1									
HCM 6th LOS			D									

Timings
6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	150	758	87	612	252	446	60	430	193
Future Volume (vph)	150	758	87	612	252	446	60	430	193
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	28.0	50.0	21.0	43.0	28.0	64.0	15.0	51.0	51.0
Total Split (%)	18.7%	33.3%	14.0%	28.7%	18.7%	42.7%	10.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	61.9	48.8	54.1	44.9	72.6	61.2	55.5	48.2	48.2
Actuated g/C Ratio	0.41	0.33	0.36	0.30	0.48	0.41	0.37	0.32	0.32
v/c Ratio	0.59	0.93	0.61	0.66	0.62	0.41	0.21	0.42	0.32
Control Delay	36.4	62.8	46.2	49.8	31.2	34.4	20.4	34.0	8.6
Queue Delay	0.0	46.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	109.3	46.2	49.8	31.2	34.4	20.4	34.0	8.6
LOS	D	F	D	D	C	C	C	C	A
Approach Delay		99.5		49.4		33.3		25.6	
Approach LOS		F		D		C		C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 35 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 57.5

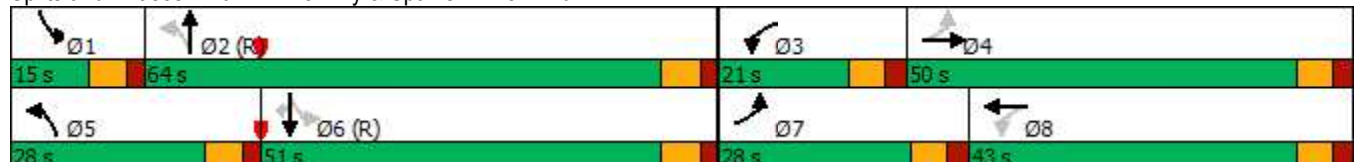
Intersection LOS: E

Intersection Capacity Utilization 92.6%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 2-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	163	1039	95	699	274	562	65	467	210
v/c Ratio	0.59	0.93	0.61	0.66	0.62	0.41	0.21	0.42	0.32
Control Delay	36.4	62.8	46.2	49.8	31.2	34.4	20.4	34.0	8.6
Queue Delay	0.0	46.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	109.3	46.2	49.8	31.2	34.4	20.4	34.0	8.6
Queue Length 50th (ft)	99	510	56	313	187	226	21	215	82
Queue Length 95th (ft)	152	#688	107	406	273	293	m38	m272	m111
Internal Link Dist (ft)		267		828		6742		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	360	1115	218	1063	466	1387	318	1114	656
Starvation Cap Reductn	0	400	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.45	0.44	0.66	0.59	0.41	0.20	0.42	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















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

HCM Signalized Intersection Capacity Analysis

6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 2-1






















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	758	198	87	612	31	252	446	71	60	430	193
Future Volume (vph)	150	758	198	87	612	31	252	446	71	60	430	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1786	3387		1752	3546		1752	3382		1543	3471	1593
Flt Permitted	0.19	1.00		0.09	1.00		0.34	1.00		0.44	1.00	1.00
Satd. Flow (perm)	363	3387		164	3546		629	3382		716	3471	1593
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	824	215	95	665	34	274	485	77	65	467	210
RTOR Reduction (vph)	0	15	0	0	2	0	0	8	0	0	0	143
Lane Group Flow (vph)	163	1024	0	95	697	0	274	554	0	65	467	67
Confl. Peds. (#/hr)	7		1	1		7	1					1
Heavy Vehicles (%)	1%	3%	3%	3%	1%	0%	3%	4%	8%	17%	4%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	61.9	48.8		54.1	44.9		72.6	59.9		54.5	48.2	48.2
Effective Green, g (s)	61.9	48.8		54.1	44.9		72.6	59.9		54.5	48.2	48.2
Actuated g/C Ratio	0.41	0.33		0.36	0.30		0.48	0.40		0.36	0.32	0.32
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	274	1101		156	1061		439	1350		294	1115	511
v/s Ratio Prot	c0.05	c0.30		0.04	0.20		c0.07	0.16		0.01	0.13	
v/s Ratio Perm	0.19			0.18			c0.23			0.07		0.04
v/c Ratio	0.59	0.93		0.61	0.66		0.62	0.41		0.22	0.42	0.13
Uniform Delay, d1	31.0	49.0		36.8	45.8		24.9	32.4		31.7	39.9	36.1
Progression Factor	1.00	1.00		1.00	1.00		1.04	1.06		0.85	0.81	1.65
Incremental Delay, d2	2.3	13.4		4.6	1.1		1.9	0.9		0.1	1.0	0.5
Delay (s)	33.3	62.3		41.4	47.0		27.8	35.2		27.2	33.3	59.9
Level of Service	C	E		D	D		C	D		C	C	E
Approach Delay (s)		58.4			46.3			32.7			40.3	
Approach LOS		E			D			C			D	
Intersection Summary												
HCM 2000 Control Delay	45.9			HCM 2000 Level of Service			D					
HCM 2000 Volume to Capacity ratio	0.78											
Actuated Cycle Length (s)	150.0			Sum of lost time (s)			25.8					
Intersection Capacity Utilization	92.6%			ICU Level of Service			F					
Analysis Period (min)	15											
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd

2045 AM Build W Mitigation 2-1






























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	758	198	87	612	31	252	446	71	60	430	193
Future Volume (veh/h)	150	758	198	87	612	31	252	446	71	60	430	193
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		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	1885	1856	1856	1856	1885	1900	1856	1841	1781	1648	1841	1900
Adj Flow Rate, veh/h	163	824	215	95	665	34	274	485	77	65	467	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	3	3	3	1	0	3	4	8	17	4	0
Cap, veh/h	257	801	209	139	906	46	451	1362	215	362	1327	610
Arrive On Green	0.08	0.29	0.29	0.05	0.26	0.26	0.11	0.45	0.45	0.04	0.38	0.38
Sat Flow, veh/h	1795	2762	720	1767	3465	177	1767	3025	478	1570	3497	1609
Grp Volume(v), veh/h	163	526	513	95	343	356	274	279	283	65	467	210
Grp Sat Flow(s),veh/h/ln	1795	1763	1720	1767	1791	1852	1767	1749	1754	1570	1749	1609
Q Serve(g_s), s	9.9	43.5	43.5	5.9	26.3	26.3	13.8	15.7	15.8	3.8	14.3	14.0
Cycle Q Clear(g_c), s	9.9	43.5	43.5	5.9	26.3	26.3	13.8	15.7	15.8	3.8	14.3	14.0
Prop In Lane	1.00		0.42	1.00		0.10	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	257	511	499	139	468	484	451	787	790	362	1327	610
V/C Ratio(X)	0.63	1.03	1.03	0.68	0.73	0.73	0.61	0.35	0.36	0.18	0.35	0.34
Avail Cap(c_a), veh/h	370	511	499	219	468	484	517	787	790	395	1327	610
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)	0.94	0.94	0.94	1.00	1.00	1.00	0.94	0.94	0.94	0.58	0.58	0.58
Uniform Delay (d), s/veh	38.7	53.3	53.3	42.5	50.6	50.6	23.6	27.0	27.0	26.8	33.3	33.2
Incr Delay (d2), s/veh	0.9	46.1	46.7	2.2	5.2	5.0	0.8	1.2	1.2	0.1	0.4	0.9
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	4.4	25.6	25.1	2.6	12.4	12.8	5.8	6.8	6.8	1.4	6.1	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	99.4	99.9	44.7	55.7	55.6	24.4	28.2	28.2	26.9	33.8	34.1
LnGrp LOS	D	F	F	D	E	E	C	C	C	C	C	C
Approach Vol, veh/h		1202			794			836			742	
Approach Delay, s/veh		91.5			54.4			27.0			33.3	
Approach LOS		F			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	73.9	14.3	50.0	22.4	63.3	18.5	45.7				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	14.5	43.5	21.6	44.6	21.5	36.5				
Max Q Clear Time (g_c+I1), s	5.8	17.8	7.9	45.5	15.8	16.3	11.9	28.3				
Green Ext Time (p_c), s	0.0	1.2	0.1	0.0	0.3	1.7	0.2	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			56.1									
HCM 6th LOS			E									

Timings
7: W Yamato Rd & NW 2nd Ave

2045 AM Build W Mitigation 2-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		  			  		 			 	 
Traffic Volume (vph)	138	1574	429	121	1366	151	322	350	85	252	565
Future Volume (vph)	138	1574	429	121	1366	151	322	350	85	252	565
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	5.0	18.0	18.0	7.0	18.0
Minimum Split (s)	14.8	41.8	41.8	14.8	38.8	38.8	11.0	44.8	44.8	14.0	43.8
Total Split (s)	19.0	56.0	56.0	19.0	56.0	56.0	31.0	40.0	40.0	35.0	44.0
Total Split (%)	12.7%	37.3%	37.3%	12.7%	37.3%	37.3%	20.7%	26.7%	26.7%	23.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	62.3	50.8	50.8	60.5	49.9	49.9	20.3	44.4	44.4	16.6	41.7
Actuated g/C Ratio	0.42	0.34	0.34	0.40	0.33	0.33	0.14	0.30	0.30	0.11	0.28
v/c Ratio	0.85	1.03	0.58	0.77	0.90	0.27	0.77	0.70	0.17	0.75	0.92
Control Delay	72.9	77.0	7.6	59.8	55.8	10.7	65.5	57.5	11.7	62.8	57.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.9	77.0	7.6	59.8	55.8	10.7	65.5	57.5	11.7	62.8	57.3
LOS	E	E	A	E	E	B	E	E	B	E	E
Approach Delay		62.9			52.0			55.8			58.6
Approach LOS		E			D			E			E

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 14 (9%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 57.9

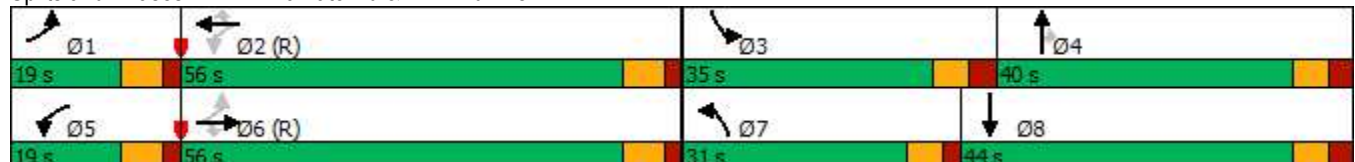
Intersection LOS: E

Intersection Capacity Utilization 91.8%

ICU Level of Service F

Analysis Period (min) 15












Splits and Phases: 7: W Yamato Rd & NW 2nd Ave



Queues
7: W Yamato Rd & NW 2nd Ave

2045 AM Build W Mitigation 2-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	153	1749	477	134	1518	168	358	389	94	280	895
v/c Ratio	0.85	1.03	0.58	0.77	0.90	0.27	0.77	0.70	0.17	0.75	0.92
Control Delay	72.9	77.0	7.6	59.8	55.8	10.7	65.5	57.5	11.7	62.8	57.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.9	77.0	7.6	59.8	55.8	10.7	65.5	57.5	11.7	62.8	57.3
Queue Length 50th (ft)	99	~678	23	78	521	24	184	367	15	126	458
Queue Length 95th (ft)	#225	#780	123	#168	588	81	227	494	50	m152	m#601
Internal Link Dist (ft)		1311			615			322			516
Turn Bay Length (ft)	350		400	415		280	280		200	250	
Base Capacity (vph)	188	1703	828	193	1691	625	572	552	547	634	972
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	1.03	0.58	0.69	0.90	0.27	0.63	0.70	0.17	0.44	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
































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

HCM Signalized Intersection Capacity Analysis

7: W Yamato Rd & NW 2nd Ave
































2045 AM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (vph)	138	1574	429	121	1366	151	322	350	85	252	565	240
Future Volume (vph)	138	1574	429	121	1366	151	322	350	85	252	565	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1719	5036	1583	1770	5085	1615	3433	1863	1560	3400	3391	
Flt Permitted	0.08	1.00	1.00	0.08	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	142	5036	1583	149	5085	1615	3433	1863	1560	3400	3391	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	153	1749	477	134	1518	168	358	389	94	280	628	267
RTOR Reduction (vph)	0	0	293	0	0	88	0	0	66	0	30	0
Lane Group Flow (vph)	153	1749	184	134	1518	80	358	389	28	280	865	0
Confl. Peds. (#/hr)									2	2		
Heavy Vehicles (%)	5%	3%	2%	2%	2%	0%	2%	2%	2%	3%	2%	1%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			
Actuated Green, G (s)	62.3	50.8	50.8	60.5	49.9	49.9	20.3	44.4	44.4	16.6	41.7	
Effective Green, g (s)	62.3	50.8	50.8	60.5	49.9	49.9	20.3	44.4	44.4	16.6	41.7	
Actuated g/C Ratio	0.42	0.34	0.34	0.40	0.33	0.33	0.14	0.30	0.30	0.11	0.28	
Clearance Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	2.5	2.5	2.5	1.8	2.5	
Lane Grp Cap (vph)	179	1705	536	174	1691	537	464	551	461	376	942	
v/s Ratio Prot	c0.07	c0.35		0.05	0.30		c0.10	c0.21		0.08	c0.26	
v/s Ratio Perm	0.29		0.12	0.25		0.05			0.02			
v/c Ratio	0.85	1.03	0.34	0.77	0.90	0.15	0.77	0.71	0.06	0.74	0.92	
Uniform Delay, d1	37.1	49.6	37.1	36.5	47.6	35.1	62.6	47.0	37.8	64.6	52.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.87	1.05	3.70	0.83	0.91	
Incremental Delay, d2	29.7	28.6	1.7	17.2	8.0	0.6	7.0	3.6	0.0	5.0	10.3	
Delay (s)	66.8	78.2	38.9	53.7	55.6	35.7	61.8	52.8	140.2	58.7	57.9	
Level of Service	E	E	D	D	E	D	E	D	F	E	E	
Approach Delay (s)		69.6			53.6			66.4			58.1	
Approach LOS		E			D			E			E	
Intersection Summary												
HCM 2000 Control Delay			62.3				HCM 2000 Level of Service		E			
HCM 2000 Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			150.0				Sum of lost time (s)		27.6			
Intersection Capacity Utilization			91.8%				ICU Level of Service		F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
7: W Yamato Rd & NW 2nd Ave



















2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	138	1574	429	121	1366	151	322	350	85	252	565	240
Future Volume (veh/h)	138	1574	429	121	1366	151	322	350	85	252	565	240
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	1826	1856	1870	1870	1870	1900	1870	1870	1870	1856	1870	1885
Adj Flow Rate, veh/h	153	1749	477	134	1518	168	358	389	94	280	628	267
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	3	2	2	2	0	2	2	2	3	2	1
Cap, veh/h	200	2012	630	166	1989	627	416	492	416	333	599	254
Arrive On Green	0.07	0.40	0.40	0.06	0.39	0.39	0.12	0.26	0.26	0.10	0.25	0.25
Sat Flow, veh/h	1739	5066	1585	1781	5106	1610	3456	1870	1581	3428	2427	1031
Grp Volume(v), veh/h	153	1749	477	134	1518	168	358	389	94	280	460	435
Grp Sat Flow(s),veh/h/ln	1739	1689	1585	1781	1702	1610	1728	1870	1581	1714	1777	1682
Q Serve(g_s), s	7.9	47.7	38.9	6.7	38.7	10.7	15.2	29.0	7.0	12.0	37.0	37.0
Cycle Q Clear(g_c), s	7.9	47.7	38.9	6.7	38.7	10.7	15.2	29.0	7.0	12.0	37.0	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	200	2012	630	166	1989	627	416	492	416	333	438	415
V/C Ratio(X)	0.76	0.87	0.76	0.81	0.76	0.27	0.86	0.79	0.23	0.84	1.05	1.05
Avail Cap(c_a), veh/h	227	2012	630	207	1989	627	576	492	416	640	438	415
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	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	41.6	39.0	35.5	39.8	31.2	64.7	51.4	43.3	66.6	56.5	56.5
Incr Delay (d2), s/veh	10.6	5.4	8.3	13.0	2.6	1.0	8.6	8.2	0.2	2.2	56.3	57.7
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	3.8	20.2	16.5	3.4	16.2	4.4	7.2	14.7	2.8	5.4	23.3	22.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	47.1	47.3	48.5	42.4	32.2	73.3	59.7	43.5	68.8	112.8	114.2
LnGrp LOS	D	D	D	D	D	C	E	E	D	E	F	F
Approach Vol, veh/h		2379			1820			841			1175	
Approach Delay, s/veh		46.9			41.9			63.7			102.9	
Approach LOS		D			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	65.2	21.6	46.5	15.6	66.4	24.1	44.0				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	12.2	49.2	28.0	33.0	12.2	49.2	25.0	37.0				
Max Q Clear Time (g_c+I1), s	9.9	40.7	14.0	31.0	8.7	49.7	17.2	39.0				
Green Ext Time (p_c), s	0.1	3.6	0.5	0.4	0.1	0.0	0.8	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			58.3									
HCM 6th LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
8: N Dixie Hwy & W Yamato Rd

2045 AM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	227	1682	84	1130	287	261	36	326	212
Future Volume (vph)	227	1682	84	1130	287	261	36	326	212
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	13.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	59.0	22.0	56.0	25.0	46.0	23.0	44.0	44.0
Total Split (%)	16.7%	39.3%	14.7%	37.3%	16.7%	30.7%	15.3%	29.3%	29.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	14.9	75.0	11.9	72.0	16.7	30.8	7.7	19.5	19.5
Actuated g/C Ratio	0.10	0.50	0.08	0.48	0.11	0.21	0.05	0.13	0.13
v/c Ratio	0.72	0.85	0.65	0.53	0.81	0.55	0.43	0.77	0.59
Control Delay	77.6	37.3	87.4	29.4	60.7	40.1	82.7	74.6	15.0
Queue Delay	0.0	47.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	84.6	87.4	29.4	60.7	40.1	82.7	74.6	15.0
LOS	E	F	F	C	E	D	F	E	B
Approach Delay		83.9		33.2		49.1		53.1	
Approach LOS		F		C		D		D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 26 (17%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 61.4

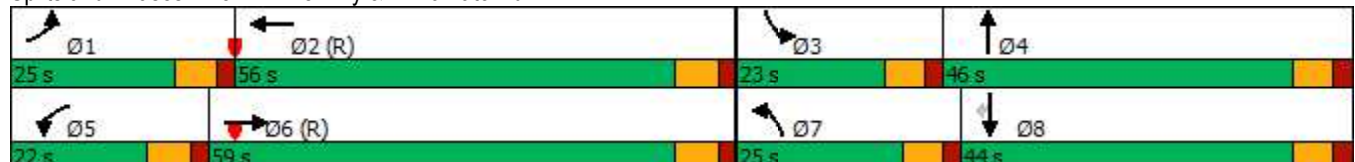
Intersection LOS: E

Intersection Capacity Utilization 83.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues

2045 AM Build W Mitigation 2-1

8: N Dixie Hwy & W Yamato Rd

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	247	2090	91	1289	312	397	39	354	230
v/c Ratio	0.72	0.85	0.65	0.53	0.81	0.55	0.43	0.77	0.59
Control Delay	77.6	37.3	87.4	29.4	60.7	40.1	82.7	74.6	15.0
Queue Delay	0.0	47.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	84.6	87.4	29.4	60.7	40.1	82.7	74.6	15.0
Queue Length 50th (ft)	123	640	88	320	130	182	38	178	12
Queue Length 95th (ft)	167	#867	146	416	168	238	77	227	94
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	421	2471	183	2423	425	910	195	875	554
Starvation Cap Reductn	0	889	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	1.32	0.50	0.53	0.73	0.44	0.20	0.40	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

8: N Dixie Hwy & W Yamato Rd






















2045 AM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	1682	241	84	1130	56	287	261	104	36	326	212
Future Volume (vph)	227	1682	241	84	1130	56	287	261	104	36	326	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Lane Util. Factor	0.97	0.91		1.00	0.91		0.97	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4923		1770	5046		3433	3388		1770	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4923		1770	5046		3433	3388		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	247	1828	262	91	1228	61	312	284	113	39	354	230
RTOR Reduction (vph)	0	10	0	0	3	0	0	30	0	0	0	186
Lane Group Flow (vph)	247	2080	0	91	1286	0	312	367	0	39	354	44
Confl. Peds. (#/hr)	2					2						
Heavy Vehicles (%)	2%	3%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												8
Actuated Green, G (s)	14.9	73.7		11.9	70.7		16.7	30.8		6.7	20.8	20.8
Effective Green, g (s)	14.9	73.7		11.9	70.7		16.7	30.8		6.7	20.8	20.8
Actuated g/C Ratio	0.10	0.49		0.08	0.47		0.11	0.21		0.04	0.14	0.14
Clearance Time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	341	2418		140	2378		382	695		79	490	219
v/s Ratio Prot	c0.07	c0.42		0.05	0.25		c0.09	0.11		0.02	c0.10	
v/s Ratio Perm												0.03
v/c Ratio	0.72	0.86		0.65	0.54		0.82	0.53		0.49	0.72	0.20
Uniform Delay, d1	65.6	33.6		67.0	28.1		65.2	53.1		70.0	61.8	57.2
Progression Factor	1.00	1.00		1.00	1.00		0.68	0.77		1.00	1.00	1.00
Incremental Delay, d2	6.3	4.3		8.0	0.9		11.3	0.3		1.8	4.4	0.2
Delay (s)	71.9	37.9		75.0	29.0		55.9	41.4		71.8	66.3	57.4
Level of Service	E	D		E	C		E	D		E	E	E
Approach Delay (s)		41.5			32.1			47.8			63.3	
Approach LOS		D			C			D			E	
Intersection Summary												
HCM 2000 Control Delay			42.5			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			26.9			
Intersection Capacity Utilization			83.1%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												





















HCM 6th Signalized Intersection Summary 8: N Dixie Hwy & W Yamato Rd

2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	1682	241	84	1130	56	287	261	104	36	326	212
Future Volume (veh/h)	227	1682	241	84	1130	56	287	261	104	36	326	212
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	1856	1811	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	247	1828	262	91	1228	61	312	284	113	39	354	230
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	6	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	2190	311	112	2321	115	362	603	234	50	585	261
Arrive On Green	0.09	0.49	0.49	0.06	0.47	0.47	0.03	0.08	0.08	0.03	0.16	0.16
Sat Flow, veh/h	3456	4481	637	1781	4982	247	3456	2501	972	1781	3554	1585
Grp Volume(v), veh/h	247	1374	716	91	839	450	312	200	197	39	354	230
Grp Sat Flow(s),veh/h/ln	1728	1689	1740	1781	1702	1825	1728	1777	1695	1781	1777	1585
Q Serve(g_s), s	10.6	52.6	53.6	7.6	26.2	26.2	13.5	16.1	16.7	3.3	13.9	21.3
Cycle Q Clear(g_c), s	10.6	52.6	53.6	7.6	26.2	26.2	13.5	16.1	16.7	3.3	13.9	21.3
Prop In Lane	1.00		0.37	1.00		0.14	1.00		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	295	1650	850	112	1586	851	362	428	409	50	585	261
V/C Ratio(X)	0.84	0.83	0.84	0.82	0.53	0.53	0.86	0.47	0.48	0.77	0.61	0.88
Avail Cap(c_a), veh/h	419	1650	850	181	1586	851	429	463	442	197	879	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	33.1	33.3	69.4	28.4	28.4	71.3	59.8	60.1	72.4	58.1	61.2
Incr Delay (d2), s/veh	5.8	4.3	8.4	5.8	1.3	2.4	11.6	0.3	0.3	9.0	0.4	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	21.5	23.5	3.6	10.7	11.7	6.9	7.8	7.7	1.6	6.3	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	37.3	41.7	75.3	29.7	30.7	82.9	60.1	60.4	81.3	58.5	71.6
LnGrp LOS	E	D	D	E	C	C	F	E	E	F	E	E
Approach Vol, veh/h	2337			1380			709			623		
Approach Delay, s/veh	42.5			33.0			70.2			64.8		
Approach LOS	D			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	76.7	10.6	43.0	16.2	80.1	22.1	31.6				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	49.2	16.6	39.1	15.2	52.2	18.6	37.1				
Max Q Clear Time (g_c+I1), s	12.6	28.2	5.3	18.7	9.6	55.6	15.5	23.3				
Green Ext Time (p_c), s	0.3	3.2	0.0	0.8	0.0	0.0	0.2	1.4				
Intersection Summary												
HCM 6th Ctrl Delay	46.5											
HCM 6th LOS	D											
Notes												

Timings
9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 2-1
09/28/2022

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	136	316	421	10	622	418	277	45	609	539
Future Volume (vph)	136	316	421	10	622	418	277	45	609	539
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Prot	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases			4	8				6		6
Detector Phase	7	4	5	3	8	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	12.0	12.0	5.0	12.0	12.0	5.0	18.0	5.0	18.0	12.0
Minimum Split (s)	24.5	24.5	12.0	24.5	24.5	12.0	25.0	12.0	25.0	24.5
Total Split (s)	25.4	25.4	36.0	24.5	24.5	36.0	88.1	12.0	64.1	25.4
Total Split (%)	16.9%	16.9%	24.0%	16.3%	16.3%	24.0%	58.7%	8.0%	42.7%	16.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	2.5	2.5	3.0	3.0	1.0	3.0	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
Total Lost Time (s)	6.5	6.5	7.0	6.5	6.5	7.0	7.0	4.5	7.0	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min	None
Act Effct Green (s)	13.5	39.9	64.8	39.3	27.3	25.4	79.9	66.1	56.8	77.3
Actuated g/C Ratio	0.09	0.27	0.43	0.26	0.18	0.17	0.53	0.44	0.38	0.52
v/c Ratio	0.47	0.36	0.52	0.03	1.24	0.77	0.18	0.10	0.91	0.66
Control Delay	69.7	49.2	10.1	38.8	167.0	91.2	11.8	13.7	62.0	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.7	49.2	10.1	38.8	167.0	91.2	11.8	13.7	62.0	24.9
LOS	E	D	B	D	F	F	B	B	E	C
Approach Delay		33.5			165.2		57.1		43.4	
Approach LOS		C			F		E		D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 69.7

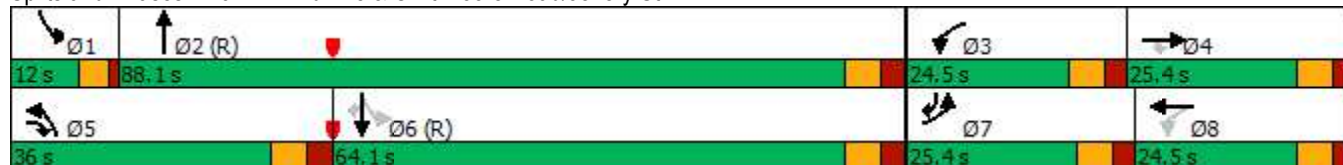
Intersection LOS: E

Intersection Capacity Utilization 97.5%

ICU Level of Service F

Analysis Period (min) 15

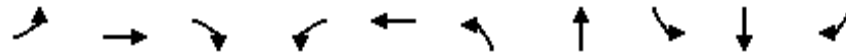
Splits and Phases: 9: NW 2nd Ave & Clint Moore Road/Jeffery St



Queues
9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 2-1

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	145	336	448	11	791	445	334	48	648	573
v/c Ratio	0.47	0.36	0.52	0.03	1.24	0.77	0.18	0.10	0.91	0.66
Control Delay	69.7	49.2	10.1	38.8	167.0	91.2	11.8	13.7	62.0	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.7	49.2	10.1	38.8	167.0	91.2	11.8	13.7	62.0	24.9
Queue Length 50th (ft)	71	136	60	8	~537	233	40	17	578	319
Queue Length 95th (ft)	106	216	182	24	#725	m291	m63	33	#832	442
Internal Link Dist (ft)		296			641		383		238	
Turn Bay Length (ft)	360		270	180		360		155		200
Base Capacity (vph)	432	940	889	405	640	663	1867	494	724	922
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.36	0.50	0.03	1.24	0.67	0.18	0.10	0.90	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.























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

HCM Signalized Intersection Capacity Analysis

9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 2-1

























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	316	421	10	622	121	418	277	37	45	609	539
Future Volume (vph)	136	316	421	10	622	121	418	277	37	45	609	539
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	7.0	6.5	6.5		7.0	7.0		4.5	7.0	6.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		0.97	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.99	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1556	1800	3464		3433	3437		1784	1881	1583
Flt Permitted	0.95	1.00	1.00	0.55	1.00		0.95	1.00		0.55	1.00	1.00
Satd. Flow (perm)	3433	3539	1556	1041	3464		3433	3437		1034	1881	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	145	336	448	11	662	129	445	295	39	48	648	573
RTOR Reduction (vph)	0	0	186	0	10	0	0	7	0	0	0	61
Lane Group Flow (vph)	145	336	262	11	781	0	445	327	0	48	648	512
Confl. Peds. (#/hr)			2	2					14	14		
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	3%	0%	0%	1%	2%
Turn Type	Prot	NA	pm+ov	pm+pt	NA		Prot	NA		pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2		1	6	7
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.5	39.9	65.3	36.0	31.2		25.4	75.1		58.6	52.9	66.4
Effective Green, g (s)	13.5	39.9	65.3	36.0	31.2		25.4	75.1		58.6	52.9	66.4
Actuated g/C Ratio	0.09	0.27	0.44	0.24	0.21		0.17	0.50		0.39	0.35	0.44
Clearance Time (s)	6.5	6.5	7.0	6.5	6.5		7.0	7.0		4.5	7.0	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	308	941	677	274	720		581	1720		432	663	700
v/s Ratio Prot	0.04	0.09	0.07	0.00	c0.23		c0.13	0.10		0.00	c0.34	c0.07
v/s Ratio Perm			0.10	0.01						0.04		0.26
v/c Ratio	0.47	0.36	0.39	0.04	1.09		0.77	0.19		0.11	0.98	0.73
Uniform Delay, d1	64.9	44.6	28.8	43.6	59.4		59.5	20.7		28.6	48.0	34.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.40	0.67		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.2	0.4	0.1	59.1		5.2	0.2		0.1	29.8	4.0
Delay (s)	66.0	44.9	29.1	43.6	118.5		88.6	14.1		28.7	77.8	38.4
Level of Service	E	D	C	D	F		F	B		C	E	D
Approach Delay (s)		40.6			117.5			56.7			58.2	
Approach LOS		D			F			E			E	
Intersection Summary												
HCM 2000 Control Delay			66.1			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			0.93									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)				27.0		
Intersection Capacity Utilization			97.5%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
9: NW 2nd Ave & Clint Moore Road/Jeffery St

2045 AM Build W Mitigation 2-1

09/28/2022

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	316	421	10	622	121	418	277	37	45	609	539
Future Volume (veh/h)	136	316	421	10	622	121	418	277	37	45	609	539
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		1.00	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	1900	1870	1900	1870	1856	1900	1900	1885	1870
Adj Flow Rate, veh/h	145	336	448	11	662	129	445	295	39	48	648	573
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	2	0	2	3	0	0	1	2
Cap, veh/h	276	448	433	217	373	73	512	1885	247	593	878	859
Arrive On Green	0.08	0.13	0.13	0.08	0.13	0.13	0.15	0.60	0.60	0.03	0.47	0.47
Sat Flow, veh/h	3456	3554	1572	1810	2963	577	3456	3131	410	1810	1885	1571
Grp Volume(v), veh/h	145	336	448	11	397	394	445	165	169	48	648	573
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1810	1777	1763	1728	1763	1778	1810	1885	1571
Q Serve(g_s), s	6.0	13.7	18.9	0.7	18.9	18.9	18.9	6.2	6.3	2.1	42.0	39.1
Cycle Q Clear(g_c), s	6.0	13.7	18.9	0.7	18.9	18.9	18.9	6.2	6.3	2.1	42.0	39.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	276	448	433	217	224	222	512	1061	1070	593	878	859
V/C Ratio(X)	0.52	0.75	1.04	0.05	1.77	1.78	0.87	0.16	0.16	0.08	0.74	0.67
Avail Cap(c_a), veh/h	435	448	433	289	224	222	668	1061	1070	631	878	859
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	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.3	63.3	54.5	48.2	65.5	65.6	62.5	13.1	13.1	19.7	32.6	24.3
Incr Delay (d2), s/veh	1.5	6.9	52.6	0.1	364.6	366.3	9.6	0.3	0.3	0.1	5.5	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	2.7	6.6	22.5	0.3	31.2	31.1	9.0	2.5	2.6	0.9	20.3	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	70.2	107.1	48.3	430.1	431.8	72.1	13.4	13.5	19.7	38.1	28.4
LnGrp LOS	E	E	F	D	F	F	E	B	B	B	D	C
Approach Vol, veh/h		929			802			779			1269	
Approach Delay, s/veh		87.6			425.7			46.9			33.0	
Approach LOS		F			F			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	97.3	18.5	25.4	29.2	76.9	18.5	25.4				
Change Period (Y+Rc), s	4.5	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	7.5	81.1	18.0	18.9	29.0	57.1	18.9	18.0				
Max Q Clear Time (g_c+I1), s	4.1	8.3	2.7	20.9	20.9	44.0	8.0	20.9				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	1.3	5.0	0.4	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			132.7									
HCM 6th LOS			F									

Timings

10: Congress Ave & Clint Moore Rd

2045 AM Build W Mitigation 2-1

09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	417	552	418	198	752	218	374	332	22	474	1550	1192
Future Volume (vph)	417	552	418	198	752	218	374	332	22	474	1550	1192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	14.8	50.8	50.8
Total Split (s)	40.0	59.0	59.0	24.0	43.0	43.0	32.0	53.0	53.0	44.0	65.0	65.0
Total Split (%)	22.2%	32.8%	32.8%	13.3%	23.9%	23.9%	17.8%	29.4%	29.4%	24.4%	36.1%	36.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.1	53.0	53.0	14.4	40.3	40.3	23.1	51.0	51.0	30.4	58.3	58.3
Actuated g/C Ratio	0.15	0.29	0.29	0.08	0.22	0.22	0.13	0.28	0.28	0.17	0.32	0.32
v/c Ratio	0.86	0.39	0.65	0.77	1.01	0.45	0.90	0.25	0.04	0.87	1.01	1.76
Control Delay	91.1	51.9	21.9	99.9	101.2	11.4	101.3	51.2	0.1	88.9	84.1	371.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.1	51.9	21.9	99.9	101.2	11.4	101.3	51.2	0.1	88.9	84.1	371.1
LOS	F	D	C	F	F	B	F	D	A	F	F	F
Approach Delay		54.6			84.2			75.4			191.2	
Approach LOS		D			F			E			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 110 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.76

Intersection Signal Delay: 129.8

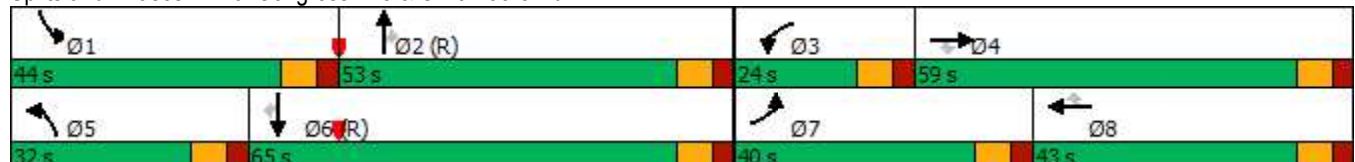
Intersection LOS: F

Intersection Capacity Utilization 125.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd

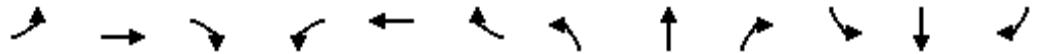


Queues

2045 AM Build W Mitigation 2-1

10: Congress Ave & Clint Moore Rd

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	444	587	445	211	800	232	398	353	23	504	1649	1268
v/c Ratio	0.86	0.39	0.65	0.77	1.01	0.45	0.90	0.25	0.04	0.87	1.01	1.76
Control Delay	91.1	51.9	21.9	99.9	101.2	11.4	101.3	51.2	0.1	88.9	84.1	371.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.1	51.9	21.9	99.9	101.2	11.4	101.3	51.2	0.1	88.9	84.1	371.1
Queue Length 50th (ft)	267	205	149	127	~523	13	241	119	0	303	~760	~1964
Queue Length 95th (ft)	324	249	286	176	#722	99	#327	158	0	359	#853	#2234
Internal Link Dist (ft)	2199			619			1029			883		
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	614	1497	684	308	792	518	461	1400	599	690	1631	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.39	0.65	0.69	1.01	0.45	0.86	0.25	0.04	0.73	1.01	1.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.




































Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

10: Congress Ave & Clint Moore Rd

2045 AM Build W Mitigation 2-1

























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	  	
Traffic Volume (vph)	417	552	418	198	752	218	374	332	22	474	1550	1192
Future Volume (vph)	417	552	418	198	752	218	374	332	22	474	1550	1192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Lane Util. Factor	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1599	3433	3539	1562	3433	4940	1562	3433	5036	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1599	3433	3539	1562	3433	4940	1562	3433	5036	1553
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	444	587	445	211	800	232	398	353	23	504	1649	1268
RTOR Reduction (vph)	0	0	214	0	0	169	0	0	16	0	0	220
Lane Group Flow (vph)	444	587	231	211	800	63	398	353	7	504	1649	1048
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	2%	2%	1%	2%	2%	2%	2%	5%	2%	2%	3%	4%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	27.1	53.0	53.0	14.4	40.3	40.3	23.1	51.0	51.0	30.4	58.3	58.3
Effective Green, g (s)	27.1	53.0	53.0	14.4	40.3	40.3	23.1	51.0	51.0	30.4	58.3	58.3
Actuated g/C Ratio	0.15	0.29	0.29	0.08	0.22	0.22	0.13	0.28	0.28	0.17	0.32	0.32
Clearance Time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	516	1497	470	274	792	349	440	1399	442	579	1631	502
v/s Ratio Prot	c0.13	0.12		0.06	c0.23		0.12	0.07		c0.15	0.33	
v/s Ratio Perm			0.14			0.04			0.00			c0.68
v/c Ratio	0.86	0.39	0.49	0.77	1.01	0.18	0.90	0.25	0.01	0.87	1.01	2.09
Uniform Delay, d1	74.6	50.7	52.4	81.2	69.8	56.5	77.4	49.8	46.4	72.9	60.9	60.9
Progression 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
Incremental Delay, d2	13.3	0.1	0.3	11.5	34.5	0.1	21.3	0.4	0.1	13.1	25.0	496.5
Delay (s)	87.9	50.7	52.7	92.7	104.3	56.6	98.6	50.2	46.5	86.0	85.9	557.3
Level of Service	F	D	D	F	F	E	F	D	D	F	F	F
Approach Delay (s)		62.5			93.4			75.0			260.6	
Approach LOS		E			F			E			F	
Intersection Summary												
HCM 2000 Control Delay			167.5				HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.41									
Actuated Cycle Length (s)			180.0				Sum of lost time (s)			31.2		
Intersection Capacity Utilization			125.2%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary























10: Congress Ave & Clint Moore Rd

2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	417	552	418	198	752	218	374	332	22	474	1550	1192
Future Volume (veh/h)	417	552	418	198	752	218	374	332	22	474	1550	1192
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	1885	1870	1870	1870	1870	1826	1870	1870	1856	1841
Adj Flow Rate, veh/h	444	587	445	211	800	232	398	353	23	504	1649	1268
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	1	2	2	2	2	5	2	2	3	4
Cap, veh/h	489	1452	454	250	765	341	435	1549	492	550	1743	536
Arrive On Green	0.14	0.28	0.28	0.07	0.22	0.22	0.13	0.31	0.31	0.16	0.34	0.34
Sat Flow, veh/h	3456	5106	1596	3456	3554	1583	3456	4985	1584	3456	5066	1559
Grp Volume(v), veh/h	444	587	445	211	800	232	398	353	23	504	1649	1268
Grp Sat Flow(s),veh/h/ln	1728	1702	1596	1728	1777	1583	1728	1662	1584	1728	1689	1559
Q Serve(g_s), s	22.8	16.7	49.8	10.9	38.7	24.3	20.5	9.5	1.8	25.8	57.0	61.9
Cycle Q Clear(g_c), s	22.8	16.7	49.8	10.9	38.7	24.3	20.5	9.5	1.8	25.8	57.0	61.9
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	489	1452	454	250	765	341	435	1549	492	550	1743	536
V/C Ratio(X)	0.91	0.40	0.98	0.85	1.05	0.68	0.91	0.23	0.05	0.92	0.95	2.36
Avail Cap(c_a), veh/h	618	1452	454	311	765	341	465	1549	492	695	1743	536
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	76.1	52.1	63.9	82.5	70.6	65.0	77.7	46.0	43.4	74.5	57.4	59.0
Incr Delay (d2), s/veh	13.2	0.1	36.9	13.5	45.3	4.5	21.0	0.3	0.2	13.1	12.1	620.0
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	11.0	7.2	24.7	5.3	22.3	10.2	10.3	4.0	0.8	12.3	25.8	116.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.4	52.1	100.8	96.0	115.9	69.5	98.7	46.4	43.6	87.5	69.5	679.0
LnGrp LOS	F	D	F	F	F	E	F	D	D	F	E	F
Approach Vol, veh/h	1476			1243			774			3421		
Approach Delay, s/veh	78.0			103.9			73.2			298.1		
Approach LOS	E			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.5	63.7	20.8	59.0	30.5	69.7	33.3	46.5				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	36.2	45.2	16.2	51.2	24.2	57.2	32.2	35.2				
Max Q Clear Time (g_c+I1), s	27.8	11.5	12.9	51.8	22.5	63.9	24.8	40.7				
Green Ext Time (p_c), s	0.8	1.0	0.1	0.0	0.2	0.0	0.7	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	191.0											
HCM 6th LOS	F											

Timings
11: N Federal Hwy & Jeffery St

2045 AM Build W Mitigation 2-1
09/28/2022

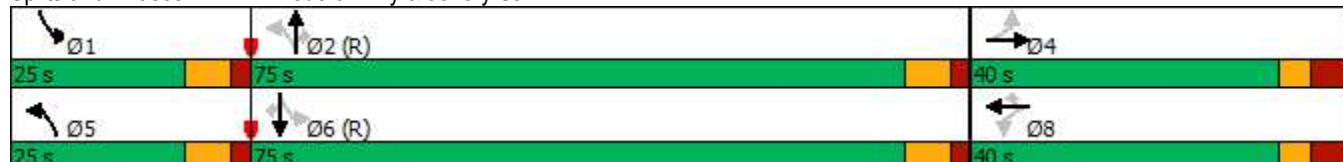
											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	9	364	146	42	50	141	1026	81	37	1328	191
Future Volume (vph)	9	364	146	42	50	141	1026	81	37	1328	191
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	11.8	38.8	38.8	11.8	28.8	28.8
Total Split (s)	40.0	40.0	40.0	40.0	40.0	25.0	75.0	75.0	25.0	75.0	75.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.9%	53.6%	53.6%	17.9%	53.6%	53.6%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.1	28.1	28.1	28.1	28.1	95.1	87.2	87.2	86.7	81.2	81.2
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.68	0.62	0.62	0.62	0.58	0.58
v/c Ratio	0.03	0.62	0.96	0.11	0.13	0.57	0.48	0.08	0.12	0.67	0.25
Control Delay	42.6	55.1	116.7	44.2	3.0	17.1	16.4	2.3	9.4	23.6	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	55.1	116.7	44.2	3.0	17.1	16.4	2.3	9.4	23.6	9.5
LOS	D	E	F	D	A	B	B	A	A	C	A
Approach Delay		54.8		80.0			15.6			21.5	
Approach LOS		D		F			B			C	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 89 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 27.1
 Intersection Capacity Utilization 89.3%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues

2045 AM Build W Mitigation 2-1

11: N Federal Hwy & Jeffery St

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Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	9	377	149	43	51	144	1047	83	38	1355	195
v/c Ratio	0.03	0.62	0.96	0.11	0.13	0.57	0.48	0.08	0.12	0.67	0.25
Control Delay	42.6	55.1	116.7	44.2	3.0	17.1	16.4	2.3	9.4	23.6	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	55.1	116.7	44.2	3.0	17.1	16.4	2.3	9.4	23.6	9.5
Queue Length 50th (ft)	6	160	131	31	0	44	286	0	11	447	43
Queue Length 95th (ft)	22	214	#259	65	12	71	354	20	24	591	98
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		350		230	225		170	250		145
Base Capacity (vph)	317	690	177	435	434	358	2183	1007	450	2033	771
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.55	0.84	0.10	0.12	0.40	0.48	0.08	0.08	0.67	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

11: N Federal Hwy & Jeffery St

2045 AM Build W Mitigation 2-1
























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	364	6	146	42	50	141	1026	81	37	1328	191
Future Volume (vph)	9	364	6	146	42	50	141	1026	81	37	1328	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3009		1770	1900	1615	1805	3505	1562	1687	3505	1262
Flt Permitted	0.73	1.00		0.42	1.00	1.00	0.12	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	1385	3009		775	1900	1615	219	3505	1562	412	3505	1262
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	9	371	6	149	43	51	144	1047	83	38	1355	195
RTOR Reduction (vph)	0	1	0	0	0	41	0	0	32	0	0	39
Lane Group Flow (vph)	9	376	0	149	43	10	144	1047	51	38	1355	156
Confl. Peds. (#/hr)							6		1	1		6
Heavy Vehicles (%)	0%	20%	0%	2%	0%	0%	0%	3%	2%	7%	3%	25%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	28.1	28.1		28.1	28.1	28.1	95.1	85.9	85.9	85.7	81.2	81.2
Effective Green, g (s)	28.1	28.1		28.1	28.1	28.1	95.1	85.9	85.9	85.7	81.2	81.2
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.68	0.61	0.61	0.61	0.58	0.58
Clearance Time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	277	603		155	381	324	252	2150	958	293	2032	731
v/s Ratio Prot		0.13			0.02		c0.04	c0.30		0.00	c0.39	
v/s Ratio Perm	0.01			c0.19		0.01	0.35		0.03	0.08		0.12
v/c Ratio	0.03	0.62		0.96	0.11	0.03	0.57	0.49	0.05	0.13	0.67	0.21
Uniform Delay, d1	45.0	51.1		55.4	45.8	45.0	15.5	14.9	10.8	11.4	20.1	14.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	1.5		60.1	0.0	0.0	1.9	0.8	0.1	0.1	1.8	0.7
Delay (s)	45.0	52.6		115.5	45.8	45.0	17.4	15.7	10.9	11.4	21.9	14.8
Level of Service	D	D		F	D	D	B	B	B	B	C	B
Approach Delay (s)		52.4			88.4			15.6			20.8	
Approach LOS		D			F			B			C	
Intersection Summary												
HCM 2000 Control Delay			27.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			21.5		
Intersection Capacity Utilization			89.3%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

11: N Federal Hwy & Jeffery St

2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	364	6	146	42	50	141	1026	81	37	1328	191
Future Volume (veh/h)	9	364	6	146	42	50	141	1026	81	37	1328	191
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	1900	1604	1900	1870	1900	1900	1900	1856	1870	1796	1856	1530
Adj Flow Rate, veh/h	9	371	6	149	43	51	144	1047	83	38	1355	195
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	20	0	2	0	0	0	3	2	7	3	25
Cap, veh/h	331	704	11	175	436	369	240	2079	932	298	2005	735
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.59	0.59	0.03	0.57	0.57
Sat Flow, veh/h	1323	3069	50	1006	1900	1610	1810	3526	1580	1711	3526	1292
Grp Volume(v), veh/h	9	184	193	149	43	51	144	1047	83	38	1355	195
Grp Sat Flow(s),veh/h/ln	1323	1523	1595	1006	1900	1610	1810	1763	1580	1711	1763	1292
Q Serve(g_s), s	0.8	14.8	14.9	17.2	2.5	3.5	4.6	24.3	3.2	1.3	37.7	10.7
Cycle Q Clear(g_c), s	3.3	14.8	14.9	32.1	2.5	3.5	4.6	24.3	3.2	1.3	37.7	10.7
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	349	366	175	436	369	240	2079	932	298	2005	735
V/C Ratio(X)	0.03	0.53	0.53	0.85	0.10	0.14	0.60	0.50	0.09	0.13	0.68	0.27
Avail Cap(c_a), veh/h	331	349	366	175	436	369	388	2079	932	473	2005	735
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)	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	47.3	47.3	62.8	42.5	42.9	20.0	16.8	12.4	13.4	21.1	15.3
Incr Delay (d2), s/veh	0.0	0.4	0.4	29.4	0.0	0.1	0.9	0.9	0.2	0.1	1.8	0.9
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	0.3	5.8	6.0	6.8	1.2	1.4	1.8	9.5	1.1	0.5	15.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	47.7	47.7	92.2	42.6	43.0	20.9	17.6	12.6	13.5	23.0	16.2
LnGrp LOS	D	D	D	F	D	D	C	B	B	B	C	B
Approach Vol, veh/h	386			243			1274			1588		
Approach Delay, s/veh	47.6			73.1			17.7			21.9		
Approach LOS	D			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	89.3		40.0	13.6	86.4		40.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	18.2	68.2		32.1	18.2	68.2		32.1				
Max Q Clear Time (g_c+I1), s	3.3	26.3		16.9	6.6	39.7		34.1				
Green Ext Time (p_c), s	0.0	3.2		0.8	0.2	4.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	26.8											
HCM 6th LOS	C											

Timings
12: N Dixie Hwy & Hidden Valley Blvd

2045 AM Build W Mitigation 2-1
09/28/2022

	↖	↑	↗	↘	↓	
Lane Group	WBL	NBT	NBR	SBL	SBT	Ø8
Lane Configurations	↖	↑	↗	↘	↑	
Traffic Volume (vph)	101	295	56	118	513	
Future Volume (vph)	101	295	56	118	513	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	2		1	6	8
Permitted Phases	8		2	6		
Detector Phase	3	2	2	1	6	
Switch Phase						
Minimum Initial (s)	5.0	18.0	18.0	5.0	18.0	12.0
Minimum Split (s)	13.2	38.4	38.4	13.8	26.8	26.2
Total Split (s)	30.0	60.0	60.0	15.0	75.0	30.0
Total Split (%)	28.6%	57.1%	57.1%	14.3%	71.4%	29%
Yellow Time (s)	3.7	4.4	4.4	4.4	4.4	3.7
All-Red Time (s)	4.5	3.0	3.0	3.0	3.0	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.2	7.4	7.4	7.4	7.4	
Lead/Lag		Lag	Lag	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode	None	Min	Min	None	Min	None
Act Effect Green (s)	12.7	18.6	18.6	29.3	29.3	
Actuated g/C Ratio	0.22	0.32	0.32	0.51	0.51	
v/c Ratio	0.54	0.53	0.11	0.25	0.57	
Control Delay	22.5	21.6	5.9	8.6	12.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.5	21.6	5.9	8.6	12.4	
LOS	C	C	A	A	B	
Approach Delay	22.5	19.0			11.7	
Approach LOS	C	B			B	

Intersection Summary

Cycle Length: 105

Actuated Cycle Length: 57.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 15.8

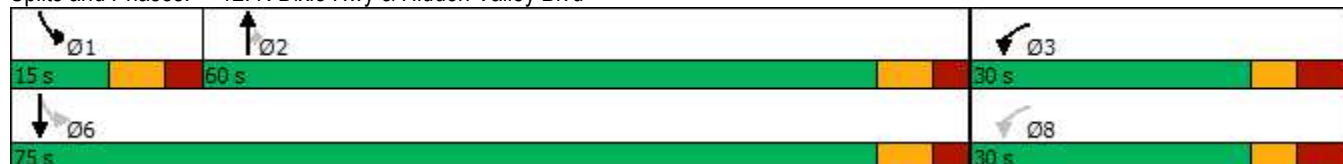
Intersection LOS: B

Intersection Capacity Utilization 54.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd








Queues

2045 AM Build W Mitigation 2-1

12: N Dixie Hwy & Hidden Valley Blvd












09/28/2022

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	217	304	58	122	529
v/c Ratio	0.54	0.53	0.11	0.25	0.57
Control Delay	22.5	21.6	5.9	8.6	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	21.6	5.9	8.6	12.4
Queue Length 50th (ft)	54	90	0	20	111
Queue Length 95th (ft)	120	172	23	45	205
Internal Link Dist (ft)	597	5728			435
Turn Bay Length (ft)	140		295	290	
Base Capacity (vph)	666	1600	1389	513	1845
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.19	0.04	0.24	0.29
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

12: N Dixie Hwy & Hidden Valley Blvd

2045 AM Build W Mitigation 2-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	101	110	295	56	118	513
Future Volume (vph)	101	110	295	56	118	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.2		7.4	7.4	7.4	7.4
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	0.98	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	0.85	1.00	1.00
Flt Protected	0.98		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1664		1792	1550	1787	1845
Flt Permitted	0.98		1.00	1.00	0.39	1.00
Satd. Flow (perm)	1664		1792	1550	737	1845
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	104	113	304	58	122	529
RTOR Reduction (vph)	37	0	0	40	0	0
Lane Group Flow (vph)	180	0	304	18	122	529
Confl. Peds. (#/hr)	2	1		1	1	
Heavy Vehicles (%)	3%	2%	6%	2%	1%	3%
Turn Type	pm+pt		NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases	8			2	6	
Actuated Green, G (s)	12.7		18.6	18.6	31.0	31.0
Effective Green, g (s)	12.7		18.6	18.6	31.0	31.0
Actuated g/C Ratio	0.21		0.31	0.31	0.52	0.52
Clearance Time (s)	8.2		7.4	7.4	7.4	7.4
Vehicle Extension (s)	1.8		2.0	2.0	1.8	2.0
Lane Grp Cap (vph)	356		562	486	473	964
v/s Ratio Prot	c0.11		0.17		0.02	c0.29
v/s Ratio Perm				0.01	0.11	
v/c Ratio	0.51		0.54	0.04	0.26	0.55
Uniform Delay, d1	20.5		16.8	14.1	7.9	9.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4		0.6	0.0	0.1	0.3
Delay (s)	20.9		17.4	14.1	8.0	9.8
Level of Service	C		B	B	A	A
Approach Delay (s)	20.9		16.9			9.5
Approach LOS	C		B			A
Intersection Summary						
HCM 2000 Control Delay			13.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.65			
Actuated Cycle Length (s)			59.3		Sum of lost time (s)	23.0
Intersection Capacity Utilization			54.0%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

12: N Dixie Hwy & Hidden Valley Blvd

2045 AM Build W Mitigation 2-1
09/28/2022

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Volume (veh/h)	101	110	295	56	118	513
Future Volume (veh/h)	101	110	295	56	118	513
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.99		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1870	1811	1870	1885	1856
Adj Flow Rate, veh/h	104	113	304	58	122	529
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	6	2	1	3
Cap, veh/h	129	141	607	530	478	1018
Arrive On Green	0.16	0.16	0.34	0.34	0.08	0.55
Sat Flow, veh/h	790	858	1811	1583	1795	1856
Grp Volume(v), veh/h	218	0	304	58	122	529
Grp Sat Flow(s),veh/h/ln	1655	0	1811	1583	1795	1856
Q Serve(g_s), s	6.9	0.0	7.3	1.4	2.2	9.8
Cycle Q Clear(g_c), s	6.9	0.0	7.3	1.4	2.2	9.8
Prop In Lane	0.48	0.52		1.00	1.00	
Lane Grp Cap(c), veh/h	271	0	607	530	478	1018
V/C Ratio(X)	0.80	0.00	0.50	0.11	0.26	0.52
Avail Cap(c_a), veh/h	664	0	1754	1533	590	2310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	14.4	12.5	9.7	7.7
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	2.5	0.4	0.7	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.0	0.0	14.7	12.5	9.8	7.9
LnGrp LOS	C	A	B	B	A	A
Approach Vol, veh/h	218		362			651
Approach Delay, s/veh	24.0		14.3			8.3
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.6	25.6			37.2	17.1
Change Period (Y+Rc), s	7.4	7.4			7.4	8.2
Max Green Setting (Gmax), s	7.6	52.6			67.6	21.8
Max Q Clear Time (g_c+I1), s	4.2	9.3			11.8	8.9
Green Ext Time (p_c), s	0.1	0.7			1.1	0.4
Intersection Summary						
HCM 6th Ctrl Delay			12.8			
HCM 6th LOS			B			

Notes

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

Timings
13: Jeffery St & N Dixie Hwy

2045 AM Build W Mitigation 2-1

09/28/2022

	→	←	↖	↑	↘	↓	↙
Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔	↖	↗	↖	↗	↗
Traffic Volume (vph)	338	296	83	418	4	553	263
Future Volume (vph)	338	296	83	418	4	553	263
Turn Type	NA	NA	Prot	NA	Prot	NA	Perm
Protected Phases	4	8	5	2	1	6	
Permitted Phases							6
Detector Phase	4	8	5	2	1	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	32.0	32.0	9.5	58.0	9.5	58.0	58.0
Total Split (%)	24.3%	24.3%	7.2%	44.1%	7.2%	44.1%	44.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.3	18.7	15.2	75.6	6.0	58.3	58.3
Actuated g/C Ratio	0.16	0.14	0.12	0.57	0.05	0.44	0.44
v/c Ratio	0.76	0.72	0.44	0.45	0.06	0.73	0.36
Control Delay	60.6	62.1	62.8	20.1	61.8	37.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	62.1	62.8	20.1	61.8	37.4	11.3
LOS	E	E	E	C	E	D	B
Approach Delay	60.6	62.1		26.9		29.1	
Approach LOS	E	E		C		C	

Intersection Summary

Cycle Length: 131.5

Actuated Cycle Length: 131.5

Offset: 112.5 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 39.9

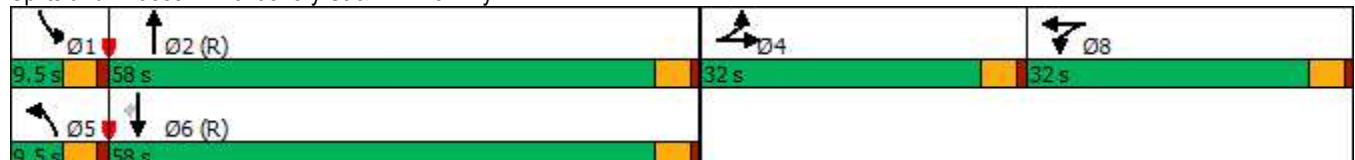
Intersection LOS: D

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 13: Jeffery St & N Dixie Hwy



13: Jeffery St & N Dixie Hwy



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	433	358	90	472	4	601	286
v/c Ratio	0.76	0.72	0.44	0.45	0.06	0.73	0.36
Control Delay	60.6	62.1	62.8	20.1	61.8	37.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	62.1	62.8	20.1	61.8	37.4	11.3
Queue Length 50th (ft)	184	155	73	210	3	416	58
Queue Length 95th (ft)	234	201	#153	420	16	601	135
Internal Link Dist (ft)	421	966		1902		5728	
Turn Bay Length (ft)			150		150		170
Base Capacity (vph)	733	728	204	1047	62	825	796
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.49	0.44	0.45	0.06	0.73	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.




















Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2045 AM Build W Mitigation 2-1




















13: Jeffery St & N Dixie Hwy

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	338	37	27	296	6	83	418	17	4	553	263
Future Volume (vph)	24	338	37	27	296	6	83	418	17	4	553	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.99			1.00		1.00	0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3480			3481		1770	1819		1357	1863	1583
Flt Permitted		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3480			3481		1770	1819		1357	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	367	40	29	322	7	90	454	18	4	601	286
RTOR Reduction (vph)	0	6	0	0	1	0	0	1	0	0	0	95
Lane Group Flow (vph)	0	427	0	0	357	0	90	471	0	4	601	191
Heavy Vehicles (%)	2%	2%	2%	5%	2%	40%	2%	4%	0%	33%	2%	2%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		21.3			18.7		15.2	72.1		1.4	58.3	58.3
Effective Green, g (s)		21.3			18.7		15.2	72.1		1.4	58.3	58.3
Actuated g/C Ratio		0.16			0.14		0.12	0.55		0.01	0.44	0.44
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		563			495		204	997		14	825	701
v/s Ratio Prot		c0.12			c0.10		c0.05	c0.26		0.00	c0.32	
v/s Ratio Perm												0.12
v/c Ratio		0.76			0.72		0.44	0.47		0.29	0.73	0.27
Uniform Delay, d1		52.6			53.9		54.2	18.1		64.6	30.1	23.2
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		5.8			5.1		1.5	1.6		10.9	5.6	1.0
Delay (s)		58.5			59.1		55.7	19.7		75.5	35.7	24.1
Level of Service		E			E		E	B		E	D	C
Approach Delay (s)		58.5			59.1			25.5			32.2	
Approach LOS		E			E			C			C	
Intersection Summary												
HCM 2000 Control Delay			39.9				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			131.5				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			69.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
13: Jeffery St & N Dixie Hwy

2045 AM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	338	37	27	296	6	83	418	17	4	553	263
Future Volume (veh/h)	24	338	37	27	296	6	83	418	17	4	553	263
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	1826	1870	1307	1870	1841	1900	1411	1870	1870
Adj Flow Rate, veh/h	26	367	40	29	322	7	90	454	18	4	601	286
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	5	2	40	2	4	0	33	2	2
Cap, veh/h	31	448	51	35	409	9	67	1041	41	7	1046	886
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.04	0.59	0.59	0.01	0.56	0.56
Sat Flow, veh/h	211	3101	354	287	3349	76	1781	1758	70	1344	1870	1585
Grp Volume(v), veh/h	229	0	204	187	0	171	90	0	472	4	601	286
Grp Sat Flow(s),veh/h/ln	1860	0	1807	1856	0	1857	1781	0	1828	1344	1870	1585
Q Serve(g_s), s	15.8	0.0	14.4	13.0	0.0	11.7	5.0	0.0	18.8	0.4	27.6	12.8
Cycle Q Clear(g_c), s	15.8	0.0	14.4	13.0	0.0	11.7	5.0	0.0	18.8	0.4	27.6	12.8
Prop In Lane	0.11		0.20	0.15		0.04	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	269	0	261	227	0	227	67	0	1082	7	1046	886
V/C Ratio(X)	0.85	0.00	0.78	0.83	0.00	0.75	1.33	0.00	0.44	0.58	0.57	0.32
Avail Cap(c_a), veh/h	387	0	376	387	0	387	67	0	1082	51	1046	886
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	0.00	1.00	0.94	0.00	0.94	1.00	0.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	55.1	0.0	54.4	56.6	0.0	56.0	63.5	0.0	14.8	65.5	18.9	15.7
Incr Delay (d2), s/veh	11.7	0.0	6.5	7.1	0.0	4.7	222.3	0.0	1.3	49.0	1.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	7.0	6.6	0.0	5.8	6.4	0.0	8.1	0.2	12.3	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	61.0	63.6	0.0	60.7	285.8	0.0	16.1	114.6	20.8	16.4
LnGrp LOS	E	A	E	E	A	E	F	A	B	F	C	B
Approach Vol, veh/h		433			358			562			891	
Approach Delay, s/veh		64.0			62.2			59.3			19.8	
Approach LOS		E			E			E			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	82.6		23.6	9.5	78.3		20.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	53.5		27.5	5.0	53.5		27.5				
Max Q Clear Time (g_c+I1), s	2.4	20.8		17.8	7.0	29.6		15.0				
Green Ext Time (p_c), s	0.0	2.1		1.2	0.0	4.3		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				45.0								
HCM 6th LOS				D								

Intersection				
Intersection Delay, s/veh	6.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	62	11	358	580
Demand Flow Rate, veh/h	62	11	368	586
Vehicles Circulating, veh/h	577	378	15	23
Vehicles Exiting, veh/h	32	5	624	366
Ped Vol Crossing Leg, #/h	2	17	0	2
Ped Cap Adj	1.000	0.998	1.000	1.000
Approach Delay, s/veh	5.5	3.9	5.1	6.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	62	11	368	586
Cap Entry Lane, veh/h	766	938	1359	1348
Entry HV Adj Factor	1.000	1.000	0.973	0.990
Flow Entry, veh/h	62	11	358	580
Cap Entry, veh/h	766	936	1322	1334
V/C Ratio	0.081	0.012	0.271	0.435
Control Delay, s/veh	5.5	3.9	5.1	6.9
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	2

Intersection						
Intersection Delay, s/veh	3.9					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	26	316	172		
Demand Flow Rate, veh/h	0	27	324	172		
Vehicles Circulating, veh/h	192	226	53	20		
Vehicles Exiting, veh/h	0	53	139	226		
Ped Vol Crossing Leg, #/h	10	3	1	1		
Ped Cap Adj	0.999	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	3.5	4.0	3.7		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	7	4.976	98	4.976
Entry Flow, veh/h	0	20	1096	226	1307	172
Cap Entry Lane, veh/h	1134	1096	1.000	1307	0.990	1352
Entry HV Adj Factor	1.000	0.950	7	0.971	97	1.000
Flow Entry, veh/h	0	19	1095	219	1294	172
Cap Entry, veh/h	1133	1041	0.006	1269	0.075	1352
V/C Ratio	0.000	0.018	3.3	0.173	3.4	0.127
Control Delay, s/veh	3.2	3.6	A	4.3	A	3.7
LOS	A	A	0	A	0	A
95th %tile Queue, veh	0	0		1		0

Timings
17: RR Crossing & W Yamato Rd

2045 AM Build W Mitigation 2-1
09/28/2022

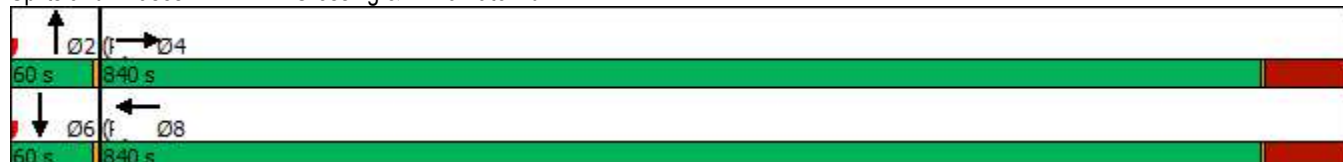
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑↑	↑↑↑	↑	↑
Traffic Volume (vph)	2150	1621	1	1
Future Volume (vph)	2150	1621	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	81.5	81.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.53	0.40	0.01	0.01
Control Delay	16.2	13.3	397.0	397.0
Queue Delay	30.6	40.6	0.0	0.0
Total Delay	46.8	53.9	397.0	397.0
LOS	D	D	F	F
Approach Delay	46.8	53.9	397.0	397.0
Approach LOS	D	D	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 145
 Control Type: Pretimed
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 50.0
 Intersection Capacity Utilization 102.4%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service G

Splits and Phases: 17: RR Crossing & W Yamato Rd



Queues
17: RR Crossing & W Yamato Rd

2045 AM Build W Mitigation 2-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	2337	1762	1	1
v/c Ratio	0.53	0.40	0.01	0.01
Control Delay	16.2	13.3	397.0	397.0
Queue Delay	30.6	40.6	0.0	0.0
Total Delay	46.8	53.9	397.0	397.0
Queue Length 50th (ft)	1293	806	6	6
Queue Length 95th (ft)	1202	769	23	23
Internal Link Dist (ft)	615	274	189	249
Turn Bay Length (ft)				
Base Capacity (vph)	4387	4387	114	114
Starvation Cap Reductn	2182	2758	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.06	1.08	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

17: RR Crossing & W Yamato Rd

2045 AM Build W Mitigation 2-1

09/28/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↑			↑	
Traffic Volume (vph)	0	2150	0	0	1621	0	0	1	0	0	1	0
Future Volume (vph)	0	2150	0	0	1621	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		5085			5085			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		5085			5085			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2337	0	0	1762	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2337	0	0	1762	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		4387			4387			114			114	
v/s Ratio Prot		c0.46			0.35			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.53			0.40			0.01			0.01	
Uniform Delay, d1		15.7			13.0			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.3			0.1			0.1	
Delay (s)		16.1			13.2			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		16.1			13.2			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		15.1			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		102.4%			ICU Level of Service			G				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
18: RR Crossing & Spanish River Blvd

2045 AM Build W Mitigation 2-1
09/28/2022

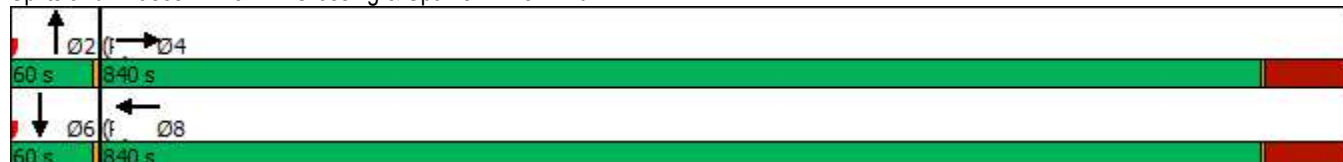
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	1003	917	1	1
Future Volume (vph)	1003	917	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	141.5	141.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.36	0.33	0.01	0.01
Control Delay	12.6	12.1	397.0	397.0
Queue Delay	11.5	35.0	0.0	0.0
Total Delay	24.1	47.1	397.0	397.0
LOS	C	D	F	F
Approach Delay	24.1	47.1	397.0	397.0
Approach LOS	C	D	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 165
 Control Type: Pretimed
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 35.5
 Intersection Capacity Utilization 88.6%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 18: RR Crossing & Spanish River Blvd



Queues
18: RR Crossing & Spanish River Blvd

2045 AM Build W Mitigation 2-1
09/28/2022













	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1090	997	1	1
v/c Ratio	0.36	0.33	0.01	0.01
Control Delay	12.6	12.1	397.0	397.0
Queue Delay	11.5	35.0	0.0	0.0
Total Delay	24.1	47.1	397.0	397.0
Queue Length 50th (ft)	676	596	6	6
Queue Length 95th (ft)	666	591	23	23
Internal Link Dist (ft)	31	267	152	280
Turn Bay Length (ft)				
Base Capacity (vph)	3053	3053	114	114
Starvation Cap Reductn	1946	2113	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.98	1.06	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

18: RR Crossing & Spanish River Blvd

2045 AM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	1003	0	0	917	0	0	1	0	0	1	0
Future Volume (vph)	0	1003	0	0	917	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1090	0	0	997	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1090	0	0	997	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		3053			3053			114			114	
v/s Ratio Prot		c0.31			0.28			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.36			0.33			0.01			0.01	
Uniform Delay, d1		12.2			11.8			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.3			0.1			0.1	
Delay (s)		12.6			12.1			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		12.6			12.1			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		12.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		88.6%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
20: RR Crossing & NW 20th St

2045 AM Build W Mitigation 2-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	470	559	1	1
Future Volume (vph)	470	559	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.17	0.20	0.01	0.01
Control Delay	11.1	11.5	397.0	397.0
Queue Delay	1.4	10.2	0.0	0.0
Total Delay	12.5	21.7	397.0	397.0
LOS	B	C	F	F
Approach Delay	12.5	21.7	397.0	397.0
Approach LOS	B	C	F	F
Intersection Summary				
Cycle Length: 900				
Actuated Cycle Length: 900				
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green				
Natural Cycle: 175				
Control Type: Pretimed				
Maximum v/c Ratio: 0.20				
Intersection Signal Delay: 18.2			Intersection LOS: B	
Intersection Capacity Utilization 81.7%			ICU Level of Service D	
Analysis Period (min) 15				

Splits and Phases: 20: RR Crossing & NW 20th St



Queues
20: RR Crossing & NW 20th St

2045 AM Build W Mitigation 2-1
09/28/2022













	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	511	608	1	1
v/c Ratio	0.17	0.20	0.01	0.01
Control Delay	11.1	11.5	397.0	397.0
Queue Delay	1.4	10.2	0.0	0.0
Total Delay	12.5	21.7	397.0	397.0
Queue Length 50th (ft)	270	332	6	6
Queue Length 95th (ft)	280	340	23	23
Internal Link Dist (ft)	941	417	469	497
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	2260	2384	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.67	0.95	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

20: RR Crossing & NW 20th St

2045 AM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	470	0	0	559	0	0	1	0	0	1	0
Future Volume (vph)	0	470	0	0	559	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	511	0	0	608	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	511	0	0	608	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		0.14			c0.17			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.17			0.20			0.01			0.01	
Uniform Delay, d1		11.0			11.3			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		11.1			11.5			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		11.1			11.5			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		12.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.19										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		81.7%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

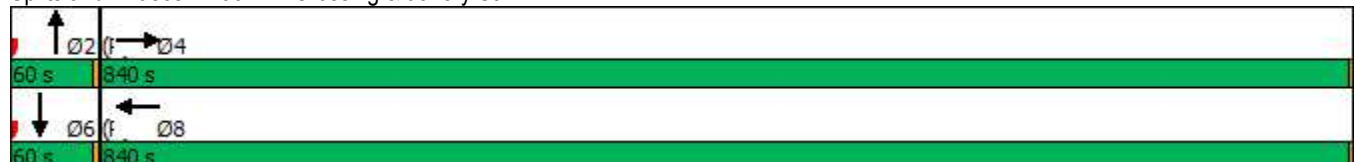
HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
35: RR Crossing & Jeffery St

2045 AM Build W Mitigation 2-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	399	642	1	1
Future Volume (vph)	399	642	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	835.5	835.5	55.5	55.5
Actuated g/C Ratio	0.93	0.93	0.06	0.06
v/c Ratio	0.13	0.21	0.01	0.01
Control Delay	2.7	3.0	397.0	397.0
Queue Delay	2.4	5.8	0.0	0.0
Total Delay	5.1	8.9	397.0	397.0
LOS	A	A	F	F
Approach Delay	5.1	8.9	397.0	397.0
Approach LOS	A	A	F	F
Intersection Summary				
Cycle Length: 900				
Actuated Cycle Length: 900				
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green				
Natural Cycle: 45				
Control Type: Pretimed				
Maximum v/c Ratio: 0.21				
Intersection Signal Delay: 8.1			Intersection LOS: A	
Intersection Capacity Utilization 29.4%			ICU Level of Service A	
Analysis Period (min) 15				

Splits and Phases: 35: RR Crossing & Jeffery St



Queues
35: RR Crossing & Jeffery St

2045 AM Build W Mitigation 2-1
09/28/2022













	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	434	698	1	1
v/c Ratio	0.13	0.21	0.01	0.01
Control Delay	2.7	3.0	397.0	397.0
Queue Delay	2.4	5.8	0.0	0.0
Total Delay	5.1	8.9	397.0	397.0
Queue Length 50th (ft)	105	185	6	6
Queue Length 95th (ft)	111	188	23	23
Internal Link Dist (ft)	641	421	404	325
Turn Bay Length (ft)				
Base Capacity (vph)	3285	3285	114	114
Starvation Cap Reductn	2691	2514	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	0.91	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

35: RR Crossing & Jeffery St

2045 AM Build W Mitigation 2-1



















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	399	0	0	642	0	0	1	0	0	1	0
Future Volume (vph)	0	399	0	0	642	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	434	0	0	698	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	434	0	0	698	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		835.5			835.5			55.5			55.5	
Effective Green, g (s)		835.5			835.5			55.5			55.5	
Actuated g/C Ratio		0.93			0.93			0.06			0.06	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Lane Grp Cap (vph)		3285			3285			114			114	
v/s Ratio Prot		0.12			c0.20			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.13			0.21			0.01			0.01	
Uniform Delay, d1		2.6			2.9			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.1			0.1	
Delay (s)		2.7			3.0			396.6			396.6	
Level of Service		A			A			F			F	
Approach Delay (s)		2.7			3.0			396.6			396.6	
Approach LOS		A			A			F			F	
Intersection Summary												
HCM 2000 Control Delay		3.6			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.20										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			9.0				
Intersection Capacity Utilization		29.4%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology does not support cycle length greater than 55 seconds.

Timings
1: NW 2nd Ave & NW 20th St

2045 PM Build W Mitigation 2-1
09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	107	286	189	314	84	439	169	148	598
Future Volume (vph)	107	286	189	314	84	439	169	148	598
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4		8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	18.0	5.0	18.0
Minimum Split (s)	12.0	42.0	12.0	37.0	12.0	37.0	37.0	12.0	39.0
Total Split (s)	17.0	34.0	18.0	35.0	13.0	50.0	50.0	18.0	55.0
Total Split (%)	14.2%	28.3%	15.0%	29.2%	10.8%	41.7%	41.7%	15.0%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.9	20.9	33.6	22.7	56.9	50.9	50.9	63.6	54.2
Actuated g/C Ratio	0.25	0.17	0.28	0.19	0.47	0.42	0.42	0.53	0.45
v/c Ratio	0.60	0.69	0.78	0.86	0.26	0.32	0.24	0.35	0.46
Control Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
LOS	D	D	D	D	B	C	A	B	C
Approach Delay		46.2		47.4		19.0			23.0
Approach LOS		D		D		B			C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 9 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 33.1

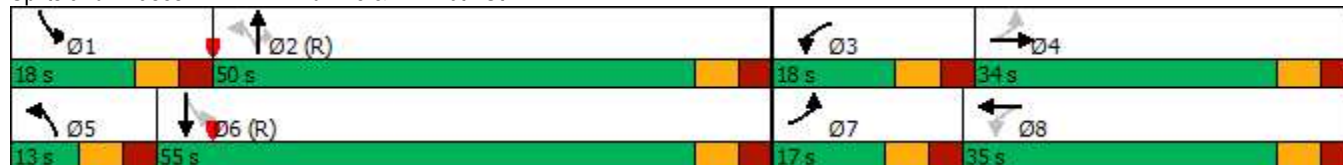
Intersection LOS: C

Intersection Capacity Utilization 73.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: NW 2nd Ave & NW 20th St



Queues

2045 PM Build W Mitigation 2-1

09/28/2022

1: NW 2nd Ave & NW 20th St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	118	430	208	664	92	482	186	163	728
v/c Ratio	0.60	0.69	0.78	0.86	0.26	0.32	0.24	0.35	0.46
Control Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	47.4	52.5	45.8	16.2	25.2	4.5	16.2	24.5
Queue Length 50th (ft)	65	148	121	196	32	132	0	60	202
Queue Length 95th (ft)	104	194	#186	255	65	192	48	108	276
Internal Link Dist (ft)		972		137		1028			3095
Turn Bay Length (ft)	230		165		160			130	
Base Capacity (vph)	211	791	268	907	353	1500	784	494	1598
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.54	0.78	0.73	0.26	0.32	0.24	0.33	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2045 PM Build W Mitigation 2-1

1: NW 2nd Ave & NW 20th St























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	286	106	189	314	290	84	439	169	148	598	65
Future Volume (vph)	107	286	106	189	314	290	84	439	169	148	598	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.93		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3377		1768	3294		1805	3539	1599	1719	3525	
Flt Permitted	0.19	1.00		0.30	1.00		0.32	1.00	1.00	0.41	1.00	
Satd. Flow (perm)	360	3377		561	3294		609	3539	1599	740	3525	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	118	314	116	208	345	319	92	482	186	163	657	71
RTOR Reduction (vph)	0	34	0	0	147	0	0	0	107	0	6	0
Lane Group Flow (vph)	118	396	0	208	517	0	92	482	79	163	722	0
Confl. Peds. (#/hr)	2		9	9		2						
Heavy Vehicles (%)	1%	2%	2%	2%	1%	1%	0%	2%	1%	5%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	29.9	20.9		33.5	22.7		56.9	50.9	50.9	63.7	54.3	
Effective Green, g (s)	29.9	20.9		33.5	22.7		56.9	50.9	50.9	63.7	54.3	
Actuated g/C Ratio	0.25	0.17		0.28	0.19		0.47	0.42	0.42	0.53	0.45	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.0	2.0	2.0	1.8	2.0	
Lane Grp Cap (vph)	196	588		265	623		348	1501	678	469	1595	
v/s Ratio Prot	0.04	0.12		c0.07	c0.16		0.01	0.14		c0.03	c0.20	
v/s Ratio Perm	0.10			0.15			0.11		0.05	0.16		
v/c Ratio	0.60	0.67		0.78	0.83		0.26	0.32	0.12	0.35	0.45	
Uniform Delay, d1	37.2	46.4		36.3	46.8		17.7	23.0	20.9	14.9	22.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.5	2.4		13.1	8.8		0.1	0.6	0.3	0.2	0.9	
Delay (s)	40.7	48.8		49.4	55.6		17.9	23.6	21.3	15.1	23.5	
Level of Service	D	D		D	E		B	C	C	B	C	
Approach Delay (s)		47.0			54.1			22.3			22.0	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM 2000 Control Delay	35.7			HCM 2000 Level of Service			D					
HCM 2000 Volume to Capacity ratio	0.60											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)			28.0					
Intersection Capacity Utilization	73.2%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

1: NW 2nd Ave & NW 20th St



















2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	286	106	189	314	290	84	439	169	148	598	65
Future Volume (veh/h)	107	286	106	189	314	290	84	439	169	148	598	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	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	1885	1870	1870	1870	1885	1885	1900	1870	1885	1826	1885	1900
Adj Flow Rate, veh/h	118	314	116	208	345	319	92	482	186	163	657	71
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	2	2	2	1	1	0	2	1	5	1	0
Cap, veh/h	200	503	182	301	398	350	354	1444	649	418	1413	153
Arrive On Green	0.07	0.20	0.20	0.09	0.22	0.22	0.04	0.41	0.41	0.07	0.43	0.43
Sat Flow, veh/h	1795	2546	921	1781	1791	1578	1810	3554	1598	1739	3261	352
Grp Volume(v), veh/h	118	217	213	208	345	319	92	482	186	163	360	368
Grp Sat Flow(s),veh/h/ln	1795	1777	1690	1781	1791	1578	1810	1777	1598	1739	1791	1822
Q Serve(g_s), s	6.2	13.4	13.9	11.0	22.3	23.7	3.5	11.2	9.4	6.5	17.1	17.2
Cycle Q Clear(g_c), s	6.2	13.4	13.9	11.0	22.3	23.7	3.5	11.2	9.4	6.5	17.1	17.2
Prop In Lane	1.00		0.54	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	200	351	334	301	398	350	354	1444	649	418	776	790
V/C Ratio(X)	0.59	0.62	0.64	0.69	0.87	0.91	0.26	0.33	0.29	0.39	0.46	0.47
Avail Cap(c_a), veh/h	229	400	380	301	418	368	365	1444	649	454	776	790
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	0.99	0.99	0.99
Uniform Delay (d), s/veh	36.8	44.0	44.2	35.6	45.0	45.5	20.0	24.5	23.9	18.7	24.1	24.1
Incr Delay (d2), s/veh	1.4	1.3	1.8	5.5	15.9	24.5	0.1	0.6	1.1	0.2	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.0	5.9	5.3	11.5	11.5	1.5	4.8	3.7	2.6	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	45.3	46.0	41.1	60.9	70.0	20.2	25.1	25.0	19.0	26.1	26.1
LnGrp LOS	D	D	D	D	E	E	C	C	C	B	C	C
Approach Vol, veh/h	548			872			760			891		
Approach Delay, s/veh	44.0			59.5			24.5			24.8		
Approach LOS	D			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	55.8	18.0	30.7	12.3	59.0	15.1	33.6				
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	11.0	43.0	11.0	27.0	6.0	48.0	10.0	28.0				
Max Q Clear Time (g_c+I1), s	8.5	13.2	13.0	15.9	5.5	19.2	8.2	25.7				
Green Ext Time (p_c), s	0.1	1.8	0.0	0.8	0.0	1.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay	38.0											
HCM 6th LOS	D											

Timings
2: N Dixie Hwy & NW 20th St

2045 PM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	134	308	102	273	236	989	93	1029	182
Future Volume (vph)	134	308	102	273	236	989	93	1029	182
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	41.5	11.5	45.5	11.4	42.4	11.4	24.4	24.4
Total Split (s)	25.0	33.0	22.0	30.0	20.0	85.0	20.0	85.0	85.0
Total Split (%)	15.6%	20.6%	13.8%	18.8%	12.5%	53.1%	12.5%	53.1%	53.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	45.0	26.5	39.0	23.5	92.2	78.6	92.2	78.6	78.6
Actuated g/C Ratio	0.28	0.17	0.24	0.15	0.58	0.49	0.58	0.49	0.49
v/c Ratio	0.49	0.81	0.47	0.67	0.90	0.72	0.39	0.64	0.22
Control Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
LOS	D	E	D	E	D	C	C	D	B
Approach Delay		65.8		64.7		38.0		41.9	
Approach LOS		E		E		D		D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 15 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 46.8

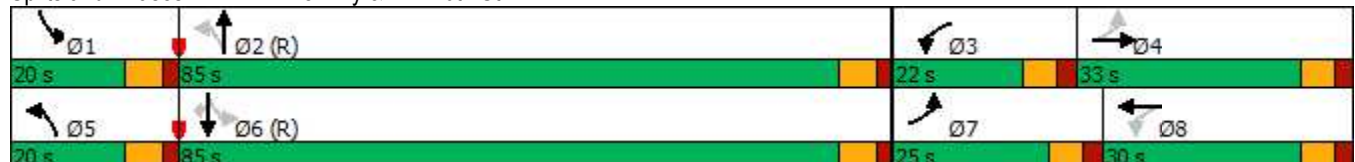
Intersection LOS: D

Intersection Capacity Utilization 102.9%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 2: N Dixie Hwy & NW 20th St



Queues
2: N Dixie Hwy & NW 20th St

2045 PM Build W Mitigation 2-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	146	482	111	349	257	1233	101	1118	198
v/c Ratio	0.49	0.81	0.47	0.67	0.90	0.72	0.39	0.64	0.22
Control Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	71.1	48.7	69.7	54.1	34.6	23.6	48.0	16.9
Queue Length 50th (ft)	117	240	87	179	118	520	66	558	78
Queue Length 95th (ft)	180	309	141	238	#289	606	m91	m630	m109
Internal Link Dist (ft)		417		733		683		6742	
Turn Bay Length (ft)	360		166		290		265		319
Base Capacity (vph)	299	593	237	521	285	1714	256	1738	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.81	0.47	0.67	0.90	0.72	0.39	0.64	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















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

HCM Signalized Intersection Capacity Analysis

2045 PM Build W Mitigation 2-1






















2: N Dixie Hwy & NW 20th St

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	308	135	102	273	48	236	989	145	93	1029	182
Future Volume (vph)	134	308	135	102	273	48	236	989	145	93	1029	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	3397		1805	3493		1770	3476		1787	3539	1615
Flt Permitted	0.30	1.00		0.23	1.00		0.15	1.00		0.11	1.00	1.00
Satd. Flow (perm)	558	3397		428	3493		275	3476		213	3539	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	146	335	147	111	297	52	257	1075	158	101	1118	198
RTOR Reduction (vph)	0	31	0	0	9	0	0	7	0	0	0	101
Lane Group Flow (vph)	146	451	0	111	340	0	257	1226	0	101	1118	97
Confl. Peds. (#/hr)	1		1	1		1						
Heavy Vehicles (%)	1%	1%	1%	0%	1%	0%	2%	2%	1%	1%	2%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	45.0	26.5		39.0	23.5		92.2	78.6		92.2	78.6	78.6
Effective Green, g (s)	45.0	26.5		39.0	23.5		92.2	78.6		92.2	78.6	78.6
Actuated g/C Ratio	0.28	0.17		0.24	0.15		0.58	0.49		0.58	0.49	0.49
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	299	562		237	513		285	1707		256	1738	793
v/s Ratio Prot	c0.06	c0.13		0.05	0.10		c0.08	0.35		0.03	0.32	
v/s Ratio Perm	0.08			0.07			c0.44			0.19		0.06
v/c Ratio	0.49	0.80		0.47	0.66		0.90	0.72		0.39	0.64	0.12
Uniform Delay, d1	45.5	64.2		49.3	64.5		24.3	32.0		21.6	30.3	22.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.56	1.53	6.17
Incremental Delay, d2	5.6	11.5		6.5	6.6		33.1	2.6		3.4	1.4	0.2
Delay (s)	51.1	75.8		55.8	71.1		57.4	34.6		37.2	47.6	136.1
Level of Service	D	E		E	E		E	C		D	D	F
Approach Delay (s)		70.0			67.4			38.6			59.2	
Approach LOS		E			E			D			E	
Intersection Summary												
HCM 2000 Control Delay			54.2			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			25.8			
Intersection Capacity Utilization			102.9%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 2: N Dixie Hwy & NW 20th St

2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	308	135	102	273	48	236	989	145	93	1029	182
Future Volume (veh/h)	134	308	135	102	273	48	236	989	145	93	1029	182
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	1885	1885	1885	1900	1885	1900	1870	1870	1885	1885	1870	1900
Adj Flow Rate, veh/h	146	335	147	111	297	52	257	1075	158	101	1118	198
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	1	0	2	2	1	1	2	0
Cap, veh/h	308	404	174	248	448	78	304	1527	224	299	1746	791
Arrive On Green	0.12	0.17	0.17	0.10	0.15	0.15	0.09	0.49	0.49	0.09	0.49	0.49
Sat Flow, veh/h	1795	2436	1049	1810	3052	528	1781	3109	456	1795	3554	1610
Grp Volume(v), veh/h	146	245	237	111	173	176	257	614	619	101	1118	198
Grp Sat Flow(s),veh/h/ln	1795	1791	1694	1810	1791	1789	1781	1777	1788	1795	1777	1610
Q Serve(g_s), s	10.4	21.1	21.8	7.9	14.6	14.9	11.4	42.9	43.1	4.0	37.4	11.4
Cycle Q Clear(g_c), s	10.4	21.1	21.8	7.9	14.6	14.9	11.4	42.9	43.1	4.0	37.4	11.4
Prop In Lane	1.00		0.62	1.00		0.30	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	308	297	281	248	263	263	304	873	878	299	1746	791
V/C Ratio(X)	0.47	0.82	0.85	0.45	0.66	0.67	0.85	0.70	0.71	0.34	0.64	0.25
Avail Cap(c_a), veh/h	308	297	281	248	263	263	304	873	878	299	1746	791
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)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	48.2	64.5	64.8	50.0	64.4	64.6	27.5	31.6	31.7	22.7	30.2	23.6
Incr Delay (d2), s/veh	5.0	21.9	25.3	5.8	12.1	12.8	24.1	4.7	4.7	2.0	1.2	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	5.1	11.4	11.4	4.0	7.5	7.7	6.7	19.2	19.4	1.8	16.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	86.4	90.1	55.8	76.6	77.4	51.5	36.3	36.4	24.7	31.4	24.1
LnGrp LOS	D	F	F	E	E	E	D	D	D	C	C	C
Approach Vol, veh/h	628			460			1490			1417		
Approach Delay, s/veh	80.1			71.9			39.0			29.9		
Approach LOS	F			E			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	85.0	22.0	33.0	20.0	85.0	25.0	30.0				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	13.6	78.6	15.5	26.5	13.6	78.6	18.5	23.5				
Max Q Clear Time (g_c+I1), s	6.0	45.1	9.9	23.8	13.4	39.4	12.4	16.9				
Green Ext Time (p_c), s	0.1	3.0	0.1	0.4	0.0	4.0	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay	46.0
HCM 6th LOS	D

Notes

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

Timings
3: NW 2nd Ave & NW 28th St

2045 PM Build W Mitigation 2-1
09/28/2022

	↖	↗	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↖	↗	↑↑	↘	↓↓
Traffic Volume (vph)	21	74	633	44	563
Future Volume (vph)	21	74	633	44	563
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	12.0	12.0	18.0	5.0	18.0
Minimum Split (s)	32.0	32.0	31.0	11.0	24.0
Total Split (s)	19.0	19.0	31.0	11.0	42.0
Total Split (%)	31.1%	31.1%	50.8%	18.0%	68.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.0	12.0	39.4	43.6	46.0
Actuated g/C Ratio	0.20	0.20	0.65	0.71	0.75
v/c Ratio	0.06	0.20	0.30	0.09	0.22
Control Delay	20.6	7.6	10.0	5.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	7.6	10.0	5.3	4.8
LOS	C	A	A	A	A
Approach Delay	10.5		10.0		4.8
Approach LOS	B		A		A

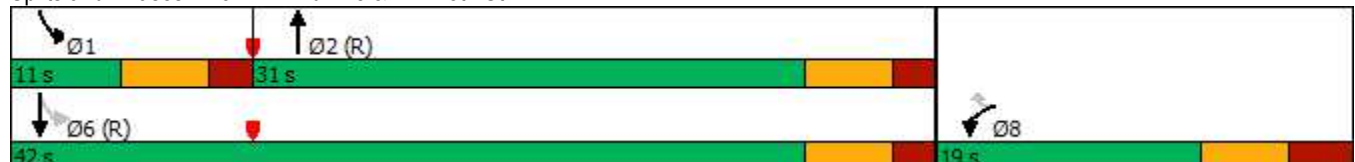
Intersection Summary

Cycle Length: 61
 Actuated Cycle Length: 61
 Offset: 18 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.30
 Intersection Signal Delay: 7.7
 Intersection Capacity Utilization 50.8%
 Analysis Period (min) 15

Intersection LOS: A






ICU Level of Service A

Splits and Phases: 3: NW 2nd Ave & NW 28th St



Queues
3: NW 2nd Ave & NW 28th St

2045 PM Build W Mitigation 2-1
09/28/2022

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	22	77	681	46	586
v/c Ratio	0.06	0.20	0.30	0.09	0.22
Control Delay	20.6	7.6	10.0	5.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	7.6	10.0	5.3	4.8
Queue Length 50th (ft)	7	0	91	6	48
Queue Length 95th (ft)	23	29	133	17	72
Internal Link Dist (ft)	439		3095		3584
Turn Bay Length (ft)				150	
Base Capacity (vph)	344	376	2299	512	2668
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.20	0.30	0.09	0.22
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

3: NW 2nd Ave & NW 28th St

2045 PM Build W Mitigation 2-1
09/28/2022












Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	21	74	633	21	44	563
Future Volume (vph)	21	74	633	21	44	563
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1599	3556		1735	3539
Flt Permitted	0.95	1.00	1.00		0.32	1.00
Satd. Flow (perm)	1752	1599	3556		580	3539
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	22	77	659	22	46	586
RTOR Reduction (vph)	0	68	3	0	0	0
Lane Group Flow (vph)	22	9	678	0	46	586
Confl. Peds. (#/hr)				2	2	
Heavy Vehicles (%)	3%	1%	1%	0%	4%	2%
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	7.2	7.2	31.8		40.8	40.8
Effective Green, g (s)	7.2	7.2	31.8		40.8	40.8
Actuated g/C Ratio	0.12	0.12	0.52		0.67	0.67
Clearance Time (s)	7.0	7.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	206	188	1853		444	2367
v/s Ratio Prot	c0.01		c0.19		0.01	c0.17
v/s Ratio Perm		0.01			0.06	
v/c Ratio	0.11	0.05	0.37		0.10	0.25
Uniform Delay, d1	24.0	23.9	8.6		3.9	4.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2	0.1	0.6		0.1	0.3
Delay (s)	24.3	24.0	9.2		4.0	4.3
Level of Service	C	C	A		A	A
Approach Delay (s)	24.0		9.2			4.2
Approach LOS	C		A			A
Intersection Summary						
HCM 2000 Control Delay			8.0		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.33			
Actuated Cycle Length (s)			61.0		Sum of lost time (s)	19.0
Intersection Capacity Utilization			50.8%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th Signalized Intersection Summary

3: NW 2nd Ave & NW 28th St



















2045 PM Build W Mitigation 2-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	74	633	21	44	563
Future Volume (veh/h)	21	74	633	21	44	563
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1885	1885	1900	1841	1870
Adj Flow Rate, veh/h	22	77	659	22	46	586
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	1	0	4	2
Cap, veh/h	283	256	1712	57	469	2228
Arrive On Green	0.16	0.16	0.48	0.48	0.04	0.63
Sat Flow, veh/h	1767	1598	3631	118	1753	3647
Grp Volume(v), veh/h	22	77	334	347	46	586
Grp Sat Flow(s),veh/h/ln	1767	1598	1791	1864	1753	1777
Q Serve(g_s), s	0.6	2.6	7.2	7.2	0.7	4.5
Cycle Q Clear(g_c), s	0.6	2.6	7.2	7.2	0.7	4.5
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	283	256	867	902	469	2228
V/C Ratio(X)	0.08	0.30	0.38	0.39	0.10	0.26
Avail Cap(c_a), veh/h	348	314	867	902	535	2228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	0.82	0.82
Uniform Delay (d), s/veh	21.8	22.6	10.0	10.0	6.8	5.1
Incr Delay (d2), s/veh	0.1	0.7	1.2	1.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	2.6	2.7	0.2	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.9	23.3	11.2	11.1	6.8	5.3
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	99		681			632
Approach Delay, s/veh	23.0		11.2			5.4
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.7	35.5			44.2	16.8
Change Period (Y+Rc), s	6.0	6.0			6.0	7.0
Max Green Setting (Gmax), s	5.0	25.0			36.0	12.0
Max Q Clear Time (g_c+I1), s	2.7	9.2			6.5	4.6
Green Ext Time (p_c), s	0.0	2.5			2.8	0.2
Intersection Summary						
HCM 6th Ctrl Delay			9.4			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						

Timings
5: NW 2nd Ave & Spanish River Blvd

2045 PM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	141	816	209	213	1063	246	533	74	330
Future Volume (vph)	141	816	209	213	1063	246	533	74	330
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0
Minimum Split (s)	11.5	36.5	36.5	11.5	35.5	11.5	31.5	9.5	39.5
Total Split (s)	40.0	64.0	64.0	24.0	48.0	22.0	50.0	22.0	50.0
Total Split (%)	25.0%	40.0%	40.0%	15.0%	30.0%	13.8%	31.3%	13.8%	31.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	4.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	85.7	72.9	72.9	88.8	74.5	53.1	39.8	42.3	31.3
Actuated g/C Ratio	0.54	0.46	0.46	0.56	0.47	0.33	0.25	0.26	0.20
v/c Ratio	0.64	0.53	0.27	0.65	0.74	0.92	0.89	0.52	0.64
Control Delay	33.9	34.6	7.4	26.4	40.0	79.0	68.4	45.3	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	34.6	7.4	26.4	40.0	79.0	68.4	45.3	40.3
LOS	C	C	A	C	D	E	E	D	D
Approach Delay		29.7			37.9		71.1		41.0
Approach LOS		C			D		E		D

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 145 (91%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 44.0

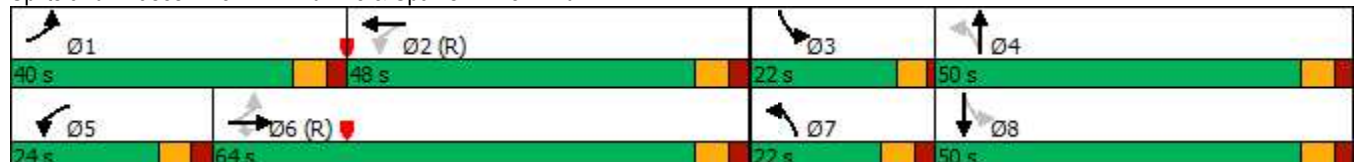
Intersection LOS: D

Intersection Capacity Utilization 90.6%

ICU Level of Service E

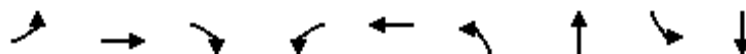
Analysis Period (min) 15

Splits and Phases: 5: NW 2nd Ave & Spanish River Blvd



Queues
5: NW 2nd Ave & Spanish River Blvd

2045 PM Build W Mitigation 2-1
09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	148	859	220	224	1223	259	774	78	440
v/c Ratio	0.64	0.53	0.27	0.65	0.74	0.92	0.89	0.52	0.64
Control Delay	33.9	34.6	7.4	26.4	40.0	79.0	68.4	45.3	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	34.6	7.4	26.4	40.0	79.0	68.4	45.3	40.3
Queue Length 50th (ft)	68	335	18	108	541	212	400	32	186
Queue Length 95th (ft)	145	475	85	183	#809	#262	452	m43	m166
Internal Link Dist (ft)		709			542		3584		2638
Turn Bay Length (ft)	255			160		200		170	
Base Capacity (vph)	444	1628	809	383	1643	282	963	243	946
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.53	0.27	0.58	0.74	0.92	0.80	0.32	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.























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

HCM Signalized Intersection Capacity Analysis

5: NW 2nd Ave & Spanish River Blvd

2045 PM Build W Mitigation 2-1






















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	816	209	213	1063	99	246	533	202	74	330	88
Future Volume (vph)	141	816	209	213	1063	99	246	533	202	74	330	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3574	1553	1752	3526		1787	3389		1770	3427	
Flt Permitted	0.10	1.00	1.00	0.22	1.00		0.25	1.00		0.13	1.00	
Satd. Flow (perm)	195	3574	1553	410	3526		465	3389		238	3427	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	859	220	224	1119	104	259	561	213	78	347	93
RTOR Reduction (vph)	0	0	102	0	3	0	0	26	0	0	17	0
Lane Group Flow (vph)	148	859	118	224	1220	0	259	748	0	78	423	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	2%	1%	4%	3%	1%	2%	1%	2%	1%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	85.7	72.9	72.9	88.7	74.4		53.3	39.8		40.3	31.3	
Effective Green, g (s)	85.7	72.9	72.9	88.7	74.4		53.3	39.8		40.3	31.3	
Actuated g/C Ratio	0.54	0.46	0.46	0.55	0.47		0.33	0.25		0.25	0.20	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		4.5	6.5	
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0		1.8	2.0		1.8	2.0	
Lane Grp Cap (vph)	230	1628	707	347	1639		282	843		146	670	
v/s Ratio Prot	0.05	0.24		c0.06	c0.35		c0.09	c0.22		0.03	0.12	
v/s Ratio Perm	0.29		0.08	0.30			c0.22			0.10		
v/c Ratio	0.64	0.53	0.17	0.65	0.74		0.92	0.89		0.53	0.63	
Uniform Delay, d1	26.3	31.2	25.7	21.1	35.0		45.8	57.9		48.3	59.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.08	0.68	
Incremental Delay, d2	4.6	1.2	0.5	3.1	3.1		32.1	10.9		1.1	0.9	
Delay (s)	30.9	32.4	26.2	24.2	38.1		78.0	68.8		53.4	40.9	
Level of Service	C	C	C	C	D		E	E		D	D	
Approach Delay (s)		31.1			36.0			71.1			42.8	
Approach LOS		C			D			E			D	
Intersection Summary												
HCM 2000 Control Delay			44.0			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			26.0			
Intersection Capacity Utilization			90.6%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
5: NW 2nd Ave & Spanish River Blvd

2045 PM Build W Mitigation 2-1



















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	816	209	213	1063	99	246	533	202	74	330	88
Future Volume (veh/h)	141	816	209	213	1063	99	246	533	202	74	330	88
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	1885	1841	1856	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	148	859	220	224	1119	104	259	561	213	78	347	93
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	4	3	1	2	1	2	1	2	2	2
Cap, veh/h	261	1745	760	350	1686	157	273	602	228	143	490	130
Arrive On Green	0.06	0.49	0.49	0.08	0.51	0.51	0.10	0.24	0.24	0.05	0.18	0.18
Sat Flow, veh/h	1781	3582	1560	1767	3313	308	1795	2520	954	1781	2779	735
Grp Volume(v), veh/h	148	859	220	224	604	619	259	395	379	78	220	220
Grp Sat Flow(s),veh/h/ln	1781	1791	1560	1767	1791	1830	1795	1777	1697	1781	1777	1737
Q Serve(g_s), s	6.6	25.9	13.5	10.1	40.0	40.1	15.5	34.8	35.0	5.7	18.6	19.1
Cycle Q Clear(g_c), s	6.6	25.9	13.5	10.1	40.0	40.1	15.5	34.8	35.0	5.7	18.6	19.1
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.56	1.00		0.42
Lane Grp Cap(c), veh/h	261	1745	760	350	911	931	273	424	405	143	313	306
V/C Ratio(X)	0.57	0.49	0.29	0.64	0.66	0.66	0.95	0.93	0.93	0.55	0.70	0.72
Avail Cap(c_a), veh/h	536	1745	760	407	911	931	273	483	461	254	483	472
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	27.7	24.5	21.1	29.1	29.2	53.5	59.6	59.7	52.7	61.9	62.1
Incr Delay (d2), s/veh	0.7	1.0	1.0	1.6	3.8	3.7	39.1	21.8	23.2	1.2	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	11.4	5.2	4.3	18.0	18.5	6.0	18.2	17.6	2.6	8.5	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	28.7	25.4	22.6	32.9	32.9	92.7	81.4	82.9	53.9	63.0	63.3
LnGrp LOS	C	C	C	C	C	C	F	F	F	D	E	E
Approach Vol, veh/h		1227			1447			1033			518	
Approach Delay, s/veh		27.7			31.3			84.8			61.8	
Approach LOS		C			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	87.9	12.0	44.7	18.8	84.5	22.0	34.7				
Change Period (Y+Rc), s	6.5	6.5	4.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	33.5	41.5	17.5	43.5	17.5	57.5	15.5	43.5				
Max Q Clear Time (g_c+I1), s	8.6	42.1	7.7	37.0	12.1	27.9	17.5	21.1				
Green Ext Time (p_c), s	0.2	0.0	0.1	1.2	0.2	3.1	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			47.1									
HCM 6th LOS			D									

Timings
6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	209	746	148	862	311	837	58	668	193
Future Volume (vph)	209	746	148	862	311	837	58	668	193
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	12.0	5.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	11.5	34.5	11.5	34.5	11.4	37.4	11.4	36.4	36.4
Total Split (s)	22.0	59.0	22.0	59.0	23.0	64.0	15.0	56.0	56.0
Total Split (%)	13.8%	36.9%	13.8%	36.9%	14.4%	40.0%	9.4%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Min	Max	Min	Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	68.0	52.5	68.0	52.5	72.6	57.6	58.2	49.6	49.6
Actuated g/C Ratio	0.42	0.33	0.42	0.33	0.45	0.36	0.36	0.31	0.31
v/c Ratio	1.08	0.99	0.76	0.88	1.22	0.81	0.41	0.69	0.34
Control Delay	127.0	75.9	61.1	60.1	158.6	32.7	48.3	78.6	29.8
Queue Delay	0.0	39.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.0	115.4	61.1	60.1	158.6	32.7	48.3	78.6	29.8
LOS	F	F	E	E	F	C	D	E	C
Approach Delay		117.4		60.2		64.7		66.4	
Approach LOS		F		E		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 150 (94%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay: 78.5

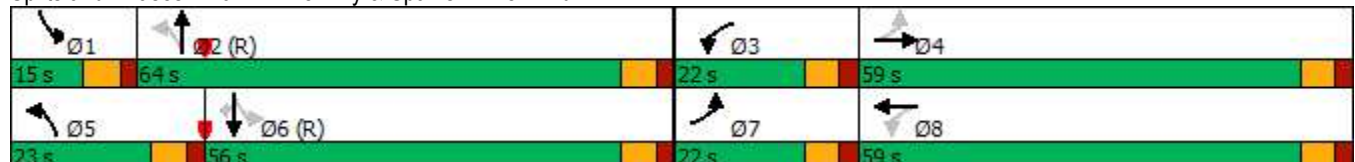
Intersection LOS: E

Intersection Capacity Utilization 94.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 6: N Dixie Hwy & Spanish River Blvd



Queues
6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 2-1

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	238	1141	168	1023	353	1037	66	759	219
v/c Ratio	1.08	0.99	0.76	0.88	1.22	0.81	0.41	0.69	0.34
Control Delay	127.0	75.9	61.1	60.1	158.6	32.7	48.3	78.6	29.8
Queue Delay	0.0	39.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.0	115.4	61.1	60.1	158.6	32.7	48.3	78.6	29.8
Queue Length 50th (ft)	~226	614	121	531	~324	531	57	438	92
Queue Length 95th (ft)	#395	#741	#224	604	#513	522	m80	496	137
Internal Link Dist (ft)		267		828		6742		3055	
Turn Bay Length (ft)	235		144		213		220		308
Base Capacity (vph)	220	1151	220	1168	290	1276	160	1107	651
Starvation Cap Reductn	0	441	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	1.61	0.76	0.88	1.22	0.81	0.41	0.69	0.34

Intersection Summary






















- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 2-1






















09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	746	258	148	862	38	311	837	76	58	668	193
Future Volume (vph)	209	746	258	148	862	38	311	837	76	58	668	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	3445		1787	3553		1787	3533		1805	3574	1615
Flt Permitted	0.08	1.00		0.08	1.00		0.16	1.00		0.11	1.00	1.00
Satd. Flow (perm)	143	3445		143	3553		300	3533		206	3574	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	238	848	293	168	980	43	353	951	86	66	759	219
RTOR Reduction (vph)	0	22	0	0	2	0	0	4	0	0	0	151
Lane Group Flow (vph)	238	1120	0	168	1021	0	353	1033	0	66	759	68
Confl. Peds. (#/hr)			4	4								
Heavy Vehicles (%)	1%	0%	1%	1%	1%	0%	1%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	68.0	52.5		68.0	52.5		72.6	57.6		58.2	49.6	49.6
Effective Green, g (s)	68.0	52.5		68.0	52.5		72.6	57.6		58.2	49.6	49.6
Actuated g/C Ratio	0.42	0.33		0.42	0.33		0.45	0.36		0.36	0.31	0.31
Clearance Time (s)	6.5	6.5		6.5	6.5		6.4	6.4		6.4	6.4	6.4
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	220	1130		220	1165		290	1271		160	1107	500
v/s Ratio Prot	c0.10	0.32		0.07	0.29		c0.13	0.29		0.02	0.21	
v/s Ratio Perm	c0.35			0.25			c0.43			0.13		0.04
v/c Ratio	1.08	0.99		0.76	0.88		1.22	0.81		0.41	0.69	0.14
Uniform Delay, d1	49.5	53.5		42.0	50.7		34.5	46.3		36.9	48.4	39.8
Progression Factor	1.00	1.00		1.00	1.00		1.54	0.61		1.60	1.56	6.13
Incremental Delay, d2	84.2	24.4		13.2	7.4		119.7	4.5		6.3	2.8	0.5
Delay (s)	133.7	77.9		55.2	58.1		172.9	32.6		65.4	78.0	244.3
Level of Service	F	E		E	E		F	C		E	E	F
Approach Delay (s)		87.5			57.7			68.3			112.1	
Approach LOS		F			E			E			F	
Intersection Summary												
HCM 2000 Control Delay			80.2			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.18									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			25.8			
Intersection Capacity Utilization			94.4%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
6: N Dixie Hwy & Spanish River Blvd

2045 PM Build W Mitigation 2-1






























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	746	258	148	862	38	311	837	76	58	668	193
Future Volume (veh/h)	209	746	258	148	862	38	311	837	76	58	668	193
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	1885	1900	1885	1885	1885	1900	1885	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	238	848	293	168	980	43	353	951	86	66	759	219
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	0	1	1	1	0	1	1	0	0	1	0
Cap, veh/h	256	863	298	223	1147	50	303	1196	108	199	1110	499
Arrive On Green	0.10	0.33	0.33	0.10	0.33	0.33	0.10	0.36	0.36	0.05	0.31	0.31
Sat Flow, veh/h	1795	2631	907	1795	3495	153	1795	3322	300	1810	3582	1610
Grp Volume(v), veh/h	238	581	560	168	502	521	353	513	524	66	759	219
Grp Sat Flow(s),veh/h/ln	1795	1805	1733	1795	1791	1857	1795	1791	1831	1810	1791	1610
Q Serve(g_s), s	14.1	51.1	51.3	10.1	41.9	41.9	16.6	41.1	41.1	3.9	29.7	17.4
Cycle Q Clear(g_c), s	14.1	51.1	51.3	10.1	41.9	41.9	16.6	41.1	41.1	3.9	29.7	17.4
Prop In Lane	1.00		0.52	1.00		0.08	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	256	592	569	223	588	609	303	645	659	199	1110	499
V/C Ratio(X)	0.93	0.98	0.98	0.75	0.85	0.85	1.16	0.80	0.80	0.33	0.68	0.44
Avail Cap(c_a), veh/h	256	592	569	223	588	609	303	645	659	199	1110	499
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)	0.92	0.92	0.92	1.00	1.00	1.00	0.66	0.66	0.66	0.49	0.49	0.49
Uniform Delay (d), s/veh	38.3	53.3	53.3	41.6	50.2	50.2	40.9	45.9	45.9	37.5	48.3	44.1
Incr Delay (d2), s/veh	38.8	30.7	32.0	20.9	11.3	10.9	95.1	6.7	6.5	2.2	1.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	28.0	27.2	5.4	20.5	21.2	16.1	19.2	19.6	1.8	13.4	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	83.9	85.4	62.5	61.4	61.1	135.9	52.6	52.5	39.7	50.0	45.5
LnGrp LOS	E	F	F	E	E	E	F	D	D	D	D	D
Approach Vol, veh/h	1379			1191			1390			1044		
Approach Delay, s/veh	83.3			61.4			73.7			48.4		
Approach LOS	F			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	64.0	22.0	59.0	23.0	56.0	22.0	59.0				
Change Period (Y+Rc), s	6.4	6.4	6.5	6.5	6.4	6.4	6.5	6.5				
Max Green Setting (Gmax), s	8.6	57.6	15.5	52.5	16.6	49.6	15.5	52.5				
Max Q Clear Time (g_c+I1), s	5.9	43.1	12.1	53.3	18.6	31.7	16.1	43.9				
Green Ext Time (p_c), s	0.0	2.1	0.1	0.0	0.0	2.5	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	68.2											
HCM 6th LOS	E											

Timings
7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 2-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		  			  		 			 	 
Traffic Volume (vph)	336	1774	413	133	1502	194	615	515	130	262	572
Future Volume (vph)	336	1774	413	133	1502	194	615	515	130	262	572
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	1	6		5	2		7	4		3	8
Permitted Phases	6		6	2		2			4		
Detector Phase	1	6	6	5	2	2	7	4	4	3	8
Switch Phase											
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0
Minimum Split (s)	14.8	41.8	41.8	14.8	38.8	38.8	14.0	42.0	42.0	14.0	41.0
Total Split (s)	26.0	50.0	50.0	26.0	50.0	50.0	48.0	56.0	56.0	28.0	36.0
Total Split (%)	16.3%	31.3%	31.3%	16.3%	31.3%	31.3%	30.0%	35.0%	35.0%	17.5%	22.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	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	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	67.3	49.4	49.4	56.2	43.2	43.2	35.1	53.1	53.1	16.9	35.9
Actuated g/C Ratio	0.42	0.31	0.31	0.35	0.27	0.27	0.22	0.33	0.33	0.11	0.22
v/c Ratio	1.37	1.17	0.61	0.74	1.14	0.37	0.86	0.88	0.23	0.76	0.96
Control Delay	224.5	129.6	15.3	58.2	123.7	13.3	72.0	53.4	3.0	83.5	81.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	224.5	129.6	15.3	58.2	123.7	13.3	72.0	53.4	3.0	83.5	81.6
LOS	F	F	B	E	F	B	E	D	A	F	F
Approach Delay		123.5			107.3			57.3			82.1
Approach LOS		F			F			E			F

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 50 (31%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

Intersection Signal Delay: 100.2

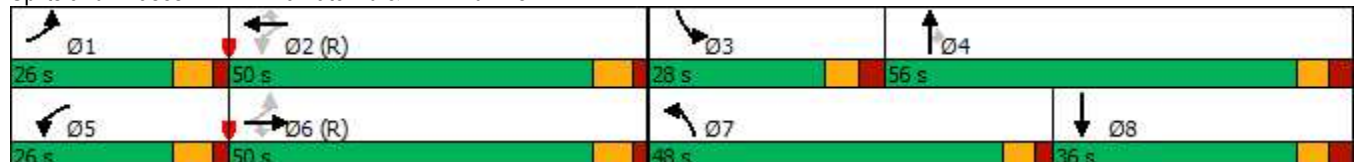
Intersection LOS: F

Intersection Capacity Utilization 107.8%

ICU Level of Service G

Analysis Period (min) 15












Splits and Phases: 7: W Yamato Rd & NW 2nd Ave



Queues
7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 2-1

09/28/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	354	1867	435	140	1581	204	647	542	137	276	745
v/c Ratio	1.37	1.17	0.61	0.74	1.14	0.37	0.86	0.88	0.23	0.76	0.96
Control Delay	224.5	129.6	15.3	58.2	123.7	13.3	72.0	53.4	3.0	83.5	81.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	224.5	129.6	15.3	58.2	123.7	13.3	72.0	53.4	3.0	83.5	81.6
Queue Length 50th (ft)	~434	~841	83	93	~704	33	273	544	3	147	401
Queue Length 95th (ft)	#660	#1016	217	163	#800	106	322	#792	m10	194	#616
Internal Link Dist (ft)		1311			615			322			527
Turn Bay Length (ft)	350		400	415		280	280		200	225	
Base Capacity (vph)	259	1601	719	259	1386	554	901	618	598	450	780
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.37	1.17	0.61	0.54	1.14	0.37	0.72	0.88	0.23	0.61	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

























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

HCM Signalized Intersection Capacity Analysis

7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 2-1
































09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	336	1774	413	133	1502	194	615	515	130	262	572	136
Future Volume (vph)	336	1774	413	133	1502	194	615	515	130	262	572	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	0.97	0.95	0.95
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	5187	1583	1770	5136	1615	3433	1863	1562	3433	3428	3428
Flt Permitted	0.08	1.00	1.00	0.09	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	152	5187	1583	172	5136	1615	3433	1863	1562	3433	3428	3428
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	354	1867	435	140	1581	204	647	542	137	276	602	143
RTOR Reduction (vph)	0	0	230	0	0	118	0	0	80	0	12	0
Lane Group Flow (vph)	354	1867	205	140	1581	86	647	542	57	276	733	0
Confl. Peds. (#/hr)							1		1	1		1
Heavy Vehicles (%)	1%	0%	2%	2%	1%	0%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	NA
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			
Actuated Green, G (s)	68.6	49.4	49.4	56.2	43.2	43.2	35.1	53.1	53.1	16.9	35.9	35.9
Effective Green, g (s)	68.6	49.4	49.4	56.2	43.2	43.2	35.1	53.1	53.1	16.9	35.9	35.9
Actuated g/C Ratio	0.43	0.31	0.31	0.35	0.27	0.27	0.22	0.33	0.33	0.11	0.22	0.22
Clearance Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	2.5	2.5	2.5	1.8	2.5	2.5
Lane Grp Cap (vph)	261	1601	488	190	1386	436	753	618	518	362	769	769
v/s Ratio Prot	c0.16	c0.36		0.06	0.31		c0.19	c0.29		0.08	c0.21	
v/s Ratio Perm	c0.42		0.13	0.20		0.05			0.04			
v/c Ratio	1.36	1.17	0.42	0.74	1.14	0.20	0.86	0.88	0.11	0.76	0.95	0.95
Uniform Delay, d1	51.8	55.3	43.9	41.8	58.4	45.0	60.1	50.4	37.1	69.6	61.2	61.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.02	0.74	0.25	1.00	1.00	1.00
Incremental Delay, d2	183.3	82.0	2.6	12.0	72.5	1.0	8.8	12.2	0.1	8.3	21.5	21.5
Delay (s)	235.1	137.3	46.6	53.8	130.9	46.0	70.0	49.7	9.2	77.9	82.8	82.8
Level of Service	F	F	D	D	F	D	E	D	A	E	F	F
Approach Delay (s)		135.5			116.3			55.4			81.4	
Approach LOS		F			F			E			F	
Intersection Summary												
HCM 2000 Control Delay			106.9				HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.17									
Actuated Cycle Length (s)			160.0				Sum of lost time (s)			27.6		
Intersection Capacity Utilization			107.8%				ICU Level of Service			G		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
7: W Yamato Rd & NW 2nd Ave

2045 PM Build W Mitigation 2-1



























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 			 	 	
Traffic Volume (veh/h)	336	1774	413	133	1502	194	615	515	130	262	572	136
Future Volume (veh/h)	336	1774	413	133	1502	194	615	515	130	262	572	136
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	1885	1900	1870	1870	1885	1900	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	1867	435	140	1581	204	647	542	137	276	602	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	2	2	1	0	2	2	2	2	2	2
Cap, veh/h	263	1907	583	166	1614	505	716	562	476	323	549	130
Arrive On Green	0.12	0.37	0.37	0.07	0.31	0.31	0.21	0.30	0.30	0.09	0.19	0.19
Sat Flow, veh/h	1795	5187	1585	1781	5147	1610	3456	1870	1583	3456	2849	675
Grp Volume(v), veh/h	354	1867	435	140	1581	204	647	542	137	276	375	370
Grp Sat Flow(s),veh/h/ln	1795	1729	1585	1781	1716	1610	1728	1870	1583	1728	1777	1748
Q Serve(g_s), s	19.2	56.9	38.3	8.5	48.7	15.9	29.2	45.7	10.6	12.6	30.8	30.8
Cycle Q Clear(g_c), s	19.2	56.9	38.3	8.5	48.7	15.9	29.2	45.7	10.6	12.6	30.8	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	263	1907	583	166	1614	505	716	562	476	323	343	337
V/C Ratio(X)	1.35	0.98	0.75	0.85	0.98	0.40	0.90	0.96	0.29	0.85	1.09	1.10
Avail Cap(c_a), veh/h	263	1907	583	262	1614	505	907	573	485	454	343	337
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	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	50.0	44.1	41.3	54.4	43.1	61.9	55.1	42.9	71.5	64.6	64.6
Incr Delay (d2), s/veh	179.0	16.2	8.5	6.9	16.6	2.1	9.9	28.5	0.2	8.2	76.4	78.1
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	23.7	26.7	16.4	4.0	23.0	6.7	13.8	25.8	4.2	5.9	21.2	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	231.6	66.2	52.6	48.1	71.0	45.3	71.8	83.6	43.1	79.6	141.0	142.7
LnGrp LOS	F	E	D	D	E	D	E	F	D	E	F	F
Approach Vol, veh/h		2656			1925			1326			1021	
Approach Delay, s/veh		86.0			66.6			73.7			125.0	
Approach LOS		F			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	57.0	21.9	55.1	17.4	65.6	39.2	37.8				
Change Period (Y+Rc), s	6.8	6.8	7.0	7.0	6.8	6.8	6.0	7.0				
Max Green Setting (Gmax), s	19.2	43.2	21.0	49.0	19.2	43.2	42.0	29.0				
Max Q Clear Time (g_c+I1), s	21.2	50.7	14.6	47.7	10.5	58.9	31.2	32.8				
Green Ext Time (p_c), s	0.0	0.0	0.4	0.4	0.1	0.0	1.9	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			84.0									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
8: N Dixie Hwy & W Yamato Rd

2045 PM Build W Mitigation 2-1

09/28/2022

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  	 	 		 	
Traffic Volume (vph)	232	1246	60	1171	422	610	43	521	283
Future Volume (vph)	232	1246	60	1171	422	610	43	521	283
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases									8
Detector Phase	1	6	5	2	7	4	3	8	8
Switch Phase									
Minimum Initial (s)	7.0	18.0	5.0	18.0	7.0	12.0	5.0	12.0	12.0
Minimum Split (s)	13.8	41.8	13.4	41.8	13.4	46.9	11.4	44.9	44.9
Total Split (s)	25.0	60.0	20.0	55.0	33.0	59.0	21.0	47.0	47.0
Total Split (%)	15.6%	37.5%	12.5%	34.4%	20.6%	36.9%	13.1%	29.4%	29.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.5	2.0	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
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.4	6.9	6.4	6.9	6.9
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Min	None	None	None
Act Effct Green (s)	15.5	72.2	9.8	64.0	23.9	47.5	8.4	29.7	29.7
Actuated g/C Ratio	0.10	0.45	0.06	0.40	0.15	0.30	0.05	0.19	0.19
v/c Ratio	0.73	0.73	0.57	0.62	0.87	0.75	0.49	0.83	0.67
Control Delay	83.3	39.4	92.3	41.6	77.9	85.3	90.4	74.2	29.2
Queue Delay	0.0	48.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.3	87.7	92.3	41.6	77.9	85.3	90.4	74.2	29.2
LOS	F	F	F	D	E	F	F	E	C
Approach Delay		87.1		44.0		82.6		60.0	
Approach LOS		F		D		F		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 71 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 70.8

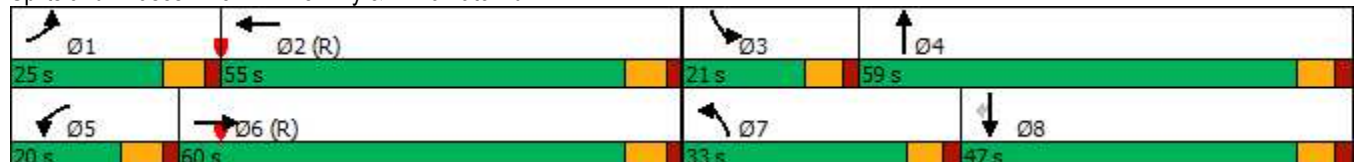
Intersection LOS: E

Intersection Capacity Utilization 84.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: N Dixie Hwy & W Yamato Rd



Queues
8: N Dixie Hwy & W Yamato Rd

2045 PM Build W Mitigation 2-1
09/28/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	244	1652	63	1273	444	782	45	548	298
v/c Ratio	0.73	0.73	0.57	0.62	0.87	0.75	0.49	0.83	0.67
Control Delay	83.3	39.4	92.3	41.6	77.9	85.3	90.4	74.2	29.2
Queue Delay	0.0	48.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.3	87.7	92.3	41.6	77.9	85.3	90.4	74.2	29.2
Queue Length 50th (ft)	130	523	65	393	250	448	47	293	109
Queue Length 95th (ft)	174	667	117	505	m293	m499	90	347	211
Internal Link Dist (ft)		274		904		3055		650	
Turn Bay Length (ft)	338		218		220		185		170
Base Capacity (vph)	397	2268	150	2044	570	1134	161	886	536
Starvation Cap Reductn	0	867	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	1.18	0.42	0.62	0.78	0.69	0.28	0.62	0.56

Intersection Summary






















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

HCM Signalized Intersection Capacity Analysis

8: N Dixie Hwy & W Yamato Rd





















2045 PM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	1246	323	60	1171	38	422	610	133	43	521	283
Future Volume (vph)	232	1246	323	60	1171	38	422	610	133	43	521	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Lane Util. Factor	0.97	0.91		1.00	0.91		0.97	0.95		1.00	0.95	1.00
Frt	1.00	0.97		1.00	1.00		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4977		1805	5110		3433	3450		1770	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4977		1805	5110		3433	3450		1770	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	244	1312	340	63	1233	40	444	642	140	45	548	298
RTOR Reduction (vph)	0	24	0	0	2	0	0	12	0	0	0	150
Lane Group Flow (vph)	244	1628	0	63	1271	0	444	770	0	45	548	148
Heavy Vehicles (%)	2%	1%	1%	0%	1%	2%	2%	2%	1%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												8
Actuated Green, G (s)	15.5	69.5		8.7	62.7		23.9	47.5		7.4	31.0	31.0
Effective Green, g (s)	15.5	69.5		8.7	62.7		23.9	47.5		7.4	31.0	31.0
Actuated g/C Ratio	0.10	0.43		0.05	0.39		0.15	0.30		0.05	0.19	0.19
Clearance Time (s)	6.8	6.8		6.8	6.8		6.4	6.9		6.4	6.9	6.9
Vehicle Extension (s)	1.8	2.0		1.8	2.0		1.8	2.0		1.8	2.0	2.0
Lane Grp Cap (vph)	332	2161		98	2002		512	1024		81	685	306
v/s Ratio Prot	c0.07	c0.33		0.03	0.25		c0.13	c0.22		0.03	0.15	
v/s Ratio Perm												0.09
v/c Ratio	0.73	0.75		0.64	0.63		0.87	0.75		0.56	0.80	0.48
Uniform Delay, d1	70.3	38.0		74.1	39.4		66.5	50.9		74.7	61.5	57.4
Progression Factor	1.00	1.00		1.00	1.00		1.03	1.66		1.00	1.00	1.00
Incremental Delay, d2	7.1	2.5		10.3	1.5		7.2	1.3		4.6	6.3	0.4
Delay (s)	77.3	40.5		84.4	40.9		75.9	85.9		79.3	67.8	57.8
Level of Service	E	D		F	D		E	F		E	E	E
Approach Delay (s)		45.3			43.0			82.3			65.1	
Approach LOS		D			D			F			E	
Intersection Summary												
HCM 2000 Control Delay			56.5			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			26.9			
Intersection Capacity Utilization			84.3%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
8: N Dixie Hwy & W Yamato Rd

2045 PM Build W Mitigation 2-1
09/28/2022





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	1246	323	60	1171	38	422	610	133	43	521	283
Future Volume (veh/h)	232	1246	323	60	1171	38	422	610	133	43	521	283
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	1885	1885	1900	1885	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	244	1312	340	63	1233	40	444	642	140	45	548	298
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	1	2	2	2	1	2	2	2
Cap, veh/h	289	1780	461	80	2036	66	495	923	201	58	737	329
Arrive On Green	0.08	0.44	0.44	0.04	0.40	0.40	0.05	0.10	0.10	0.03	0.21	0.21
Sat Flow, veh/h	3456	4073	1054	1810	5120	166	3456	2902	632	1781	3554	1585
Grp Volume(v), veh/h	244	1105	547	63	826	447	444	393	389	45	548	298
Grp Sat Flow(s),veh/h/ln	1728	1716	1695	1810	1716	1855	1728	1777	1757	1781	1777	1585
Q Serve(g_s), s	11.1	42.8	42.9	5.5	30.6	30.6	20.5	34.1	34.2	4.0	23.1	29.4
Cycle Q Clear(g_c), s	11.1	42.8	42.9	5.5	30.6	30.6	20.5	34.1	34.2	4.0	23.1	29.4
Prop In Lane	1.00		0.62	1.00		0.09	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	289	1499	741	80	1364	738	495	565	559	58	737	329
V/C Ratio(X)	0.84	0.74	0.74	0.79	0.61	0.61	0.90	0.70	0.70	0.77	0.74	0.91
Avail Cap(c_a), veh/h	393	1499	741	149	1364	738	575	579	572	163	891	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.3	37.4	37.4	75.7	38.2	38.2	75.0	64.1	64.2	76.8	59.4	61.9
Incr Delay (d2), s/veh	8.2	3.0	5.9	6.2	2.0	3.7	6.3	1.2	1.2	7.9	2.0	19.6
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	5.2	18.1	18.5	2.7	13.0	14.4	10.0	16.6	16.4	2.0	10.7	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	40.4	43.3	81.9	40.2	41.9	81.3	65.3	65.3	84.7	61.5	81.6
LnGrp LOS	F	D	D	F	D	D	F	E	E	F	E	F
Approach Vol, veh/h	1896			1336			1226			891		
Approach Delay, s/veh	46.4			42.8			71.1			69.4		
Approach LOS	D			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.2	70.4	11.6	57.8	13.9	76.7	29.3	40.1				
Change Period (Y+Rc), s	6.8	6.8	6.4	6.9	6.8	6.8	6.4	6.9				
Max Green Setting (Gmax), s	18.2	48.2	14.6	52.1	13.2	53.2	26.6	40.1				
Max Q Clear Time (g_c+I1), s	13.1	32.6	6.0	36.2	7.5	44.9	22.5	31.4				
Green Ext Time (p_c), s	0.2	3.0	0.0	1.6	0.0	3.3	0.5	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	55.0											
HCM 6th LOS	D											

Timings

9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

2045 PM Build W Mitigation 2-1

09/28/2022

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	361	505	524	13	672	382	501	64	360	204
Future Volume (vph)	361	505	524	13	672	382	501	64	360	204
Turn Type	Split	NA	pm+ov	Split	NA	Prot	NA	pm+pt	NA	Perm
Protected Phases	4	4	5	8	8	5	2	1	6	
Permitted Phases			4					6		6
Detector Phase	4	4	5	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	12.0	12.0	5.0	12.0	12.0	5.0	18.0	5.0	18.0	18.0
Minimum Split (s)	24.5	24.5	12.0	24.5	24.5	12.0	25.0	9.5	25.0	25.0
Total Split (s)	25.2	25.2	25.0	24.5	24.5	25.0	39.3	11.0	25.3	25.3
Total Split (%)	25.2%	25.2%	25.0%	24.5%	24.5%	25.0%	39.3%	11.0%	25.3%	25.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	2.5	2.5	3.0	3.0	1.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	6.5	6.5	7.0	7.0	4.5	7.0	7.0
Lead/Lag			Lead			Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min	C-Min
Act Effct Green (s)	18.0	18.0	34.2	18.7	18.7	16.6	34.5	28.5	19.7	19.7
Actuated g/C Ratio	0.18	0.18	0.34	0.19	0.19	0.17	0.34	0.28	0.20	0.20
v/c Ratio	0.61	0.82	0.62	0.04	1.35	0.70	0.48	0.23	1.02	0.43
Control Delay	42.2	51.3	4.6	34.5	199.0	46.2	27.4	19.2	95.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	51.3	4.6	34.5	199.0	46.2	27.4	19.2	95.3	6.4
LOS	D	D	A	C	F	D	C	B	F	A
Approach Delay		31.3			196.5		35.0		58.6	
Approach LOS		C			F		C		E	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.35

Intersection Signal Delay: 74.3

Intersection LOS: E

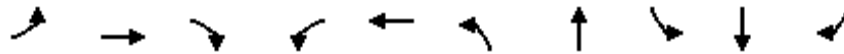
Intersection Capacity Utilization 87.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 9: NW 2nd Ave & Clint Moore Rd/Jeffery Street





Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	376	526	546	14	898	398	590	67	375	213
v/c Ratio	0.61	0.82	0.62	0.04	1.35	0.70	0.48	0.23	1.02	0.43
Control Delay	42.2	51.3	4.6	34.5	199.0	46.2	27.4	19.2	95.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	51.3	4.6	34.5	199.0	46.2	27.4	19.2	95.3	6.4
Queue Length 50th (ft)	113	170	4	7	~398	122	155	23	~273	0
Queue Length 95th (ft)	161	#243	36	25	#525	172	209	48	#452	48
Internal Link Dist (ft)		296			594		390		238	
Turn Bay Length (ft)	360		270	180		360		155		200
Base Capacity (vph)	641	661	901	336	667	617	1220	297	366	500
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.80	0.61	0.04	1.35	0.65	0.48	0.23	1.02	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: NW 2nd Ave & Clint Moore Rd/Jeffery Street























2045 PM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	505	524	13	672	190	382	501	65	64	360	204
Future Volume (vph)	361	505	524	13	672	190	382	501	65	64	360	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	7.0	6.5	6.5		7.0	7.0		4.5	7.0	7.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		0.97	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1805	3437		3433	3507		1801	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.43	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1805	3437		3433	3507		814	1863	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	376	526	546	14	700	198	398	522	68	67	375	212
RTOR Reduction (vph)	0	0	344	0	26	0	0	10	0	0	0	171
Lane Group Flow (vph)	376	526	202	14	872	0	398	580	0	67	375	42
Confl. Peds. (#/hr)									7	7		
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	1%	0%	0%	2%	2%
Turn Type	Split	NA	pm+ov	Split	NA		Prot	NA		pm+pt	NA	Perm
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4							6		6
Actuated Green, G (s)	18.0	18.0	34.6	18.7	18.7		16.6	33.6		24.9	19.7	19.7
Effective Green, g (s)	18.0	18.0	34.6	18.7	18.7		16.6	33.6		24.9	19.7	19.7
Actuated g/C Ratio	0.18	0.18	0.35	0.19	0.19		0.17	0.34		0.25	0.20	0.20
Clearance Time (s)	6.5	6.5	7.0	6.5	6.5		7.0	7.0		4.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	617	637	547	337	642		569	1178		254	367	311
v/s Ratio Prot	0.11	c0.15	0.06	0.01	c0.25		c0.12	0.17		0.01	c0.20	
v/s Ratio Perm			0.07							0.05		0.03
v/c Ratio	0.61	0.83	0.37	0.04	1.36		0.70	0.49		0.26	1.02	0.13
Uniform Delay, d1	37.8	39.5	24.5	33.3	40.6		39.3	26.4		29.3	40.1	33.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	8.6	0.4	0.1	171.2		3.8	1.5		0.6	52.6	0.9
Delay (s)	39.5	48.1	24.9	33.4	211.9		43.1	27.9		29.8	92.8	34.0
Level of Service	D	D	C	C	F		D	C		C	F	C
Approach Delay (s)		37.1			209.1			34.0			67.2	
Approach LOS		D			F			C			E	
Intersection Summary												
HCM 2000 Control Delay			80.5			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			27.0			
Intersection Capacity Utilization			87.3%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

























HCM 6th Signalized Intersection Summary
9: NW 2nd Ave & Clint Moore Rd/Jeffery Street

2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	505	524	13	672	190	382	501	65	64	360	204
Future Volume (veh/h)	361	505	524	13	672	190	382	501	65	64	360	204
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		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	1900	1870	1900	1870	1885	1900	1900	1870	1870
Adj Flow Rate, veh/h	376	526	546	14	700	198	398	522	68	67	375	212
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	0	2	0	2	1	0	0	2	2
Cap, veh/h	646	665	518	326	492	139	484	1101	143	330	417	350
Arrive On Green	0.19	0.19	0.19	0.18	0.18	0.18	0.14	0.35	0.35	0.04	0.22	0.22
Sat Flow, veh/h	3456	3554	1585	1810	2735	773	3456	3185	413	1810	1870	1570
Grp Volume(v), veh/h	376	526	546	14	455	443	398	293	297	67	375	212
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1810	1777	1731	1728	1791	1808	1810	1870	1570
Q Serve(g_s), s	9.9	14.1	18.7	0.6	18.0	18.0	11.2	12.8	12.9	2.8	19.5	12.1
Cycle Q Clear(g_c), s	9.9	14.1	18.7	0.6	18.0	18.0	11.2	12.8	12.9	2.8	19.5	12.1
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	646	665	518	326	320	312	484	619	625	330	417	350
V/C Ratio(X)	0.58	0.79	1.05	0.04	1.42	1.42	0.82	0.47	0.48	0.20	0.90	0.61
Avail Cap(c_a), veh/h	646	665	518	326	320	312	622	619	625	371	417	350
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	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	38.8	33.7	33.9	41.0	41.0	41.8	25.6	25.6	28.0	37.8	34.9
Incr Delay (d2), s/veh	1.3	6.5	54.4	0.1	206.7	207.4	6.9	2.6	2.6	0.3	24.8	7.6
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	4.3	6.7	19.8	0.3	26.0	25.4	5.1	5.7	5.8	1.2	11.5	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	45.3	88.0	33.9	247.7	248.4	48.7	28.2	28.2	28.3	62.6	42.5
LnGrp LOS	D	D	F	C	F	F	D	C	C	C	E	D
Approach Vol, veh/h		1448			912			988			654	
Approach Delay, s/veh		59.6			244.8			36.4			52.6	
Approach LOS		E			F			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	41.6		25.2	21.0	29.3		24.5				
Change Period (Y+Rc), s	4.5	7.0		6.5	7.0	7.0		6.5				
Max Green Setting (Gmax), s	6.5	32.3		18.7	18.0	18.3		18.0				
Max Q Clear Time (g_c+I1), s	4.8	14.9		20.7	13.2	21.5		20.0				
Green Ext Time (p_c), s	0.0	2.2		0.0	0.8	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				94.9								
HCM 6th LOS				F								

Timings
10: Congress Ave & Clint Moore Rd

2045 PM Build W Mitigation 2-1
09/28/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	977	836	347	75	789	537	375	1542	31	327	702	895
Future Volume (vph)	977	836	347	75	789	537	375	1542	31	327	702	895
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	18.0	18.0	7.0	18.0	18.0
Minimum Split (s)	14.8	49.8	49.8	14.8	48.8	48.8	14.8	49.8	49.8	22.5	50.8	50.8
Total Split (s)	55.0	72.0	72.0	20.0	37.0	37.0	32.0	60.0	60.0	28.0	56.0	56.0
Total Split (%)	30.6%	40.0%	40.0%	11.1%	20.6%	20.6%	17.8%	33.3%	33.3%	15.6%	31.1%	31.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	47.2	67.7	67.7	8.7	29.2	29.2	23.5	52.4	52.4	20.0	48.9	48.9
Actuated g/C Ratio	0.26	0.38	0.38	0.05	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
v/c Ratio	1.21	0.48	0.48	0.49	1.51	1.39	0.92	1.15	0.06	0.94	0.55	1.25
Control Delay	157.2	44.0	9.5	93.3	285.1	220.9	103.0	129.1	0.2	111.5	58.1	147.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.2	44.0	9.5	93.3	285.1	220.9	103.0	129.1	0.2	111.5	58.1	147.2
LOS	F	D	A	F	F	F	F	F	A	F	E	F
Approach Delay		89.7			250.3			122.0			108.6	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 88 (49%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 133.3

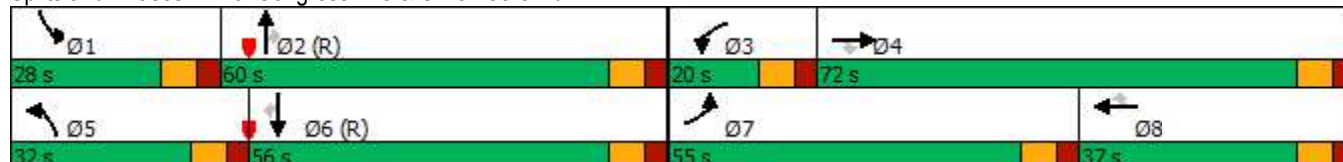
Intersection LOS: F

Intersection Capacity Utilization 120.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Congress Ave & Clint Moore Rd



Queues

2045 PM Build W Mitigation 2-1

10: Congress Ave & Clint Moore Rd

09/28/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1074	919	381	82	867	590	412	1695	34	359	771	984
v/c Ratio	1.21	0.48	0.48	0.49	1.51	1.39	0.92	1.15	0.06	0.94	0.55	1.25
Control Delay	157.2	44.0	9.5	93.3	285.1	220.9	103.0	129.1	0.2	111.5	58.1	147.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.2	44.0	9.5	93.3	285.1	220.9	103.0	129.1	0.2	111.5	58.1	147.2
Queue Length 50th (ft)	~791	302	47	50	~746	~711	251	~857	0	220	290	~1005
Queue Length 95th (ft)	#930	356	145	81	#886	#963	#345	#950	0	#321	338	#1276
Internal Link Dist (ft)		2199			619			1029			883	
Turn Bay Length (ft)	555		254	200		250	307		330	200		250
Base Capacity (vph)	891	1911	800	232	574	425	461	1480	575	385	1394	789
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.48	0.48	0.35	1.51	1.39	0.89	1.15	0.06	0.93	0.55	1.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.




































Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

10: Congress Ave & Clint Moore Rd

2045 PM Build W Mitigation 2-1

























09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	  	
Traffic Volume (vph)	977	836	347	75	789	537	375	1542	31	327	702	895
Future Volume (vph)	977	836	347	75	789	537	375	1542	31	327	702	895
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Lane Util. Factor	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	5085	1599	3433	3539	1562	3433	5085	1560	3433	5136	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	5085	1599	3433	3539	1562	3433	5085	1560	3433	5136	1599
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1074	919	381	82	867	590	412	1695	34	359	771	984
RTOR Reduction (vph)	0	0	200	0	0	173	0	0	24	0	0	355
Lane Group Flow (vph)	1074	919	181	82	867	417	412	1695	10	359	771	629
Confl. Peds. (#/hr)	1					1			2	2		
Heavy Vehicles (%)	3%	2%	1%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	47.2	67.7	67.7	8.7	29.2	29.2	23.5	52.4	52.4	20.0	48.9	48.9
Effective Green, g (s)	47.2	67.7	67.7	8.7	29.2	29.2	23.5	52.4	52.4	20.0	48.9	48.9
Actuated g/C Ratio	0.26	0.38	0.38	0.05	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
Clearance Time (s)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Vehicle Extension (s)	1.8	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	891	1912	601	165	574	253	448	1480	454	381	1395	434
v/s Ratio Prot	c0.32	0.18		0.02	0.24		c0.12	c0.33		0.10	0.15	
v/s Ratio Perm			0.11			c0.27			0.01			c0.39
v/c Ratio	1.21	0.48	0.30	0.50	1.51	1.65	0.92	1.15	0.02	0.94	0.55	1.45
Uniform Delay, d1	66.4	42.8	39.5	83.5	75.4	75.4	77.3	63.8	45.5	79.4	56.2	65.5
Progression 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
Incremental Delay, d2	103.1	0.1	0.1	0.9	238.6	309.5	23.4	73.9	0.1	31.2	1.6	214.4
Delay (s)	169.5	42.8	39.6	84.4	314.0	384.9	100.7	137.7	45.6	110.7	57.8	279.9
Level of Service	F	D	D	F	F	F	F	F	D	F	E	F
Approach Delay (s)		99.6			329.0			129.1			170.1	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM 2000 Control Delay	168.8			HCM 2000 Level of Service					F			
HCM 2000 Volume to Capacity ratio	1.33											
Actuated Cycle Length (s)	180.0			Sum of lost time (s)					31.2			
Intersection Capacity Utilization	120.4%			ICU Level of Service					H			
Analysis Period (min)	15											
c Critical Lane Group												

HCM 6th Signalized Intersection Summary























10: Congress Ave & Clint Moore Rd

2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	977	836	347	75	789	537	375	1542	31	327	702	895
Future Volume (veh/h)	977	836	347	75	789	537	375	1542	31	327	702	895
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	1870	1885	1870	1870	1870	1870	1870	1870	1870	1885	1885
Adj Flow Rate, veh/h	1074	919	381	82	867	590	412	1695	34	359	771	984
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	1	2	2	2	2	2	2	2	1	1
Cap, veh/h	899	1972	617	132	576	257	448	1481	459	388	1403	435
Arrive On Green	0.26	0.39	0.39	0.04	0.16	0.16	0.13	0.29	0.29	0.11	0.27	0.27
Sat Flow, veh/h	3428	5106	1596	3456	3554	1582	3456	5106	1582	3456	5147	1594
Grp Volume(v), veh/h	1074	919	381	82	867	590	412	1695	34	359	771	984
Grp Sat Flow(s),veh/h/ln	1714	1702	1596	1728	1777	1582	1728	1702	1582	1728	1716	1594
Q Serve(g_s), s	47.2	24.2	34.6	4.2	29.2	29.2	21.2	52.2	2.8	18.5	23.1	49.1
Cycle Q Clear(g_c), s	47.2	24.2	34.6	4.2	29.2	29.2	21.2	52.2	2.8	18.5	23.1	49.1
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	899	1972	617	132	576	257	448	1481	459	388	1403	435
V/C Ratio(X)	1.19	0.47	0.62	0.62	1.50	2.30	0.92	1.14	0.07	0.93	0.55	2.26
Avail Cap(c_a), veh/h	899	1972	617	234	576	257	465	1481	459	388	1403	435
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	66.4	41.3	44.5	85.3	75.4	75.4	77.4	63.9	46.4	79.2	56.0	65.5
Incr Delay (d2), s/veh	98.5	0.1	1.4	1.8	235.7	596.6	22.5	73.6	0.3	27.4	1.6	576.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.7	10.2	13.9	1.9	32.1	54.3	10.7	32.3	1.2	9.7	10.1	89.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	164.9	41.4	45.9	87.0	311.1	672.0	99.9	137.5	46.7	106.6	57.6	641.8
LnGrp LOS	F	D	D	F	F	F	F	F	D	F	E	F
Approach Vol, veh/h		2374			1539			2141			2114	
Approach Delay, s/veh		98.0			437.5			128.8			337.8	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	60.0	14.7	77.3	31.1	56.9	55.0	37.0				
Change Period (Y+Rc), s	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8				
Max Green Setting (Gmax), s	20.2	52.2	12.2	64.2	24.2	48.2	47.2	29.2				
Max Q Clear Time (g_c+I1), s	20.5	54.2	6.2	36.6	23.2	51.1	49.2	31.2				
Green Ext Time (p_c), s	0.0	0.0	0.1	3.8	0.1	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			232.1									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
11: N Federal Hwy & Jeffery St

2045 PM Build W Mitigation 2-1
09/28/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	65	752	120	44	51	198	1705	141	68	1293	272
Future Volume (vph)	65	752	120	44	51	198	1705	141	68	1293	272
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	5.0	18.0	18.0	5.0	18.0	18.0
Minimum Split (s)	40.9	40.9	38.9	38.9	38.9	11.8	38.8	38.8	11.8	28.8	28.8
Total Split (s)	60.0	60.0	60.0	60.0	60.0	19.4	73.2	73.2	11.8	65.6	65.6
Total Split (%)	41.4%	41.4%	41.4%	41.4%	41.4%	13.4%	50.5%	50.5%	8.1%	45.2%	45.2%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	4.5	4.5	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.9	7.9	7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	52.1	52.1	52.1	52.1	52.1	78.2	66.4	66.4	63.8	58.8	58.8
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.54	0.46	0.46	0.44	0.41	0.41
v/c Ratio	0.14	0.69	1.19	0.07	0.08	1.04	1.15	0.20	0.66	0.98	0.41
Control Delay	32.5	42.8	185.8	31.0	0.3	111.8	109.8	10.9	47.9	61.8	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	42.8	185.8	31.0	0.3	111.8	109.8	10.9	47.9	61.8	17.6
LOS	C	D	F	C	A	F	F	B	D	E	B
Approach Delay		42.0		110.3			103.1			53.9	
Approach LOS		D		F			F			D	

Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay: 75.4

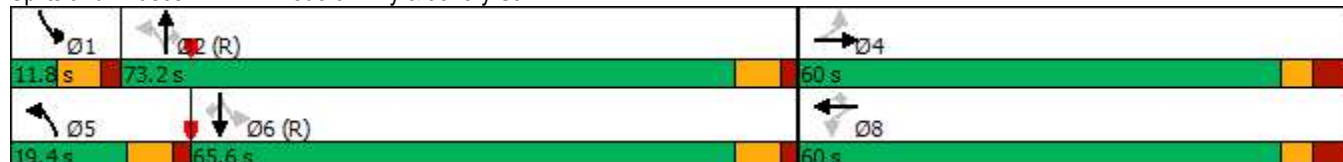
Intersection LOS: E

Intersection Capacity Utilization 108.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 11: N Federal Hwy & Jeffery St



Queues

2045 PM Build W Mitigation 2-1

11: N Federal Hwy & Jeffery St

09/28/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	891	132	48	56	218	1874	155	75	1421	299
v/c Ratio	0.14	0.69	1.19	0.07	0.08	1.04	1.15	0.20	0.66	0.98	0.41
Control Delay	32.5	42.8	185.8	31.0	0.3	111.8	109.8	10.9	47.9	61.8	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	42.8	185.8	31.0	0.3	111.8	109.8	10.9	47.9	61.8	17.6
Queue Length 50th (ft)	45	374	~149	30	0	~169	~1088	35	33	691	103
Queue Length 95th (ft)	84	452	#288	60	0	#342	#1224	80	#92	#858	184
Internal Link Dist (ft)		966		480			527			589	
Turn Bay Length (ft)	186		220		230	225		170	250		145
Base Capacity (vph)	495	1286	111	682	664	209	1636	772	114	1449	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.69	1.19	0.07	0.08	1.04	1.15	0.20	0.66	0.98	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
























Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

11: N Federal Hwy & Jeffery St
























2045 PM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	752	59	120	44	51	198	1705	141	68	1293	272
Future Volume (vph)	65	752	59	120	44	51	198	1705	141	68	1293	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3570		1770	1900	1615	1805	3574	1583	1805	3574	1592
Flt Permitted	0.73	1.00		0.17	1.00	1.00	0.06	1.00	1.00	0.07	1.00	1.00
Satd. Flow (perm)	1379	3570		311	1900	1615	116	3574	1583	129	3574	1592
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	71	826	65	132	48	56	218	1874	155	75	1421	299
RTOR Reduction (vph)	0	4	0	0	0	36	0	0	48	0	0	83
Lane Group Flow (vph)	71	887	0	132	48	20	218	1874	107	75	1421	216
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	1%	2%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	52.1	52.1		52.1	52.1	52.1	78.2	66.4	66.4	63.8	58.8	58.8
Effective Green, g (s)	52.1	52.1		52.1	52.1	52.1	78.2	66.4	66.4	63.8	58.8	58.8
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36	0.54	0.46	0.46	0.44	0.41	0.41
Clearance Time (s)	7.9	7.9		7.9	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.8	2.0	2.0	1.8	2.0	2.0
Lane Grp Cap (vph)	495	1282		111	682	580	209	1636	724	114	1449	645
v/s Ratio Prot		0.25			0.03		c0.09	c0.52		0.02	0.40	
v/s Ratio Perm	0.05			c0.42		0.01	0.47		0.07	0.26		0.14
v/c Ratio	0.14	0.69		1.19	0.07	0.03	1.04	1.15	0.15	0.66	0.98	0.34
Uniform Delay, d1	31.4	39.6		46.5	30.5	30.1	47.3	39.3	22.9	34.5	42.5	29.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	3.1		145.0	0.2	0.1	74.0	73.2	0.4	26.0	19.5	1.4
Delay (s)	32.0	42.7		191.4	30.7	30.2	121.3	112.5	23.3	60.5	62.0	31.1
Level of Service	C	D		F	C	C	F	F	C	E	E	C
Approach Delay (s)		41.9			120.5			107.2			56.8	
Approach LOS		D			F			F			E	
Intersection Summary												
HCM 2000 Control Delay			78.5				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			1.19									
Actuated Cycle Length (s)			145.0				Sum of lost time (s)			21.5		
Intersection Capacity Utilization			108.5%				ICU Level of Service			G		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary 11: N Federal Hwy & Jeffery St

2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	752	59	120	44	51	198	1705	141	68	1293	272
Future Volume (veh/h)	65	752	59	120	44	51	198	1705	141	68	1293	272
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	1900	1900	1900	1870	1900	1900	1900	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	71	826	65	132	48	56	218	1874	155	75	1421	299
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	2	0	0	0	1	2	0	1	0
Cap, veh/h	499	1218	96	145	683	579	211	1640	725	112	1452	652
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.09	0.46	0.46	0.03	0.41	0.41
Sat Flow, veh/h	1311	3390	267	624	1900	1610	1810	3582	1584	1810	3582	1609
Grp Volume(v), veh/h	71	440	451	132	48	56	218	1874	155	75	1421	299
Grp Sat Flow(s),veh/h/ln	1311	1805	1852	624	1900	1610	1810	1791	1584	1810	1791	1609
Q Serve(g_s), s	5.5	29.9	29.9	22.2	2.4	3.3	12.6	66.4	8.5	3.5	56.7	19.7
Cycle Q Clear(g_c), s	7.9	29.9	29.9	52.1	2.4	3.3	12.6	66.4	8.5	3.5	56.7	19.7
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	499	649	665	145	683	579	211	1640	725	112	1452	652
V/C Ratio(X)	0.14	0.68	0.68	0.91	0.07	0.10	1.03	1.14	0.21	0.67	0.98	0.46
Avail Cap(c_a), veh/h	499	649	665	145	683	579	211	1640	725	112	1452	652
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)	0.47	0.47	0.47	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	39.3	39.3	64.5	30.5	30.8	46.3	39.3	23.6	35.6	42.5	31.5
Incr Delay (d2), s/veh	0.3	2.7	2.6	53.8	0.2	0.3	70.8	72.0	0.7	27.5	19.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	13.9	14.3	7.1	1.2	1.4	11.8	44.0	3.3	2.3	27.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	42.0	42.0	118.3	30.7	31.2	117.1	111.3	24.3	63.1	61.5	33.8
LnGrp LOS	C	D	D	F	C	C	F	F	C	E	E	C
Approach Vol, veh/h		962			236			2247			1795	
Approach Delay, s/veh		41.4			79.8			105.8			56.9	
Approach LOS		D			E			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	73.2		60.0	19.4	65.6		60.0				
Change Period (Y+Rc), s	6.8	6.8		7.9	6.8	6.8		7.9				
Max Green Setting (Gmax), s	5.0	66.4		52.1	12.6	58.8		52.1				
Max Q Clear Time (g_c+I1), s	5.5	68.4		31.9	14.6	58.7		54.1				
Green Ext Time (p_c), s	0.0	0.0		2.4	0.0	0.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				76.1								
HCM 6th LOS				E								
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
12: N Dixie Hwy & Hidden Valley Blvd

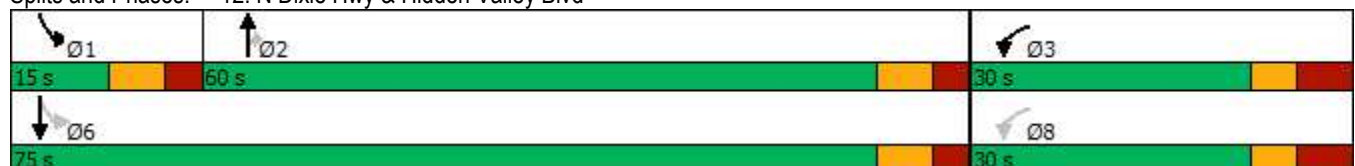
2045 PM Build W Mitigation 2-1
09/28/2022

	↖	↑	↗	↘	↓	
Lane Group	WBL	NBT	NBR	SBL	SBT	Ø8
Lane Configurations	↖	↑	↗	↘	↑	
Traffic Volume (vph)	216	705	135	118	644	
Future Volume (vph)	216	705	135	118	644	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	2		1	6	8
Permitted Phases	8		2	6		
Detector Phase	3	2	2	1	6	
Switch Phase						
Minimum Initial (s)	5.0	18.0	18.0	5.0	18.0	12.0
Minimum Split (s)	13.2	38.4	38.4	13.8	26.8	26.2
Total Split (s)	30.0	60.0	60.0	15.0	75.0	30.0
Total Split (%)	28.6%	57.1%	57.1%	14.3%	71.4%	29%
Yellow Time (s)	3.7	4.4	4.4	4.4	4.4	3.7
All-Red Time (s)	4.5	3.0	3.0	3.0	3.0	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.2	7.4	7.4	7.4	7.4	
Lead/Lag		Lag	Lag	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode	None	Min	Min	None	Min	None
Act Effect Green (s)	22.1	43.2	43.2	57.5	57.5	
Actuated g/C Ratio	0.23	0.45	0.45	0.60	0.60	
v/c Ratio	1.25	0.93	0.18	0.64	0.64	
Control Delay	158.9	42.5	2.9	27.4	14.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	158.9	42.5	2.9	27.4	14.8	
LOS	F	D	A	C	B	
Approach Delay	158.9	36.2			16.8	
Approach LOS	F	D			B	

Intersection Summary

Cycle Length: 105
 Actuated Cycle Length: 95.3
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.25
 Intersection Signal Delay: 57.8
 Intersection LOS: E
 Intersection Capacity Utilization 91.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 12: N Dixie Hwy & Hidden Valley Blvd



Queues

2045 PM Build W Mitigation 2-1

09/28/2022

12: N Dixie Hwy & Hidden Valley Blvd



Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	543	783	150	131	716
v/c Ratio	1.25	0.93	0.18	0.64	0.64
Control Delay	158.9	42.5	2.9	27.4	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	158.9	42.5	2.9	27.4	14.8
Queue Length 50th (ft)	~411	432	0	31	254
Queue Length 95th (ft)	#666	#642	31	#88	361
Internal Link Dist (ft)	597	5728			435
Turn Bay Length (ft)	140		295	290	
Base Capacity (vph)	436	1040	968	222	1337
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.25	0.75	0.15	0.59	0.54


Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

12: N Dixie Hwy & Hidden Valley Blvd

2045 PM Build W Mitigation 2-1
09/28/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	T	T	T
Traffic Volume (vph)	216	273	705	135	118	644
Future Volume (vph)	216	273	705	135	118	644
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.2		7.4	7.4	7.4	7.4
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	0.85	1.00	1.00
Flt Protected	0.98		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1704		1863	1615	1787	1863
Flt Permitted	0.98		1.00	1.00	0.08	1.00
Satd. Flow (perm)	1704		1863	1615	148	1863
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	240	303	783	150	131	716
RTOR Reduction (vph)	42	0	0	82	0	0
Lane Group Flow (vph)	501	0	783	68	131	716
Confl. Peds. (#/hr)	2					
Heavy Vehicles (%)	2%	0%	2%	0%	1%	2%
Turn Type	pm+pt		NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases	8			2	6	
Actuated Green, G (s)	22.1		43.3	43.3	57.5	57.5
Effective Green, g (s)	22.1		43.3	43.3	57.5	57.5
Actuated g/C Ratio	0.23		0.45	0.45	0.60	0.60
Clearance Time (s)	8.2		7.4	7.4	7.4	7.4
Vehicle Extension (s)	1.8		2.0	2.0	1.8	2.0
Lane Grp Cap (vph)	395		847	734	206	1125
v/s Ratio Prot	c0.29		c0.42		0.05	c0.38
v/s Ratio Perm				0.04	0.34	
v/c Ratio	1.27		0.92	0.09	0.64	0.64
Uniform Delay, d1	36.5		24.4	14.8	18.4	12.1
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	139.2		15.3	0.0	4.7	0.9
Delay (s)	175.7		39.7	14.8	23.0	13.0
Level of Service	F		D	B	C	B
Approach Delay (s)	175.7		35.7			14.6
Approach LOS	F		D			B
Intersection Summary						
HCM 2000 Control Delay			60.7		HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			1.04			
Actuated Cycle Length (s)			95.2		Sum of lost time (s)	23.0
Intersection Capacity Utilization			91.5%		ICU Level of Service	F
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

12: N Dixie Hwy & Hidden Valley Blvd

2045 PM Build W Mitigation 2-1
09/28/2022

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Volume (veh/h)	216	273	705	135	118	644
Future Volume (veh/h)	216	273	705	135	118	644
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1900	1870	1900	1885	1870
Adj Flow Rate, veh/h	240	303	783	150	131	716
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	0	2	0	1	2
Cap, veh/h	177	224	833	717	211	1094
Arrive On Green	0.24	0.24	0.45	0.45	0.06	0.58
Sat Flow, veh/h	733	926	1870	1610	1795	1870
Grp Volume(v), veh/h	544	0	783	150	131	716
Grp Sat Flow(s),veh/h/ln	1662	0	1870	1610	1795	1870
Q Serve(g_s), s	21.8	0.0	36.0	5.1	3.4	23.2
Cycle Q Clear(g_c), s	21.8	0.0	36.0	5.1	3.4	23.2
Prop In Lane	0.44	0.56		1.00	1.00	
Lane Grp Cap(c), veh/h	402	0	833	717	211	1094
V/C Ratio(X)	1.35	0.00	0.94	0.21	0.62	0.65
Avail Cap(c_a), veh/h	402	0	1092	940	259	1403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	0.0	23.9	15.3	20.4	12.6
Incr Delay (d2), s/veh	174.3	0.0	11.5	0.1	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.0	0.0	16.9	1.8	1.3	8.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	208.5	0.0	35.3	15.4	21.6	12.9
LnGrp LOS	F	A	D	B	C	B
Approach Vol, veh/h	544		933			847
Approach Delay, s/veh	208.5		32.1			14.2
Approach LOS	F		C			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.6	47.5			60.1	30.0
Change Period (Y+Rc), s	7.4	7.4			7.4	8.2
Max Green Setting (Gmax), s	7.6	52.6			67.6	21.8
Max Q Clear Time (g_c+I1), s	5.4	38.0			25.2	23.8
Green Ext Time (p_c), s	0.0	2.1			1.7	0.0
Intersection Summary						
HCM 6th Ctrl Delay			66.9			
HCM 6th LOS			E			

Notes

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

Timings
13: N Dixie Hwy & Jeffery St

2045 PM Build W Mitigation 2-1
09/28/2022

	→	←	↖	↑	↘	↓	↙
Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔	↖	↗	↖	↗	↗
Traffic Volume (vph)	285	379	132	786	14	439	367
Future Volume (vph)	285	379	132	786	14	439	367
Turn Type	NA	NA	Prot	NA	Prot	NA	Perm
Protected Phases	4	8	5	2	1	6	
Permitted Phases							6
Detector Phase	4	8	5	2	1	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	15.4	35.5	9.5	29.6	29.6
Total Split (%)	25.0%	25.0%	17.1%	39.4%	10.6%	32.9%	32.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.2	15.9	10.6	39.6	5.5	28.3	28.3
Actuated g/C Ratio	0.19	0.18	0.12	0.44	0.06	0.31	0.31
v/c Ratio	0.84	0.72	0.69	1.16	0.15	0.86	0.55
Control Delay	44.5	41.5	56.0	111.0	43.5	47.6	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	41.5	56.0	111.0	43.5	47.6	8.5
LOS	D	D	E	F	D	D	A
Approach Delay	44.5	41.5		103.8		30.7	
Approach LOS	D	D		F		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 61.2

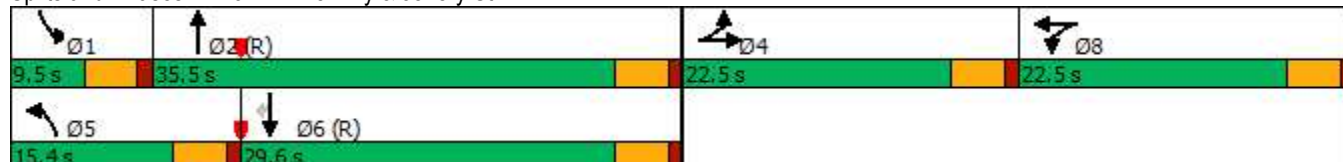
Intersection LOS: E

Intersection Capacity Utilization 89.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 13: N Dixie Hwy & Jeffery St



Queues
13: N Dixie Hwy & Jeffery St

2045 PM Build W Mitigation 2-1
09/28/2022



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	571	448	143	951	16	510	399
v/c Ratio	0.84	0.72	0.69	1.16	0.15	0.86	0.55
Control Delay	44.5	41.5	56.0	111.0	43.5	47.6	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	41.5	56.0	111.0	43.5	47.6	8.5
Queue Length 50th (ft)	152	125	77	~616	9	286	26
Queue Length 95th (ft)	#230	174	#159	#934	28	#453	109
Internal Link Dist (ft)	468	966		1902		5728	
Turn Bay Length (ft)			150		150		170
Base Capacity (vph)	710	706	220	823	109	591	729
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.63	0.65	1.16	0.15	0.86	0.55

Intersection Summary




















- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

13: N Dixie Hwy & Jeffery St


2045 PM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	285	130	21	379	10	132	786	32	14	439	367
Future Volume (vph)	110	285	130	21	379	10	132	786	32	14	439	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.96			1.00		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3373			3521		1770	1870		1805	1881	1583
Flt Permitted		0.99			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3373			3521		1770	1870		1805	1881	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.92	0.86	0.92	0.86	0.86	0.86	0.86	0.92
Adj. Flow (vph)	120	310	141	24	412	12	143	914	37	16	510	399
RTOR Reduction (vph)	0	36	0	0	2	0	0	1	0	0	0	232
Lane Group Flow (vph)	0	535	0	0	446	0	143	950	0	16	510	167
Confl. Peds. (#/hr)									4	4		
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	1%	0%	0%	1%	2%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		17.2			15.9		10.6	36.9		2.0	28.3	28.3
Effective Green, g (s)		17.2			15.9		10.6	36.9		2.0	28.3	28.3
Actuated g/C Ratio		0.19			0.18		0.12	0.41		0.02	0.31	0.31
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		644			622		208	766		40	591	497
v/s Ratio Prot		c0.16			c0.13		c0.08	c0.51		0.01	0.27	
v/s Ratio Perm												0.11
v/c Ratio		0.83			0.72		0.69	1.24		0.40	0.86	0.34
Uniform Delay, d1		35.0			34.9		38.1	26.6		43.4	29.0	23.7
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		9.0			3.9		9.1	119.0		6.4	15.4	1.8
Delay (s)		44.0			38.9		47.2	145.6		49.9	44.4	25.5
Level of Service		D			D		D	F		D	D	C
Approach Delay (s)		44.0			38.9			132.7			36.3	
Approach LOS		D			D			F			D	
Intersection Summary												
HCM 2000 Control Delay			72.8			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			1.03									
Actuated Cycle Length (s)			90.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			89.1%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
13: N Dixie Hwy & Jeffery St

2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	↔
Traffic Volume (veh/h)	110	285	130	21	379	10	132	786	32	14	439	367
Future Volume (veh/h)	110	285	130	21	379	10	132	786	32	14	439	367
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	1900	1870	1900	1870	1885	1900	1900	1885	1870
Adj Flow Rate, veh/h	120	310	141	24	412	12	143	914	37	16	510	399
Peak Hour Factor	0.92	0.92	0.92	0.86	0.92	0.86	0.92	0.86	0.86	0.86	0.86	0.92
Percent Heavy Veh, %	2	2	2	0	2	0	2	1	0	0	1	2
Cap, veh/h	136	363	173	29	526	16	176	788	32	33	674	565
Arrive On Green	0.19	0.19	0.19	0.15	0.15	0.15	0.10	0.44	0.44	0.02	0.36	0.36
Sat Flow, veh/h	716	1912	913	190	3418	104	1781	1799	73	1810	1885	1580
Grp Volume(v), veh/h	308	0	263	235	0	213	143	0	951	16	510	399
Grp Sat Flow(s),veh/h/ln	1835	0	1706	1861	0	1852	1781	0	1872	1810	1885	1580
Q Serve(g_s), s	14.7	0.0	13.3	11.0	0.0	9.9	7.1	0.0	39.4	0.8	21.4	19.5
Cycle Q Clear(g_c), s	14.7	0.0	13.3	11.0	0.0	9.9	7.1	0.0	39.4	0.8	21.4	19.5
Prop In Lane	0.39		0.54	0.10		0.06	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	348	0	324	286	0	285	176	0	820	33	674	565
V/C Ratio(X)	0.88	0.00	0.81	0.82	0.00	0.75	0.81	0.00	1.16	0.48	0.76	0.71
Avail Cap(c_a), veh/h	367	0	341	372	0	370	216	0	820	101	674	565
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)	0.99	0.00	0.99	0.74	0.00	0.74	1.00	0.00	1.00	0.31	0.31	0.31
Uniform Delay (d), s/veh	35.5	0.0	34.9	36.9	0.0	36.4	39.7	0.0	25.3	43.8	25.5	24.8
Incr Delay (d2), s/veh	20.8	0.0	13.4	8.2	0.0	4.5	17.3	0.0	85.2	3.3	2.5	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.0	6.6	5.6	0.0	4.8	3.9	0.0	35.7	0.4	9.7	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.0	48.3	45.0	0.0	40.9	57.0	0.0	110.4	47.1	28.0	27.2
LnGrp LOS	E	A	D	D	A	D	E	A	F	D	C	C
Approach Vol, veh/h		571			448			1094			925	
Approach Delay, s/veh		52.6			43.1			103.5			28.0	
Approach LOS		D			D			F			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	43.9		21.6	13.4	36.7		18.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	31.0		18.0	10.9	25.1		18.0				
Max Q Clear Time (g_c+I1), s	2.8	41.4		16.7	9.1	23.4		13.0				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	0.8		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				62.0								
HCM 6th LOS				E								

Intersection				
Intersection Delay, s/veh	6.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	42	12	543	476
Demand Flow Rate, veh/h	42	12	548	485
Vehicles Circulating, veh/h	472	555	15	48
Vehicles Exiting, veh/h	61	8	499	519
Ped Vol Crossing Leg, #/h	1	5	0	1
Ped Cap Adj	1.000	0.999	1.000	1.000
Approach Delay, s/veh	4.7	4.7	6.5	6.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	42	12	548	485
Cap Entry Lane, veh/h	853	783	1359	1314
Entry HV Adj Factor	1.000	1.000	0.991	0.982
Flow Entry, veh/h	42	12	543	476
Cap Entry, veh/h	853	783	1346	1289
V/C Ratio	0.049	0.015	0.403	0.369
Control Delay, s/veh	4.7	4.7	6.5	6.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	2

Intersection						
Intersection Delay, s/veh	4.6					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	0	48	361	184		
Demand Flow Rate, veh/h	0	48	374	189		
Vehicles Circulating, veh/h	220	345	59	31		
Vehicles Exiting, veh/h	0	59	161	345		
Ped Vol Crossing Leg, #/h	2	1	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	0.0	4.0	5.1	3.9		
Approach LOS	-	A	A	A		
Lane	Left	Left	Bypass	Left	Bypass	Left
Designated Moves	LTR	LT	R	LT	R	LTR
Assumed Moves	LTR	LT	R	LT	R	LTR
RT Channelized			Yield		Yield	
Lane Util	1.000	1.000		1.000		1.000
Follow-Up Headway, s	2.609	2.609		2.609		2.609
Critical Headway, s	4.976	4.976	17	4.976	29	4.976
Entry Flow, veh/h	0	31	971	345	1299	189
Cap Entry Lane, veh/h	1103	971	0.980	1299	0.990	1337
Entry HV Adj Factor	1.000	1.000	17	0.962	29	0.975
Flow Entry, veh/h	0	31	951	332	1286	184
Cap Entry, veh/h	1102	970	0.018	1249	0.023	1303
V/C Ratio	0.000	0.032	3.9	0.266	3.0	0.141
Control Delay, s/veh	3.3	4.0	A	5.2	A	3.9
LOS	A	A	0	A	0	A
95th %tile Queue, veh	0	0		1		0

Timings
17: RR Crossing & W Yamato Rd

2045 PM Build W Mitigation 2-1
09/28/2022

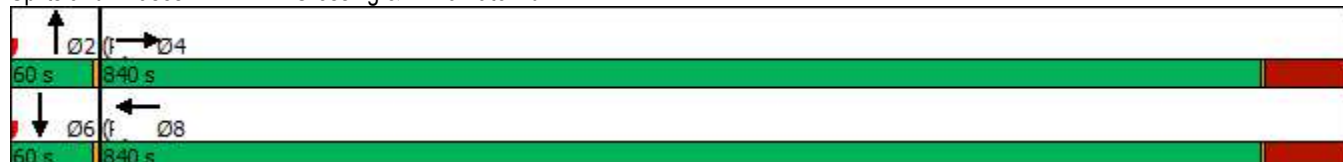
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑↑	↑↑↑	↑	↑
Traffic Volume (vph)	1801	1876	1	1
Future Volume (vph)	1801	1876	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	81.5	81.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	63.5	63.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	776.5	776.5	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.45	0.46	0.01	0.01
Control Delay	14.1	14.5	397.0	397.0
Queue Delay	20.7	45.3	0.0	0.0
Total Delay	34.9	59.8	397.0	397.0
LOS	C	E	F	F
Approach Delay	34.9	59.8	397.0	397.0
Approach LOS	C	E	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 145
 Control Type: Pretimed
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 47.8
 Intersection Capacity Utilization 97.1%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 17: RR Crossing & W Yamato Rd



Queues
17: RR Crossing & W Yamato Rd

2045 PM Build W Mitigation 2-1
09/28/2022













	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1958	2039	1	1
v/c Ratio	0.45	0.46	0.01	0.01
Control Delay	14.1	14.5	397.0	397.0
Queue Delay	20.7	45.3	0.0	0.0
Total Delay	34.9	59.8	397.0	397.0
Queue Length 50th (ft)	952	1017	6	6
Queue Length 95th (ft)	902	960	23	23
Internal Link Dist (ft)	615	274	189	249
Turn Bay Length (ft)				
Base Capacity (vph)	4387	4387	114	114
Starvation Cap Reductn	2490	2523	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.03	1.09	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

17: RR Crossing & W Yamato Rd

2045 PM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↑			↑	
Traffic Volume (vph)	0	1801	0	0	1876	0	0	1	0	0	1	0
Future Volume (vph)	0	1801	0	0	1876	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		63.5			63.5			4.5			4.5	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		5085			5085			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		5085			5085			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1958	0	0	2039	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1958	0	0	2039	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		776.5			776.5			55.5			55.5	
Effective Green, g (s)		776.5			776.5			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		63.5			63.5			4.5			4.5	
Lane Grp Cap (vph)		4387			4387			114			114	
v/s Ratio Prot		0.39			c0.40			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.45			0.46			0.01			0.01	
Uniform Delay, d1		13.8			14.1			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.4			0.1			0.1	
Delay (s)		14.1			14.5			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		14.1			14.5			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		14.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			68.0				
Intersection Capacity Utilization		97.1%			ICU Level of Service			F				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports red clearance in the range of 0 to 6 seconds.

Timings
18: RR Crossing & Spanish River Blvd

2045 PM Build W Mitigation 2-1
09/28/2022

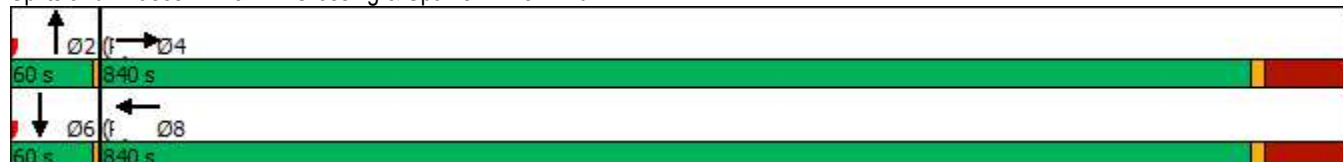
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	1136	1288	1	1
Future Volume (vph)	1136	1288	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.41	0.46	0.01	0.01
Control Delay	14.9	16.1	397.0	397.0
Queue Delay	18.1	49.0	0.0	0.0
Total Delay	32.9	65.1	397.0	397.0
LOS	C	E	F	F
Approach Delay	32.9	65.1	397.0	397.0
Approach LOS	C	E	F	F

Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 175
 Control Type: Pretimed
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 50.3
 Intersection Capacity Utilization 101.9%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service G

Splits and Phases: 18: RR Crossing & Spanish River Blvd



Queues
18: RR Crossing & Spanish River Blvd













2045 PM Build W Mitigation 2-1
09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1235	1400	1	1
v/c Ratio	0.41	0.46	0.01	0.01
Control Delay	14.9	16.1	397.0	397.0
Queue Delay	18.1	49.0	0.0	0.0
Total Delay	32.9	65.1	397.0	397.0
Queue Length 50th (ft)	859	1050	6	6
Queue Length 95th (ft)	840	1014	23	23
Internal Link Dist (ft)	31	267	152	280
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	1811	1754	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.02	1.10	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

18: RR Crossing & Spanish River Blvd

2045 PM Build W Mitigation 2-1
09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	1136	0	0	1288	0	0	1	0	0	1	0
Future Volume (vph)	0	1136	0	0	1288	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1235	0	0	1400	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1235	0	0	1400	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		0.35			c0.40			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.41			0.46			0.01			0.01	
Uniform Delay, d1		14.4			15.5			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.5			0.1			0.1	
Delay (s)		14.8			16.0			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		14.8			16.0			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		15.8			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		101.9%			ICU Level of Service			G				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
20: RR Crossing & NW 20th St

2045 PM Build W Mitigation 2-1
09/28/2022

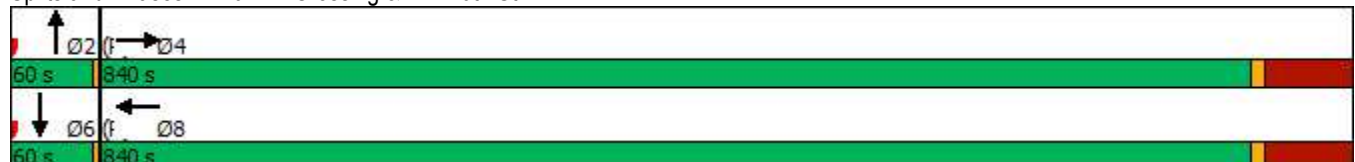
	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	694	688	1	1
Future Volume (vph)	694	688	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	148.0	148.0	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	10.0	10.0	3.5	3.5
All-Red Time (s)	60.0	60.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	70.0	70.0	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	770.0	770.0	55.5	55.5
Actuated g/C Ratio	0.86	0.86	0.06	0.06
v/c Ratio	0.25	0.25	0.01	0.01
Control Delay	12.1	12.1	397.0	397.0
Queue Delay	2.1	14.5	0.0	0.0
Total Delay	14.2	26.6	397.0	397.0
LOS	B	C	F	F
Approach Delay	14.2	26.6	397.0	397.0
Approach LOS	B	C	F	F

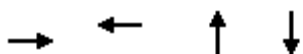
Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 175
 Control Type: Pretimed
 Maximum v/c Ratio: 0.25
 Intersection Signal Delay: 20.9
 Intersection Capacity Utilization 85.4%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 20: RR Crossing & NW 20th St

















Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	754	748	1	1
v/c Ratio	0.25	0.25	0.01	0.01
Control Delay	12.1	12.1	397.0	397.0
Queue Delay	2.1	14.5	0.0	0.0
Total Delay	14.2	26.6	397.0	397.0
Queue Length 50th (ft)	434	430	6	6
Queue Length 95th (ft)	438	434	23	23
Internal Link Dist (ft)	941	417	469	497
Turn Bay Length (ft)				
Base Capacity (vph)	3027	3027	114	114
Starvation Cap Reductn	2075	2267	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.79	0.98	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis
20: RR Crossing & NW 20th St

2045 PM Build W Mitigation 2-1

09/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	694	0	0	688	0	0	1	0	0	1	0
Future Volume (vph)	0	694	0	0	688	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		70.0			70.0			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	754	0	0	748	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	754	0	0	748	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		770.0			770.0			55.5			55.5	
Effective Green, g (s)		770.0			770.0			55.5			55.5	
Actuated g/C Ratio		0.86			0.86			0.06			0.06	
Clearance Time (s)		70.0			70.0			4.5			4.5	
Lane Grp Cap (vph)		3027			3027			114			114	
v/s Ratio Prot		c0.21			0.21			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.25			0.25			0.01			0.01	
Uniform Delay, d1		11.9			11.9			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			0.1			0.1	
Delay (s)		12.1			12.1			396.6			396.6	
Level of Service		B			B			F			F	
Approach Delay (s)		12.1			12.1			396.6			396.6	
Approach LOS		B			B			F			F	
Intersection Summary												
HCM 2000 Control Delay		12.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			74.5				
Intersection Capacity Utilization		85.4%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology supports yellow change in the range of 3 to 6 seconds.

Timings
35: RR Crossing & Jeffery Street /Jeffery St

2045 PM Build W Mitigation 2-1

09/28/2022

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Configurations	↑↑	↑↑	↑	↑
Traffic Volume (vph)	525	878	1	1
Future Volume (vph)	525	878	1	1
Turn Type	NA	NA	NA	NA
Protected Phases	4	8	2	6
Permitted Phases				
Detector Phase	4	8	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	840.0	840.0	60.0	60.0
Total Split (%)	93.3%	93.3%	6.7%	6.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)	835.5	835.5	55.5	55.5
Actuated g/C Ratio	0.93	0.93	0.06	0.06
v/c Ratio	0.17	0.29	0.01	0.01
Control Delay	2.9	3.4	397.0	397.0
Queue Delay	3.2	6.7	0.0	0.0
Total Delay	6.1	10.1	397.0	397.0
LOS	A	B	F	F
Approach Delay	6.1	10.1	397.0	397.0
Approach LOS	A	B	F	F

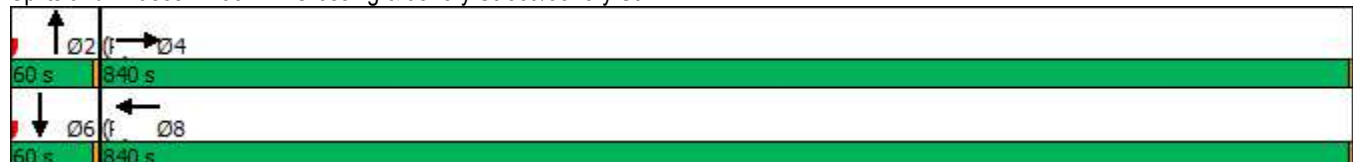
Intersection Summary

Cycle Length: 900
 Actuated Cycle Length: 900
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 45
 Control Type: Pretimed
 Maximum v/c Ratio: 0.29
 Intersection Signal Delay: 9.1
 Intersection Capacity Utilization 35.9%
 Analysis Period (min) 15

Intersection LOS: A

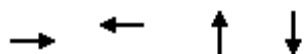
ICU Level of Service A

Splits and Phases: 35: RR Crossing & Jeffery Street /Jeffery St



Queues
35: RR Crossing & Jeffery Street /Jeffery St

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










Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	571	954	1	1
v/c Ratio	0.17	0.29	0.01	0.01
Control Delay	2.9	3.4	397.0	397.0
Queue Delay	3.2	6.7	0.0	0.0
Total Delay	6.1	10.1	397.0	397.0
Queue Length 50th (ft)	145	279	6	6
Queue Length 95th (ft)	150	277	23	23
Internal Link Dist (ft)	594	468	551	549
Turn Bay Length (ft)				
Base Capacity (vph)	3285	3285	114	114
Starvation Cap Reductn	2583	2271	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.81	0.94	0.01	0.01
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

35: RR Crossing & Jeffery Street /Jeffery St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (vph)	0	525	0	0	878	0	0	1	0	0	1	0
Future Volume (vph)	0	525	0	0	878	0	0	1	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3539			3539			1863			1863	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3539			3539			1863			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	571	0	0	954	0	0	1	0	0	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	571	0	0	954	0	0	1	0	0	1	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		835.5			835.5			55.5			55.5	
Effective Green, g (s)		835.5			835.5			55.5			55.5	
Actuated g/C Ratio		0.93			0.93			0.06			0.06	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Lane Grp Cap (vph)		3285			3285			114			114	
v/s Ratio Prot		0.16			c0.27			c0.00			0.00	
v/s Ratio Perm												
v/c Ratio		0.17			0.29			0.01			0.01	
Uniform Delay, d1		2.8			3.2			396.4			396.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.2			0.1			0.1	
Delay (s)		2.9			3.4			396.6			396.6	
Level of Service		A			A			F			F	
Approach Delay (s)		2.9			3.4			396.6			396.6	
Approach LOS		A			A			F			F	
Intersection Summary												
HCM 2000 Control Delay		3.7			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.27										
Actuated Cycle Length (s)		900.0			Sum of lost time (s)			9.0				
Intersection Capacity Utilization		35.9%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Edition methodology does not support cycle length greater than 55 seconds.