



Regular City Commission Meeting Agenda

150 NE 2nd Avenue | Deerfield Beach, FL, 33441 | 954-480-4200

Mayor Bill Ganz

Vice Mayor Bernie Parness

District 1 Commissioner Michael Hudak

District 2 Commissioner Ben Preston

District 4 Commissioner Todd Drosky

**Tuesday
February 6, 2024
7:00 PM**

CALL TO ORDER & ROLL CALL

MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE

APPROVAL OF CITY COMMISSION MINUTES

Regular City Commission Meeting Minutes

Attachment: January 9, 2024

ACKNOWLEDGEMENT OF CITY BOARD MINUTES

Marine Advisory Board Meeting Minutes

Attachment: November 16, 2023

Hillsboro Inlet District Meeting Minutes

Attachment: November 20, 2023

Cultural Committee Meeting Minutes

Attachment: December 18, 2023

APPROVAL OF THE AGENDA

February 6, 2024

ZOOM INFORMATION

Join Zoom Meeting by clicking the below link:

<https://deerfield-beach.zoom.us/j/85794068762?pwd=aTUwbERTOTJoUXRCc2hXK3BleGhndz09>

Join Zoom Meeting via telephone by dialing:

Call-in Number: (301) 715-8592

Meeting ID: 857 9406 8762#

Participant ID: #

Passcode: 306672#

For complete instructions on joining and/or participating during Public Comment, please click the following link or attend in person in the City Commission Chambers:

Attachment: Zoom Instructions

PUBLIC HEARINGS - FIRST READING

- 1. P.H. 2024-039: ORDINANCE 2024/ - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, REZONING APPROXIMATELY 16.5 GROSS ACRES LOCATED AT 600 & 700 WEST HILLSBORO BOULEVARD FROM HIGHWAY BUSINESS DISTRICT (B-2) TO PLANNED DEVELOPMENT DISTRICT (PDD) (APPLICATION 21-R-196); PROVIDING FOR A MAXIMUM OF 360 DWELLING UNITS; PROVIDING FOR SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.**

Suggested Action: Commission to vote on Ordinance and set second public hearing for February 20, 2024

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Department of Planning & Development Services

Attachment: Application 21-R-196

PUBLIC HEARINGS – SECOND READING

- 2. P.H. 2024-041: ORDINANCE 2024/ - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AMENDING ARTICLE II "BOARDS, COMMITTEES,**

COMMISSIONS" OF CHAPTER 2 "ADMINISTRATION" OF THE CITY CODE OF ORDINANCES TO CREATE SECTION 2-26 "CRIMINAL HISTORY BACKGROUND CHECKS" FOR CERTAIN ADVISORY BOARDS AND COMMITTEES; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Suggested Action: Commission to vote on Ordinance

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Commissioner Todd Drosky

Attachment: Background Checks

PUBLIC COMMENT

Persons addressing the Commission shall state his/her name and address and may speak for three (3) minutes unless extended for one (1) additional minute by the Mayor. All remarks made by the public at a Commission meeting on an agenda item shall be addressed to the Commission as a body and limited to the subject matter before the Commission at that particular time. No comments shall be made related to the personal life or personal qualities of any person and no language which would offend persons of ordinary sensibilities shall be permitted. The public shall be given an opportunity to speak on any substantive agenda item, subject to the aforementioned restrictions, prior to a vote on the matter by the City Commission. The Commission shall determine the appropriate time, prior to the vote, for the public to speak. For consent agenda items, the public shall be given an opportunity to speak prior to the approval of the consent agenda. The Commission may, by majority vote, determine that public input on an agenda item be tabled to a future meeting so long as the vote on the agenda item take place at the future meeting and that the public input take place prior to the Commission making any decision.

CONSENT - AGREEMENTS & EXPENDITURE REQUESTS

- 3. Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, designating the City Manager as the certified officer authorized to execute all documentation relating to environmental reviews associated with Community Development Block Grant Fund and Home Investment Partnership Program Projects; authorizing the City Manager to designate an environmental officer to oversee environmental review tasks to comply with 24 CFR Part 58 of the Code of Federal Regulations; providing for implementation and an effective date.**

Suggested Action: Commission to vote on Resolution

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Department of Community Services

Attachment: Environmental Reviews

4. **Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the First Amendment to the Facility Use and Grant Agreement and Renewal Agreement with DPR Enrichment Association for Academics and Athletics, Inc. to include 7 on 7 football; ratifying execution of the First Amendment; providing for implementation and an effective date.**

Suggested Action: Commission to vote on Resolution

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Department of Parks & Recreation

Attachment: DPR Enrichment Association for Academics and Athletics, Inc.

5. **Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving a work authorization with McKim & Creed, Inc. to provide professional engineering services related to the Wastewater Collection System Radio Communication Replacement Project in an amount not to exceed \$45,221.00; providing for execution and an effective date. (Fund from Account #401-5030-53-63-099 - Other Professional Services)**

Suggested Action: Commission to vote on Resolution

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Department of Environmental Services

Attachment: McKim & Creed, Inc.

6. **Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving a work authorization with McKim & Creed, Inc. to provide professional engineering services related to SCADA programming and support at the West Water Treatment Plant in an amount not to exceed \$75,000.00; providing for execution and an effective date. (Fund from Account #401-5020-53-33-099 Other Professional Services)**

Suggested Action: Commission to vote on Resolution

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Department of Environmental Services

Attachment: McKim & Creed, Inc.

DEPARTMENTAL BUSINESS

7. **Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the award of ITB #2024-06-PC for the City Hall Building Hardening Project to Sleiman Construction, LLC; authorizing the execution of a contract with Sleiman Construction, LLC, the lowest priced responsive and responsible bidder, in an amount not to exceed \$1,567,865.80; and providing an effective date. (*Funds from Account #358-5060-519-61-12 - City Hall Renovations Construction*)**

Suggested Action: Commission to vote on Resolution

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Department of Environmental Services

Attachment: Sleiman Construction, LLC

COMMENTS BY ADMINISTRATION & LEGAL

CITY COMMISSION BUSINESS

8. **Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, authorizing participation in a lawsuit seeking a declaration that the provisions of Section 112.144(1)(d), Florida Statutes, that require Municipal Elected Officials to file Form 6 Financial Disclosure Forms is unconstitutional and invalid; providing for an effective date.**

Suggested Action: Commission to vote on Resolution

Voting Requirement: Adoption requires a 3/5 vote of the City Commission

Sponsor: Commissioner Hudak, Commissioner Preston, Vice Mayor Bernie Parness & Mayor Ganz

Attachment: Form 6 Financial Disclosure Form

COMMENTS BY MAYOR & CITY COMMISSION

ADJOURNMENT

FUTURE CITY COMMISSION MEETINGS

Regular City Commission Meeting - Tuesday, February 20, 2024

Any person wishing to appeal any decision made by the City Commission with respect to any matter considered at such meetings or hearings will need a record of the proceedings, and for such purposes may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and the evidence upon which the appeal is made. The above notice is required by State Law (F.S. 286.0105). Anyone desiring a verbatim transcript shall have the responsibility, at his/her own expense, to arrange for the presence of a certified court reporter at the hearing.



Meeting Minutes City Commission

Tuesday, January 9, 2024

7:00 PM

Commission Chambers

CALL TO ORDER AND ROLL CALL

The meeting was called to order on the above date by Mayor Bill Ganz at 7:00 p.m., in the City Commission Chambers, City Hall, Deerfield Beach.

Present:

Commissioner Todd Drosky
Commissioner Michael Hudak
Commissioner Ben Preston
Vice Mayor Bernie Parness - via Zoom
Mayor Bill Ganz

Also Present:

City Manager David Santucci
City Attorney Anthony Soroka
City Clerk Heather Montemayor

MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE

There was a moment of silence, followed by the Pledge of Allegiance.

APPROVAL OF CITY COMMISSION MINUTES

Regular City Commission Meeting Minutes - November 14, 2023

MOTION was made by Commissioner Preston, seconded by Commissioner Hudak, to approve the meeting minutes as submitted. Voice Vote:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

ACKNOWLEDGEMENT OF CITY BOARD MINUTES

Code Compliance Meeting Minutes - September 27 & November 17, 2023
Community Redevelopment Agency Meeting Minutes - October 17, 2023
Planning & Zoning Board Meeting Minutes - November 2, 2023
Cultural Committee Meeting Minutes - November 20, 2023
Community Appearance Board Meeting Minutes - November 30, 2023

MOTION was made by Commissioner Preston, seconded by Commissioner Hudak, to acknowledge the board minutes. Voice Vote:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

APPROVAL OF CITY COMMISSION AGENDA*January 9, 2024*

**MOTION was made by Commissioner Preston, seconded by Commissioner Hudak, to approve the agenda.
Voice Vote:**

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

PRESENTATIONS BY ADMINISTRATION**1. Presentation regarding the Live Local Act.**

Eric Power, Director of Planning & Development Services, highlighted a brief presentation. He said the recently adopted Live Local Act provides new regulations related to affordable housing standards. The Act prohibits local governments from imposing rent controls; prohibits local governments from requiring variances or land use/zoning amendments for zoning, height, or density; and prohibits commission or other board approval, whereby, only administrative approval is needed. Additionally, the Act provides for cities to approve affordable housing developments, to include mixed-use, on any land for commercial or industrial use, provided at least 10% of the units are affordable, which would require commission action; and provides for a city to approve multifamily and mixed use on any commercial or industrial land if at least 40% of the units are affordable for 30 years, which would require administrative approval. He explained that one issue with the Act is if the height of a building is 150 feet, everything within one mile of that area can be built to that height. Thereafter, a photograph of two apartment complexes built within one mile of each other was displayed.

Continuing, Mr. Power outlined the additional housing investments that have been set aside by the State for various programs. Further, he said the Act provides housing incentives to developers, which include various property tax incentives, new sales tax refund on building materials, etc. The requirements of local government consist of considering the reduction of parking requirements if the project is within a half mile of a major transit stop; as of October 1, 2023, and every three years thereafter, the City must create an inventory of all lands owned by the City that are appropriate uses for affordable housing and make it publicly available, which Deerfield Beach has done; requires cities to maintain on its website policies and procedures and expedited processing procedures of permits and development orders, which Deerfield Beach has done for years; and within 10 days of submittal, if the City does not provide notice that the applicant has not submitted a complete application, it is automatically deemed complete and accepted, whereby, city staff notifies the applicant the day of submittal. Lastly, Mr. Power said staff is hoping for possible amendments and clarification on some of the definitions and County Commissioner Steve Geller has been appointed to a Live Local Act working group, and he is seeking municipal input.

In response to the Commissioner Hudak's question, Mr. Power replied that the one-mile radius for building height is city specific.

2. Presentation regarding the cart replacement program.

Chad Grecsek, Director of Sustainable Management, displayed a brief video regarding the cart replacement program. Thereafter, he introduced Eleonel Lorenzo, Operations Manager.

Mr. Lorenzo highlighted a brief presentation. Thereafter, he provided a brief overview of the cart replacement program timeline, whereby, the cart replacement program is set to begin rollout this month. The new 95 gallon, which holds approximately ten, 13-gallon trash bags will replace the 35 gallon and 65-gallon containers. In addition to having a larger capacity, the 95-gallon cart will also optimize collections, reduce maintenance, etc. Mr. Lorenzo explained that staff will begin delivering the new carts mid-January, whereby, residents must store them until the old carts have been retrieved, which will begin mid-February on existing collection days. Once the old carts have been retrieved residents can begin using the new cart, which should be late March. Lastly, he outlined the various outreach and education that has been and will be conducted to ensure the public is aware of the program.

PRESENTATIONS BY ADMINISTRATION - CONTINUED

In response to Commissioner Preston's question, Mr. Lorenzo replied that once the new cart is received, residents must store the cart until the old carts are retrieved.

In response to Commissioner Drosky's question, Mr. Lorenzo replied that both the blue, 35-gallon, and brown, 65-gallon containers will be picked up. Further, he said staff will add additional messaging notifying residents that the blue and brown carts will be picked up.

QUASI-JUDICIAL PUBLIC HEARINGS

3. P.H. 2024-032: APPLICATION 23-RM25-49

Applicant: **NY DEERFIELD BEACH HOLDINGS, LLC, REPRESENTED BY S.H. BRANDT AND ASSOCIATES**

Proposal: Major site plan application seeking approval to construct a 13-unit apartment building.

Location: The properties are generally described as OCEAN VUE 3-34 B LOT 3, 4 & 5 BLK 9 and located at **1974 & 1980 NE 5th Street**.

The Resolution was read by title only.

Steve Brandt, 5010 N. Federal Highway, Lighthouse Point, representing the applicant, waived the quasi-judicial proceeding. Thereafter, he briefly highlighted a presentation. He stated that the applicant is seeking to construct a 13-unit apartment building on three lots that is zoned RM-25. Thereafter, a photograph of the location was displayed. Further, he said the design of the building is consistent with the Cove Overlay District standards. The current development consists of one single-family home and three apartment units; whereby, the applicant is proposing to redevelop the property to construct 13 apartment units. The proposed development will have 28 parking spaces plus four tandem spaces. Thereafter, the ground level plan was displayed, which consists of one elevator, stairs, indoor bicycle parking, additional storage areas, two accessible parking spaces. The floor plans for the second, third and fourth floors were displayed, which consist of a mixture of one, two-, and three-bedrooms units; all units have one balcony, but some have additional balconies. The fifth-floor plan was displayed, which is the owner's suite, four-bedroom unit with many balconies. Thereafter, he outlined the roof and elevation materials. Lastly, a video of the proposed building was displayed.

In response to Commissioner Hudak's question, Mr. Brandt replied that they are rental apartments.

In response to Vice Mayor Parness' question, Mr. Brandt replied that the lease requirements will be based on the market; whereby, he does not believe the owners would be interested in having restrictions on their lease requirements.

Vice Mayor Parness spoke in opposition to them becoming short term rentals.

Mr. Brandt stated that having short term rentals on 12 rental units would become a handful for the management company, so he does not anticipate that occurring; however, with many of the surrounding properties being short term rentals, one or two of the units may be utilized for short term rentals.

In response to Mayor Ganz's question, Mr. Brandt replied that the owners can rent the units for the allowable terms.

Anthony Soroka, City Attorney, stated that pursuant to state law, the City cannot restrict the frequency or duration of vacation rentals.

Mayor Ganz opened the public hearing.

Katy Freitag, 418 SE 2nd Street, Deerfield Beach, said the applicant is not requesting variances; therefore, she asked why a major site plan application is needed.

Howard Haimowitz, 536 NE 20th Avenue, Deerfield Beach, spoke in opposition to the application.

QUASI-JUDICIAL PUBLIC HEARINGS - CONTINUED

Jon Ounjian, 1938 NE 6th Street, Deerfield Beach, commented on Senate Bill 102. Further, he said the public roadway and easement was provided to this applicant, allowing them to build two additional units, which he disagreed with. Thereafter, he suggested revising the Code, so developers cannot utilize public right-of-way. Mr. Ounjian said a homeowner's association could be created and they could restrict the length and term of a rental property.

Martha Montejo, 497 NW 36th Avenue, Deerfield Beach, spoke in support of the application, as it will help elevate the City.

Julie Rodriquez, 150 SE 7th Street, Deerfield Beach, said she hopes that this project does not turn into short terms rentals, as she does not agree with them.

Bob DiChristopher, 517 NE 6th Avenue, Deerfield Beach, said the Code does allow for developers to use the adjoining right-of-way as their gross acreage and agreed with revising the Code.

Mayor Ganz closed the public hearing.

Eric Power, Director of Planning & Development Services, said the Code relating to density does allow for one half of any adjacent right-of-way to be utilized. He stated that staff has researched this language, and this definition has been a part of the Code since inception; whereby, changing that definition would make all commercial and multi-family residential properties non-conforming. Further, he said every city defines lot coverage, net acres, and gross acres differently; nevertheless, this definition is not uncommon.

Mayor Ganz asked what kind of negative impacts would changing the definition have on existing properties.

Mr. Power replied that in a redevelopment situation or if a development did not fully meet the density requirements it would create a Bert Harris Act situation, as well as other takings that are no longer allowed by the State. Further, he said there are two types of development applications, major and minor, whereby, all brand-new, multi-family and commercial industrial developments are a major application. Thereafter, he defined a minor site plan application.

In response to Mayor Ganz's question, Mr. Soroka replied that if the Commission denies a site plan, the specific code provision that the applicant is not in compliance with must be stated.

In response to Mayor Ganz's question, Mr. Power nodded his yes that they are in compliance with all code requirements.

Mayor Ganz said it's disappointing to hear that the owners will not be willing to add rental restrictions, but unfortunately, the City cannot regulate short term rentals. Further, he said there have been complaints over the years that Deerfield Beach, especially the barrier island is the most restrictive. Thereafter, he provided a brief overview of the Bert Harris Act.

Commissioner Preston said although he understands the residents' concerns, the application meets all the necessary criteria.

Commissioner Drosky agreed, whereby, the density is less than the Code, and there's fewer units and more parking than permitted in the Code. Further, he spoke in opposition to short term rentals.

MOTION was made by Commissioner Hudak, seconded by Vice Mayor Parness, to approve Item 3, adopted Resolution 2024/001. Roll Call:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

PUBLIC HEARINGS

4. **P.H. 2024-035: Resolution 2024/002 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the City's purchase of the privately owned beach lot located southeast of the main beach parking lot, and legally described as Deerfield Beach 4-4 B Lots 1 thru 3 BLK 13, for \$913,000.00; providing for the settlement of all claims of the property owner regarding the property for 5 annual payments of \$65,000.00 conditioned upon receipt of a full release; authorizing execution of documents necessary to effectuate the purchase and settlement; providing for implementation and an effective date. (Funds from Account #399-0200-513-60-11 - Property Acquisition (FY24))**

The Resolution was read by title only.

Anthony Soroka, City Attorney, outlined the key business terms.

David Santucci, City Manager, highlighted a brief presentation. He explained that as part of the strategic plan, the City Commission wanted to ensure that the beach was for public use; therefore, staff has aggressively been seeking the purchase of the privately owned beach lots. Thereafter, various photographs of the 2014 beach properties were displayed. Further, he said the property includes the grassy berm, as well as the beach sand. He explained that part of the purchase price includes five installment payments of \$65,000, which recognizes the beach amenity operations. Thereafter, various photographs of the 2024 beach properties were displayed. The purchase and sale terms include \$913,000, due by January 31, 2024, whereby, staff is recommending the use of Fund Balance. The \$65,000 over five years will commence on October 2024, and will be budgeted in the General Fund.

In response to Commissioner Hudak's question, Mr. Santucci replied that property includes the grassy berm and extends to the water.

In response to Commissioner Preston's question, Mr. Santucci replied that staff was unaware that the area used for beach concessions was private property. Further, he said the beach concessions were operating in that area for well over a decade.

Mr. Soroka said the City received a demand letter pointing out the discrepancy.

Commissioner Drosky said out of the remaining beach lots left, this is the biggest. Thereafter, he spoke in support of the item, as the beach belongs to its residents. Further, he said this commission should be applauded for their efforts to ensure that the public property was put back into the public domain. Commissioner Drosky said this commission tried to get private funding, and funding through Forever Floirda, but the beach did not qualify. Lastly, he commended the Commission and staff for a job well done on this great accomplishment.

Commissioner Hudak agreed, as this purchase is a great accomplishment. He commended Mr. Santucci and Mr. Soroka for their efforts. Thereafter, he spoke in support of the item. He said based on the actual square footage, the price is fair; therefore, he supports the purchase.

Mayor Ganz provided a brief history of events that have occurred over the years with the private beach lots. Further, he said at one time city staff oversaw beach concessions, which was operated in the same area, so although beach concessions are currently not being ran by city staff, the responsibility falls on the City; whereby, that is the reasoning behind the additional payment. Mayor Ganz said being able to walk away from his position knowing that all privately owned beach lots are in the public domain is extremely rewarding.

Vice Mayor Parness spoke in support of the purchase, as the beach belongs to the people of Deerfield.

Mayor Ganz opened the public hearing.

Bob DiChristopher, 517 NE 2nd Avenue, Deerfield Beach, commented on the installation of the groins, which has eroded the beach. He said per State Statute, an erosion control line can be established; whereby, if the City established a renourishment project and expands the beach to the east, it would be public property from the current erosion control line to the mean high water.

PUBLIC HEARINGS - CONTINUED

Dan Herz, 330 SE 19th Avenue, Deerfield Beach, commented on the agenda item backup. Thereafter, he provided a brief overview and history of the purchase of the property, as well as the beach concessions. He stated that there is a for-sale sign on the parcel, which highlights the dimensions. He briefly commented on the amount of money the City has spent on other beach parcels. Lastly, he asked the Commission to vote against the purchase of this parcel, so a better deal can be sought.

Maria LoRicco, 1551 SE 12th Street, Deerfield Beach, asked what the taxes are on the property and if any tax revenue will be lost.

Roger Freitag, 418 SE 2nd Street, Deerfield Beach, asked for clarification on the ownership of the remaining properties.

Lucia Delgenio, 707 North Shore Drive, Deerfield Beach, asked if beach concessions will be increased, and if the City will receive additional revenues.

Joe Hines, 559 NW 47th Terrace, Deerfield Beach, asked when the demand letter regarding the beach concessions was received and when was the beach concession operation moved.

Carlos Reyes, 945 SE 5th Court, Deerfield Beach, said he was under the impression that the beach was public; nonetheless, he has since learned that is not the case. Further, he asked for clarification on the demand letter, whereas, he expressed confusion on the lack of knowledge regarding the property.

Julie Rodriquez, 150 SE 7th Street, Deerfield Beach, asked how the City will come up with the money since it was not budgeted.

Katy Freitag, 418 SE 2nd Street, Deerfield Beach, said technically the City was squatting on the property, and expressed confusion as to why an eviction period was not established. Further, she asked if the beach concession operation was removed once the demand letter was received and why the City did not purchase the parcel five years ago when it was sold for \$270,000. Thereafter, she expressed concerns with the \$65,000 over the next five years. Lastly, Ms. Freitag suggested that the City hire Robert Sweetapple.

Patricia Saunders, 252 SW 34th Avenue, Deerfield Beach, asked if the original owner can be found.

Jon Ounjian, 1938 NE 6th Street, Deerfield Beach, commented on the City's legal services. Thereafter, he expressed confusion with the City operating on a private parcel and asked for clarification on demand letter.

Mayor Ganz closed the public hearing.

Mr. Soroka said the demand letter was received back in June, so negotiations have been going on since that time; with the initial asking price of \$2.85 million. Thereafter, he commented on two settlements, whereby, the City purchased each parcel for less than the assessed value. Further, he said it has taken a long time to get to his point, but he believes this is as good as it will get without proceeding to litigation. Mr. Soroka said the City does not lease property to the concessionaire, but the City does allow them to put their concessions on city property.

Mr. Santucci said tax and previous owner information can be obtained through the Broward County Property Appraiser's website; nevertheless, the taxes were \$5,000.

Mayor Ganz said when the City purchases private property it comes off the tax roll. Further, he said when the very first parcel came forward, he voted against it due to the cost, which set the appraisal mark for the remaining lots. Although the City is not bidding against anyone, the City would have taken the property when it was \$270,000, but unfortunately, it was never offered. Thereafter, he commented on the size of the properties being inaccurate and individuals purchasing them for the wrong amounts. He explained that the remaining privately owned lots are those that are adjacent to actual properties next to it, i.e. beach lot next to a condo. Mayor Ganz said he does not like spending this amount of money for these type properties; nevertheless, after 100 years, these wrongs are being corrected, which will benefit future generations.

PUBLIC HEARINGS - CONTINUED

Lastly, he said the concessions have been ran at this location for decades, and although it's frustrating and he would like clarification on the \$65,000 over the next five years, he reiterated that all the wrongs are being corrected.

In response to Commissioner Preston's question, Mr. Santucci replied that the City has operated a beach concession on the sand for decades, whereby, the City was under the impression that only the grassy berm was privately owned due to the depiction outlined on the Broward County Property Appraiser's website. Thereafter, Mr. Santucci provided a brief explanation of the sale price.

In response to Mayor Ganz's questions, Mr. Santucci replied that the beach concessions were not pulled right away, as the request did not come up during negotiations. Further, the demand letter outlined the usage of the property from the time the owner purchased it, which was five years ago. Lastly, he said the initial payment of \$913,000 is being recommended to come from the Fund Balance, but if there is an operational savings then the use of Fund Balance will not be used. The \$65,000 over the next five years will be budgeted in the General Fund operating expenditures for the next five years.

Mayor Ganz said if approved, anything that is set up in the location will be revenue to the City.

MOTION was made by Vice Mayor Parness, seconded by Commissioner Hudak, to approve Item 4, adopted Resolution 2024/002. Roll Call:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

PUBLIC HEARINGS - SECOND READING

- 5. P.H. 2024-033: ORDINANCE 2024/001 - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AMENDING ARTICLE I "IN GENERAL" OF CHAPTER 66 "TRAFFIC AND VEHICLES" OF THE CITY CODE OF ORDINANCES TO CREATE SECTION 66-2 "SPEED DETECTION SYSTEMS FOR ENFORCEMENT OF SCHOOL ZONE SPEED LIMITS" TO AUTHORIZE THE PLACEMENT AND INSTALLATION OF SPEED DETECTION SYSTEMS ON ROADWAYS MAINTAINED AS SCHOOL ZONES; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.**

The Ordinance was read by title only.

Rodney Brimlow, Director of Public Safety, said prior to second reading approval, the City Commission must determine that the school zones where the speed detection speed systems would be placed or installed constitute a heightened safety risk, which is not defined in great detail in the State Statute, so the speed study that was performed will assist in making make the determination; and given that speeding in school zones creates an unacceptable hazard for students and that the enforcement of the applicable speed limits in school zones through the use of speed detection systems may reduce instances of speeding in school zones. Thereafter, he highlighted a brief presentation, which was presented at the October 17, 2023 commission meeting. Further, he said information was found during the Vision Zero research, whereby, from 2018 - 2022, there were 192 crashes that involved serious bodily harm and/or fatalities, with the majority of them being near schools. Additionally, 29% of those crashes involved bicycles or pedestrians. Lastly, Mr. Brimlow said the City's motivation factor for this project is to ensure that our 6,580 students feel safe and are being protected.

Mayor Ganz opened the public hearing.

Roger Freitag, 418 SE 2nd Street, Deerfield Beach, asked if cameras can be installed to assist with the issue.

Ashley Gombs, 1331 SW 10th Terrace, Deerfield Beach, spoke in support of the item, as the speeding near Deerfield Beach High School and Deerfield Park Elementary is outrageous.

PUBLIC HEARINGS - SECOND READING - CONTINUED

Dan Herz, 330 SE 19th Avenue, Deerfield Beach, commended the Director of Public Safety for his efforts with this project.

William Lane, 11 Tilford A, Deerfield Beach, spoke in support of the project, and suggested that something similar be installed in Century Village.

Mayor Ganz closed the public hearing. Thereafter, he said in the previous presentation, it was stated that 6,459 individuals were going over 11 miles an hour in a school zone.

In response to Mayor Ganz's comment, Mr. Brimlow provided a brief overview of the difference between the speed cameras and red-light cameras. Further, he said the ticket is \$100, and it will not impact an individual's insurance or driver license.

MOTION was made by Commissioner Preston, seconded by Commissioner Hudak, to approve Item 5, adopted Ordinance 2024/001. Roll Call:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

PUBLIC COMMENT

Willie Rosetta Graham-Bracy, 501 NW 1st Terrace, Deerfield Beach, asked if the thrift shop can be brought back. Further, she thanked the Commission for the installation of the fence at Johnnie McKeithen Park.

Roger Freitag, 418 SE 2nd Street, Deerfield Beach, thanked city staff for fixing the clock tower. Further, he suggested that individuals purchase cans in lieu of bottles, crush them and then bring them to a recycling center. Lastly, he asked that he be allowed to keep his blue recycling can.

Mae Francis-Fagen, 3500 SE Natura Boulevard, Deerfield Beach, asked that the City participate in events that involve special needs children.

Bob DiChristopher, 517 NE 6th Avenue, Deerfield Beach, asked that he be allowed to keep the 95 and 65-gallon containers. Thereafter, he commented on the Live Local Act.

Sandra Jackson, 386 SW 35th Avenue, Deerfield Beach, thanked everyone involved in the toy giveaway.

Jon Ounjian, 1938 NE 6th Street, Deerfield Beach, commented on the Live Local Act and said the City must be proactive when these type issues arise. Further, he said Boca Raton and Boynton Beach do not allow short term rentals.

Dan Herz, 330 SE 19th Avenue, Deerfield Beach, commented on the previous bids for the pier restaurant lease, Toulia Amanna's lawsuit, the August 22, 2023 Special City Commission meeting, and the City's legal services. Further, he said the Community Redevelopment Agency meetings are available through Zoom but are not being video recorded. Lastly, he asked why all backup is not provided prior to the meetings.

Katy Freitag, 418 SE 2nd Street, Deerfield Beach, requested numerous garbage cans, as one 95-gallon container will not be large enough for some families. Further, she asked if the privately owned beach parcels are invoiced for the beach renourishment projects and beach cleanups.

Ed Tobia, 1590 SE 8th Street, Deerfield Beach, applauded the City for only providing one garbage container, whereby, he brings his recyclables to the recycling center. Further, he asked if fencing is required around a new construction development.

Carrie Hellenbrecht, 884 NW 47th Street, Deerfield Beach, agreed with charging the privately owned beach lots for beach cleanups and beach renourishment projects. Further, she said an email was sent regarding military banners and asked if it would be considered.

PUBLIC COMMENT - CONTINUED

Mayor Ganz said the request regarding the military banners was provided to the City Manager, and he is looking into it.

In response to Commissioner Preston's comment, David Santucci, City Manager, stated that due to Braithwaite Center for Active Aging being utilized as one facility, a thrift store is not allowed; nonetheless, once the new facility is established the City will provide a similar experience for the elderly community.

Mayor Ganz answered questions/comments/concerns posed by the public. Further, he said there is not a lot of clarification when it comes to the Live Local Act; nonetheless, it is well intended but poorly executed. Mayor Ganz said every city should have the ability to make adjustments to protect their cities and residents, whereas, what is good for the Panhandle or more rural areas, is not good for Broward County, etc. The change in the garbage containers is not something people will initially be happy with, but having multiple cans has become problematic; nevertheless, if additional containers are needed it can be explored.

Anthony Soroka, City Attorney, said when the preemption went into place that prevented cities from being able to adopt regulations that would restrict the duration or frequency of vacation rentals, a grandfather provision was put into place, whereby, if a city had an existing ordinance prior to a certain date, it could still be enforced.

Mayor Ganz asked staff to look at the requirements for single-family developments, whereby, adding fencing during construction may be something to implement.

CONSENT - BOARD APPOINTMENT

Mayor Ganz opened the public hearing for Items 6 - 9.

- 6. Resolution 2024/003 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, appointing Shane Cutler as a regular member on the Marine Advisory Board; providing for an effective date.**

CONSENT - AGREEMENTS & EXPENDITURE REQUESTS

- 7. Resolution 2024/004 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the settlement of all claims against the City in the Litigation Styled *Carolyn McNamara vs. City of Deerfield Beach*; authorizing execution of documents necessary to effectuate the Settlement; providing for an effective date. (Funds from Account #606-0900-519-37-70 - Risk Management/General Liability Legal)**

Dan Herz, 330 SE 19th Avenue, Deerfield Beach, asked for the location of the sidewalk, and if it has been repaired.

Mayor Ganz closed the public hearing for items 6 - 9.

David Santucci, City Manager, said he is unsure of the location; nevertheless, once staff is aware of an incident it is repaired.

- 8. Resolution 2024/005 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving an updated Security Program Plan for the Community Shuttle Program with Broward County; providing for implementation and an effective date. (Deferred from December 12, 2023)**
- 9. Resolution 2024/006 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving an updated System Safety Program Plan for the Community Shuttle Program with Broward County; providing for implementation and an effective date. (Deferred from December 12, 2023)**

CONSENT - AGREEMENTS & EXPENDITURE REQUESTS - CONTINUED

MOTION was made by Commissioner Hudak, seconded by Vice Mayor Parness, to approve Items 6 - 9 in concert. Roll Call:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

DEPARTMENTAL BUSINESS

10. Resolution 2024/007 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the ranking and award of Request for Proposals No. #24-02-BA for the SE 8th Avenue Area Stormwater Capital Improvement Project; authorizing the City Manager to execute an agreement with the top ranked, responsive and responsible proposer, Emerald Construction Corporation d/b/a Neucor Construction in an amount not to exceed \$2,731,792.79; providing for implementation and an effective date. (Funds from Account #462-5070-538-65-30 - Stormwater Capital Fund)

The Resolution was read by title only.

David Santucci, City Manager, provided a brief overview of the item. Further, he said a lot of close coordination will be established with the surrounding residents throughout the duration of this project.

Commissioner Hudak spoke in support of the project. Thereafter, he thanked the City Manager and staff for their efforts.

In response to Commissioner Hudak's question, Priscilla Cygielnik, Director of Environmental Services, replied that the notice to proceed will be issued within the coming months. Further, she said work is anticipated to occur over a one-year period; nonetheless, once the contract is executed, the construction schedule is established and material is delivered, staff will have a better understanding of the timeframe and will notify residents accordingly.

Mayor Ganz opened the public hearing; however, there were none to speak and the public hearing was closed.

MOTION was made by Commissioner Hudak, seconded by Commissioner Preston, to approve Item 10, adopted Resolution 2024/007. Roll Call:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

11. Resolution 2024/008 - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the Ferraro Law Firm, P.A. to serve as outside counsel representing the City in litigation related to Per- and Polyfluoroalkyl Substances (PFAS) at the direction of the City Attorney; approving and authorizing execution of an agreement for retention of outside counsel on a contingent fee basis; providing for implementation and an effective date.

The Resolution was read by title only.

Anthony Soroka, City Attorney, stated that the proposal is on a contingency basis and is at no cost to the City. Further, he explained that the Ferraro Law Firm, P.A. is the only law firm in South Florida that is on the executive committee for the multi-district litigation throughout the Country.

Mayor Ganz opened the public hearing.

Bob DiChristopher, 517 NE 6th Avenue, Deerfield Beach, said if the water quality standards are applied to the portable water, there will be a pretty sizeable settlement; whereby, if the water quality standards are applied to the effluent, the numbers will be significantly higher.

DEPARTMENTAL BUSINESS - CONTINUED

Mayor Ganz closed the public hearing.

MOTION was made by Commissioner Hudak, seconded by Commissioner Preston, to approve Item 11, adopted Resolution 2024/008. Roll Call:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

COMMENTS BY ADMINISTRATION & LEGAL**CITY ATTORNEY**

Executive Session - Anthony Soroka, City Attorney, said he is requesting an executive session in the litigation styled *City of Deerfield Beach vs. Class Action Restaurant Group, LLC*, as well as *Class Action Restaurant Group, LLC vs. City of Deerfield Beach*.

Live Local Act - Mr. Soroka said he and Eric Power, Director of Planning & Development Services, are aware of the proposed amendment, which would remove industrial use as one of the areas exempted from regulation, change the distance, as it relates to height, from one mile to a quarter mile, as well as others.

CITY MANAGER

Street Lights - David Santucci, City Manager, said there are a number of street light issues, which staff is addressing; nevertheless, this is an issue many municipalities are facing, due to the lack of supplies, theft of copper, etc.

Pool Closure - Mr. Santucci said minor repairs need to be done to the inlets; therefore, staff is going to coordinate the installation of the bulk head to coincide with these repairs, which will take approximately five to six weeks to complete.

Broward County Commission Meeting - Mr. Santucci said there will be an item regarding Waste Management's Land Use Plan Amendment on the January 23rd agenda.

CITY COMMISSION BUSINESS

12. ORDINANCE 2024/ - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AMENDING ARTICLE II "BOARDS, COMMITTEES, COMMISSIONS" OF CHAPTER 2 "ADMINISTRATION" OF THE CITY CODE OF ORDINANCES TO CREATE SECTION 2-26 "CRIMINAL HISTORY BACKGROUND CHECKS" FOR CERTAIN ADVISORY BOARDS AND COMMITTEES; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

The Ordinance was read by title.

Commissioner Drosky provided a brief overview of the item, which includes Level II Background Checks on board and committee members who interact closely with the public, minors, elderly, and individuals with special needs. These board/committees include the Education Advisory Board, Cultural Committee, and the African American Heritage Board; whereby, the Planning & Zoning Board interacts with the public during their meetings only. Further, he said the three boards/committees mentioned act as city representatives, wear city t-shirts, provide individuals with direction, etc.; therefore, he believes background checks should be instituted for these three boards/committees. Commissioner Drosky said this request is not unique to Deerfield Beach, but regardless if it is or is not, it is something that should be implemented to protect the City's residents, children, and senior citizens. He stated that within 30 days of adoption, the individuals on these three boards/committees would be subject to a Level II Background Check.

Commissioner Preston said although he understands Commissioner Drosky's stance, he disagreed with the Ordinance, whereby, the Elected Officials are not background checked; therefore, it should not be

CITY COMMISSION BUSINESS - CONTINUED

imposed onto others. Further, he said events become a recruiting tool to persuade individuals in getting involved with their community, i.e. joining a board/committee. He disagreed with implementing background checks as there have not been any issues, nor are they required for Elected Officials, who are paid city employees. Commissioner Preston said the State has never implemented a law or requirement pertaining to board/committee members being background checked. Thereafter, he commented on various cities that do not require background checks on their board/committee members, i.e. Boca Raton, Lighthouse Point, Pompano Beach, etc. Although it is well intended, it becomes a solution in search of a problem, and will cause individuals to not want to be involved in their communities. Lastly, he reiterated that if this is going to be done on board/committee members, it should start at the top with the Elected Officials.

Commissioner Hudak agreed with both sides, but stated that nonpaid school volunteers are required to be background checked; nonetheless, is this Commission going to wait until something happens or take a proactive stance. Thereafter, he thanked the members for their time, as it is truly appreciated. These members, which are far and few, participate in city events and are active during commission meetings, which makes our job easier; however, the residents must be protected. Thereafter, he commented on the repercussions the City could face should a member have some type of criminal background. Commissioner Hudak said this is not being brought forward to exclude people, but this commission is taking a proactive approach to ensure the City and residents are protected.

Commissioner Preston said this ordinance is written to exempt the Commission, which he disagreed with. Furthermore, no one else in the County is performing background checks on their board/committee members, whereas, he has been told it will discourage people from volunteering. He said the more people that are involved, the better Deerfield Beach will be. Thereafter, he reiterated that background checks should start at the top with the Commission, and disagreed with it not being uniformed, whereas, it only pertains to certain boards/committees, which sends the wrong message.

Commissioner Drosky said this ordinance was worded to include those members who interact with the public. Furthermore, he disagreed with this being a deterrent for people wanting to participate, whereby, it is a way to protect the individuals in this city. Commissioner Drosky said the Elected Officials are continuously background checked, which he outlined; nonetheless, he has no objections to the Elected Officials receiving background checks. He stated that just because it is not a requirement of other cities or the County, doesn't mean it should not be for Deerfield Beach, and agreed with the City taking a proactive approach.

Commissioner Preston said this commission looks into what other cities are doing when it's convenient, which he disagreed with; nevertheless, the fact that other cities are not imposing this requirement should tell this commission something. Thereafter, he continued to express concerns with imposing this requirement, as it is invasive.

Mayor Ganz said he has no objections with making background checks a requirement to run for office. Thereafter, he commented on various individuals that have run for office. Further, he said he has always been a huge champion of background checks, as instances have occurred in the past. Mayor Ganz disagreed with this being a deterrent, whereby, school volunteers are background checked. Thereafter, he commented on an event that occurred involving a member and a vendor. The boards/committees that are outlined in the Ordinance have the potential to interact with the public, but during city events, there are vendors, charitable groups, etc. that participate who are not background checked, which is concerning; nevertheless, he spoke in support of the background checks, and suggested including the Elected Officials and candidates. Mayor Ganz reiterated that he does not believe it will deter individuals, but if some are worried about passing the background check, they probably shouldn't be a member.

Commissioner Preston stated that city funds are disbursed to organizations that are constantly around children and the elderly, and they are not background checks. He stated that there are many loose ends to this which is challenging. Furthermore, he reiterated that he has heard from various elected officials that it will become discouraging to individuals and it should start at the top, with this commission.

Mayor Ganz had no objections to including the Commission, and reiterated that anyone who cannot pass a background check, he is okay with them not being involved.

CITY COMMISSION BUSINESS - CONTINUED

Vice Mayor Parness said regardless of what other governmental entities are doing, someone has to start, whereby, he would feel terrible if something were to happen that could have been prevented. Further, he asked who would make the determination as to what constitutes someone from not being allowed to volunteer. Thereafter, he spoke in support of the Ordinance and if this commission finds it is not working, then it can be rescinded, and if it does in fact work, then it can be expanded.

In response to Commissioner Hudak's question, Anthony Soroka, City Attorney, replied that the qualifications for being a city commissioner or mayor are dictated by state law and city charter, which he believes does not currently specify that a Level II background check is required; therefore, he would like time to investigate prior to second reading if this is a desire of the Commission. Further, he explained that this ordinance was mirrored by others throughout the State, whereby, it was not suggested by Commissioner Drosky to exclude the Elected Officials.

Commissioner Drosky said the proposed ordinance is directed to Article II; therefore, it can be amended or changed at any time. Further, he believes that the suggested changes would be outside of Article II, so those changes would affect another area of the Code, which he is open too.

Commissioner Preston reminded Vice Mayor Parness that background checks are already in place for sports volunteers.

In response to Commissioner Preston's question, Mr. Soroka replied that state law does not require Level II background checks for boards/committees.

Mayor Ganz opened the public hearing.

Dan Herz, 330 SE 19th Avenue, Deerfield Beach, spoke in opposition to the Ordinance, as it excludes the Commission.

Sandra Jackson, 386 SW 35th Avenue, Deerfield Beach, spoke in opposition to the Ordinance.

Patricia Saunders, 252 SW 34th Avenue, Deerfield Beach, asked how the three boards/committees were chosen.

Diane Chisholm, 375 NW 7th Court, Deerfield Beach, spoke in opposition to the Ordinance and agreed that if it is going to be implemented, it should be across the board. Although she does not have a criminal record, this ordinance deters her from volunteering, as she feels this commission does not trust her. Ms. Chisholm stated that she does not believe Commissioner Preston would choose criminals to serve as volunteers. She said the boards/committees are here to give suggestions, so she is confused as to where the interaction is coming from; nonetheless, she suggested that city paraphernalia not be given out to members. Lastly, she stated that the terminology "certain boards" should be removed from the Ordinance.

Mae Francis-Fagen, 3500 SW Natura Boulevard, spoke in opposition to the Ordinance. Thereafter, she provided a brief overview of her background as a volunteer.

Janice Fulmore-Tigner, 1090 SW 4th Terrace, Deerfield Beach, commented on her tenure as a city board member. Further, she agreed with omitting the terminology "certain boards" and stated that it should start with the Elected Officials and include all boards. Lastly, she asked if it will also be imposed onto student volunteers.

Katy Freitag, 418 SE 2nd Court, Deerfield Beach, agreed with including the Elected Officials, and that it should be across the board, to include all boards/committees. Further, she said many organizations, i.e. Women's Club, Kiwanis, etc. are required to have background checks. Lastly, she reiterated that this should be required for all boards/committees, as they represent the City in some way.

Willie Rosetta Graham-Bracy, 501 NW 1st Terrace, Deerfield Beach, agreed that this should be for all city boards/committees. Further, she said having a background check done on an individual doesn't mean they aren't a criminal.

CITY COMMISSION BUSINESS - CONTINUED

Gwyndolen Clarke-Reed, 1430 SW 6th Way, Deerfield Beach, said each elected official has to recommend an individual to a board/committee, whereby, when she was a commissioner, she got to know the person who she was nominating. Thereafter, she expressed concerns with the way the Ordinance is written.

Barri McMillon, 456 NW 1st Terrace, Deerfield Beach, agreed with it being implemented for all boards/committees.

Mayor Ganz closed the public hearing. Thereafter, he said knowing a person and knowing their background is different, whereas, you don't know what people did years ago; nevertheless, he agreed that background checks are not full proof, so this will put something in place. He said the three chosen boards/committees deal with children, P&Z does not; nevertheless, he agreed that he does not want someone on P&Z who is a scammed developer, so it does make sense to expand it to other boards. Lastly, he reiterated that more than one board/committee has been chosen because they interact with children.

Commissioner Preston reiterated that this is not a state requirement for elected officials, nor board/committee members. Further, he expressed concerns with only a small portion of the community stepping up and expressing their opinions.

In response to Commissioner Hudak's question, Mr. Soroka replied that he would like to research the issue of making it a requirement to serve as a commissioner. Further, he said generally elected officials don't serve on city advisory boards/committees; however, there are state laws that have been passed requiring a commissioner to serve, i.e. Affordable Housing Advisory Committee.

In response to Mr. Soroka's question, Commissioner Hudak replied that he would like him to research Level II background checks for elected officials as it pertains to appointments to boards/committees, not to qualify to run for office.

Mr. Soroka stated that although three boards/committees are outlined in this ordinance, if the duties/responsibilities of other advisory boards/committees change, they would be subject to this ordinance.

MOTION was made by Commissioner Hudak, seconded by Vice Mayor Parness, to defer Item 12 to January 23, 2024. Voice Vote:

Prior to the vote, in response to Vice Mayor Parness' comments, Commissioner Drosky stated that the Ordinance requires a Level II background check, which provides the criteria for a disqualification. Further, he is okay with the deferral but this is first reading, so changes can be made prior to the second reading.

Yeas: 4 - Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 1 - Commissioner Drosky

13. Discussion regarding the 2022/2023 Deerfield Beach public school grades.

Commissioner Drosky commented on an article that mentions an apartment complex in Deerfield Beach that sold for \$24.6 million, and at the end it outlines other cities and their development, redevelopment, and multi-family projects, and then it states that Deerfield Beach was devoid of major multi-family trades in 2023, which is eye opening. He said expenses continue to rise and in order for the City to lower the milage rate, the tax base must be expanded. He stated that it is not wrong to say no to development, but when they are brought forward and are sometimes denied, it creates consequences and adverse effects. Furthermore, if development is lacking in the City, where are families going to live, whereas, there is an influx of individuals moving into Florida. Commissioner Drosky outlined a multitude of factors that attract families to cities, to include good schools. Thereafter, a photograph depicting the public-school grades was displayed, which are not impressive; therefore, he suggested repurposing the Education Advisory Board (EAB) and providing them with more explicit direction as to what their mission should be, whereby, the first mission must be finding out why the school grades are the way they are. Commissioner Drosky also suggested becoming more interactive with the School Board, as there is a new Superintendent, to find out what is going on with the grades, and what can be done. Lastly, he said this is not a knock against the teachers as they are amazing; nevertheless, a change must happen, and it should start with repurposing the EAB.

CITY COMMISSION BUSINESS - CONTINUED

Commissioner Hudak provided a brief overview of his recruitment experience, whereby, no one wanted to move to Deerfield Beach and he now understands why. Thereafter, he commented on Monarch and Lyons Creek schools having high scores and both are well attended by Deerfield Beach residents; Quiet Waters Elementary School was an "A" rated school for ten years, and now they are "C." Further, he said these type things stop young families from moving to Deerfield Beach, which is challenging. Commissioner Hudak said he is unsure what the EAB can do or what influence the Commission can have, but something must be done, which he is in full support of, and the School Board must focus their attention to this.

Commissioner Preston said no matter what this commission or the EAB does, it will be ineffective until the School Board steps up with an immediate plan of action; unfortunately, they are so big they just pass kids through the system. Thereafter, he provided a brief example of his experience with his child in the public school system. Although, he believes whatever is done will be ineffective, he believes the Commission and EAB should do something to show that we care; therefore, he suggested not only tasking the EAB with direction, but this Commission should send a letter to the Superintendent of Broward County expressing our outrage and ask what is going to be done. Lastly, he said the public schools are losing kids to Charter Schools, and reiterated that something must be done.

Mayor Ganz applauded Commissioner Drosky for bringing this forward, as something must be done; therefore, he agreed with providing more direction to the EAB and possibly breaking them up and tasking each member to different schools to find out what the core issues are. Further, he spoke in opposition to using city funds to make up for the School Board deficiencies because children from various cities attend our schools. Mayor Ganz said the grades can be affected by many things, i.e. influx of ESOL students, so additional English classes can be offered. He said if specific instructions and guidelines are provided to the EAB it will provide them with a better direction as to what this commission wants accomplished.

COMMENTS BY MAYOR & CITY COMMISSION**COMMISSIONER HUDAK****DISTRICT 1**

MLK Festivities - Commissioner Hudak said he is looking forward to the festivities.

Happy New Year - Commissioner Hudak wished everyone a Happy New year.

COMMISSIONER PRESTON**DISTRICT 2**

Accolades - Commissioner Preston commended staff for the Papa McThay unveiling.

MLK Festivities - Commissioner Preston outlined the festivities. Thereafter, he thanked the African American Heritage Board, as well as staff for their efforts. Thereafter, he commented on Dr. Martin Luther King's accomplishments. Lastly, he urged everyone to come out.

Form 6 - Commissioner Preston commented on the form, which is extremely invasive; therefore, he suggested that the Commission participate in a lawsuit that may be brought forward.

VICE MAYOR PARNESS**DISTRICT 3**

Broward County - Vice Mayor Parness said District 3 is working with the County to ensure that the lake is not filled in. Further, he will be in attendance at the January 23rd Broward County Commission Meeting.

Voting - Vice Mayor Parness said a new bill is being introduced, which would eliminate voting by mail. Further, he hopes to have the table re-established at city hall to assist people with registering to vote.

Happy New Year - Vice Mayor Parness wished everyone a Happy New year.

COMMISSIONER DROSKY**DISTRICT 4**

Broward County School Board - Commissioner Drosky said he attended the meeting today as the President

COMMENTS BY MAYOR & CITY COMMISSION - CONTINUED

of the Broward League of Cities, which was entirely focused on whether or not they should create their own police force; whereby, the final vote was 9-0 to not proceed. Thereafter, he outlined the various costs for SRO's, whereby, smaller cities want them off their books. Furthermore, many of the SRO's have been within the schools for years and have formed bonds with staff, children, parents, etc., so if the School Board were to take over and remove the SROs, it would eliminate that community bonding that took years to form. Commissioner Drosky said the Superintendent did commit to provide the cities with a new SRO contract, which is forthcoming. Lastly, he agreed with Commissioner Preston, whereby, schools are losing students and many are under capacity, resulting in the Superintendent proposing a repurposing plan in May; therefore, he agreed with the submission of a letter to the Superintendent, as well as inviting Commissioner Rupert to a meeting and providing the EAB with specific instructions on their mission.

Broward County Commission Meeting - Commissioner Drosky asked that the January 23rd meeting be placed on his calendar.

Nina's Place - Commissioner Drosky said they celebrated their one-year anniversary, and they are doing a fantastic job helping to feed the under privilege in our community.

MAYOR GANZ

Deerfield Beach Packer Rattlers - Mayor Ganz commended Waste Pro for their \$10,000 donation.

MLK Events - Mayor Ganz encouraged all to attend the festivities.

ADJOURNMENT

There was no additional business to discuss.

MOTION was made by Commissioner Preston, seconded by Commissioner Hudak, to adjourn the meeting at 11:47 p.m. Voice Vote:

Yeas: 5 - Commissioner Drosky, Commissioner Hudak, Commissioner Preston, Vice Mayor Parness, and Mayor Ganz

Nays: 0

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

Heather Montemayor, CMC, City Clerk

**City of Deerfield Beach
MARINE ADVISORY BOARD MINUTES
November 16, 2023**

The meeting was called to order on the above date by Chair Ramon at 6:00 p.m. in the City Commission Chambers, Deerfield Beach. The following board members were in attendance:

Voting

- Mr. LoCascio
- Mr. Nass
- Mr. Streather
- Chair Ramon

Also in attendance: Patrick Bardes, Coastal & Waterway Coordinator, and Amelia Jadoo, Assistant City Attorney.

- Not in attendance: Mr. Ginarte, Vice Chair Chapman

PUBLIC INPUT

None.

APPROVAL OF AGENDA

Motion was made by Mr. Nass, seconded by Mr. LoCascio to approve the agenda as submitted. The motion CARRIED by unanimous vote.

APPROVAL OF MINUTES

Motion was made by Mr. Nass, seconded by Mr. LoCascio to approve the October 19, 2023 minutes as submitted. The motion CARRIED by unanimous vote.

NEW BUSINESS

A. Underwater World of Diving Off Deerfield Beach Presentation by Jim “Chiefy” Mathie

Jim “Chiefy” Mathie provided a brief presentation regarding South Florida diving. He explained that South Florida has the largest reef in the continental United States, extending from the Dry Tortugas towards the Port St. Lucie inlet with three reef lines, which help reduce the storm surge from hurricanes. The first reef line is 10 to 15 feet deep, the second is 45 to 65 feet deep, and the third is up to 100 feet deep. Thereafter, he outlined the locations of various artificial reefs, wrecks, and statues off the coast of Broward County that are popular dive spots, bringing many tourists to the area.

In response to Mr. Nass' questions, Mr. Mathie listed various artificial wrecks in Pompano Beach. Further, he said the demographics of divers is changing rapidly.

In response to Mr. Streather's question, Mr. Mathie replied that the increased shark population will continue as long as people keep feeding them; however, limited harvesting may help with the issue.

B. Towboat US Captain Matthew Introduction

Chair Ramon said the Board desires to create relationships with towing companies and is seeking insight and information from them, so it can be relayed to the public.

Hunter DeCamp, Towboat US, provided a brief overview of the company and the services they provide.

In response to Chair Ramon's question, Mr. DeCamp replied that most boaters are aware of the company and encourages them to buy memberships.

In response to Mr. Nass' question, Mr. DeCamp replied that the company would be willing to participate in city events.

Mathieu Melanson, Flagship Towing, said the company caters towards boaters that don't have memberships due to having a smaller staff which allows them to have lower costs; nevertheless, their goal is to be nation-wide.

In response to Chair Ramon's question, Mr. Melanson replied that the most important thing for the public to know is that their company is available and more affordable, should the need for their services arise.

In response to Mr. Nass' question, Mr. Melanson listed the ways in which customers can contact the company. Additionally, if they were to respond to a medical emergency, the captains have first aid and CPR equipment on board.

In response to Patrick Bardes', Coastal & Waterway Coordinator, question, Mr. Melanson replied that boat clubs typically have contracts with tow companies.

C. Intracoastal Safety Discussion by Aaron LoCascio

Mr. LoCascio said there has been an increased population in South Florida over the last 25 years which has also increased the number of boaters and accidents on the water. In Deerfield Beach, the intracoastal averages less than 300 feet wide, and most accidents are due to speeding. He stated that changing the mile and a half stretch of water south of the Hillsboro Bridge and NE 47th Street to a slow speed, minimum wake zone to 12 months out of the year as apposed to the current five months will decrease accidents. Thereafter, he cited the City of Hallandale Beach Code, as they were able to create and implement slow speed zones in 2021.

Hunter DeCamp, Towboat US, suggested allowing for an exemption in the slow speed zones for first responders in emergency situations.

In response to Jim “Chiefy” Mathie’s suggestion to enact minimum wake zones on weekends during peak hours, Mr. LoCascio replied that having uniformity would help to avoid confusion. Additionally, due to the proximity of nearby inlets, creating the minimum wake zones would only add an additional 12 minutes in travel time. Lastly, a petition would need to be created to create a permanent minimum wake zone.

Robert Rike, 1631 Riverview Road, Deerfield Beach, spoke in favor of the petition and suggested making the Hillsboro River a minimum wake zone.

Thereafter, discussion ensued regarding the next steps to get the petition started.

Motion was made by Mr. LoCascio, seconded by Mr. Streather to propose the minimum wake zone changes to the City Manager. The motion CARRIED by unanimous vote.

BOARD MEMBER COMMENTS

Mr. Nass said the Board needs to increase public attendance by promoting future presentations.

In response to Mr. LoCascio’s question, Patrick Bardes, Coastal & Waterway Coordinator, explained the process for filling vacancies on the Board.

Chair Ramon said she will continue to distribute recruitment fliers.

In response to Mr. Streather’s question, Mr. Bardes replied that the next city sponsored beach cleanup event will be in January; however, the City will provide supplies to any other groups that wish to have a cleanup event.

NEXT MEETING – NOVEMBER 16, 2023

Chair Ramon stated that the next meeting will be held on December 21, 2023.

Thereafter, discussion ensued regarding cancelling the meeting due to the holidays.

ADJOURNMENT

Motion was made by Mr. Streather, seconded by Mr. LoCascio to adjourn the meeting at 8:34 p.m. The motion CARRIED by unanimous vote.

HILLSBORO INLET DISTRICT
Minutes of Regular Monthly Meeting, Monday, November 20, 2023
Fletcher Hall, 2200 NE 38th Street, City of Lighthouse Point

MEMBERS PRESENT:

Chair Denise Bryan
Vice Chair Laurence Gore
Commissioner Scott Loesel
Commissioner Tyler Chappell
Commissioner Randy Strauss
Commissioner Robert O'Neill
Commissioner Max Turner
Commissioner Tom Campbell

OTHERS PRESENT:

David N. Tolces, General Counsel, Weiss Serota Helfman
Cole & Bierman, P.L.
Captain Woodworth R. Draughon III
Assistant Captain, Alexander Cuevas
District Accountant Robert Andrews
Kimberly Longo, District Secretary
Christopher Creed, P.E., D.C.E, Olsen Associates, Inc. (Via
Zoom)

QUORUM PRESENT: The Secretary called the roll and established a quorum for the regular meeting. The meeting was called to order by Chair Bryan at 6:30 P.M.

APPROVAL OF MINUTES: A Motion to approve the October 16, 2023 Regular Meeting Minutes was made by Vice Chair Gore and seconded by Commissioner Campbell.

Chair Bryan	Yes
Vice Chair Laurence Gore	Yes
Commissioner Loesel	Yes
Commissioner Chappell	Yes
Commissioner Strauss	Yes
Commissioner O'Neill	Yes
Commissioner Turner	Yes
Commissioner Campbell	Yes

The Motion to approve the Regular Meeting Minutes was approved unanimously. (8-0)

APPROVAL OF OUTSTANDING BILLS: A Motion was made by Vice Chair Gore and seconded by Commissioner Loesel for approval of all outstanding bills in the amount of \$111,589.58. The bills were reviewed and discussed in detail.

Chair Bryan	Yes
Vice Chair Gore	Yes
Commissioner Loesel	Yes

Commissioner Chappell	Yes
Commissioner Strauss	Yes
Commissioner O'Neill	Yes
Commissioner Turner	Yes
Commissioner Campbell	Yes

The Motion to approve the outstanding bills was approved unanimously. (8-0)

APPROVAL OF CURRENT MONTH'S EXPENSES: Motion was made by Vice Chair Gore and seconded by Commissioner Loesel to approve current month's expenses of approximately \$50,000.00.

Chair Bryan	Yes
Vice Chair Gore	Yes
Commissioner Loesel	Yes
Commissioner Chappell	Yes
Commissioner Strauss	Yes
Commissioner O'Neill	Yes
Commissioner Turner	Yes
Commissioner Campbell	Yes

The Motion to approve the current month's expenses was approved unanimously. (8-0)

INLET STATUS REPORT: Captain Draughon advised the Board no depth chart due to weather and will provide soundings when the weather gets better.

Captain Draughon advised the Board that the dredge is back at the inlet.

Captain Draughon advised the Board that the crew performed general maintenance. Captain Draughon also advised that the crew also performed the following:

1. Worked on the elbow barge and dredge to make sure they are operational (weather did not help at all with heavy rains and winds);
2. Moved sand to assist what came in with the storm, putting sand up against the jetty and Coast Guard builds as well; and
3. House is getting done. The crew put some windows on to make sure the weather does not get in there.

Captain Draughon advised that the dredge should be up and running after Thanksgiving and getting fuel this week.

PUBLIC COMMENTS: John Carlsson, a resident of Hillsboro Mile discussed issues with the 688 pole marker and issues related to his property on Hillsboro Beach and boats travelling in the intracoastal waterway. Chair Bryan advised that it is not the Hillsboro Inlet District's jurisdiction and provided some suggestions on who he can contact.

NEW BUSINESS

RESOLUTION NO. 2023-05 – ADDITIONAL COMEPENSATION FOR EMPLOYEES:

Resolution No. 2023-05 was read into the record by General Counsel, David Tolces as follows:

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF THE HILLSBORO INLET DISTRICT, FLORIDA, AN INDEPENDENT SPECIAL DISTRICT OF THE STATE OF FLORIDA, AUTHORIZING EXTRA COMPENSATION TO BE PAID TO HILLSBORO INLET DISTRICT EMPLOYEES FOR EXEMPLARY PERFORMANCE DURING THE 2023 CALENDAR YEAR; PROVIDING SEVERABILITY; PROVIDING FOR CONFLICT; PROVIDING FOR AN EFFECTIVE DATE.

A motion was made by Vice-Chair Gore and seconded by Commissioner Chappell to approve Resolution No. 2023-05 (Additional Compensation for Employees).

Chair Bryan	Yes
Vice Chair Laurence Gore	Yes
Commissioner Loesel	Yes
Commissioner Chappell	Yes
Commissioner Strauss	Yes
Commissioner O'Neill	Yes
Commissioner Turner	Yes
Commissioner Campbell	Yes

The Motion to approve Resolution No. 2023-05 (Additional Compensation for Employees) was approved unanimously. (8-0)

RESOLUTION NO. 2023-06 – PERSONNEL POLICY UPDATE:

Resolution No. 2023-06 was read into the record by General Counsel, David Tolces as follows:

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF THE HILLSBORO INLET DISTRICT, FLORIDA, ADOPTING THE HILLSBORO INLET DISTRICT EMPLOYEE POLICY MANUAL IN CONFORMANCE WITH AND SUPPLEMENTAL TO CHAPTER 99-433, LAWS OF FLORIDA, AND THE LAWS OF THE STATE OF FLORIDA; PROVIDING FOR CONFLICT; PROVIDING FOR SEVERALABILITY; PROVIDING FOR AN EFFECTIVE DATE.

Attorney Tolces stated that there is an attached updated personnel employee policy manual and advised the last time the manual was updated was in November 2015. Attached is a copy showing what changes have been made for certain updated legal requirements. The two primary issues are vacations and medical insurance.

A motion was made by Vice-Chair Gore and seconded by Commissioner Chappell to approve Resolution No. 2023-06 (Personnel Policy Update).

Chair Bryan opened the floor for discussion. The Board discussed the need to correct language regarding employees who do not have family coverage prior to December 1, 2023, will have to pay their own premium for family coverage. There was discussion regarding health insurance and how much the District will pay and how much employees will pay. Commissioner Chappell stated the overall benefit package for employees should be adjusted.

A motion was made by Commissioner Loesel and Vice Chair Gore to table this Resolution until the next meeting.

The Motion to table Resolution No. 2023-06 (Personnel Policy Update) to the next meeting was approved unanimously. (8-0)

PROPOSED 2024 MEETING DATES: The Board discussed the 2024 proposed meeting dates. Motion was made by Commissioner Loesel and seconded by Commissioner Campbell to approve the 2024 meeting dates.

Chair Bryan	Yes
Vice Chair Laurence Gore	Yes
Commissioner Loesel	Yes
Commissioner Chappell	Yes
Commissioner Strauss	Yes
Commissioner O'Neill	Yes
Commissioner Turner	Yes
Commissioner Campbell	Yes

The motion to approve the 2024 meeting dates was approved unanimously. (8-0)

OLD BUSINESS

HEALTH INSURANCE DISCUSSION: District Accountant Robert Andrews discussed the health insurance research for the District through the State. He contacted the State several times but to date, they have been unresponsive. Mr. Andrews stated he will reach out to Florida League of Cities in May. The Board discussed different insurance options for the District's crew.

UPDATE AS TO SAND BYPASS AND MAINTENANCE DREDGING PERMIT APPLICATION: Chris Creed of Olsen Associates, Inc. advised the Board that they are continuing to work on the activities associated with the Sand Bypass Permit. FDEP has requested more information. Several issues were raised relating to seagrass protection and the pipeline corridors across the inlet and across the upland area to the south. Mr. Creed advised that they are going to show the location of the pipeline where it has been historically.

GENERAL COUNSEL COMMENTS: Attorney Tolces has been in contact with the Hillsboro Inlet Sailing Club and they would like representatives of the Hillsboro Inlet District to attend their January 12, 2024 meeting. Chair Bryan stated it would be good if attorney Tolces attend. Chair Bryan advised that she will attend and Captain Draughon will attend as well.

COMMISSIONER COMMENTS: Chair Bryan and Attorney David Tolces met with Judy Wilson at the New Pelican Paper. They provided Judy with the District's budget and how much money it takes to keep the inlet safe. They also spoke about the issue that may be coming up with the new dock that will be trying to get permitted.

DECEMBER MEETING: The Board discussed cancelling the December meeting due to the Christmas holiday that week. Motion was made by Commissioner O'Neill and seconded by Commissioner Vice Chair Gore to cancel the December meeting.

Chair Bryan	Yes
Vice Chair Laurence Gore	Yes
Commissioner Loesel	Yes
Commissioner Chappell	Yes
Commissioner Strauss	Yes
Commissioner O'Neill	Yes
Commissioner Turner	Yes
Commissioner Campbell	Yes

The motion to approve the cancellation of the December meeting was approved unanimously. (8-0)

ADJOURNMENT: Motion was made by Commissioner Loesel to adjourn the meeting and seconded by Commissioner Strauss. The meeting was adjourned at 7:37 PM by Chair Bryan.

Respectfully submitted,

Kimberly Longo, District Secretary

City of Deerfield Beach - Cultural Committee
Meeting Minutes
Monday, December 18, 2023, | 6:30 PM
Hillsboro Community Center | 50 Hillsboro Technology Drive

Call to Order and Roll Call

Carolyn Marshall, Manager I, called the meeting to order at 6:35 p.m.

Members Present: Ashley Gombs, Chair, arrived at 6:44 p.m.
Deborah Sullivan, District 1
Thelema Lamar, District 2

Also Present: Carolyn Marshall, Manager I
Lauren Goas, Administrator of Special Events & Athletics
Amelia Jadoo, Assistant City Attorney
Jessica King, Manager I
Greg Warner, Director of Parks and Recreation
Horace McHugh, Deputy City Manager

Staff Updates

Art Stroll Opportunities

Lauren Goas, Administrator of Special Events & Athletics, advised that the Board has the opportunity to may move forward with a merchandise tent and snacks at the Art Stroll event.

MOTION was made by Ms. Sullivan, seconded by Ms. Lamar to sell snacks at \$2 apiece. The motion PASSED unanimously.

Amelia Jadoo, City Attorney, Updates – None

Proposal New for 12/30

Ms. Islah provided a brief overview of the show on Saturday, December 30, 2023 at Constitution Park. After a brief discussion, the Board determined that the show was too elaborate and the logistical details were insufficient.

MOTION was made by Ms. Gombs, seconded by Ms. Sullivan to deny the proposal. Roll Call: YAYS: Ms. Gombs and Ms. Sullivan. NAYS: Ms. Lamar.

Comments from Committee

Ms. Lamar requested to do a virtual Kwanzaa celebration via the City's social media platform. Thereafter, she provided a brief overview of what she would like done, to include the Kenora being set up in front of the Firehouse (on Hillsboro and Federal) and ensuring that it is properly lit at night for the entirety of the holiday.

Ms. Lamar suggested that Ms. Islah perform with her theatre group for Black History Month on February 24, 2024. She advised that Ms. Islah will present her with a detailed

proposal, which she will then submit to City staff by Friday, December 22nd at 2 p.m. for consideration.

Staff advised that the proposal would need to be reviewed by the City Attorney and City Manager prior to board approval.

MOTION was made Ms. Lamar, seconded by Ms. Gombs. The motion PASSED unanimously.

Comments from Staff - Horace McHugh, Deputy City Manager, wished everyone a happy holiday.

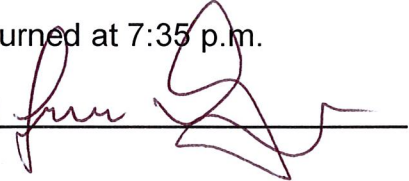
Comments from the Public - None.

Next Meeting

January 22, 2024

Adjournment

The meeting adjourned at 7:35 p.m.

Minutes Approved  Date 1/26/2024



Regular City Commission Meeting - February 6, 2024

DEERFIELD BEACH - YOU ARE HEREBY NOTIFIED that the **Regular City Commission** meeting will be held on **Tuesday, February 6, 2024, at 7:00 PM in the City Commission Chambers located at the City Hall Complex, 150 NE 2nd Avenue, Deerfield Beach, Florida.** A quorum of the City Commission will be physically present at the meeting and the City will be utilizing communications media technology with most City staff participating through video conferencing.

The February 6, 2024, Regular City Commission meeting will proceed utilizing communications media technology; **however, the City Commission Chambers located at the City Hall Complex, 150 NE 2nd Avenue, Deerfield Beach, will be open to the public as an additional method** for speakers wishing to speak on items. A copy of the agenda for the February 6, 2024 meeting will be available at <http://www.deerfield-beach.com/1554/Meetings-Agendas>.

Attending and Viewing the City Commission Meeting:

This meeting will be broadcast live for members of the public. There are several options available to the public to attend/view the meeting:

- 1. In Person Attendance.** Attend in person in the City Commission Chambers.
- 2. Zoom**
 - a. Via Zoom Online** - Access to the meeting will begin at 6:45 PM on February 6, 2024.
 - i. Use the following link below to access the meeting via Zoom:
<https://deerfield-beach.zoom.us/j/85794068762?pwd=aTUwbERTOTJoUXRCc2hXK3BleGhndz09>
 - ii. The video camera display feature is disabled for public use.
 - b. Via Zoom Telephone** - Join the meeting via telephone (audio only) using the Call-in number below, followed by the Meeting ID when prompted. No computer or access code is required.

Call-in Number: (301) 715-8592, Meeting ID: 857 9406 8762#, Participant ID: #, Passcode: 306672#

For more information on using Zoom, please visit Zoom Support at the following link:
<https://support.zoom.us/hc/en-us>.

3. YouTube

The meeting will also be available to the public via YouTube for audio and video access; however, public participation, i.e. comments are not possible. The link to watch the meeting via YouTube will be active no later than 6:45 PM on February 6, 2024, and can be found by clicking the camera icon in the Media column at <http://www.deerfield-beach.com/1554/Meetings-Agendas>.

Providing Public Comment:

Public participation is strongly encouraged. Your comments will be limited to three minutes per person. To participate, please choose the option best for you and remember to include your name and address for the record.

1. **In person** - Public comment may be given in the Commission Chambers during the applicable public comment portion of the meeting.
2. **Live Zoom Video Participation** - If attending via Zoom online, at the appropriate public comment period, click “raise hand” which is located at the bottom of the screen under the “reactions” tab, and your audio will be unmuted when you are recognized.
3. **Live Zoom Telephone Participation** - If attending via Zoom by telephone, at the appropriate public comment period, press *9 to “raise your hand” and your audio will be unmuted when you are recognized.

IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND FLORIDA STATUTE 286.26, PERSONS WITH DISABILITIES NEEDING SPECIAL ACCOMMODATION TO PARTICIPATE IN THIS PROCEEDING SHOULD CONTACT THE CITY CLERK NO LATER THAN 3 DAYS PRIOR TO THE MEETING AT (954) 480-4213 FOR ASSISTANCE.

Should you have any questions, please feel free to contact the City Clerk’s Office at 954.480.4213. For additional information on the agenda items for the Commission meeting, please visit www.dfb.city.



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-28

Agenda Date: 2/6/2024

Status: PUBLIC HEARINGS - FIRST
READING

In Control: City Commission

Title

P.H. 2024-039: ORDINANCE 2024/ - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, REZONING APPROXIMATELY 16.5 GROSS ACRES LOCATED AT 600 & 700 WEST HILLSBORO BOULEVARD FROM HIGHWAY BUSINESS DISTRICT (B-2) TO PLANNED DEVELOPMENT DISTRICT (PDD) (APPLICATION 21-R-196); PROVIDING FOR A MAXIMUM OF 360 DWELLING UNITS; PROVIDING FOR SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Recommended Action

Commission to vote on Ordinance and set second public hearing for February 20, 2024

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Background/History

On April 25, 2023, the City Commission approved the second reading of the Land Use Plan Amendment Application #65A approving the change in land use on the subject parcels from Commercial to Medium-High (25) Mixed Use- Residential (21.82 du/ac).

The Applicant has also submitted a Plat Application 21-P-232 and a Site Plan Application No. 21-PDD-03, seeking approval for the proposed development of the subject properties and is pending separate review and approval. The Applicant intends to redevelop the subject properties with 239,672 square feet of commercial across 4 buildings, an additional residential building with 360 multi-family dwelling units with an attached parking garage, and associated on and off-site improvements.

Applicants for rezoning to the PDD district must demonstrate, through a statement of need, that there are unique property characteristics that impede the development of the properties under strict application of the Code, development is apparent and will enhance economic development strategies of the City.

The Applicant is required by Code to enter into a Development Agreement with the City, which must be approved by the City Commission as part of the rezoning. Although the Development Agreement is not within the purview of the Planning and Zoning Board, the following information from the agreement is related to the approval of the rezoning application:

Applicant agrees to the following:

- Drainage and roadway improvements to SW Natura Boulevard;
- Sidewalk and pedestrian improvements to SW Natura Boulevard;
- Voluntary contribution for improvements to Oveta McKeithen Recreational Complex;
- Voluntary contributions to the City's affordable housing programs;
- Open space improvements with art features at three (3) locations.

The Applicant has made requests to deviate from the Land Development Code through the PDD zoning, which is permitted with the approval of the rezoning application: Requested changes include:

- Decrease front setback (Hillsboro Boulevard) to 20 feet;
- Increase corner side setback (Natura Boulevard) to 50 feet;
- Decrease rear setback (southern portion of Natura Boulevard) to 15 feet;
- Increase side setback (I-95) to 20 feet;
- Increase minimum floor area to 10,000 square feet;
- Increase maximum floor area ratio (FAR) to 1.1 for all buildings;
- Increase maximum lot coverage to 38%;
- Increase minimum landscaped area to 24%;
- Increase maximum building height to 80 feet;
- Reduce required parking spaces to 9 feet by 18 feet;
- Increase maximum height for signs setback 2'-9" from property line to 6 feet;
- Reduce minimum parking required to 1,344 spaces.

A traffic impact analysis was submitted for the proposed development and all findings were approved by the City's traffic consultant.

The Planning and Zoning Division is unaware of any historical significance of the property or prior historical activities associated with the site.

The Planning and Zoning Board reviewed and unanimously recommended approval to the City Commission at its meeting on January 4, 2024.

REQUESTED ACTION:

Recommendation to the City Commission on the proposed rezoning with the following condition:

1. Owner / applicant shall enter into a Development Agreement as approved by the City Commission.

ORDINANCE NO. 2024/

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, REZONING APPROXIMATELY 16.5 GROSS ACRES LOCATED AT 600 & 700 WEST HILLSBORO BOULEVARD FROM HIGHWAY BUSINESS DISTRICT (B-2) TO PLANNED DEVELOPMENT DISTRICT (PDD) (APPLICATION 21-R-196); PROVIDING FOR A MAXIMUM OF 360 DWELLING UNITS; PROVIDING FOR SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

WHEREAS, the City Commission, as the governing body of the City of Deerfield Beach, Florida, pursuant to the authority in Chapter 163 and Chapter 166, Florida Statutes, and the City of Deerfield Beach Code of Ordinances, is authorized and empowered to consider applications related to zoning and land development orders; and

WHEREAS, G&C Hillsboro Investors, LLC (the “Applicant”) has applied for a rezoning of approximately 16.5 gross acres of land consisting of three parcels generally described as a portion of Tract A, “Hillsboro-95 Office Park,” according to the Plat thereof, as recorded in Plat Book 105, Page 30, of the Public Records of Broward County, Florida, together with Tract 1, “Crocker South,” according to the Plat thereof, as recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida, together with a portion of the South ½ of Government Lots 2 and 3, in the Southeast ¼ of the Northwest ¼ of Section 1, Township 48 South, Range 42 East, as more particularly described in the file, and located at 600 & 700 W. Hillsboro Blvd., Deerfield Beach, Florida, (collectively, the “Property”) from Highway Business District (B-2) to Planned Development District (PDD) (the “Rezoning”); and

WHEREAS, as required by Section 98-68 “PDD, planned development district” of the City’s Land Development Code (the “Code”), the Rezoning application includes a statement of need, conceptual master plan, and proposed property development requirements and is subject to execution of a Development Agreement in compliance with the Code; and

WHEREAS, the Applicant has submitted a master conceptual plan that demonstrates re-development of the Property into 239,672 square feet of commercial use across 4 buildings, an additional mid-rise residential building with 360 multi-family dwelling units with an attached parking garage, and associated on and off-site improvements; and

WHEREAS, on April 25, 2023, the City Commission approved the Applicant’s request for a land use change on the subject parcels from Commercial to Medium-High (25) Mixed Use-Residential (21.82 dwelling units/acre); and

WHEREAS, the Deerfield Beach Planning and Zoning Board reviewed the Rezoning application on January 4, 2024, as required by Florida Statutes, and recommended approval; and

WHEREAS, the notice and hearing requirements have been satisfied; and

WHEREAS, the City Commission has considered the evidence and testimony presented by the Applicant and other interested parties, and the criteria in Section 98-68(g) of the Code, and the recommendations of the various City of Deerfield Beach review agencies and staff; and

WHEREAS, the City Commission has determined that the proposed Rezoning is consistent with the City of Deerfield Beach Comprehensive Plan designation of Medium-High (25) Mixed Use-Residential (21.82 dwelling units/acre) for the Property; and

WHEREAS, the City Commission of the City of Deerfield Beach finds it in the best interest of the City to Rezone the Property to Planned Development District (PDD).

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above “WHEREAS” clauses are true and correct and are incorporated herein.

Section 2. The Rezoning of the Property from Highway Business District (B-2) to Planned Development District (PDD) is hereby approved, subject to the following conditions all of which shall be satisfied by the Applicant prior to the issuance of any building permit: (i) the conditions set forth in the DRC report, dated December 21, 2023, and (ii) execution, and the recording in public record, of a Development Agreement, in a form approved by the City Attorney, in compliance with Section 98-68 of the Code and providing at a minimum for all of the following (with the timeframe for completion of the following items as specified in the Development Agreement):

1. Applicant shall be required to provide drainage and roadway improvements to SW Natura Boulevard;
2. Applicant shall be required to provide sidewalk and pedestrian improvements to SW Natura Boulevard;
3. Applicant shall provide a monetary contribution to the City for improvements to Oveta McKeithen Recreational Complex;
4. Applicant shall provide a monetary contribution to the City’s affordable housing programs in the amount of \$500.00 per dwelling unit for the maximum three hundred sixty (360) dwelling units allowed on the Property (\$180,000 total for the 360 units);
5. Applicant shall install open space nodes at three locations as part of Phase 1 construction and shall, at no cost to the City, install at least three public art pieces at the three node locations in accordance with the City’s Public Art Program and regulations; and
6. If warranted in accordance with the FHWA Manual on Uniform Traffic Control Devices, Applicant shall install a crosswalk along SW Natura Boulevard, at the location determined by the City, and in accordance with the City’s applicable engineering standards.

Section 3. All sections or parts of the City Code of Ordinances, all ordinances or parts of ordinances and all resolutions or parts of resolutions in conflict with this Ordinance are hereby repealed to the extent of such conflict.

Section 4. Should any section or provision of this ordinance or any portion thereof, any paragraph, sentence or word be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remainder of this Ordinance.

Section 5. This Ordinance shall be in full force and effect immediately upon its passage and adoption on second reading.

PASSED 1ST READING ON THIS _____ DAY OF _____, 2024

PASSED 2ND READING ON THIS _____ DAY OF _____, 2024

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK



PUBLIC HEARING NOTICE

January 22, 2024

Dear Property Owner:

This is to notify you that the CITY COMMISSION of the City of Deerfield Beach, a municipal corporation of Florida, shall hear an application for:

P.H. 2024-039: AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, REZONING APPROXIMATELY 16.5 GROSS ACRES LOCATED AT 600 & 700 WEST HILLSBORO BOULEVARD FROM HIGHWAY BUSINESS DISTRICT (B-2) TO PLANNED DEVELOPMENT DISTRICT (PDD) (APPLICATION 21-R-196); PROVIDING FOR A MAXIMUM OF 360 DWELLING UNITS; PROVIDING FOR SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

A public hearing will be held on **TUESDAY, FEBRUARY 6, 2024 at 7:00 p.m.** in the City Commission Chambers, City Hall, 150 NE 2nd Avenue, Deerfield Beach, Florida, and/or utilizing communications media technology with some elected officials and City staff participating through video conferencing via Zoom (virtual meeting). All interested parties may appear in person to offer evidence in support of or against the proposal. Further information may be obtained at www.deerfield-beach.com/agendas on January 26, 2024 or from the Planning and Development Services Department during business hours in City Hall, 150 N.E. 2nd Avenue, Deerfield Beach, FL 33441, phone: (954) 480-4206.

At said meeting interested persons may appear and be heard with respect to the public hearing. Any person who decides to appeal any decision made by the City Commission with respect to any matter considered at this hearing would need a record of the proceedings. And for such purpose, may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. The above notice is required by State Law (FS 286.0105). **Any person desiring a verbatim transcript shall have the responsibility, at his own expense, to arrange for the presence at the hearing of a certified court reporter.** A full transcript of the proceedings will be needed to appeal any decision of the City Commission.

Any person requiring auxiliary aids and services at this hearing may contact the City Clerk's Office at (954) 480-4213 at least 24 hours prior to the meeting. If you are hearing or speech impaired, please contact the Florida Relay Service by using the following numbers: 1-800-955-8770 or 1-800-955-8771.

Heather Montemayor, CMC, City Clerk



Public Hearing Notice Map

Site Plan Application 21-PDD-03
Rezoning Application 21-R-196
Plat Application 21-P-232

600 & 700 W HILLSBORO BLVD

For additional information
call the Planning Department at 954-480-4206
or visit www.deerfield-beach/boardagendas



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PUBLIC NOTICE

APPLICATIONS 21-R-196, 21-P-232, 21-PDD-03

December 15, 2023

Dear Property Owner:

This is to notify you that the **PLANNING AND ZONING BOARD** of the City of Deerfield Beach, a municipal corporation of Florida, shall hear applications for:

G&C Hillsboro Investors, LLC
Represented by Greenspoon Marder, LLP/ Dennis Mele, Esq.

Seeking Rezoning application approval to amend the City of Deerfield Beach Zoning Map on three (3) parcels totaling 16.5 gross acres from B-2, Highway Business to PDD, Planned Development District (Application 21-R-196); and

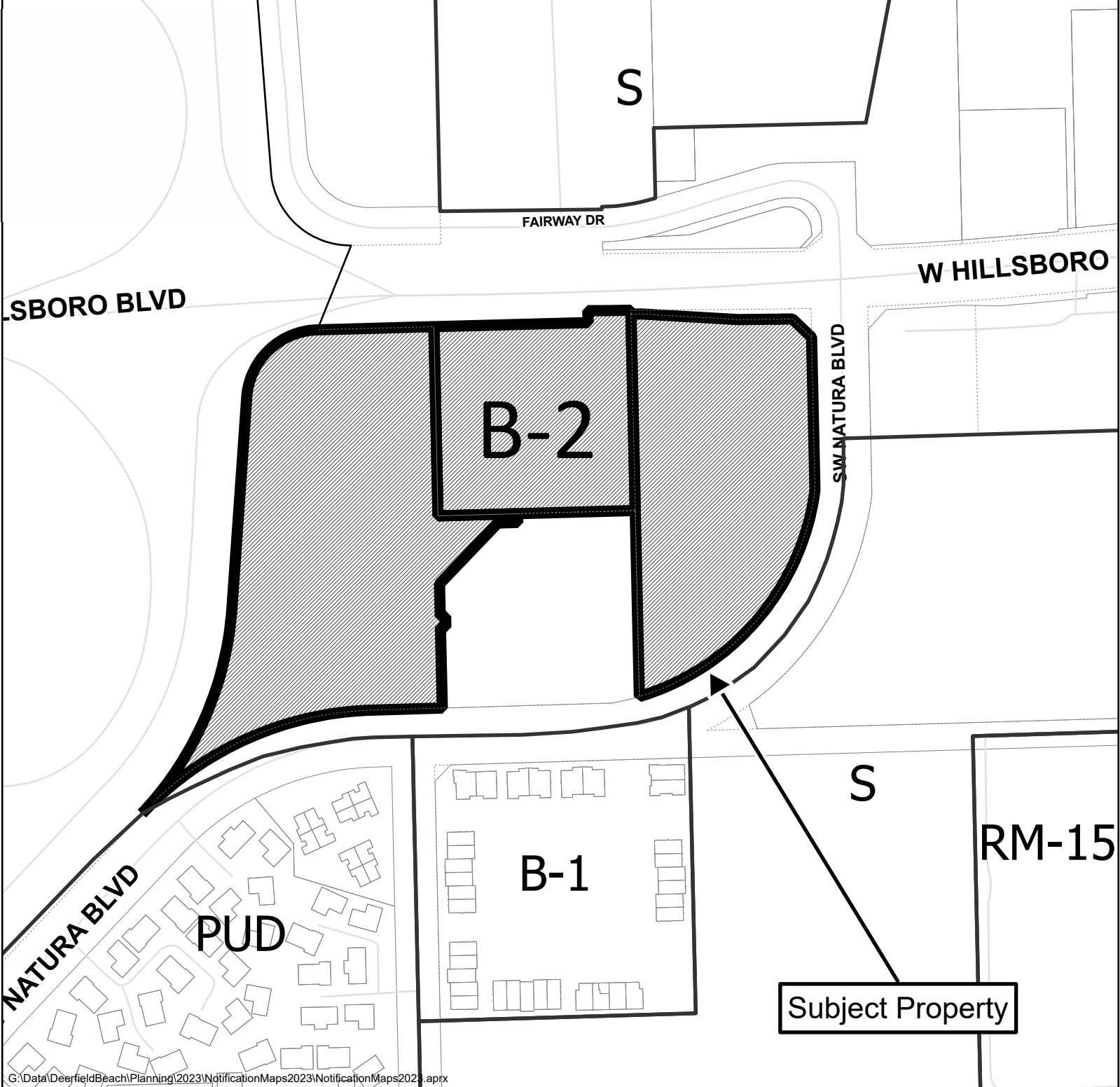
Seeking Plat application approval to plat a 4.244 acre site to be restricted to 360 mid-rise units to be known as "GC Hillsboro Residential" (Application 21-P-232)

Seeking Major Site Plan approval to demolish an existing two-story 41,700 square foot office building, to partially demolish and renovate another office building, and construct a new 360 unit, multi-family apartment complex and parking garage with associated site improvements (Application 21-PDD-03).

The property is generally described as a portion of Tract A, "Hillsboro-95 Office Park," according to the Plat thereof, as recorded in Plat Book 105, Page 30, of the Public Records of Broward County, Florida, together with Tract 1, "Crocker South," according to the Plat thereof, as recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida, together with a portion of the South ½ of Government Lots 2 and 3, in the Southeast ¼ of the Northwest ¼ of Section 1, Township 48 South, Range 42 East, more particularly described in the file, and located at **600 & 700 W. Hillsboro Boulevard**.

A public hearing will be held on **THURSDAY, January 4, 2024, at 7:00 P.M.** in the **City Hall Commission Chambers, located at 150 NE 2nd Avenue, Deerfield Beach, FL 33441**. All interested parties may appear in person to offer evidence in support of or against the proposal. Further information may be obtained at www.deerfield-beach.com/boardagendas or you may contact the Planning Office during business hours in City Hall, 150 N.E. 2nd Avenue, Deerfield Beach, FL 33441, phone: (954) 480-4206.

Any person wishing to appeal any decision made by the Planning and Zoning Board with respect to any of the above, will need a record of the proceedings and for such purpose, may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is based. The above notice is required by State Law (FS 286.0105.) **Anyone desiring a verbatim transcript shall have the responsibility, at his/her own expense, to arrange for the presence at the hearing of a certified court reporter.** A full transcript of the proceedings will be needed in order to appeal any decision of the Board. If anyone requires auxiliary aids for communication, please call (954) 480-4206.



Existing Zoning Map

Rezoning Application 21-R-196

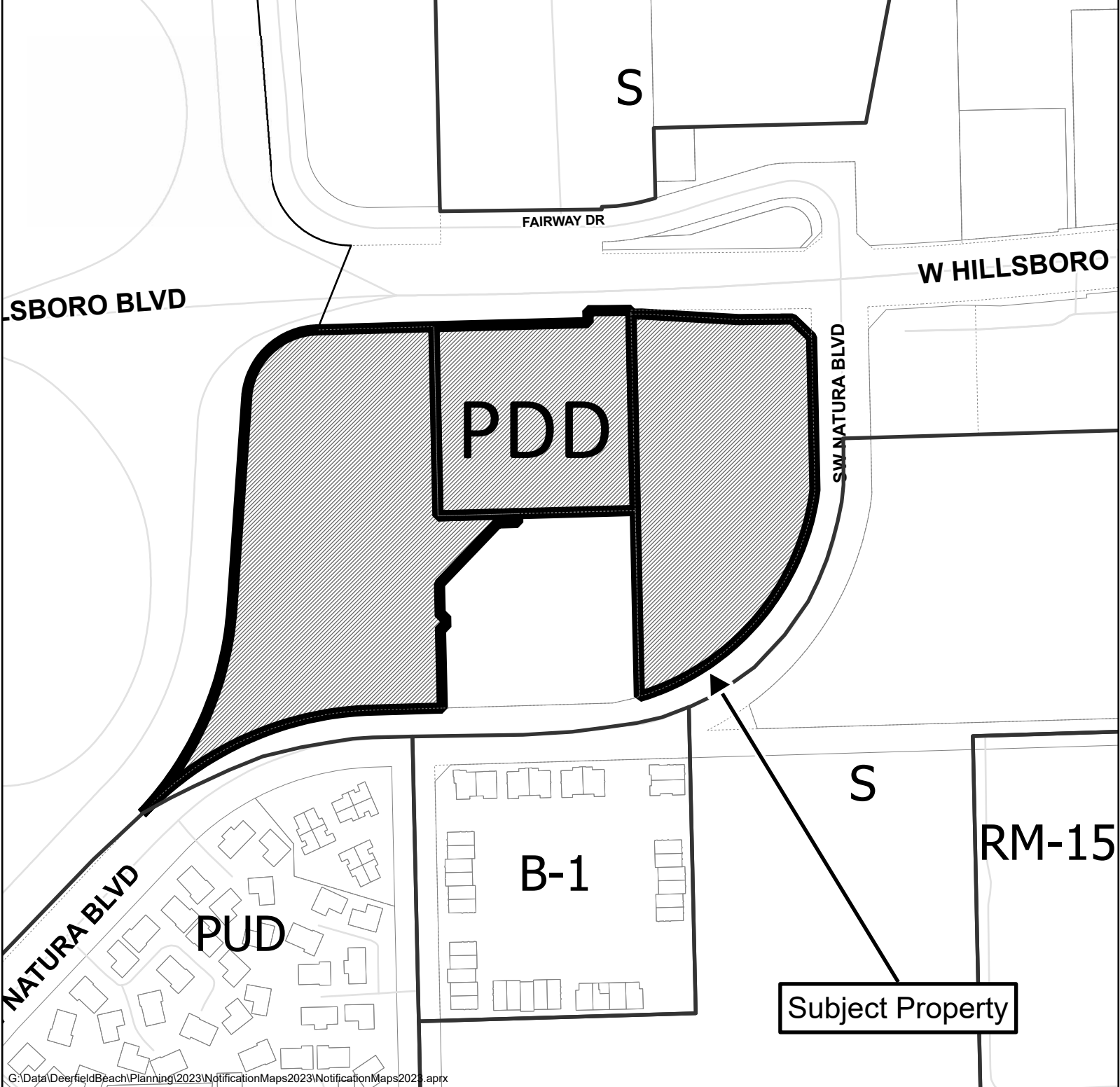
600 & 700 W HILLSBORO BLVD



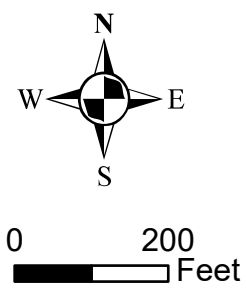
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For additional information
call the Planning Department at 954-480-4206
or visit www.deerfield-beach/boardagendas



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Proposed Zoning Map

Rezoning Application 21-R-196

600 & 700 W HILLSBORO BLVD

For additional information
call the Planning Department at 954-480-4206
or visit www.deerfield-beach/boardagendas





Development Review Committee

Summary Report

Development Plan Application Review

General Information

Application No.	21-R-196				
Project Name:	Hillsboro Center				
Applicant:	Grover & Corlew, LLC				
Agent:	Greenspoon Marder LLP / Dennis Mele, Esq.				
Requested Action/Description:	Seeking Rezoning application approval to amend the City of Deerfield Beach Zoning Map on three (3) parcels totaling 16.5 gross acres from B-2, Highway Business to PDD, Planned Development District.				
Location:	600-700 Hillsboro Boulevard				
Legal Description:	Generally described as a portion of Tract A, "Hillsboro-95 Office Park," according to the Plat thereof, as recorded in Plat Book 105, Page 30, of the Public Records of Broward County, Florida, together with Tract 1, "Crocker South," according to the Plat thereof, as recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida, together with a portion of the South ½ of Government Lots 2 and 3, in the Southeast ¼ of the Northwest ¼ of Section 1, Township 48 South, Range 42 East, more particularly described in the file.				
Size:	16.5 gross acres (14 net acres)				
Existing Zoning:	B-2, Highway Business				
Existing Land Use:	Commercial				
Future Land Use Plan Designation:	Medium-High (25) Mixed Use-Residential (21.82 du/ac)				
Surrounding Land Use and Zoning:					
	<table><tr><th><u>Existing Land Use</u></th><th><u>Zoning</u></th></tr><tr><td>North: Hotel Hillsboro Technology Center</td><td>B-2, Highway Business S, Open Space</td></tr></table>	<u>Existing Land Use</u>	<u>Zoning</u>	North: Hotel Hillsboro Technology Center	B-2, Highway Business S, Open Space
<u>Existing Land Use</u>	<u>Zoning</u>				
North: Hotel Hillsboro Technology Center	B-2, Highway Business S, Open Space				

East:	Retail Commercial Oveta McKeithen Recreational Complex	B-2, Highway Business S, Open Space
South:	Hotel, Office Natura Community	B-2, Highway Business PUD, Planned Unit Development
West:	Highway (I-95)	N/A

Applicable Regulations: Deerfield Beach Land Development Code.

Plat Restrictions: Hillsboro-95 Office Park Plat is restricted to 9.308 acres Commercial use; Crocker South Plat is restricted to 186,000 square feet of Commercial / Office.

Department Comments & Requirements

REQUEST:

The Applicant, Grover and Corlew, LLC, is seeking Rezoning application approval to amend the City of Deerfield Beach Zoning Map on three (3) parcels totaling 16.5 gross acres from B-2, Highway Business to PDD, Planned Development District under the Deerfield Beach Land Development Code (LDC). Pursuant to LDC Section 98-68, PDD, Planned Development District, the rezoning request includes a statement of need, conceptual master plan, as well as proposed property development requirements for which the site development plan shall comply.

BACKGROUND:

On April 25, 2023, the City Commission approved the second reading of the Land Use Plan Amendment Application #65A approving the change in land use on the subject parcels from Commercial to Medium-High (25) Mixed Use- Residential (21.82 du/ac).

The Applicant has also submitted a Plat Application 21-P-232 and a Site Plan Application No. 21-PDD-03, seeking approval for the proposed development of the subject properties and is pending separate review and approval. The Applicant intends to redevelop the subject properties with 239,672 square feet of commercial across 4 buildings, an additional residential building with 360 multi-family dwelling units with an attached parking garage, and associated on and off-site improvements.

Applicants for rezoning to the PDD district must demonstrate, through a statement of need, that there are unique property characteristics that impede the development of the properties under strict application of the Code, development is apparent and will enhance economic development strategies of the City.

The Applicant is required by Code to enter into a Development Agreement with the City, which must be approved by the City Commission as part of the rezoning. Although the Development Agreement is not within the purview of the Planning and Zoning Board, the following information from the agreement is related to the approval of the rezoning application:

Applicant agrees to the following:

- Drainage and roadway improvements to SW Natura Boulevard;
- Sidewalk and pedestrian improvements to SW Natura Boulevard;
- Voluntary contribution for improvements to Oveta McKeithen Recreational Complex;
- Voluntary contributions to the City's affordable housing programs;

- Open space improvements with art features at three (3) locations.

The Applicant has made requests to deviate from the Land Development Code through the PDD zoning, which is permitted with the approval of the rezoning application: Requested changes include:

- Decrease front setback (Hillsboro Boulevard) to 20 feet;
- Increase corner side setback (Natura Boulevard) to 50 feet;
- Decrease rear setback (southern portion of Natura Boulevard) to 15 feet;
- Increase side setback (I-95) to 20 feet;
- Increase minimum floor area to 10,000 square feet;
- Increase maximum floor area ratio (FAR) to 1.1 for all buildings;
- Increase maximum lot coverage to 38%;
- Increase minimum landscaped area to 24%;
- Increase maximum building height to 80 feet;
- Reduce required parking spaces to 9 feet by 18 feet;
- Increase maximum height for signs setback 2'-9" from property line to 6 feet;
- Reduce minimum parking required to 1,344 spaces.

A traffic impact analysis was submitted for the proposed development and all findings were approved by the City's traffic consultant.

The Planning and Zoning Division is unaware of any historical significance of the property or prior historical activities associated with the site.

COMMENTS:

The application has been reviewed by the Development Review Committee. Staff comments have been addressed and staff DRC comments are attached to this report.

PLANNING CONSIDERATIONS:

1. Compliance with the Comprehensive Plan.

The proposed Future Land Use (FLU) Map designation identifies the site as Medium-High (25) Mixed Use-Residential (21.82 du/ac). The rezoning to PDD (Planned Development District) will facilitate residential, office, and retail uses in compliance with the proposed Deerfield Beach Comprehensive Plan FLU designation. The request provides for additional housing opportunities within the City, consistent with the GOPs of the Deerfield Beach Comprehensive Plan.

2. Finding of compatibility of a proposed development with adjacent and neighboring (500 feet) uses and zoning.

The property is proposed to be rezoned to PDD (Planned Development District) and development thereon will be subject to the development requirements proposed within the rezoning report and development agreement which will accompany the rezoning. The site plan application must comply with the requirements as set forth in the development requirements in the rezoning report.

The predominant land use of the surrounding area, specifically within 500 feet of this property, is hotel and open space to the north, retail commercial and Oveta McKeithen Recreational Complex to the east, hotel and the Natura Community to the south, and I-95 to the west. The proposed PDD zoning is compatible with the adjacent and neighboring uses and zoning.

3. Compliance with Land Development Code Section 98-68. – PDD, planned development district.

(1) The development and redevelopment of properties is apparent;

The Hillsboro Boulevard / I-95 intersection has experience redevelopment activities in the recent past with the addition of Hillsboro Technology Center and façade improvements to the commercial center located east of the subject parcels. The Applicant is proposing to redevelop the subject parcels with 239,672 square feet of new or renovated commercial space across 4 buildings and an additional residential building with 360 multi-family dwelling units with an attached parking garage and residential amenities. The Applicant has submitted a master conceptual plan, design guidelines, and a developer agreement demonstrating drainage and pedestrian improvements SW Natura Boulevard, three (3) open spaces with public art, and voluntary commitments to contribute to the City's affordable housing programs and the renovation of Oveta McKeithen park. The conceptual Master Plan is included within the PDD report.

(2) The development and redevelopment of properties shall enhance the economic development strategies of the City of Deerfield Beach; and

The existing use of the subject property includes three buildings, one of which will be demolished due to condition. The other two existing buildings will be redeveloped as part of the proposed Master Plan. In addition, the Applicant proposes a new commercial building at the southwest corner of the overall site and another commercial building on top of the existing parking garage at the southeast corner of the site in later phases. The redevelopment of the parcels with multi-family residential with a mix of unit types and its proximity to retail and office uses expands opportunities for a greater range of housing variety and for attracting new businesses to the City. Improvements to SW Natura Boulevard benefit the surrounding community,

(3) The development of properties with unique property characteristics, natural or man-made, that impede the development of these properties under the strict application of the regulations of the Land Development Code.

The Applicant proposes to redevelop an aging office park and add additional commercial buildings to create a mixed-use residential, retail and office complex. The existing zoning designation for the parcels is B-2. Rezoning the properties to PDD will unify the zoning district and permit a density consistent with the Medium-High (25) Mixed Use-Residential (21.82 du/ac) land use designation. The PDD proposes alternatives to the standard development regulations of the existing zoning designations, such as maximum height and setbacks, to enable the development of the proposed commercial buildings and 360 multi-family, residential units.

SUMMARY:

Staff's review of application 21-R-196 has found that the proposed rezoning is consistent with the goals, objectives and policies of the Future Land Use Element of the Deerfield Beach Comprehensive Plan, and the proposed property as developed, is consistent with the PDD, Planned Development District zoning district, per the Land Development Code.

This report contains the requirements of the Deerfield Beach Development Review Committee members relative to this site development plan application. If there are any questions or issues regarding compliance with any of the requirements in this report, the respective department should be contacted directly.

Development Plan Application Comments



DEVELOPMENT REVIEW COMMITTEE

Project Name:	Hillsboro Center Rezoning	Application No.:	21-R-196
Reviewer Name:	Chris Suneson	Project Address:	600 & 700 W Hillsboro Blvd.
Department/Division:	Planning & Zoning		
Position:	Asst Director		
Date of Review:	7/10/23		
Submittal No.:	5		

A. APPLICATION / GENERAL COMMENTS:

1.	Development Plan Application - Submit evidence Mark Corlew is authorized to sign the application on behalf of the owner. Sunbiz does not list Mark Corlew as a registered agent or Manager.
1.a.	Comment addressed.
2.	Attachment E – Include the proposed maximum square feet for non-residential uses in the reason for the request. As submitted the request only refers to residential uses.
2.a.	Comment not addressed. The responses must be complete and provided in the Attachment E form consistent with the supplementary documents included as required for PDD rezoning applications. Reference to the statements in other documents (i.e. Hillsboro Center Design Guidelines) does not satisfy this comment.
2.b.	Comment addressed.
3.	The document “Demonstration of Compliance with Rezoning Criteria” submitted as an addendum to Attachment E duplicates many of the items in the separate “Design Guidelines document” It is suggested to combine these two documents.
3.a.	Comment addressed.
4.	Application will not be scheduled for a public hearing until LUPA 65A is adopted and effective (both City and County amendments) and Broward County has recertified the City’s Land Use Plan. This will require the applicant satisfy all conditions of any City and County land use plan amendment approvals, including recordation of Declarations of Restrictive Covenants relating to affordable housing. Applicant shall acknowledge in their response they are aware this item will not be scheduled for any public hearing until such time as this comment is satisfied.
4.a.	Comment acknowledged by Applicant. Affordable housing in-lieu fees described in draft Developers Agreement.
5.	Is “Mayla Deerfield” the proposed final name for the entire project? Provide further rationale for the name as staff believes a more suitable project name for the development may be appropriate.
5.a.	Comment not addressed. Applicant response states, “Hillsboro Center is the name

Development Plan Application Comments

	for the entire development included in the PDD. Mayla is the name of the residential component.” Update the application, plans, and associated documents to reflect the project name for the entire PDD. The name of the residential component may be provided in reference to the section, but is not the name of the PDD that is proposed for the site and must be reflected accordingly.
5.b.	Comment addressed.

B. PDD ZONING DISTRICT REQUIREMENTS:

1.	The application fails to adequately address all recommended conditions of approval that were attached to the transmittal of LUPA 65A. In particular, the fair share contribution to upgrades to Oveita McKeithen Recreation complex are not included and the proposed roadway improvements provide inadequate detail for staff to make any detailed analysis as to what is a public benefit as a result of the proposed PDD rezoning versus what is a roadway improvement that would be required as a direct result of the impacts of the development.
1.a.	Comment not addressed.
1.b.	Comment addressed.
2.	Section 98-68(a) Purpose and Intent - As submitted, the application fails to adequately address the purpose and intent of the PDD zoning district, in particular the public benefits arising from the proposed change in zoning. Provide further detail on how the application satisfies the purpose and intent of the PDD zoning district.
2.a.	Comment not addressed.
2.b.	Comment addressed.
3.	The application does not address the rationale for rezoning to accommodate all the proposed uses on the property. Throughout the document the justification focuses almost entirely on the proposed residential use and does not address the other non-residential uses or how the development / property will operate as a genuine integrated mixed use development.
3.a.	Comment not addressed.
3.b.	Comment addressed.
4.	The Development Agreement as submitted does not demonstrate compliance with the criteria in Sec. 98-68(c) for rezoning of the entire property as a mixed use PDD. The Development Agreement focuses on the residential uses only and specifically refers to the site plan, which in this instance as submitted is only for the residential use. The Development Agreement required for the rezoning application requires demonstration of compliance with all criteria in order to achieve the PDD zoning for the entire property, not just development of one building.
4.a.	Comment not addressed.
4.b.	Comment addressed.
5.	Demonstrate how each criteria in Sec.98-68(c) will be satisfied and enforced for the entire property through the Development Agreement. As submitted, the application makes generic references to compliance with these code requirements but does not include enforceable commitments in the Development Agreement (e.g. generic green building initiatives are mentioned but nowhere does the agreement state how these will be implemented in the future development of the property).
5.a.	Comment not addressed.

Development Plan Application Comments

5.b.	Comment partially addressed. Please narrow down the list of specific green building initiatives that will be implemented at time of building permit, rather than the generic list provided.
5.c.	Comment addressed.
6.	Include justification for the significant number of 1 bedroom / efficiency units in the proposed residential component of the development. Over 50% of the proposed residential units are 1 bedroom / efficiency.
6.a.	Comment not addressed.
6.b.	Comment addressed. Market analysis dictates unit mix within building.
7.	If the Applicant wishes to include additional commitments in the Development Agreement specific to the site plan, these need to be separated out from the Development Agreement items specific to the rezoning.
7.a.	Comment not addressed.
7.b.	Comment addressed.
8.	The Development Agreement needs to distinguish between those improvements being made which are a public benefit in order to satisfy the rezoning to PDD and those that would normally be required as a function of any redevelopment of the property.
8.a.	Comment not addressed.
8.b.	Comment addressed.
9.	Identify improvements to the roadway network that are proposed as public benefits separately to those that are required as a result of the proposed development of the property. As submitted, all improvements are included as one consolidated list and staff is unable to determine the extent to which such proposed improvements satisfy any of the public benefit or other evaluation criteria under Section 98-68 to justify rezoning to PDD.
9.a.	Comment not addressed.
9.b.	Comment largely addressed. Provide an approximate dollar (\$) value to the 3 public art pieces listed as public benefits in #5, page 5 of the PDD Design Guidelines. Ensure that the Development Agreement references the commitment to provide the 3 public art pieces and their approximate value.
9.c.	Comment addressed.
10.	Property Development Regulations (PDRs) are primarily proposed for the residential use. The application does not address all regulations under the PDD zoning for the proposed commercial use, nor does it include regulations that are proposed for the property as a whole. It is acknowledged that different regulations may apply for the residential and non-residential uses, and these should be listed separately in the PDR charts to comply with Sec 98-68(e).
10.a.	Comment not addressed.
10.b.	Comment addressed.
11.	Per Sec. 98-68(e), all proposed PDRs, including deviations from the current zoning regulations must be included, including any deviations from landscape requirements. Where the development proposes to deviate from any zoning code regulation, ensure the chart includes reference to the specific code section <u>and</u> requirement for which the deviation is sought.
11.a.	Comment not addressed. At minimum, it is evident the parking calculations for the proposed efficiencies does not meet Code. Columns are left blank where requirements must be listed. Ensure information is completely demonstrated on the tabulations and accurate to the requirements as established by Code and the Comprehensive Plan. If deviations are proposed, they must be described in the

Development Plan Application Comments

	applicable column and detailed in the narrative.
11.b.	Comment addressed. See new comments below.
12.	Per Sec 98-68(e)(4), no information has been submitted to determine if deviations in landscape requirements are proposed. If deviations are proposed, demonstrate compliance with this Code section in the PDR charts.
12.a.	Comment addressed.
13.	The Conceptual Master Plan (CMP) does not demonstrate how the proposed development satisfies all requirements for the property to operate as a mixed use PDD. The plan submitted is more typical of a site plan and too detailed in parts. Refer to Sec. 98-68(f) for requirements and include proposed phasing on the CMP.
13.a.	Comment not addressed.
13.b.	Comment addressed.
14.	The CMP must include details of proposed circulation routes internal to the property, as well as connections to / through the adjoining hotel and to the external roadways.
14.a.	Comment not addressed.
14.b.	Comment addressed.
15.	Per Sec. 98-68(g) "Evaluation Criteria", address compliance with each criteria for the entire property, not just the proposed residential use.
15.a.	Comment not addressed.
15.b.	Comment addressed.
16.	Per Sec. 98-68(g)(1), conformance to the Comprehensive Plan and mixed use FLU designation and mixed use policies needs to be addressed in more detail. As submitted the justification does not even address compliance with the proposed Mixed Use FLU designation, limitations on density and intensity and policies of the Comprehensive Plan.
16.a.	Comment not addressed. Design Guidelines do not include reference to the requirements as established by the Comprehensive Plan or the underlying land use associated with the site. Further, responses need to elaborate in further detail how the specific improvements and development of the site align with specific goals, policies, and objectives of the Comprehensive Plan.
16.b.	Comment addressed.
17.	Inadequate on-site open space and pedestrian oriented public spaces are provided to demonstrate compliance with Sec 98-68(g)(8) & (9) for residential and non-residential uses in what is intended to be a mixed use development.
17.a.	Comment not addressed.
17.b.	Comment addressed.
18.	Due to the additional information required, detailed staff review of all proposed PDD regulations and compliance with PDD requirements cannot be undertaken at this time. Further comments from staff will be forthcoming upon resubmittal.
18.a.	Comment not addressed. Refer to comments found in the PDD DRC Summary Letter.
18.b.	Comment addressed.
NEW COMMENTS 7/10/23	
19.	The following comments address consistency between the PDD Property Development Requirements (PDRs) and information contained with the site development package. Ensure consistency between these items as well as the Property Development Requirements within the Development Agreement.
19.a.	Comment addressed.
20.	PDR Table – Lot Area: AS1.11 indicates that gross site area is 718,740 sq. ft. where

Development Plan Application Comments

	the table indicates 714,384 sq. ft.
20.a.	Comment addressed.
21.	PDR Table – Parking Space Dimensions: It is acknowledged that smaller parking spaces are needed for the parking garage. However, there are several surface parking spaces that measure out to the standard zoning requirements (10x20', 9x18'). It is suggested that categories of parking spaces “provided” be incorporate into the chart (for example, “Surface” parking and “Garage” parking. This will help distinguish in the future whether surface parking provided needed to adhere to the 9x18' requirement or not.
21.a.	Comment Addressed.
22.	PDR Table – Monument Signs: Section 102-9(a)(2) distinguishes setback from property line as a modifying factor for sign structure height, sign structure area, and sign face area. In some instances (monument signs along Hillsboro) existing code would allow for larger signage, where in other instance (south entrance along Natura) it would be more restrictive and not allow what is proposed. Consider whether the PDD should address these monument sign design considerations. If it is decided to include modifications to the existing Code, provide justifications in both the table and text of the PDD (p. 23)
22.a.	Comment addressed.
23.	PDR Table – Min. Floor Area, Multi-Family Units. Please provide Required and Provided Columns in this section. Required areas: Efficiency – 400 sq. ft., 1 BR – 700 sq. ft., 2 BR – 900 sq. ft., and 3 or more BR +150 sq. ft. per BR. Provide smallest unit square footage for each unit type in the “Provided” column.
23.a.	Comment addressed.
24.	PDR Table – Parking Requirements: Add “Required” to Total Residential and Nonresidential parking row.
24.a.	Comment addressed.
25.	PDR Table – Parking Requirements: Under Total Residential and Nonresidential Provided, Sheet AS1.11 indicates the total parking provided is 1382. It is acknowledged that 1344 spaces are the maximum necessary based on the ULI parking study, and that the difference (surplus) could be used as a justification in the last column of this row.
25.a.	Comment addressed.

C. **ADDITIONAL COMMENTS:**

1.	Community Meeting - Prior to being scheduled for a public hearing, the Applicant is required to hold its own meeting with the surrounding community to explain the proposed project and seek feedback. At a minimum, the applicant must invite all properties within 500 feet of the subject site.
1.a.	Comment acknowledged.
2.	Per Sec. 98-35, all applications proceeding to City Commission shall comply with requirements for public notice, including submittal of all required fees, documents, and labels for notice to property owners, on-site signage, and newspaper publishing. Applicants are only permitted to begin the public notification process upon determination by Planning & Zoning staff that the item has been scheduled for an upcoming public hearing. The Public Notice Checklist is attached and can be accessed at http://www.deerfield-beach.com/DocumentCenter/View/12586/Public-Notice-Checklist .
2.a.	Comment acknowledged.

Development Plan Application Comments

3.	The Project coordinator shall be the primary point of contact between the applicant and the City during the DRC process. The applicant shall not contact a City consultant without first contacting the project coordinator. Furthermore, the applicant must notify or copy via email any conversation or contact the applicant has with a separate division or department of the City.
3.a.	Comment acknowledged.
4.	Ensure consistency amongst the plan set, PDD design guidelines, and Developer agreement.
4.a.	Comment addressed.



DEVELOPMENT PLAN APPLICATION

PROVIDE IN FULL THE FOLLOWING INFORMATION (TYPE OR PRINT LEGIBLY)

One application may be submitted for multiple requests. Unless otherwise directed by staff, the following items with associated attachments are required for staff to determine the application is complete for processing by the City.

PROJECT INFORMATION:

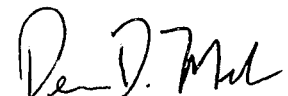
TYPE OF REQUEST (check all that apply)

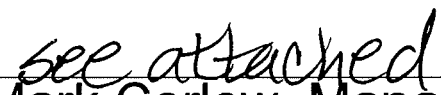
- | | |
|---|--|
| ☒ New Site Plan / Site Plan Modification (See Attachment A) | ☒ Plat or Plat Note Amendment (See Attachment F) |
| ☒ Community Appearance Board (See Attachment B) | ☐ Conditional Use (See Attachment G) |
| ☐ Variance (See Attachment C) | ☐ Vacation & Abandonment (See Attachment H) |
| ☐ Technical Deviation (See Attachment D) | ☐ ROW Variance (See Attachment I) |
| ☒ Rezoning (See Attachment E) | ☐ Sign Variance (See Attachment J) |

Project Name: Mayla Deerfield
Property Owner: G&C Hillsboro Investors, LLC
Applicant (if different from Owner): Grover & Corlew, LLC
Agent (if different from Owner/Applicant): Greenspoon Marder LLP/Dennis D. Mele
Address of Property: 600 and 700 Hillsboro Boulevard
Legal Description of Property (lot, block, tract, subdivision): _____
See attached.

Description of Project: A request for rezoning from B-2 to Planned Development District to facilitate redevelopment of 14 acres on Hillsboro Boulevard with office and residential uses. Companion site plan and plat applications are also included with this request.

New Development (Y/N):	<u>Yes</u>	Modification to Existing Development (Y/N):	<u>Yes</u>
Zoning District:	<u>B-2</u>	Future Land Use Category:	<u>Medium High 25 Mixed Use</u>
Existing Use:	<u>Office</u>	Proposed Use:	<u>Office and Residential</u>
Lot Area (acres):	<u>16.5 gross</u>	Number of Dwelling Units (proposed):	<u>360</u>
Sq. Ft. of Structure (existing):	<u>298,682 office</u>	Sq. Ft. of Structure (proposed):	<u>242,000 Office and 443,670 Residential</u>

Agent Signature: 
Name Printed: Dennis D. Mele
Address: 200 East Broward Blvd., Fort Lauderdale, FL 33301
Telephone: (954) 527-2409
Email: dennis.mele@gmlaw.com

Owner Signature: 
Name Printed: Mark Corlew, Manager
Address: 1499 W. Palmetto Park Rd., Suite 415 Boca Raton, FL 33486
Telephone: (561) 272-2203
Email: mcorlew@grovercorlew.com



DEVELOPMENT PLAN APPLICATION

PROVIDE IN FULL THE FOLLOWING INFORMATION (TYPE OR PRINT LEGIBLY)

One application may be submitted for multiple requests. Unless otherwise directed by staff, the following items with associated attachments are required for staff to determine the application is complete for processing by the City.

PROJECT INFORMATION:

TYPE OF REQUEST (check all that apply)

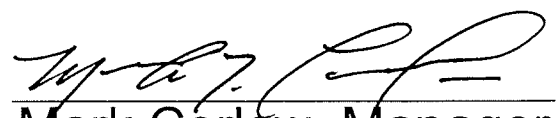
- | | |
|---|--|
| ☒ New Site Plan / Site Plan Modification (See Attachment A) | ☒ Plat or Plat Note Amendment (See Attachment F) |
| ☒ Community Appearance Board (See Attachment B) | ☐ Conditional Use (See Attachment G) |
| ☐ Variance (See Attachment C) | ☐ Vacation & Abandonment (See Attachment H) |
| ☐ Technical Deviation (See Attachment D) | ☐ ROW Variance (See Attachment I) |
| ☒ Rezoning (See Attachment E) | ☐ Sign Variance (See Attachment J) |

Project Name: Mayla Deerfield
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Zoning District:	<u>B-2</u>	Future Land Use Category:	<u>Medium High 25 Mixed Use</u>
Existing Use:	<u>Office</u>	Proposed Use:	<u>Office and Residential</u>
Lot Area (acres):	<u>16.5 gross</u>	Number of Dwelling Units (proposed):	<u>360</u>
Sq. Ft. of Structure (existing):	<u>298,682 office</u>	Sq. Ft. of Structure (proposed):	<u>239,672 Office and 443,670 Residential</u>

Agent Signature: _____
Name Printed: Dennis D. Mele
Address: 200 East Broward Blvd.,
Fort Lauderdale, FL 33301
Telephone: (954) 527-2409
Email: dennis.mele@gmlaw.com

Owner Signature: 
Name Printed: Mark Corlew, Manager
Address: 1499 W. Palmetto Park Rd., Suite 415
Boca Raton, FL 33486
Telephone: (561) 272-2203
Email: mcorlew@grovercorlew.com

INTERNAL USE ONLY:

SUBMITTAL DATE: _____

REQUEST SUBMITTED	APPLICATION NO:	FEES Required	Provided	REQUEST SUBMITTED	APPLICATION NO:	FEES Required	Provided
Site Plan - Residential		\$2000 + \$10/unit + \$100 (Fire)	\$5,600 \$100.00	Site Plan Modification - Major		\$2000 + \$100 (Fire)	
Site Plan - Nonresidential		\$2000 + \$20 / 1000 GFA + \$100 (Fire)		Site Plan Modification - Minor		\$500 + \$100 (Fire)	
						\$1000 + \$50/acre (Nonres)	\$5260.00
Community Appearance Board (CAB)		\$50		Plat or Note Amendment		\$1000 + \$40/acre + \$10/unit (Res)	
						\$550 (Note)	
Variance (Site Plan)		\$1000					
Variance (ZASM)		\$300		Conditional Use		\$1000 / \$300	
Sign Variance		\$550					
Technical Deviation		\$500		ROW Vacation / Abandonment		\$1,350	
			\$2,000				
Rezoning		\$2000		Easement Vacation / Abandonment		\$1,350	

Total Fees Paid: \$12,960.00

Cost Recovery

Account No.	Project No.	Project Name	Service	Deposit Amount	Date Received	Check No.	Receipt No.
				\$5,000.00			



ATTACHMENT E APPLICATION FOR REZONING

Pursuant to Code Section 98-12.

**COMPLETE ALL SECTIONS OF APPLICATION LEGIBLY.
INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED.**

An application must be deemed complete and in compliance with the Land Development Code by Staff prior to the items being scheduled for public hearing.

REQUIRED SUBMITTALS

All of the following must be submitted to be deemed a complete application (*documentation may be provided with the development plan application requirements in Attachment A*):

- ☒ **Complete Application** (*Including Development Plan Application Form*)
- ☒ **Application Processing Fee** (*See fee schedule*)
- ☒ **Proof of Ownership** from the property owner. If the owner cannot be verified through the Broward County Tax Roll, a copy of either the recorded warranty deed, valid purchase contract, or a signed and notarized letter from the owner of record must be submitted with this application.
- ☒ **Disclosure Affidavit** for all owners, representatives, and applicants for the project that will be speaking on behalf of the application.
- ☒ **Agent Authorization Letter** if applicable, authorizing the applicant/agent to act on all property owners' behalf.
- ☐ **(2) 24"x 36" and (1) 11"x 17" Copies of Current & Up-to-Date Boundary Survey** meeting the requirements of Code Section 98-13(8)(b).
- ☐ **One (1) Digital CD** of required submittals listed above must be provided.

If deemed necessary to complete a full review of the application, the Planning and Development Services Department reserves the right to request additional information.

Public Notice and Advertising Requirements

Pursuant to Code Section 98 35(1), prior to any public hearing of the city commission for a development permit as described in section 98 12 of this Code, the applicant shall provide proper notification to the public in compliance with this section and all applicable county, state and federal law.

B. DEMONSTRATION OF COMPLIANCE WITH REZONING CRITERIA

(Attach additional page(s) if more space is needed).

The burden of proving that all of the requirements are met shall be on the applicant who shall be required to affirmatively demonstrate on the record, satisfaction of the necessary requirements set forth below.

1. That the petition for a change of zoning will not result in spot zoning or contract zoning:
See attached justification statement.

[illegible]

2. That the proposed change is consistent with the Goals, Objectives and Policies of the City's Comprehensive Plan:
See attached justification statement.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

3. That conditions have substantially changed from the date the present zoning district classification was placed on the property, which make the passage of the proposed change necessary:

See attached justification statement.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are approximately 20 lines visible. A single purple line runs horizontally across the middle of the page, dividing it into two equal halves. The lines are thin and black, except for the central one which is purple.

4. That the proposed change will not adversely influence residential living conditions in the adjacent and neighboring (500 feet) communities:

See attached justification statement.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

5. That the proposed change is compatible with the development(s) in the adjacent and neighboring (500 feet) uses and zoning:

See attached justification statement.

[illegible]

HILLSBORO CENTER

PLANNED DEVELOPMENT DISTRICT

DESIGN GUIDELINES



GROVER CORLEW

November 2021

Revised

March 2022

September 2022

April 2023

August 2023

October 2023

TABLE OF CONTENTS

	<u>Page</u>
SECTION A Introduction	1
SECTION B Property Development Requirements	10
SECTION C Evaluation Criteria	14
SECTION D Phasing	24
SECTION E Administrative Process Site Plan Approval and Amendments	25

LIST OF EXHIBITS

Exhibit A	Location Map
Exhibit B	Existing Zoning
Exhibit C	Proposed Zoning
Exhibit D	Conceptual Master Plan
Exhibit E	Phasing Plan
Exhibit F	Circulation Plan
Exhibit G	Proposed Plazas
Exhibit H	Natura Boulevard Improvements
Exhibit I	ULI Parking Study

SECTION A

Introduction

1. Property Description

The property that is the subject of this rezoning is comprised of 16.5 +/- gross acres at the southeast quadrant of I-95 and Hillsboro Boulevard in the City of Deerfield Beach (“City”). A location map is provided in **Exhibit A**. The property surrounds the existing Hampton hotel but this application does not include the hotel. There are three (3) office buildings and a parking structure currently on the property. Uses in the surrounding area include the following:

North:	Hotel, Hillsboro Technology Center
South:	Multi-Family, Single Family, Office, Hotel, Oveta McKeithen Recreational Complex
East:	Commercial, Oveta McKeithen Recreational Complex
West:	I-95

2. Project Description

The Applicant is requesting a rezoning from B-2 to Planned Development District (PDD) in order to redevelop a 1980’s style office park into a modern mixed use office/retail/residential development with office/retail buildings totaling approximately 240,000 square feet, a 360-unit multi-family residential complex and an existing parking garage. See existing and proposed zoning maps, **Exhibit B** and **Exhibit C**, respectively.

The existing development on the property was constructed in the 1980’s and has a dated architectural style typical of that era. The buildings on the property lack connectivity, the landscaping is outdated and the buildings are occupied by a Class C tenant mix. For these reasons, the property is in need of redevelopment.

A conceptual master plan that depicts the entire development is provided as **Exhibit D**. The redevelopment plan is broken down into four (4) phases as shown on **Exhibit E**. Each of the four (4) phases is described below.

PHASE 1

- Demolition of existing dated office building located on the parcel proposed for residential development. This building is located at 700 West Hillsboro Boulevard.
- Partial demolition and façade improvements for Building C.
- Changes to material finishes and facade articulation on Building C.
- Construction of a new luxury apartment building and parking garage.
- On-site improvements include:

- New spine road that connects Hillsboro Boulevard and Natura Boulevard making the buildings relate better to the proposed pedestrian realm.
- Pedestrian sidewalk connectivity.
- New pavers on the site spine road and the existing office building entryways.
- Pedestrian plazas throughout the property and in the public realm.
- New monument signs.
- Landscape improvements.
- Upgraded site light fixtures.
- Art Features.
- Offsite improvements including:
 - Natura Boulevard sidewalk and drainage improvements.
 - Crosswalk on Natura Boulevard.
 - New eastbound right turn lane on Hillsboro Boulevard at the main entrance.
 - Improvements to existing turn lanes at the intersection of Hillsboro Boulevard and Natura Boulevard to increase the storage length.
 - No u-turn sign in the Natura Boulevard Median at the project entrance.

PHASE 2

- Façade Improvements on existing 6 story office Building D.

PHASE 3

- Construct 2 story office/retail Building A, including plaza.

PHASE 4

- Construct 3 story office Building B, above existing garage.

All of these improvements are designed to be consistent with the Pioneer Grove architectural design guidelines. Combined, these improvements will turn a 1980's suburban office complex into a modern mixed-use development where all the buildings will have modern features with a consistent architectural feel.

The primary access to the property is from a driveway on Hillsboro Boulevard. Secondary access to the property is provided on Natura Boulevard. The current traffic and pedestrian circulation system on the property is disjointed and can be confusing to visitors. The redevelopment plan includes upgrades to the existing sidewalks and crosswalks to create safe pedestrian ways reflected in **Exhibit F**. In addition, the traffic circulation system is enhanced with a new spine road through the property that will connect all buildings and create a better relationship between the pedestrian and vehicular realms. Pedestrian plazas are also provided throughout the property and in the public realm as shown on the conceptual master plan.

This property is located at a gateway for those people entering the City from I-95 and the proposed rezoning represents an opportunity to enhance the development located on the property and also improve the image of the City at this gateway. The redevelopment plan introduces a residential component with a modern architectural design that is also consistent with the Pioneer Grover design guidelines. This building will be visible from both I-95 and Hillsboro Boulevard and will help modernize the image of the City. An art feature will be located at the northwest corner of the property to further enhance the gateway. Art features will also be added at the northeast corner of the property and at the central plaza. The proposed improvements to the existing office buildings and on-site improvements will modernize the entire property to create a cohesive redevelopment plan. This redevelopment plan complements the other recent development and redevelopment in the area including the Hillsboro Technology Center and renovation of the commercial development east of the property.

Finally, the redevelopment plan includes offsite improvements. A plaza is included at the southwest corner of Hillsboro Boulevard and Natura Boulevard that will help create a sense of place for the neighborhood south of the property. The details of the plaza are provided in **Exhibit G**. Also, a significant improvement to Natura Boulevard will be made to help improve drainage and sidewalks for the benefit of all who utilize the roadway and will also improve pedestrian safety and connectivity. This roadway improvement is depicted in **Exhibit H**. Roadway improvements to mitigate the impact of the proposed development are also planned at the intersection of Hillsboro Boulevard and Natura Boulevard. These improvements will increase the storage capacity of two (2) turn lanes and allow drivers to spend less time stopped at the intersection. Finally, a right turn lane will be constructed at the main entrance to the development to improve access to the property. All roadway construction is subject to available right-of-way and approval of permits by the applicable agencies. These and other developer commitments are explained in detail in other sections of this document.

3. Purpose and Intent

The purpose of the PDD zoning district as stated in Sec. 98-68 of the City's Land Development Code ("LDC") is as follows:

The purpose of the planned development district ("PDD") is to enable quality development for properties that due to the size or characteristics of the property, other implements of zoning regulation provided in the Land Development Code would result in under-utilized or under-developed property. The sites must demonstrate that they have unique property considerations, and that rezoning of property to the PDD district would provide a public benefit that would not otherwise be permitted if all regulations governing the land use and development of the site had to be met. The PDD district is intended to provide the flexibility to enable innovative design, while requiring a design that ensures that the development is compatible with surrounding existing development and public infrastructure.

The Applicant is proposing a mixed use development with office, retail and residential uses. The development plan includes a new residential building, significant upgrades to the existing buildings, additional future office/retail space and off-site improvements. The development plan will upgrade the existing office complex to create a development that is appropriate for this important gateway to the City. The property is currently zoned B-2; and the B-2 zoning allows for the existing and proposed office/retail uses but does not permit residential development. The Applicant could request that the proposed residential parcel be rezoned to a conventional residential zoning district such as the RM-25 district, which is the one that would most closely relate to the proposed residential use. However, if the RM-25 and B-2 district regulations were applied, the resulting development would result in an under-utilized and under-developed parcel. With two different zoning districts the applicable buffers and setbacks would have to be applied to each zoning parcel and would not allow for the proposed buildings to be fully integrated and the overall development would be less cohesive. In addition, the maximum height in the RM-25 zoning district is 55' and the proposed height for building in the development is 80' with an additional allowance for architectural features above the flat roof. If the proposed development was limited by the B-2 and RM-25 zoning districts, the resulting development would not justify the superior design, amenities, upgrades and public improvements that are proposed.

The property is uniquely located at a gateway to the City for those traveling from I-95. There has been significant development and redevelopment activity in the area of the Hillsboro Boulevard/I-95 interchange including: Hillsboro Technology Center, JM Family Enterprises and Indigo Station. This property is developed with an outdated office complex in need of redeveloped to create a positive image for the City at this high-profile gateway.

The proposed PDD rezoning includes a number of public benefits that would not be feasible and would not be required if the property were developed under a conventional zoning district. These public benefits include:

1. Natura Boulevard Improvements – The Applicant will improve Natura Boulevard adjacent to the property to incorporate drainage improvements requested by the City. These improvements are not necessary to handle the drainage from the proposed development and would not be constructed if the property were redeveloped under conventional zoning districts. The drainage system that is planned for the property will accommodate all the stormwater on the property so as to not impact the surrounding drainage system. However, the drainage system along Natura Boulevard is not sufficient to accommodate the drainage from the road and the periodic flooding that occurs in the area. This flooding will not be exacerbated by the proposed development because all of the drainage related to the property will be retained on-site. The Applicant has agreed to improve the drainage system along Natura Boulevard with improvements that will increase water storage. These improvements are not needed to permit the

drainage system for the proposed development; therefore they provide a public benefit to the community.

2. Additional pedestrian improvements – The Applicant will construct missing portions of the sidewalk on Natura Boulevard in Phase 1 of the development plan. The Applicant will also widen the sidewalk on the East and South sides of Natura Boulevard to 8 feet, these sidewalk improvements are not needed to serve the Phase 1 development; however, the Applicant has agreed to construct them in Phase 1.

The Applicant receive a request from the neighbors to install a no u-turn sign in the Natura Boulevard median at the project entrance to improve safety along Natura Boulevard. This sign is included in the site plan and is subject to approval by the City and any other appropriate governmental authorities.

The Applicant will also provide a crosswalk to the opposite side of Natura Boulevard that will improve pedestrian safety for the community. This improvement is subject to approval by the City and any other appropriate governmental authorities. This crosswalk would not be required if the property were developed under conventional zoning districts because the redevelopment plan does not include any property on the opposite side of Natura Boulevard.

The Applicant will provide a pedestrian plaza at the southwest corner of Hillsboro Boulevard and Natura Boulevard outside the property limits which is over and above what would be required by a conventional zoning district.

3. Public Park Improvements – The Applicant has volunteered to make a monetary contribution to the City in the amount of \$200,000.00 for improvements to Oveta McKeithen Recreational Complex. This amount is over and above the park impact fees that will be paid for this development. This payment will be made prior to the issuance of a building permit for construction of the proposed residential building.
4. Affordable Housing Contribution - The Applicant is also committed to enhancing the City's affordable housing programs and will contribute \$500.00 per dwelling unit or a maximum of \$180,000.00 for those programs.
5. Art Features – The Applicant will provide an art feature at three locations: the northwest corner of the property to enhance the I-95/Hillsboro Boulevard gateway, at the northeast corner of the property and at the central plaza. The value of each art feature will be \$10,000 or greater.

The development will also include a number of sustainable development practices that will help minimize the impact on public infrastructure systems and improve

environmental quality. The building plans for new construction of a principal building, will include the following items:

- Lockable bike racks/storage
- Electric vehicle “EV” charging stations
- SEER 16 AC equipment or better
- Energy Star rated appliances
- Energy Star rated exhaust fans
- CO2 detectors in each dwelling unit
- Non-HCFC refrigerants
- New exterior lighting to be Energy Star rated or LED bulbs
- Parking Garage light fixtures to be Energy Star rated or fitted with fluorescent bulbs with Energy Star label or LED bulbs
- Low-flow toilets, shower fixtures and faucets
- Low VOC paint, adhesives and sealants
- Native plant material included in the site plan design
- Recycling
- White TPO roof
- Programmable thermostats
- AAON rooftop equipment

4. Statement of Need

- (1) The development and redevelopment of properties is apparent.

The area around the Hillsboro Boulevard/I-95 interchange has experienced a variety of development and redevelopment activities. The Deerfield Country Club that was located north of the property was redeveloped as Hillsboro Technology Center and façade improvements were added to the commercial center immediately to the east. The Hillsboro Center property was developed in the 1980’s and due to its age and condition does not present a positive image for the City at this important gateway. This PDD rezoning will allow for additional development and redevelopment in the Hillsboro Boulevard corridor to support the City’s vision as a vibrant coastal city.

- (2) The development and redevelopment of properties shall enhance the economic development strategies of the City of Deerfield Beach.

The Citywide Economic Development Strategy identifies the following weaknesses in the local economy that hinder business growth and development:

- Local Businesses in Need of Qualified Employees
- Underdeveloped Commercial Corridors and Plazas

- Undefined and Improved Gateways
- Relatively Older Housing Supply and Limited Choice

The Citywide Economic Development Strategy documents that there is a lack of “sense of place” in the City (page 8). The proposed PDD provides an opportunity for a mixed-use development that can elevate the image of the City to attract new businesses and residents. The current office complex has an outdated architectural style and due to the age and condition of the buildings it attracts Class C tenants. The PDD rezoning will update the architectural style of the existing buildings and provide for an iconic building to define and upgrade the Hillsboro Boulevard/I-95 gateway. These improvements will upgrade an underdeveloped property on a very important commercial corridor in the City. The Applicant has already commenced interior improvements to the existing office buildings. These interior improvements as well as the on-site improvements will help to attract a better quality of tenants.

The Citywide Economic Development Strategy documents that many higher paid professionals working in the City choose to live outside the City. This may be due to the fact that the City has a relatively older housing supply and limited choice. The proposed PDD will support the City’s economic development strategies by providing for a new 8-story residential complex with distinctive architectural design and on-site amenities in an area where this type of housing does not currently exist. This housing opportunity will be attractive to young higher paid professionals who work but don’t live in the City. The addition of a luxury residential component will provide new housing stock and expand housing choices in the City. This rezoning will provide an opportunity for residents to live, work, play, and shop all within walking distance.

- (3) The development of properties with unique property characteristics, natural or man-made, that impede the development of these properties under the strict application of the regulations of the Land Development Code.

The primary purpose of the proposed PDD is to upgrade and add square footage to an aging office park to create a mixed-use residential, retail and office complex. The property is uniquely located at a gateway to the City for those traveling from I-95. If the property were developed under conventional zoning districts, the B-2 and RM-25 would be the ones that most closely relate to the proposed redevelopment plan. If two different zoning districts were applied to the property, it would not be possible to fully integrate the mix of uses due to the different open space, lot coverage, setback and buffer requirements of the districts. In addition, the maximum height in these districts is lower than one of the existing office buildings and the proposed residential structure. A maximum building height of 80’ is required for the existing and proposed structures to maximize the

development potential of the property. Roof parapets and other architectural features may extend 20' above the surface of the flat roof. If the buildings were limited the height limits of the B-3 and RM-25 zoning districts, the parcel would be under-developed and would not have the superior design and amenities that are proposed.

The proposed PDD rezoning also includes significant public improvements to Natura Boulevard and the intersection of Hillsboro Boulevard and Natura Boulevard. Turn lanes at the intersection of Hillsboro Boulevard and Natura Boulevard will be modified to create more storage area for vehicles so that the approaches to the intersections can be cleared more quickly. These turn lanes are needed to mitigate the additional traffic generated by the development. However, there are several improvements proposed that are over and above what would be required if the property were developed in accordance with the B-2 and RM-25 districts. Natura Boulevard adjacent to the property will be improved to incorporate upgraded sidewalks, a crosswalk and drainage improvements that will enhance the neighborhood. This improvement is not needed to accommodate the drainage from the property. The Applicant is also committed to enhancing the City's affordable housing programs and will contribute \$500 per dwelling unit or a maximum of \$180,000.00 for those programs. The Applicant will contribute \$200,000.00 toward improvements at Oveta McKeithen Recreational Complex. This park contribution is over and above the park impact fees due for the development. The superior architectural design, the amenities included for residents and employees along with the significant public investments would not be possible if development on the property were limited by the land development standards of the B-2 and RM-25 zoning districts.

5. Development Agreement

Section 98-68(c) of the City Land Development Code requires a development agreement, including a statement of need, to be considered by the city commission in conjunction with the rezoning application demonstrating that the development plan has provided for or complied with the following:

- (1) A higher level of connectivity via vehicular, pedestrian, and bicycle access to surrounding land uses, areas of public activity, mass transit, and the city as a whole.
- (2) Opportunities either regionally or on-site to provide for affordable or senior designated housing.
- (3) Energy efficient and green building design including, but not limited to, use of reclaimed water, solar energy systems, use of green roofs and green walls, and other measures that will relieve pressure on public and private utility systems, and reduce pollution and urban heat islands.

- (4) A high quality of design and materials that is integrated throughout the site and will be complimentary to and enhance the surrounding neighborhood and the city as a whole.
- (5) The preservation and enhancement of desirable site characteristics, natural or manmade, including, but not limited to, vegetation, geological features, and historical features.
- (6) More useable and suitably located public open space and amenities.

The Applicant will enter into a Development Agreement with the City that includes the Applicant's commitments that support the purpose of the PDD zoning district and create a high quality development that will enhance the surrounding neighborhood and the City as a whole. In addition, this Development Agreement will specify that all current and future owners agree to be jointly regulated and bound by the PDD regulations, as adopted by the City Commission. This Development Agreement will be finalized prior to City Commission approval of the rezoning and will be recorded in the public records of Broward County.

SECTION B

Property Development Requirements

The PDD zoning district does not provide for set dimensional regulations such as minimum lot size, height, setbacks, percentage of lot coverage, floor area ratio or lot width. The Property Development Requirements in the table below provide the development regulations that apply to the property. These development requirements are also part of the development agreement.

Property Development Requirements			
Overall Site	Required (Existing Zoning)	Provided (PDD) based on the entire property, unless otherwise noted	Justification
	B-2		
Lot Area, Minimum	10,000 sq. ft.	718,740 sq. ft.	
Lot Width, Minimum	100'	1,050' (adjacent to Hillsboro Boulevard)	
Setbacks, Minimum* *As measured from the adjacent roadway to the closest building façade.			The Applicant is requested that the setback along Hillsboro Boulevard be modified from 50 feet as required by Code to 20 feet and the setback along Natura Boulevard (on the south side of the property) be modified from 25 feet to 15 feet. A one (1)-foot modification is also required to reflect the existing condition adjacent to the hotel parcel. These modifications are necessary in order to create an urban style of development where buildings are as close to the street as possible. This orientation allows for the buildings to have the most visibility as possible along Hillsboro Boulevard and Natura Boulevard to showcase the distinct architecture and elevate the image of the City to attract new businesses and residents. The building placement also reduces the views of parking lots and garages.
Along Hillsboro Blvd.	50'	20'	
Along Natura., East	10'	50'	
Along I-95, West	10'	20'	
Along Natura Blvd. South	25'	15'	
Adjacent to hotel parcel	15'	9'	
Corner	Not applicable.	Not applicable.	
Minimum Building Floor Area	1,000 sq. ft.	10,000 sq. ft.	

Maximum FAR	0.50	.71 for residential buildings .39 for nonresidential buildings 1.1 for all buildings	A FAR ratio typically only applies to nonresidential uses. Intensity of residential uses is typically determined by the residential density. In this case, the Medium-High 25 Mixed Use land use category allows for a maximum FAR of 2.0. The FAR of 1.1 is based on the entire gross acreage of the property and all existing and proposed buildings. The FAR for just the nonresidential square footage is .39 accounting for full build-out of the property which meets the typical definition of FAR and is consistent with the B-2 .5 maximum FAR.
Lot Coverage %, Maximum	35%	38%	The 38% maximum lot coverage is required to provide for a mixed-use development where the Applicant is making a substantial investment in improvements that are not needed to comply with the standard Code requirements but are provided as public benefits for the community as a whole. The proposed maximum lot coverage is necessary to provide for an economically viable development with a distinctive architectural design at an important gateway to the City.
Minimum Landscaped Area	20%	24%	
Building Height, Maximum	75'	80-0' + roof parapets and other architectural features may extend 20' above the surface of the flat roof.	One of the existing office buildings on the property is 79+/- feet. The building height is a nonconforming condition on the property. No modifications to this building are proposed at this time and it isn't feasible to modify the building to comply with the 75 foot height requirements. The 5 feet of additional building height for the residential building is justified due to its location adjacent to I-95 and Hillsboro Boulevard. This is an appropriate location for

			additional building height because it is not located adjacent to any lower density residential uses. The proposed building is located approximately 600 feet to the closest residential area. This additional height is needed to maximize the development potential of the property and provide a superior architectural design that will be visible from Hillsboro Boulevard.
Parking Space Dimensions	Required	Provided	
Standard	10'x20'	9'x18'	In order to minimize the mass of the parking garage and land area devoted to impervious areas, 9'x18' parking spaces are proposed. This size is consistent with the existing parking spaces on the property. In addition, this parking space size is appropriate especially in areas that do not experience a high turnover of vehicles such as a multi-family residential and office uses.
Compact	9'x18'	9'x18'	
Signage	Allowed – B-2	Provided	
<u>Monument Signs</u>	At main entrance on Hillsboro Boulevard: 5' high	6' high	The design standards for this development are compared to those of the current B-2 zoning district. The allowable height of a monument sign for B-2 uses is 5' if the sign is setback 2-9'. In the case of the main entrance sign on Hillsboro Boulevard, the Code allows a 5' sign. The proposed sign is slightly taller, just shy of 6'. This additional height is needed because additional right of way was requested by the County along Hillsboro Boulevard and even though the sign is setback approximately 2' from the new property line, it is approximately 14' from the eastbound travel lane on Hillsboro Boulevard.
Density, Maximum	N/A	25 DU/AC	

Minimum Floor Area for Multi-Family Units			
	Required	Provided	
Efficiency/Studio	400 sq. ft.	600 sq. ft.	
1 BR	700 sq. ft.	700 sq. ft.	
2 BR	900 sq. ft.	900 sq. ft.	
3 or More BR	1,150 sq. ft.	1,300 sq. ft.	
Parking Requirements			
Residential	Required Ratio	Number of Spaces Required Per Code	
Efficiency - 16 units	1.5 spaces/ unit	24	
1 BR – 164 units	1.5 spaces/ unit	246	
2 BR – 159 units	2.0 spaces/ unit	318	
3+BR – 21 units	2.5 spaces/ unit	53	
Total Residential		641	
Retail/Office Use	Required Ratio	Number of Spaces Required Per Code	
239,672 sq. ft.	1/250 sq. ft.	959	
Total Required Residential and Nonresidential Per Code		1,600	
Min. Total Residential and Nonresidential Provided		Min. Total Residential and Nonresidential Provided 1,344	The Applicant provided a shared parking analysis based on ULI peak parking demand. This study documents that there is sufficient parking provided based on the proposed uses and the hours of peak demand for the uses the parking study is provided as Exhibit I. The master plan shows 1,375 parking spaces provided which exceeds the minimum needed according to the parking study.

SECTION C

Evaluation Criteria

The proposed rezoning and resulting development complies with the PDD evaluation criteria contained in Section 98-68(g) of the Land Development Code as documented below.

1. **Conform to the City's Comprehensive Plan policies and land use map designations.**

The PDD is also consistent with the following policies of the City's Comprehensive Plan:

GOAL FLU 1.0: Ensure that development and redevelopment occurring in the City achieves and maintains a functional mix of residential, commercial, industrial and recreational land uses.

Explanation: This PDD rezoning and the resulting redevelopment plan provides for a functional mix of residential, retail and office uses and a more sustainable development pattern by placing residential and employment opportunities on the same property and maximizing the use of land. The redevelopment plan provides for improved traffic circulation and enhanced pedestrian connectivity between the residential and nonresidential uses. The redevelopment plan also provides for public space at the corner of Natura Boulevard and Hillsboro Boulevard to enhance the connection to businesses and residents in the area.

Objective FLU 1.1: Establish development and redevelopment programs, which provide the opportunity for a wide range of individuals and families to reside, work, shop, relax and play safely in the city.

Explanation: The proposed redevelopment plan will create a mixed-use development comprised of residential units and retail/office buildings. This combination of uses provides an opportunity for residents to live within walking distance of employment, goods and services, and a community park.

Objective FLU 1.7: Promote mixed-use land development patterns that combine residential and nonresidential uses to achieve an attractive, well integrated, and pedestrian and transit friendly environment through the establishment of Mixed Use – Residential land use categories consistent with the Broward County Land use Plan.

Explanation: The property is currently developed with three (3) office buildings. This rezoning will provide for redevelopment of the office complex with a mix of residential units and retail/office buildings. The Conceptual Master Plan that is included with this application demonstrates that these uses will be well integrated by safe pedestrian paths that will link the buildings and provide pedestrian connections to the existing pedestrian facilities in the area. The property is served

by several mass transit routes, including Tri-Rail. The proposed development will provide a mixed-use development with safe pedestrian connections to the existing adjacent sidewalks to create a pedestrian and transit friendly environment.

POLICY FLU 1.7.1: Provide for residential mixed land use designations that allow a combination of residential, commercial, employment based and other appropriate uses as described in the permitted uses section of this Plan.

Explanation: This rezoning will provide for redevelopment plan for an existing outdated office complex that will include retail, office and residential uses in support of this policy. An analysis below documents how the proposed mixed-use development plan meets the criteria outlined in the permitted uses section of the Land Use Plan.

POLICY FLU 1.7.2: A Mixed-Use Residential land use designation may allow low, medium, medium high, or high intensity Mixed Use-Residential. Residential use will be a permitted use within each mixed land use category.

Explanation: The property contains 16.5 gross acres and the applicant is proposing 360 residential units and nonresidential uses. The proposed residential density is 21.82 dwelling unit per acre ($360 \div 16.5 = 21.82$). The development plan also includes office and retail uses. The proposed uses, intensities and densities are permitted in the Mixed-Use Residential Medium-High 25 Residential land use category and so are consistent with this policy.

POLICY FLU 1.7.3: Design guidelines for mixed use development shall be established for inclusion in the Land Development Code. Such regulations shall promote urban form which:

- Creates well integrated land use combinations,
- Balances intensity and density,
- Promotes the safe interconnectivity of vehicular, pedestrian and other non-motorized movement
- Integrates the public realm through open space, urban public plazas and/or recreational areas, and
- Ensures a mixed-use development compatibility with adjacent land uses and adjacent adopted Future Land Use Designations.

Explanation:

- Creates well integrated land use combinations - The Conceptual Master Plan demonstrates that there will be a well-integrated land use combination because the development plan provides for the location of residential and employment opportunities on the same property. Pedestrian paths are included to connect and integrate uses on the property. A spine road is included in the development plan that connects all uses on the property and improves traffic flow.

Balances intensity and density - The Medium-High 25 Mixed Use – Residential land use plan designation provides specific densities and intensities for the mix of land uses allowed in this land use plan category. Specifically, Medium-High 25 Mixed Use – Residential permits up to 25 residential dwelling units per gross acre and a FAR of 2.0 for combined residential and nonresidential development. The table below documents an FAR of 1.1 for the proposed development. Further, a minimum of two uses are required within the development and each use must comprise a minimum of 10 % of the development. In this case, residential and nonresidential uses are proposed and the uses represent approximately 35% and 19% of the total development, respectively. Finally, residential development is a required use. The tables below demonstrates that the proposed development will comply with these requirements of the Medium-High 25 Mixed Use – Residential land use category.

Proposed Use	Square Footage of Use	FAR Based on Net Site Area*
Residential	429,943 sq. ft.	.71
Office/Retail	239,672 sq. ft.	.39
Total	669, 615 sq. ft.	1.10

*Net Site Area = 14 acres x 43,560 sq. ft./acre = 609,840 sq. ft.

Proposed Use	Percentage of Use	Square Footage of Use
Residential	35.25%*	429,943 sq. ft.
Office/Retail	19.65%*	239,672 sq. ft.
Total		669,615 sq. ft.

*Percentage based on FAR 2.0 for Combined Development (Based on Net Area= 1,219,680

Proposed Use	Gross Acres	Density
360 Residential Units	16.5	21.82 dwelling units/acre

- Promotes the safe interconnectivity of vehicular, pedestrian and other non-motorized movement – **Exhibit F** demonstrates that the uses on the property will be connected through safe pedestrian paths. The vehicular circulation system on the property will be upgraded with a new spine road to create a more logical vehicular flow. Bicycle parking facilities will be provided to encourage the use of non-motorized transportation.
- Integrates the public realm through open space, urban public plazas and/or recreational areas - The Conceptual Master Plan provides for plazas that will be available to those who live and work in the development and also to

the general public. One of these plazas is located at the southwest corner of Hillsboro Boulevard and Natura Boulevard to create a sense of place for the community. An internal plaza is provided near the center of the property and internal sidewalks are provided to connect the buildings. Any sidewalks on the perimeter of the property that are missing will be constructed as part of the development plan. In addition, a crosswalk will be installed to connect the property to the adjacent public park. These sidewalk and crosswalk improvements will connect the development to the Oveta McKeithen Recreational Complex and improve connectivity to the public realm.

- Ensures a mixed use development compatibility with adjacent land uses and adjacent adopted Future Land Use Designations The adjacent future land use designations on the surrounding properties are provided below:
 - North: Commercial, Recreation Open Space
 - East: Commercial, Recreation Open Space
 - South: Commercial, Residential Moderate 10, Recreation Open Space
 - West: Transportation

A variety of commercial uses are located to the north and east including a hotel, restaurants, office, and retail uses. I-95 is adjacent to the west property line. A city park and office uses are located to the south and east. Single family, quadraplex and office uses are located south of the property on the south side of Natura Boulevard. The additional office and retail uses are consistent and compatible with the non-residential uses in the area because office and retail use are established in the area. The proposed Conceptual Master Plan demonstrates that special attention has been given to the lower density residential uses to the south by placing the tallest proposed building as far away from the existing residential use as possible. The distance separating the existing residential area to the proposed mid-rise building is approximately 600 feet.

Objective FLU 2.3: Discourage urban sprawl and encourage a separation of urban and rural land uses by directing new development into areas where necessary regional and community facilities and services exist.

Explanation: The PDD zoning will facilitate development of new office and retail space for business development and additional residential dwelling units that are needed to accommodate population growth in an area where regional and community facilities and services exist and can accommodate the proposed development.

GOAL FLU 8.0: Promote and implement appropriate land uses and development patterns consistent with smart growth principals, (as defined by the Smart Growth Network and listed below), to maximize natural and socioeconomic resources, and to preserve and improve the health, safety and welfare of the City's residents and visitors,

Ten Principal of Smart Growth

1. Mix land uses
2. Take advantage of compact building design.
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place.
6. Preserve open space, natural beauty, and critical environmental areas.
7. Strengthen and direct development towards existing communities.
8. Provide a variety of transportation choices.
9. Make development decisions predictable, fair, and cost effective.
10. Encourage community and stakeholder collaboration in development decisions.

Explanation: The proposed redevelopment plan promotes smart growth principles in the following manner:

1. Mix land uses. – The proposed redevelopment plan provides for a mix of office, retail and residential uses.
2. Take advantage of compact building design. The proposed redevelopment plan provides for development on an existing parking lot and adding office and retail space to promote a more compact building design.
3. Create a range of housing opportunities and choices. – The proposed redevelopment plan provides for housing opportunities in the Hillsboro Boulevard corridor at a medium density to expand the housing opportunities and choices in the area.
4. Create walkable neighborhoods. – The proposed redevelopment plan provides for a walkable development by providing safe pedestrian paths on the site and also connects to the existing sidewalks that surround the site.
5. Foster distinctive, attractive communities with a strong sense of place. – The current development is reflective of the architectural styles of the 1980's. The redevelopment plan includes a new iconic building at a gateway to the City that meets the Pioneer Grove architectural style. The existing buildings that remain on the property will be renovated to be compatible with the new residential building on the property. The redevelopment plan includes a plaza at the northeast corner of the Subject Property and two (2) internal plazas. These areas will create a strong sense of place for the development. The Applicant will provide an art feature at the northwest corner of the property to enhance the I-95/Hillsboro Boulevard gateway, at the northeast corner of the property and at the central plaza.
6. Preserve open space, natural beauty, and critical environmental areas. - The Subject Property is developed lacking significant open spaces or environmental areas that need to be preserved.
7. Strengthen and direct development towards existing communities. - This proposed rezoning directs redevelopment to an existing developed

property with available infrastructure and maximizes development along Hillsboro Boulevard.

8. Provide a variety of transportation choices. – The proposed uses on the property will benefit from a number of transportation choices that are accessible for travel within the area and the region. Mass transit routes serve the property and provide transit service in the City and Broward County with connectivity to Palm Beach and Miami-Dade Counties. A Tri-Rail station is located approximately ½ mile from the property that provides train service within the tri-county area. The development will have safe and extensive pedestrian paths with connectivity to the adjacent public sidewalks. Bicycle parking facilities will be provided on the property.
9. Make development decisions predictable, fair, and cost effective. The City's Land Development Code and land development approval process make development decisions predictable, fair, and cost effective for all stakeholders in the community. The Applicant will submit all applications required for the development and follow all the applicable procedures. Those stakeholders who own property in the vicinity will be notified of all public hearings regarding the proposed development and will have an opportunity to participate in the public hearing process.
10. Encourage community and stakeholder collaboration in development decisions. - The Applicant has taken steps to engage the community in the development approval process and will continue to do so during the rest of the process.

2. **Provide a land use or combination of land uses that are arranged and designed in such a manner as to be well integrated with other land uses, the immediate surrounding area, the planned thoroughfare system, and other public facilities such as water and sewer systems, parks, schools, transit routes and utilities.**

The property is located at the southeast quadrant of I-95 and Hillsboro Boulevard. A variety of commercial uses are located to the north and east including a hotel, restaurants, office, and retail uses. I-95 is adjacent to the west property line. A city park and office uses are located to the east and south. Single family, quadraplex and office uses are located to the south on the south side of Natura Boulevard. The variety of existing uses in the area demonstrate that the residential, office and retail uses proposed in this rezoning are consistent and compatible with the residential and non-residential uses in the area. The proposed development gives special attention to the lower density residential uses to the south by placing the tallest proposed building as far away from the existing residential use as possible. The distance separating the existing residential area to the tallest proposed building is approximately 600 feet.

The development plan provides for primary access to Hillsboro Boulevard and secondary access to Natura Boulevard. The Applicant will enhance the integration of the property to the adjacent thoroughfare system by improving the turn lanes at the intersection of Hillsboro Boulevard and Natura Boulevard. The storage area in

the northbound and westbound turn lanes will be expanded to accommodate more vehicle stacking area that will help to clear the intersection faster. These turn lane improvements are required to mitigate the impacts of the proposed development plan and will reduce the wait time at the intersection.

All existing and future development on the property will be connected to the municipal water and sewer lines. All drainage from the property will be retained on-site to not impact surrounding areas.

The property is located within walking distance of the Oveta McKeithen Recreational Complex and is integrated with that facility through a comprehensive pedestrian system on-site and pedestrian improvements off-site that will benefit the community. Safe pedestrian paths are included in the development plan that connect to public sidewalks on Hillsboro Boulevard and Natura Boulevard which provide pedestrian access to Oveta McKeithen Recreational Complex. There are currently gaps in the existing sidewalk along Natura Boulevard where sidewalks are missing. The Applicant will construct the missing segments of the sidewalk as part of the Phase 1 development even though the Phase 1 development is not adjacent to Natura Boulevard. The Applicant will also provide a crosswalk to the opposite side of Natura Boulevard to improve pedestrian safety in the community subject to Broward County approval.

The property is located in the school zones Deerfield Park Elementary, Deerfield Beach Middle and Deerfield Beach High and all of these schools have capacity to accommodate students from the development.

3. Adequately, reasonably and conveniently integrate into existing and planned streets, transit systems, public services, utilities and public facilities.

The proposed development is integrated with the existing streets via primary access to Hillsboro Boulevard and secondary access on Natura Boulevard. The Applicant will improve turn lanes in the vicinity of the property to mitigation the traffic impacts of the proposed development and improve traffic circulation in the area. The sidewalks and spine road will enhance the safety of vehicular and pedestrian routes on the property. The pedestrian paths on the property will connect to public sidewalks that lead to transit stops in close proximity.

The sidewalk connection to the adjacent Oveta McKeithen Recreational Complex will also be improved along Natura Boulevard. The Applicant will make a financial contribution to the City that will further enhance Oveta McKeithen Recreational Complex.

Utilities that serve the property have adequate capacity and no expansion is needed to accommodate the additional demand. Connections will be made to the public utilities that are consistent with City standards and will provide service to the new development. No expansion of the public utilities is needed to accommodate the additional demand created by this development.

4. **Promote development that is appropriate to and well integrated with its environmental setting and surrounding neighborhood, including existing vegetation, soils, geology, topography and drainage patterns.**

There are no unique vegetation, soils, geology or topography that impact development on the property.

Any vegetation and trees on the property that can be maintained or relocated on the property will be identified on the tree disposition plan for the property. Soil will be added to the property so that any new buildings will be constructed at the appropriate elevation and conform to base flood elevations.

The drainage plan for the development takes into consideration the existing drainage patterns in the area. The Applicant will construct drainage improvements in the Natura Boulevard right-of-way that aren't needed to serve the proposed development but will benefit the surrounding community to help lessen flooding that may occur on the roadway. The drainage plan for the development will contain all drainage runoff on the property to not impact the neighboring properties.

5. **Adequately justify any deviations from standard development requirements based upon the overall quality of the plan provided, the need to address specific concerns outlined in the statement of need, and the need to address other conditions that may affect the viability of reasonably developing the property in a manner consistent with stated objectives of the City's Comprehensive Plan.**

The PDD zoning district does not provide for set dimensional regulations such as minimum lot size, height, setbacks, percentage of lot coverage, floor area ratio or lot width. The Property Development Requirements provide the development requirements that apply to proposed development on the property. The table is broken down into overall requirement, those that apply only to residential development and those that apply only to the nonresidential development. These development requirements are also part of the development agreement.

No deviations from the City landscape requirements are requested for new development parcels. All existing landscape materials will be maintained on the property until development occurs. At such time as a site plan is submitted for any individual building on the property, that parcel will be redesigned to meet the applicable landscape standards.

To allow modified building height

The allowable height in the current B-2 zoning district is 75'. The height of the existing office building at the northeast corner of the property is 79+/- feet. This building is proposed to remain and will have interior and exterior renovations to improve the look and quality of the building. The height modification is needed to maintain an existing nonconforming aspect of the building and accommodate the residential building. This is an appropriate location for additional building height

because it is not located adjacent to any lower density residential uses. This additional height is needed to maximize the development potential of the property and the Hillsboro Boulevard corridor, provide a superior architectural consistent with the Pioneer Grove design guidelines, and justify the substantial public improvements that will be made in conjunction with this development.

To allow modified building setbacks

The Applicant is requesting a modification to building setbacks in order to develop the property with compact urban design and a focus on alternative forms of transportation. This development provides employees and residents with an opportunity to live and work in a walkable area of the city and be less dependent on a personal vehicle for transportation to work, shopping and recreation. For this reason, proposed buildings are placed as close to Hillsboro Boulevard and Natura Boulevard as possible. This building placement provides easy access to mass transit routes, recreation and commercial uses in the area.

To allow modified parking requirements: All spaces are 9'x18' to meet industry standards for parking stall size and are appropriate especially in areas that do not experience a high turnover of vehicles. This request is consistent with the existing parking spaces on the property. The 9'x18' space size will minimize the mass of the parking garage and provide a compact building design.

A total of 1,600 parking spaces are required according to City Code if each use is considered independently. One of the benefits of mixed use developments is to reduce the overall parking requirements because the peak hours for parking occurs at differ times for certain uses. In the case of residential uses, the peak demand occurs from 12am to 6am. The peak demand for office uses occurs from 9am to 5pm. Based on ULI parking study provided in **Exhibit I**, the peak parking demands for the nonresidential and residential uses require a total of 1,344 parking spaces for the proposed development. The current master plan shows a total of 1,375 parking spaces provided. At no time shall the minimum number of spaces be below 1,344.

To allow modified signage requirements

This proposed development is unique in that it is a mixed-use development with multiple buildings and multiple street frontages. It is also located at a very important gateway to the City that has high traffic volumes. The development proposal includes a new iconic building that will help to define the entrance to the City from I-95, a new office/retail buildings and upgrades to existing buildings. The proposed signage, like all other design elements of the PDD, is compared to the wall and monument signs that would be allowed in the existing B-2 zoning district. In all instances, the proposed signage is consistent with that allowed for B-2 uses with one exception. The Applicant is requesting that the proposed monument sign at the main entrance of the property be 6' which is 1' higher than allowed in the base zoning district. The sign is setback from the existing travel

lanes due to additional right-of-way dedication needed to comply with the County's conditions of plat approval. The additional height is needed so that the sign is visible by motorists on Hillsboro Boulevard. . The monument sign has a unique and artistic design that helps to convey the unique nature of this mixed-use development. A detail of this monument sign is provided in Sheets AS-16 and AS-17 of the site plan.

6. **Provide innovative design in comparison with development reviewed under other base zoning district regulations and demonstrate how the objectives of the proposed PDD could not have been achieved by any other zoning category.**

The primary purpose of the proposed PDD is to upgrade an aging office park to create a mixed-use residential, office and retail complex. The property is uniquely located at a gateway to the City for those traveling from I-95. If the property were developed under conventional zoning districts, the B-2 and RM-25 would be the ones that most closely relate to the proposed redevelopment plan. However, if two zoning districts were applied on the property, it would not be possible to fully integrate the mixed uses on the property due to the different setback and buffer requirements of the districts. In addition, the maximum height in these districts is lower than one of the existing office buildings and the proposed residential structure. A maximum building height of 80' is required for the existing and proposed structures to maximize the development potential of the property. If the buildings were limited the height limits of the B-3 and RM-25 zoning district, the parcel would be under-developed and would not have the superior design and amenities that are proposed.

The proposed PDD rezoning also includes significant public improvements to Natura Boulevard and the intersection of Hillsboro Boulevard and Natura Boulevard. Turn lanes at the intersection of Hillsboro Boulevard and Natura Boulevard will be modified to create more storage area for vehicles so that the approaches to the intersections can be cleared more quickly. These improvements are needed to mitigate for the additional traffic generated by the development. However, there are several improvements proposed that are over and above those required if the property were developed in accordance with the B-2 and RM-25 districts. Natura Boulevard adjacent to the property will be improved to incorporate upgraded sidewalks and drainage improvements that will enhance the neighborhood. The Applicant is also committed to enhancing the City's affordable housing programs and will contribute a maximum of \$180,000.00 to those programs. The Applicant will contribute \$200,000.00 toward improvements at Oveta McKeithen Recreational Complex over and above the park impact fees due for the development. The superior architectural design, the amenities included for residents and employees along with the significant public investments would not be possible if development on the property were limited by the setbacks and height limitations of the B-2 and RM-25 zoning districts.

7. **For developments containing residential units, the PDD must provide for on-site open space and recreational amenities appropriate to the future residents and, to the extent practicable, provide for a variety of dwelling units and building types.**

The future residents of this development will have the benefit of being within walking distance of Oveta McKeithen Recreational Complex, which provides a range of recreational opportunities. In addition on-site recreation areas will be included such as resort style pool, courtyard, dog park, clubroom, fitness/yoga spaces, cyber lounge, and inviting entrance and lobby. Plazas are also incorporated into the development plan that will provide pleasant areas for relaxing and gathering. The proposed development provides for studio, 1-bedroom, 2-bedroom and 3-bedroom units.

8. **For non-residential developments, the PDD shall provide for inviting, pedestrian-oriented public spaces.**

The development plan provides for pedestrian-oriented public spaces at the southwest corner of Hillsboro Boulevard and Natura Boulevard and internal to the development. Three plazas are provided and are enhanced with improvements such as pavers, benches and lush landscaping in order to be inviting to pedestrians.

SECTION D

Phasing

The development plan will be constructed in four (4) phases as reflected on **Exhibit E**. The phases are not required to be completed consecutively.

SECTION E

Administrative Process

Site Plan Approval and Amendments

Any site plan for new development on the property shall be approved in accordance with City Code. The unit mix and dimension may change in order to accommodate changing market demands. The Director of Planning & Development Services is authorized to approve minor modifications to the approved site plan administratively without review by the Planning and Zoning Board or approval by the City Commission provided that they are in substantial conformity with these Design Guidelines and the standards below. These modifications may include but are not limited to adjustments to the bedroom mix, dwelling unit size, amenities, and setbacks provided that all of the following are met:

1. The total number of units does not exceed 360 in Phase 1 of Master Plan.
2. Setback modifications are less than 10%.
3. The changes do not significantly change the intent of the development.
4. Building height modifications are less than 10%.
5. Parking is reduced by 1%

Any changes that meet the criteria above shall not require an amendment to the approved Conceptual Master Plan.

CONSULTANT TEAM

Architect/Site Planner: Juan Caycedo, AIA
RLC Architects

Civil Engineer: Clifford R. Loutan, P.E.
SunTech Engineering, Inc.

Landscape Architect: Brian Euell, RLA
Architectural Alliance Landscape

Legal: Dennis D. Mele, Esquire
Greenspoon Marder LLP

Planner: Cynthia A. Pasch, AICP
Greenspoon Marder LLP

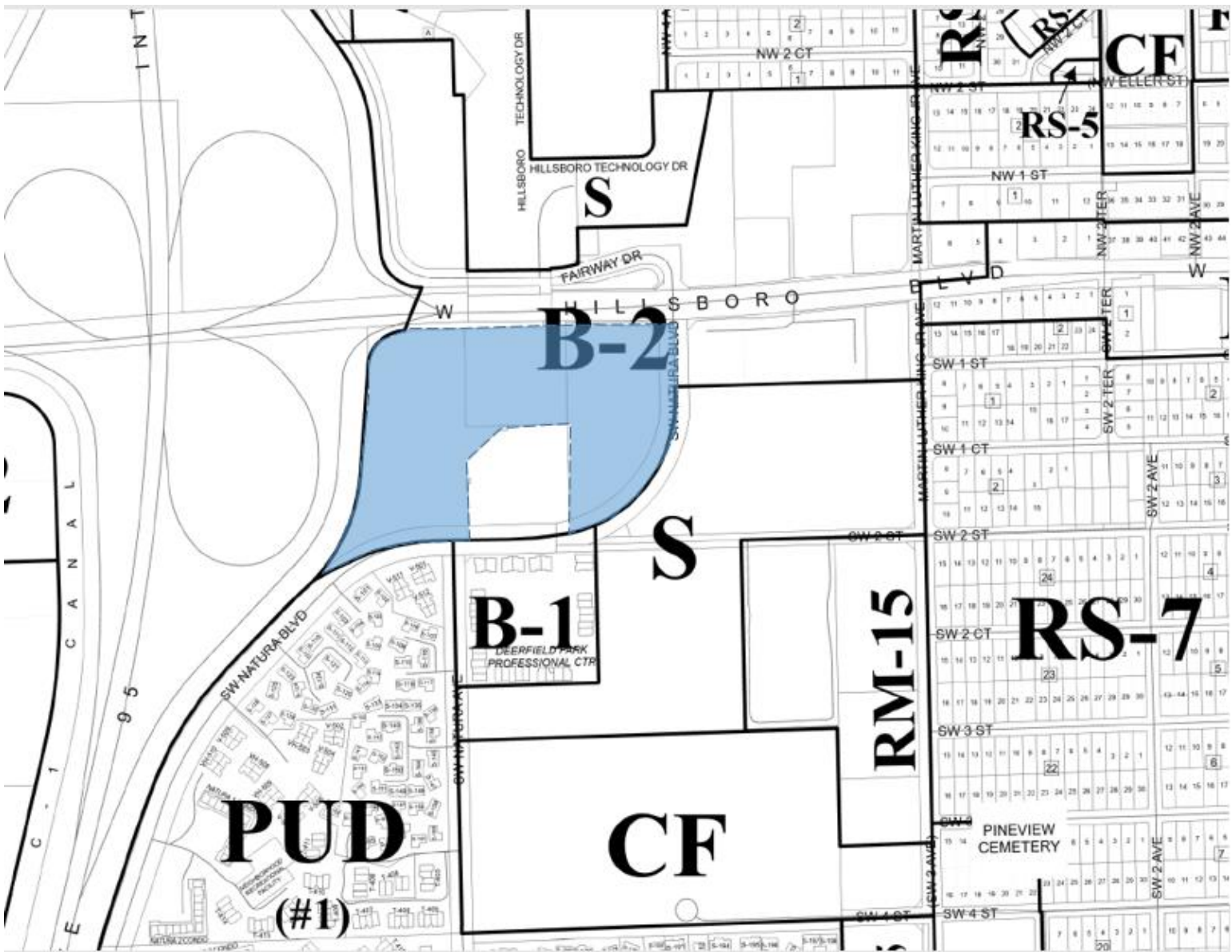
Traffic Engineer: Joaquin E. Vargas, P.E.
TrafTech Engineering

EXHIBIT A
LOCATION MAP



EXHIBIT B

EXISTING ZONING – B-2



Proposed Zoning – PDD

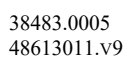


EXHIBIT D

CONCEPTUAL MASTER PLAN

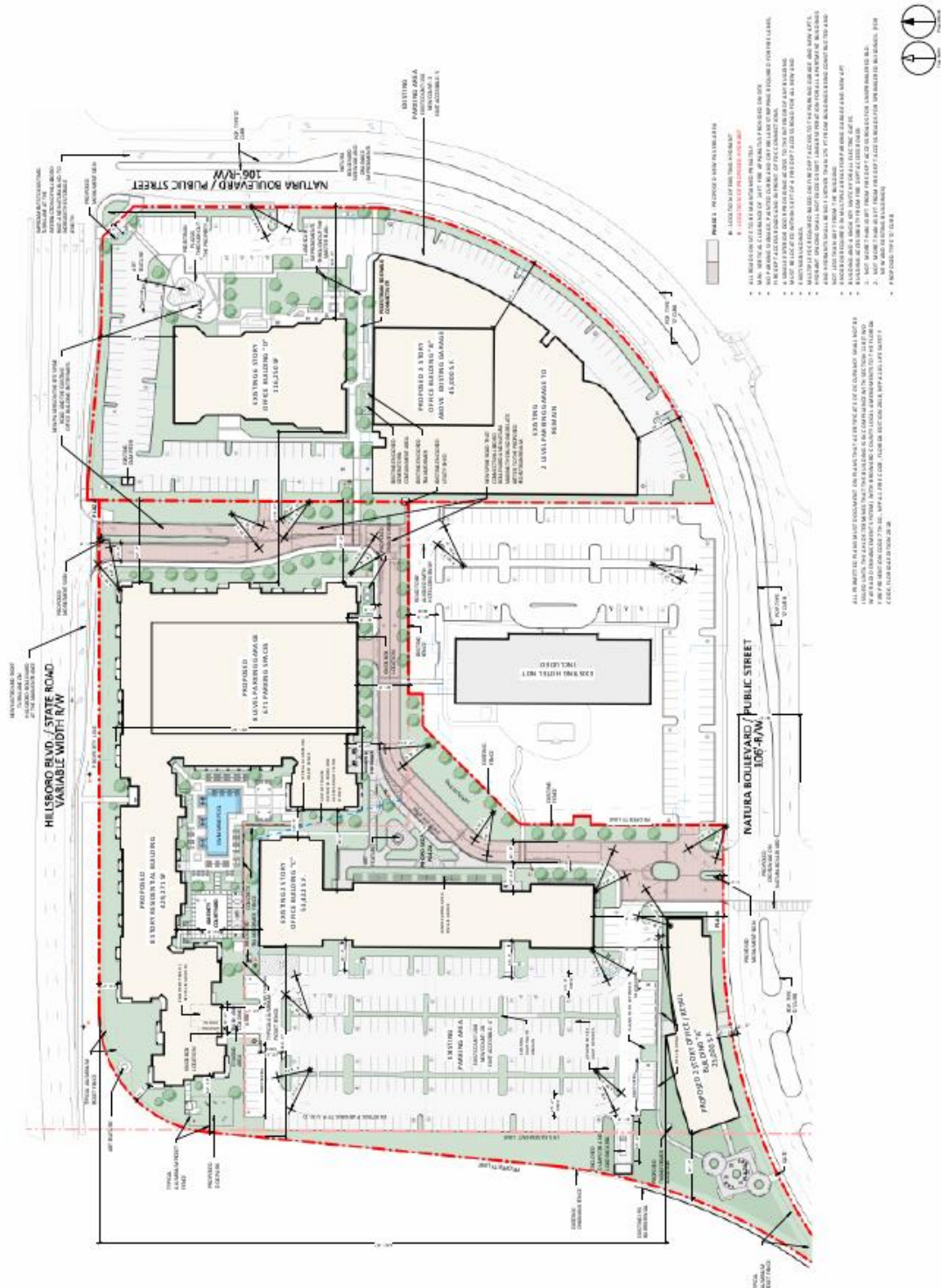


EXHIBIT E
PHASING PLAN

EXHIBIT F CIRCULATION PLAN

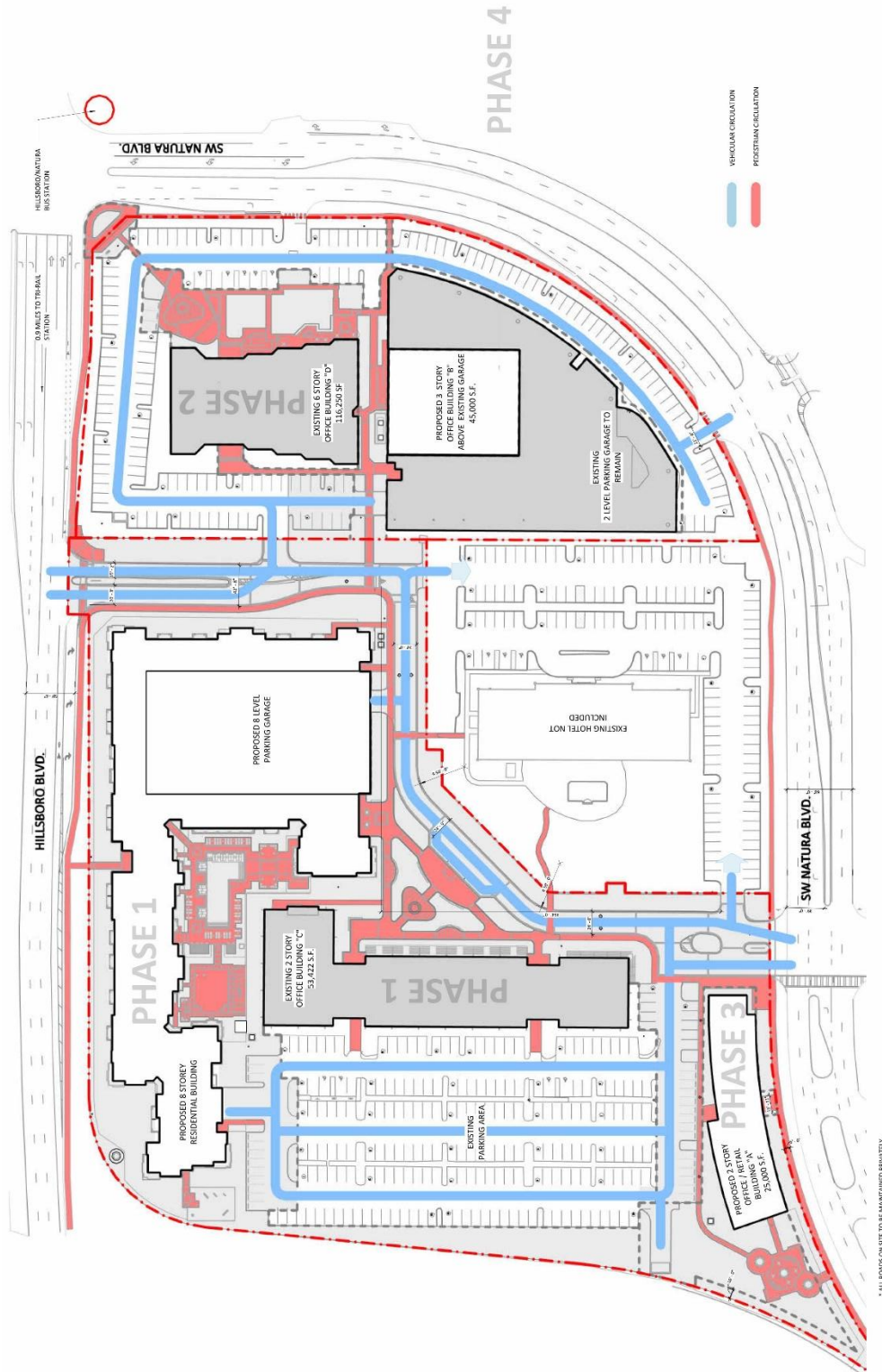
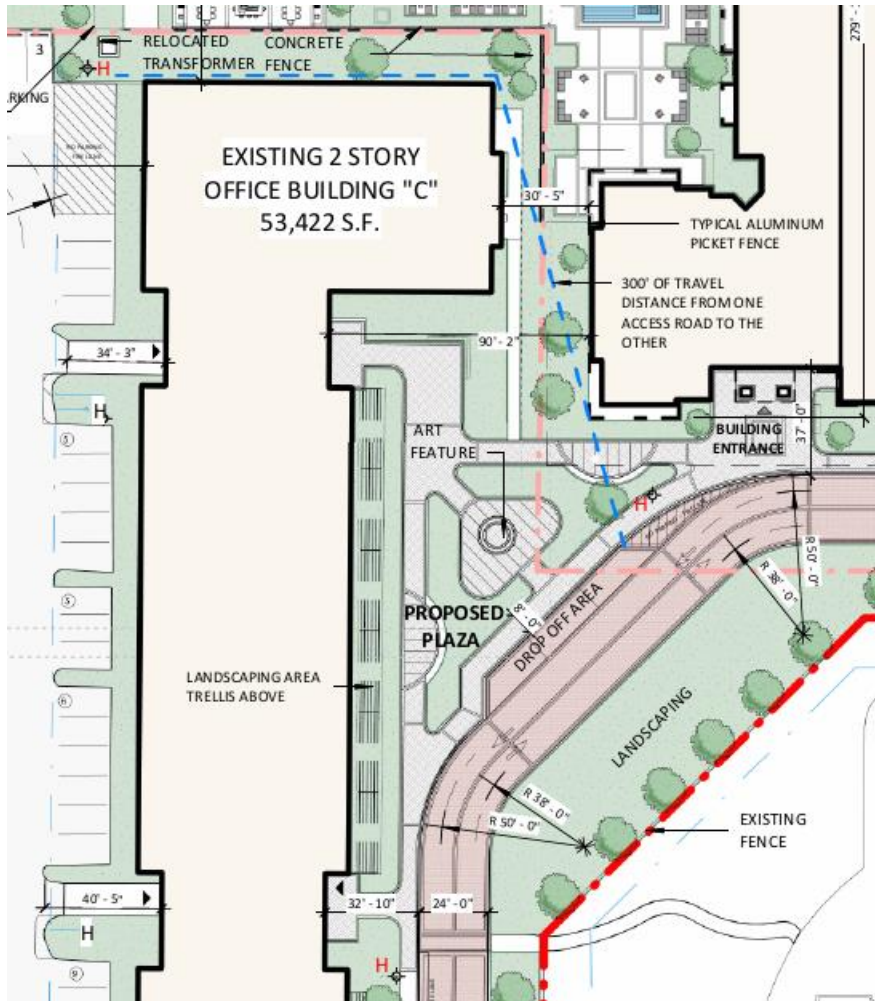
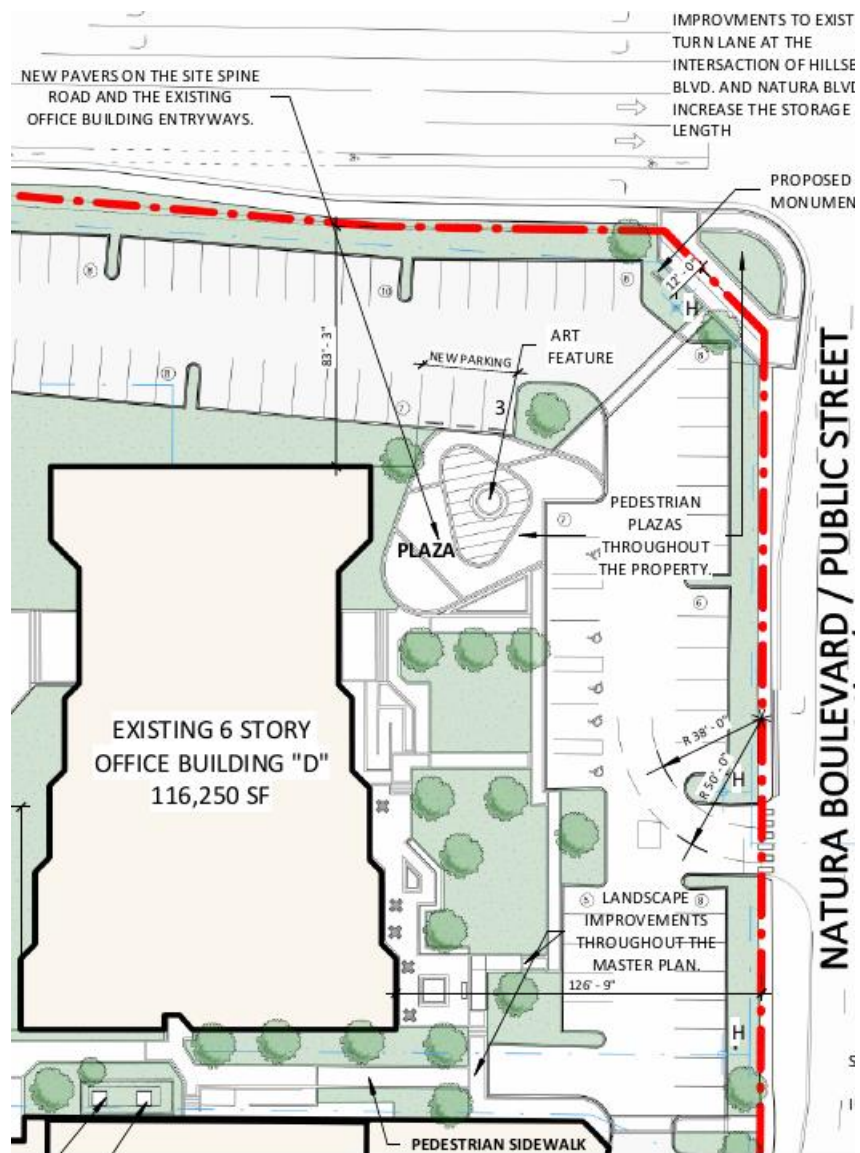


EXHIBIT G

PLAZA DESIGNS



Central Plaza



Plazas at Corner and Building D Office

EXHIBIT H

NATURA BOULEVARD IMPROVEMENTS

1. Install new drainage on east side of SW Natura Boulevard. To the extent any sidewalk is damaged during this installation process, said damaged sidewalk shall be replaced;
2. Install new 8-foot wide sidewalk on the east side of SW Natura Boulevard, with the sidewalk installation to end at the recreational complex entrance;
3. Regrade and improve the entire swale area on the west side of SW Natura Boulevard, which regrading and improvement will continue until the entrance to the existing parking garage on the property;
4. Install new 5- foot wide sidewalk along property line from the garage turn-in to the adjacent hotel property line;
5. Install new 5- foot wide sidewalk along the remaining portion of the property which currently has no sidewalk;
6. Install crosswalk along SW Natura Boulevard at the location determined by the City. The sidewalk location shall be included on the site plan, but it is subject to approval by the City and any other appropriate governmental authorities.
7. Existing road median FDOT Type “D” concrete curbing shall be repaired and / or replaced as needed to provide the intended safety and protection to the landscaped areas. Construct new FDOT Type “D” concrete curbing along the edge of the balance of Natura Boulevard to the designated southernmost limits of affected roadway right-of-way.
8. Restore all pavement striping and markings within the limits of proposed improvements including reflective pavement markers.
9. Restore / repair all sections of pavement and sidewalks to meet all ADA and city requirements.
10. Install a no u-turn sign in the Natura Boulevard median at the project entrance subject to approval of the City and any other appropriate governmental authorities.

EXHIBIT I

PARKING STUDY

ULI SHARE PARKING - MIXED USE							
		BASIC	WEEKDAY			WEEKEND	
	AREA/	PARKING	NIGHT	DAY	EVENING	DAY	EVENING
USE	UNITS	REQUIRED	12AM - 6AM	9 AM - 4 PM	6PM-12AM	9AM-4PM	6PM-12AM
STUDIO -1B	180	270.00	270.00	162.00	243.00	216.00	243.00
RESIDENTIAL 2B	159	318.00	318.00	190.80	286.20	254.40	286.20
RESIDENTIAL 3B	21	52.50	52.50	31.50	47.25	42.00	47.25
TOTAL RESIDENTIAL	360	641.00	640.50	384.30	576.45	512.40	576.45
6 STORY OFFICE	116250	465.00	23.25	465.00	46.50	46.50	23.25
2 STORY OFFICE	53422	213.69	10.68	213.69	21.37	21.37	10.68
NEW OFFICES (A&B)	70000	280.00	14.00	280.00	28.00	28.00	14.00
TOTAL OFFICE	239672	959.00	47.93	959.00	95.87	95.87	47.93
TOTAL		1600.00	688.43	1344.00	672.32	608.27	624.38



Mayla Deerfield

Deerfield Beach, Florida

prepared for

Grover Corlew

traffic study

TRAFTECH
ENGINEERING, INC.

February 2022

February 25, 2022

Mr. Matthew Lynch
Grover Corlew
600 W. Hillsboro Avenue, Suite 110
Deerfield Beach, Florida 33441

**Re: Mayla Deerfield – Deerfield Beach, Florida
Updated Traffic Engineering Study**

Dear Matthew:

Traf Tech Engineering, Inc. is pleased to provide you with the results of the updated traffic study for the Mayla Deerfield development planned to be located at 600 and 700 West Hillsboro Boulevard in the City of Deerfield Beach in Broward County. The revised report addresses all traffic-related comments provided by the City of Deerfield Beach's transportation consultant.

It has been a pleasure working with you on this project.

Sincerely,

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

TABLE OF CONTENTS

INTRODUCTION	1
INVENTORY	3
Existing Land Use	3
Proposed Land Use and Access	3
EXISTING CONDITIONS	4
Roadway System.....	4
Nearby Intersections	4
TRAFFIC COUNTS	6
TRIP GENERATION	10
TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT	14
TRAFFIC ANALYSES	17
Future Conditions Traffic Volumes	17
Level of Service (LOS) Analyses	23
Westbound Hillsboro Boulevard and Northbound I-95	24
Need for Turn Lanes	25
CONCLUSIONS	26

LIST OF FIGURES

FIGURE 1 – Project Location Map	2
FIGURE 2 – Existing Lane Geometry	5
FIGURE 3A – Existing Traffic Counts	8
FIGURE 3B – Existing Traffic Counts	9
FIGURE 4A – Project Traffic Distribution & Assignment	15
FIGURE 4B – Project Traffic Distribution & Assignment – Cont.	16
FIGURE 5A – Background Traffic (Year 2024)	19
FIGURE 5B – Background Traffic (Year 2024 – Cont.).....	20
FIGURE 6A – Total Traffic with Project (Year 2024)	21
FIGURE 6B – Total Traffic with Project (Year 2024 – Cont.)	22

LIST OF TABLES

TABLE 1 – Trip Generation (Existing Uses)	12
TABLE 2 – Trip Generation – (Proposed Mixed- Use Residential – Phase 1.....	12
TABLE 3 – Trip Generation (Existing Uses)	13
TABLE 4 – Trip Generation – (Proposed Mixed- Use Residential – Phase 2.....	13
TABLE 5 – Intersection Capacity / Level of Service Analyses.....	23

APPENDICES

APPENDIX A – Site Plan & Traffic Methodology
APPENDIX B – Traffic Counts

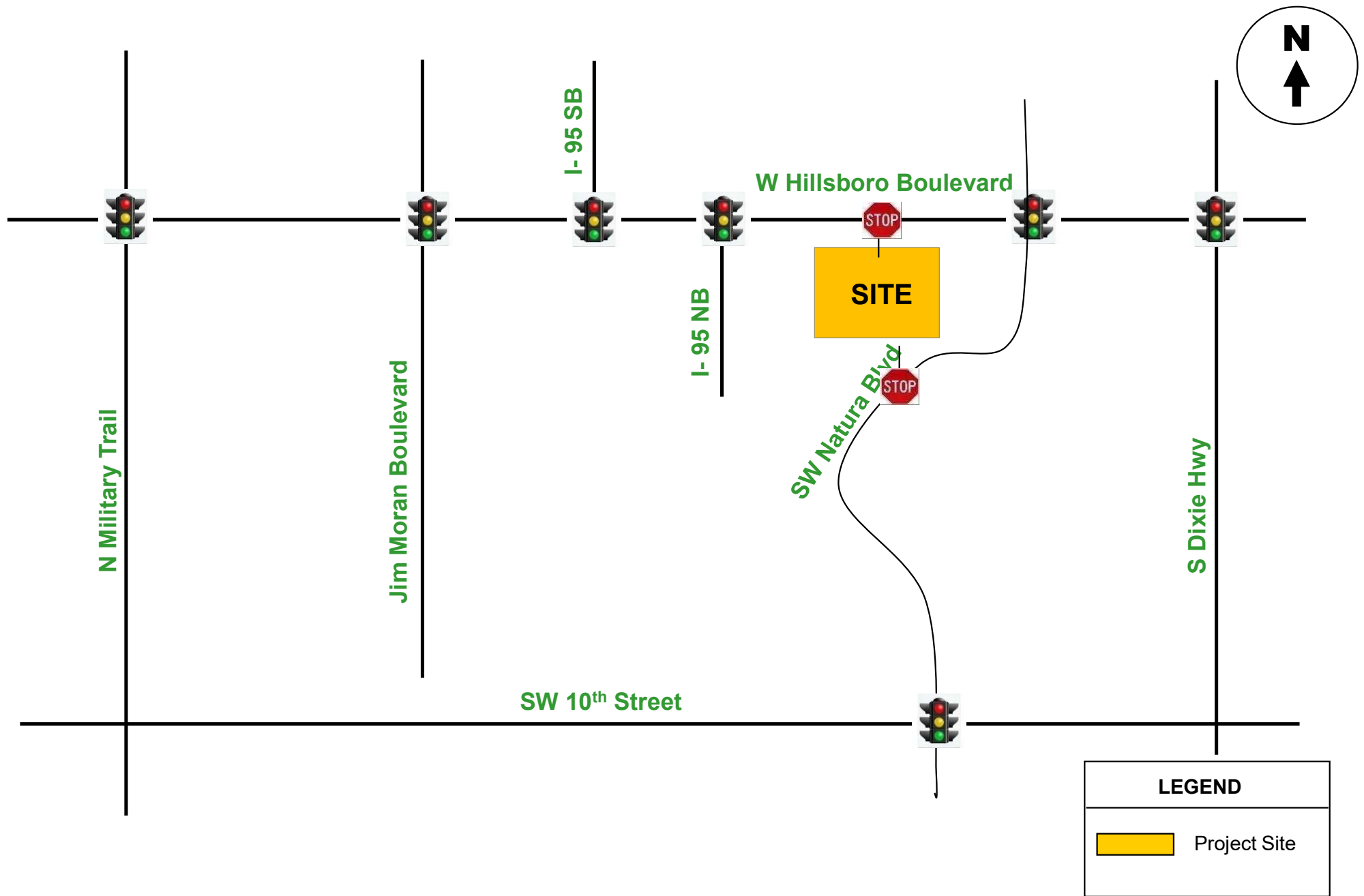
APPENDIX C – Signal Timing, PSCF, Historical Data, and Growth Rate
APPENDIX D – Covid-19 Factors
APPENDIX E – Future Turning Movement Volumes
APPENDIX F – SYNCHRO Analyses

INTRODUCTION

Mayla Deerfield is a proposed mixed-use development planned to be located on the south side of West Hillsboro Boulevard between I-95 and SW Natura Boulevard in the City of Deerfield Beach in Broward County, Florida. The location of the project site is illustrated in Figure 1 on the following page.

Traf Tech Engineering, Inc. was retained by G&C Hillsboro Investors LLC to conduct a traffic study in connection with the proposed development. The study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network. This study is divided into seven (7) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Traffic Assignment
6. Traffic Impact Analysis
7. Conclusions and Recommendations



INVENTORY

Existing Land Use and Access

The project site currently consists of three office buildings and a parking garage. The three office buildings consist of the following square footages:

○ 600 Hillsboro:	116,250 square feet
○ 700 Hillsboro Bldg #1:	39,242 square feet
○ <u>700 Hillsboro Bldg #2:</u>	<u>60,622 square feet</u>
Total	216,114 square feet

Access to the site is provided via a right-turn in/right-turn out driveway on West Hillsboro Boulevard, one full access driveway on Natura Boulevard aligning with Natura Avenue, and three minor driveways on Natura Boulevard (two north and east of the full access driveway and one west of the full access driveway).

Proposed Land Uses and Access

The project will be re-developed in two phases. Phase 1 will add residential units and will eliminate office space. Phase 2 is currently being evaluated and if finalized, may add new office square footage to the site. The new land uses and intensities for each phase are as follows:

Phase 1

- Residential (the addition of up to **360 mid-rise dwelling units**)
- Reduction of Existing **Office Use** from 216,114 sf to **169,672 sf**

Phase 2

- Addition of Parking Deck Office Use (+45,000 sf) and Natura Blvd Offices (+25,000 sf) for an overall increase in **Office Use** from 169,672 sf to **239,672 sf**

Access to the site will remain unchanged (same as existing conditions). The proposed development is anticipated to be built and occupied in 2024. Appendix A contains a copy of the proposed site plan for the project site.

EXISTING CONDITIONS

This section addresses the existing roadway system located in the vicinity of the project site and nearby intersections.

Roadway System

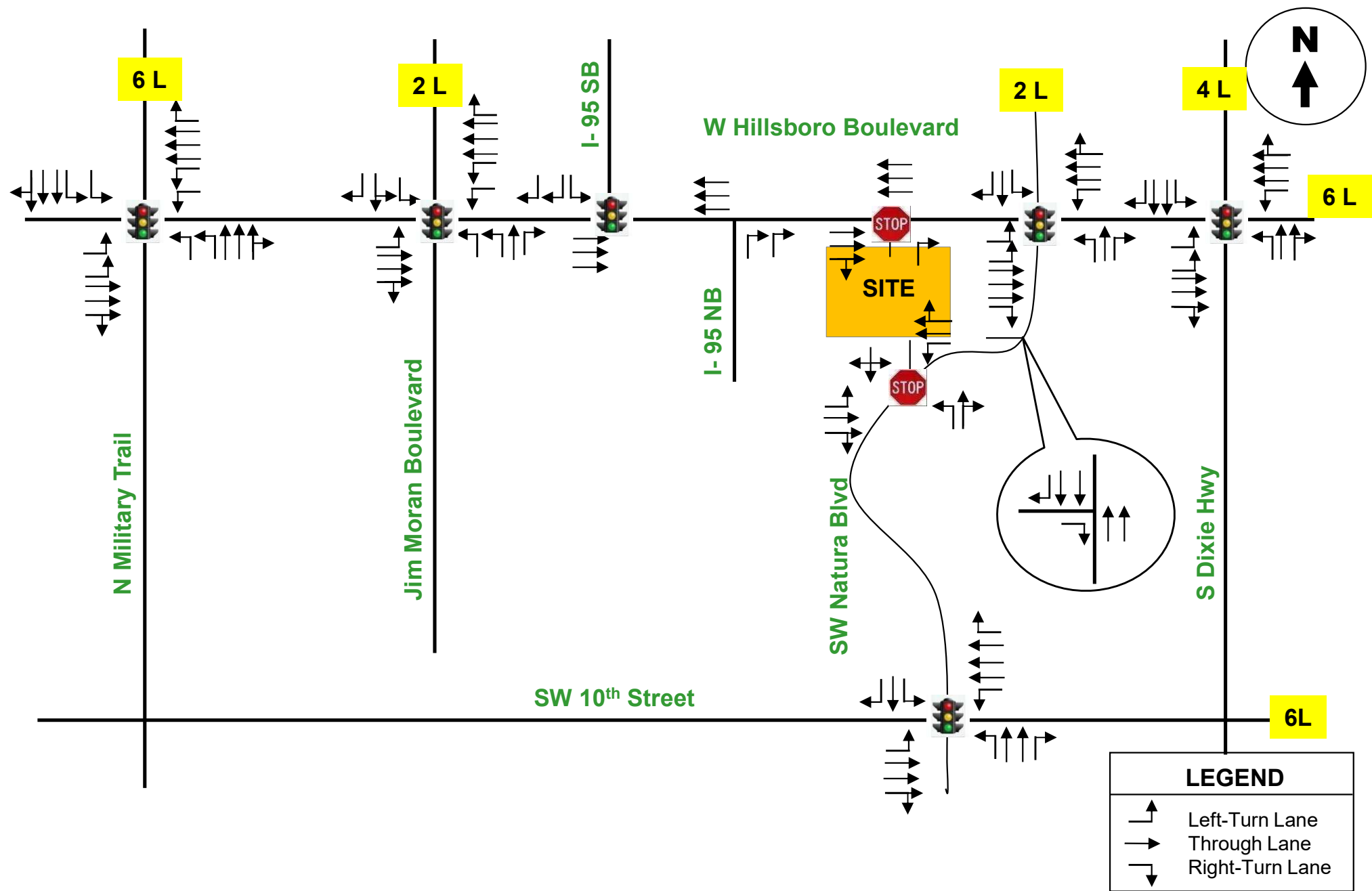
The roadway system located near the project site includes W. Hillsboro Boulevard, SW 10th Street, Military Trail, Jim Moran Boulevard, I-95 northbound and southbound ramps, and Dixie Highway.

Nearby Intersections

Nine intersections plus the driveways were identified as the locations that will be impacted the most by the proposed project. These nine intersections include:

1. Hillsboro Boulevard and Military Trail (signalized)
2. Hillsboro Boulevard and Jim Moran Boulevard (signalized)
3. Hillsboro Boulevard and I-95 SB Ramp (signalized)
4. Hillsboro Boulevard and I-95 NB Ramp (unsignalized)
5. Hillsboro Boulevard and Access Driveway (unsignalized)
6. Hillsboro Boulevard and Natura Boulevard (signalized)
7. Hillsboro Boulevard and Dixie Highway (signalized)
8. Natura Avenue and Natura Boulevard (unsignalized)
9. SW 10 Street and Natura Boulevard (signalized)
10. The Westbound to Northbound I-95 on-ramp

Figure 2 shows the existing lane geometry of the nine intersections selected for analysis purposes. The number of lanes on the street system surrounding the project site is also depicted in the figure.



TRAFFIC COUNTS

Traf Tech Engineering, Inc., in association with Video Data Solutions collected intersection turning movement counts at the nine study intersections (the I-95 ramp counts is presented at the end of this report). The intersection turning movement counts were collected on Wednesday, April 7, 2021 from 7:00 AM and 9:00 AM and from 4:00 PM and 6:00 PM at the following intersections located near the project site:

1. Hillsboro Boulevard and Military Trail
2. Hillsboro Boulevard and Jim Moran Boulevard
3. Hillsboro Boulevard and I-95 SB Ramp
4. Hillsboro Boulevard and I-95 NB Ramp
5. Hillsboro Boulevard and Access Driveway
6. Hillsboro Boulevard and Natura Boulevard
7. Hillsboro Boulevard and Dixie Highway
8. Natura Avenue and Natura Boulevard
9. SW 10 Street and Natura Boulevard

Appendix B contains the intersection turning movement counts, as collected in the field. The latest signal timing plans for the signalized intersections were obtained from Broward County Traffic Engineering Division and is included in Appendix C. The traffic counts were adjusted to account for peak season conditions. An adjustment factor of 1.01 was applied to the traffic counts collected in the field to reflect peak season conditions. The State-published peak season adjustment factors are also contained in Appendix C.

Machine traffic counts were collected during a 3-day period near the following nearby FDOT traffic count stations:

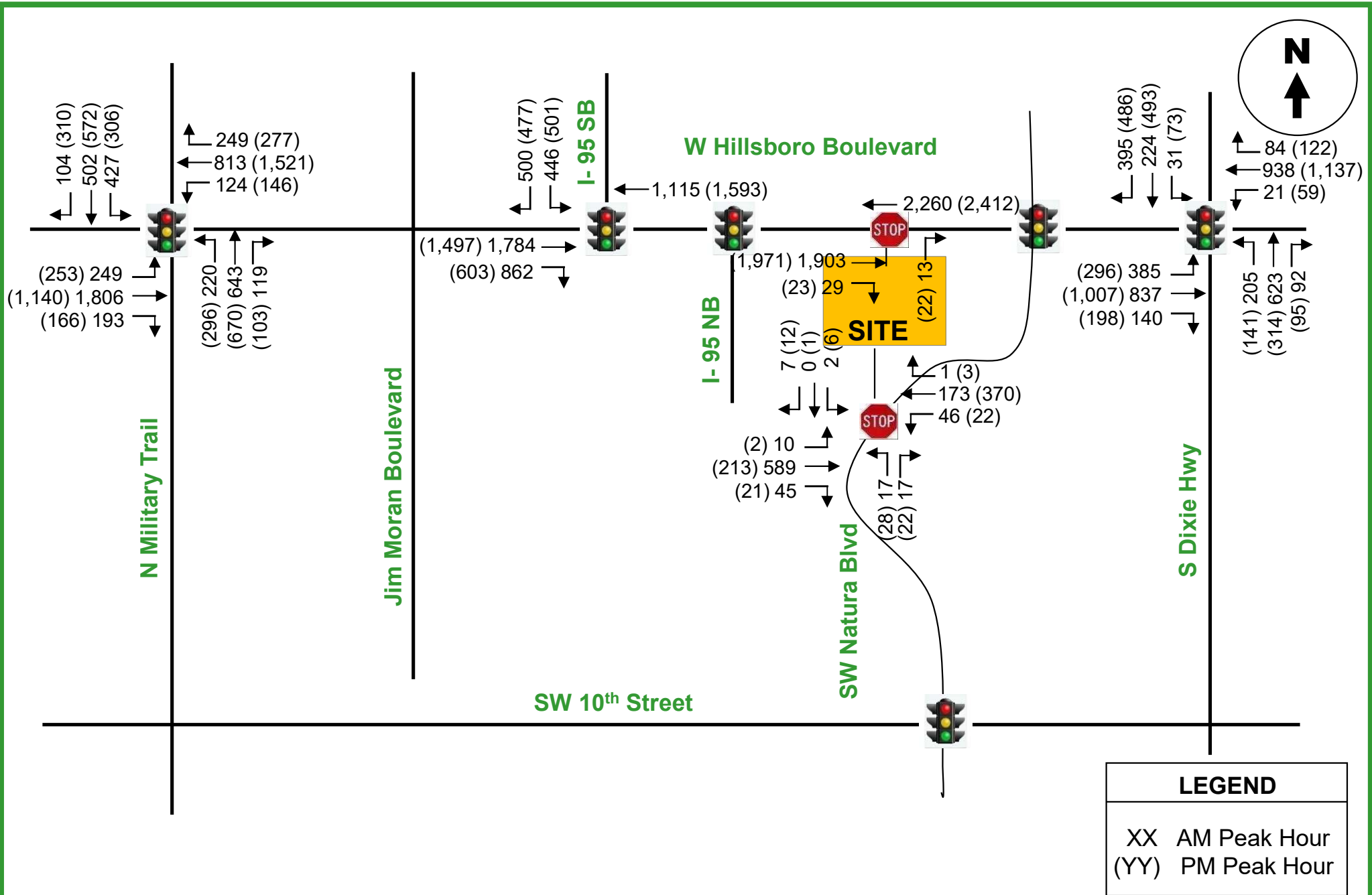
SITE 860008 (SR 810/Hillsboro Blvd - E of SR 9/I-95)

SITE 860070 (SW 10 St - E of SR 9/I-95)

SITE 864081 (I-95 NB Ramp from SR 869/SW 10 St)

SITE 869125 (Natura Blvd – S of Hillsboro Blvd)

Additionally, the machine traffic counts were reviewed to account for the effects of COVID-19. The calculations used to account for COVID-19 are reflected in Tables D-1 thru D-3 located in Appendix D. Figures 3a and 3b shows the 2021 peak season AM and PM peak hour traffic volumes.



N Military Trail

W Hillsboro Blvd

(35) 120
(1,653) 2,255
(133) 185

Jim Moran Boulevard

27 (140)
11 (28)
35 (185)

184 (24)
1,355 (1,854)
322 (234)

I-95 SB

(1,528) 1,505

I-95 NB

I-95 NB
on Ramp

1,326 (1,848)
780 (498)
1,326 (1,848)

126 (344)
17 (35)
66 (118)

137 (56)
1,623 (1,829)
73 (129)

(173) 357
(16) 107
(98) 119

SW Natura Blvd

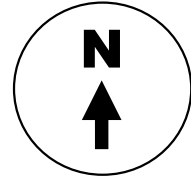
302 (199)
84 (126)
122 (141)

102 (157)
1,108 (969)
112 (174)

(247) 163
(1,223) 1,105
(274) 180

(161) 251
(135) 80
(126) 144

S Dixie Hwy



SITE

STOP

STOP

LEGEND

XX AM Peak Hour
(YY) PM Peak Hour

TRAFTECH
ENGINEERING, INC.

TRAFFIC COUNTS (Year 2021 Peak Season)

FIGURE 3B
Myla Deerfield
Deerfield Beach, Florida

TRIP GENERATION

The trip generation for the project was based on information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual* (10th Edition). According to the subject ITE manual, the most appropriate "land use" categories for the proposed land use include ITE's Land Use 710 – Office and ITE's Land Use 221 – Multifamily Mid-Rise.

The trip generation analysis was undertaken for daily, AM peak hour, and PM peak hour conditions. According to ITE's Trip Generation Manual (10th Edition), the trip generation equations used for the proposed land uses are:

GENERAL OFFICE BUILDING (ITE Land Use 710)

Daily Trips

$$\ln(T) = 0.97 \ln(X) + 2.50$$

Where T = average daily vehicle trip ends and X = 1,000 sf of GFA

AM Peak Hour

$$T = 0.94 (X) + 26.49 \text{ with } 86\% \text{ inbound and } 14\% \text{ outbound}$$

Where T = AM peak hour trip ends and X = 1,000 sf of GFA

PM Peak Hour

$$\ln(T) = 0.95 \ln(X) + 0.36 \text{ with } 16\% \text{ inbound and } 84\% \text{ outbound}$$

Where T = PM peak hour trip ends and X = 1,000 sf of GFA

MULTIFAMILY MID RISE (ITE Land Use 221)

Daily Trips

$$T = 5.45 (X) - 1.75$$

Where T = average daily vehicle trip ends and X = number of units

AM Peak Hour

$$\ln(T) = 0.98 \ln(X) - 0.98 \text{ with } 26\% \text{ inbound and } 74\% \text{ outbound}$$

Where T = AM peak hour trip ends and X = number of units

PM Peak Hour

$$\ln(T) = 0.96 \ln(X) - 0.63 \text{ with } 61\% \text{ inbound and } 39\% \text{ outbound}$$

Where T = PM peak hour trip ends and X = number of units

Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for both Phases 1 and 2. The results of this effort are documented in Tables 1 through 4 on the following pages.

As indicated at the bottom of Table 2, Phase 1 of the Mayla Deerfield project is anticipated to generate approximately 1,416 daily trips, approximately 72 AM peak hour trips (-9 inbound and 81 outbound) and approximately 91 PM peak hour trips (79 inbound and 12 outbound). Phase 2 is projected to generate approximately 2,152 daily trips, approximately 138 AM peak hour trips (48 inbound and 90 outbound) and approximately 164 PM peak hour trips (91 inbound and 73 outbound), when compared against the existing office use on the site.

Even though Phase 2 is currently being evaluated for both feasibility and timing, for purposes of this traffic analysis, the additional trips associated with Phase 2 were used. That is, +138 AM peak hour trips and +164 PM peak hour trips.

TABLE 1 Trip Generation Summary (Existing Uses) Mayla Deerfield								
Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Office (600 Hillsboro)	116,250 sf							
Office (700 Hillsboro Bldg #1)	39,242 sf							
Office (700 Hillsboro Bldg #2)	60,622 sf							
Total Office	216,114 sf	2,241	230	198	32	237	38	199
Driveway/External Trips		2,241	230	198	32	237	38	199

Source: ITE Trip Generation Manual (10th Edition)

TABLE 2 Trip Generation Summary (Proposed Mixed-Use Residential) Mayla Deerfield - Phase 1								
Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Office (600 Hillsboro)	116,250 sf							
Office (700 Hillsboro Bldg #1)	0 sf							
Office (700 Hillsboro Bldg #2)	53,422 sf							
Office (LUC 710)	169,672 sf	1,772	186	160	26	188	30	158
Multifamily (LUC 221)	360 units	1,960	120	31	89	152	93	59
Subtotal		3,732	306	191	115	340	123	217
Internal Trips		-75	-4	-2	-2	-12	-6	-6
Driveway/External Trips		3,657	302	189	113	328	117	211

Source: ITE Trip Generation Manual (10th Edition Equations)

Difference in Trips (Phase 1)		Daily	AM Peak	PM Peak				
New Trips	Driveway/							
Phase 1 - Existing	External	1,416	72	-9	81	91	79	12

TABLE 3 Trip Generation Summary (Existing Uses) Mayla Deerfield								
Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Office (600 Hillsboro)	116,250 sf							
Office (700 Hillsboro Bldg #1)	39,242 sf							
Office (700 Hillsboro Bldg #2)	60,622 sf							
Total Office	216,114 sf	2,241	230	198	32	237	38	199
Driveway/External Trips		2,241	230	198	32	237	38	199

Source: ITE Trip Generation Manual (10th Edition)

TABLE 4 Trip Generation Summary (Proposed Mixed-Use Residential) Mayla Deerfield - Phase 2								
Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Office (600 Hillsboro)	116,250 sf							
Office (600 Hillsboro Pkg Deck)	45,000							
Office (700 Hillsboro Bldg #1)	0 sf							
Office (700 Hillsboro Bldg #2)	53,422 sf							
Office (Natura Blvd Bldg)	25,000							
Office (LUC 710)	239,672 sf	2,477	252	217	35	261	42	219
Multifamily (LUC 221)	360 units	1,960	120	31	89	152	93	59
Subtotal		4,437	372	248	124	413	135	278
Internal Trips		-44	-4	-2	-2	-12	-6	-6
Driveway/External Trips		4,393	368	246	122	401	129	272

Source: ITE Trip Generation Manual (10th Edition Equations)

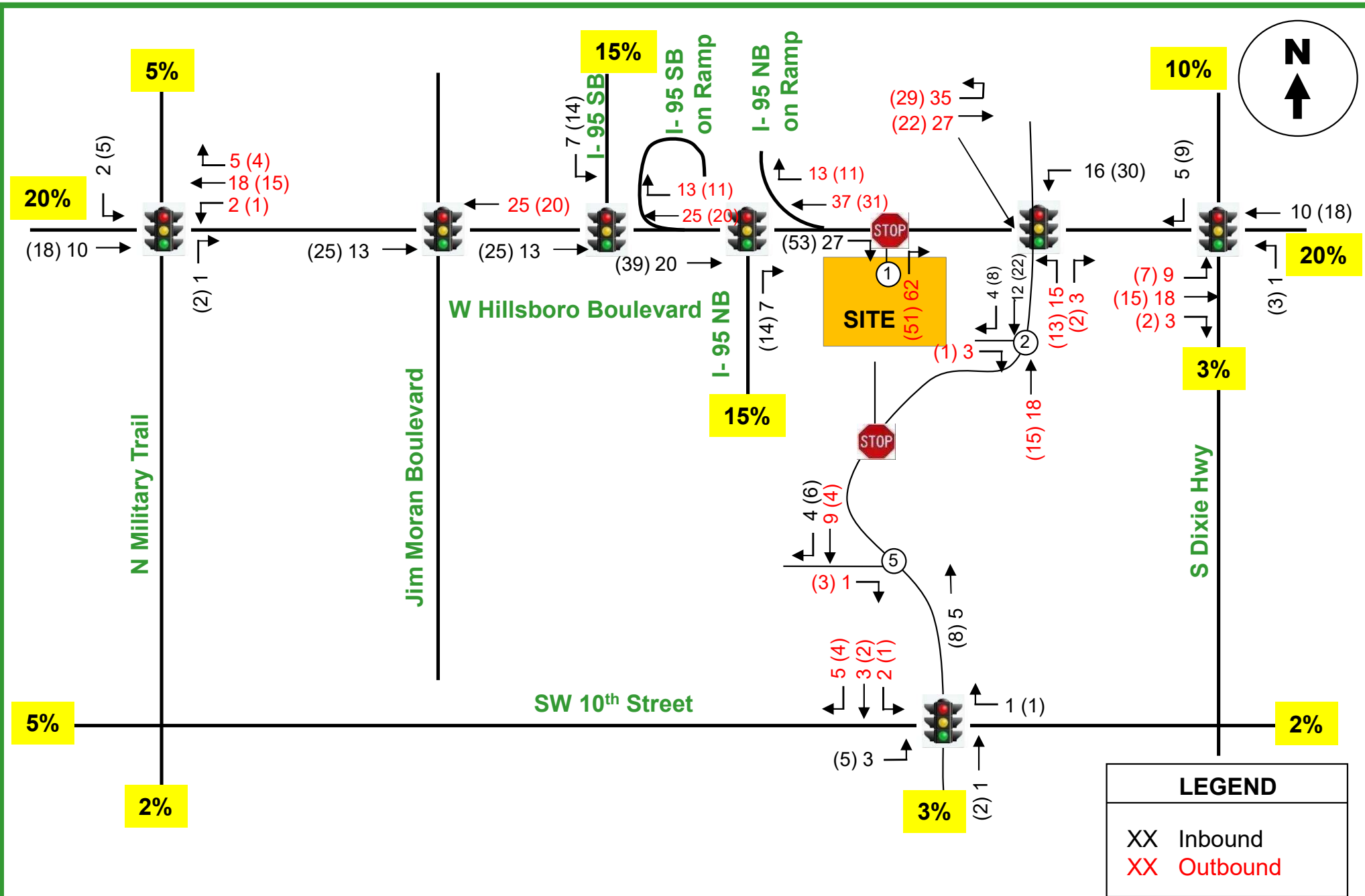
Difference in Trips (Phase2)		Daily	AM Peak			PM Peak		
New Trips Phase 2 - Existing	Driveway/ External	2,152	138	48	90	164	91	73

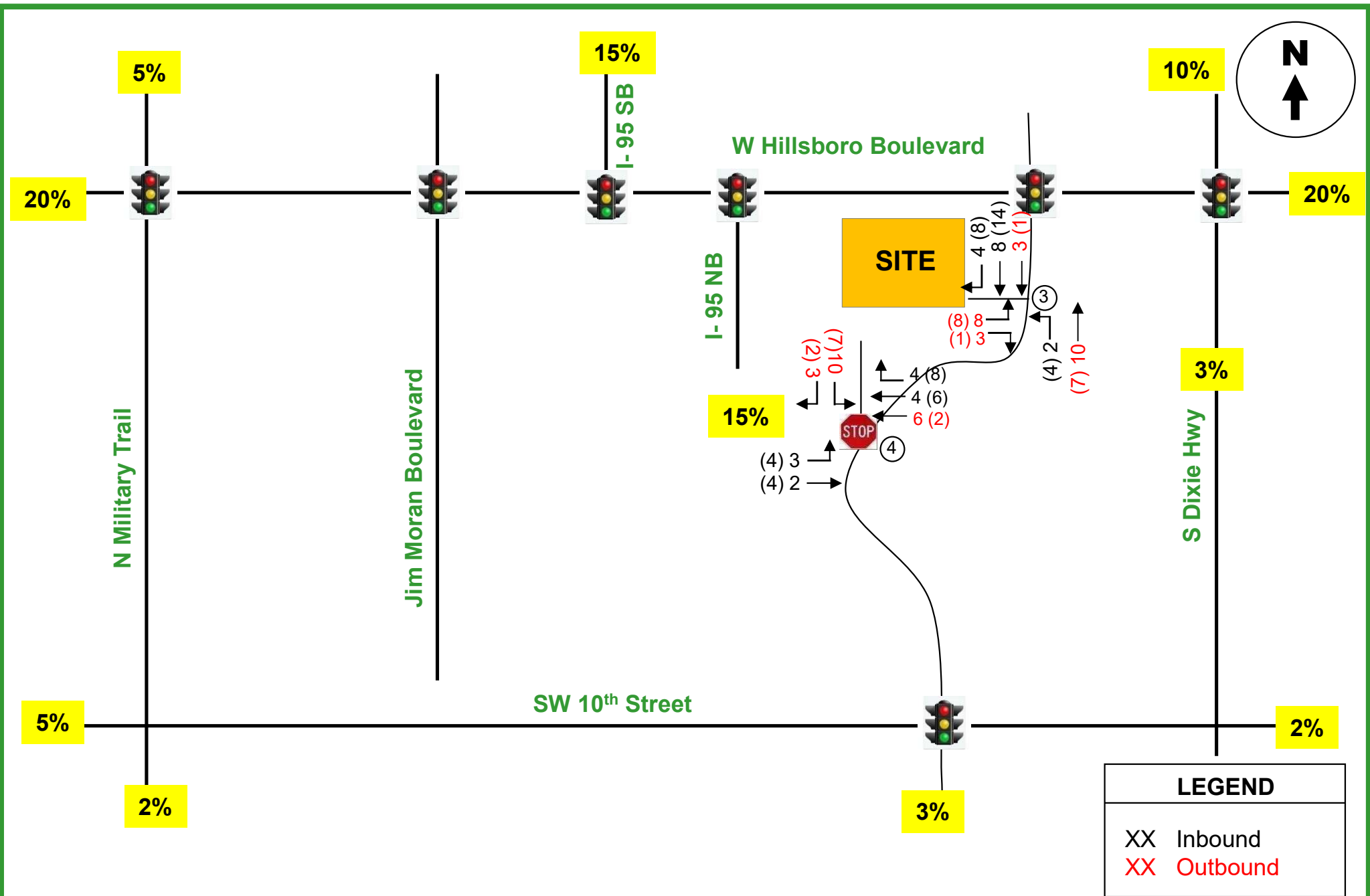
TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The project trips were distributed and assigned to the study area based on knowledge of the study area, examination of the surrounding roadway network characteristics, review of current traffic volumes, and existing land use patterns. The trip distribution assumed for the subject industrial development is summarized below:

- 10% to and from the north via S. Dixie Highway
- 15% to and from the north via I-95 Southbound Ramp
- 15% to and from the south via I-95 Northbound Ramp
- 5% to and from the north Military Trail
- 3% to and from the south via S. Dixie Highway
- 3% to and from the south via Natura Boulevard
- 2% to and from the south via Military Trail
- 20% to and from the east via Hillsboro Boulevard
- 2% to and from the east via SW 10th Street
- 20% to and from the west via Hillsboro Boulevard
- 5% to and from the west via SW 10th Street

The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented above. The project traffic assignment is summarized in Figures 4A and 4B.





TRAFFIC ANALYSIS

This section of the study is divided into two parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

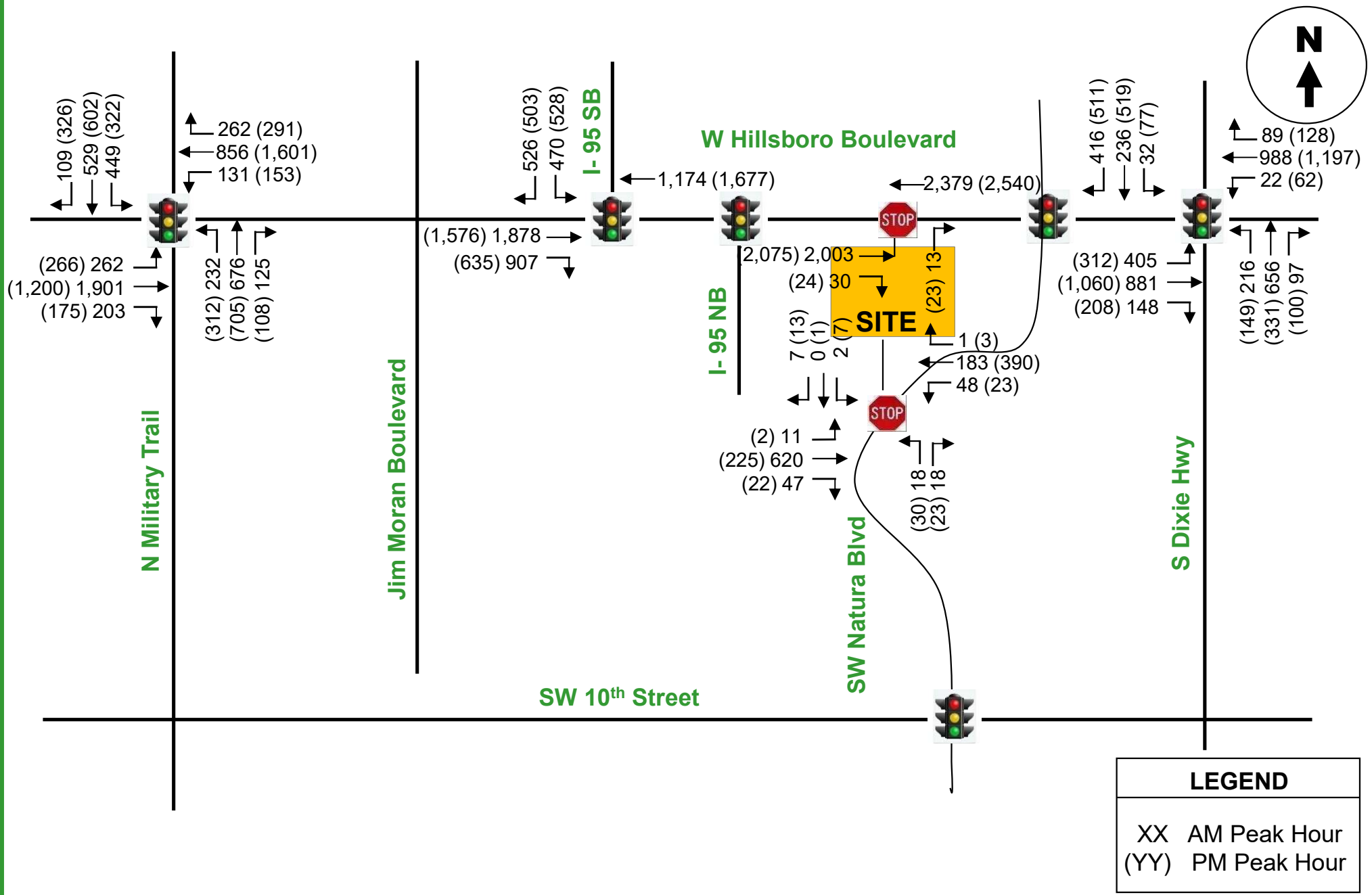
Two sets of future traffic volumes were developed. The first set includes project buildout conditions without the proposed project and the second set adds the new trips anticipated to be generated by the project.

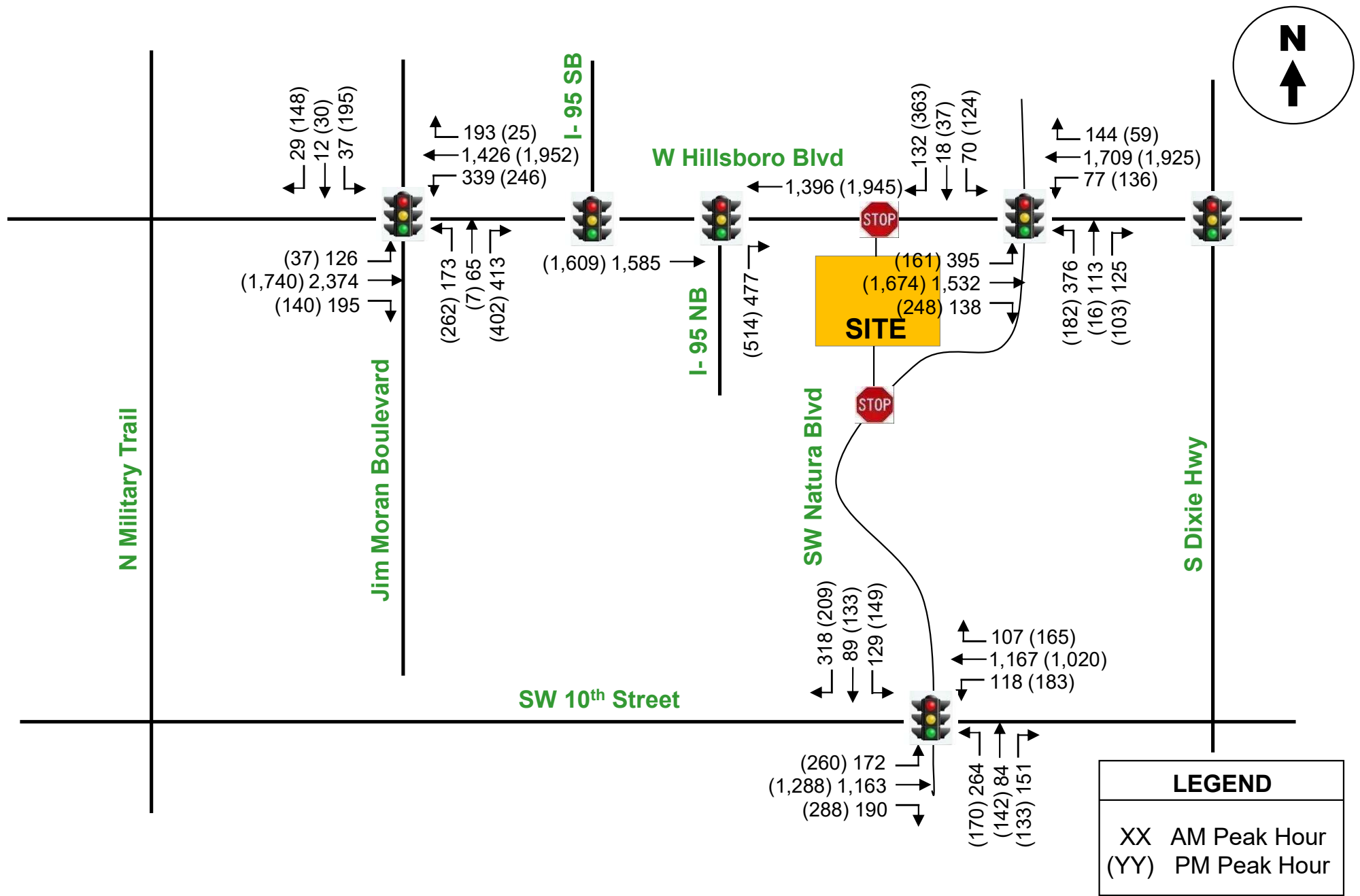
In order to develop year 2024 traffic volumes (project anticipated to be built and occupied by the year 2024), without the proposed project, two separate analyses were undertaken. The first analysis converts the existing peak hour traffic counts collected in the field during the month of April to average peak season conditions. Based on FDOT's Peak Season Factor Category report, a factor of 1.01 is required to convert traffic counts collected during the first week of April to average peak season conditions (refer to Appendix C). The second analysis includes a growth factor to project 2021 peak season traffic volumes to the year 2024. Based on traffic growth data published by the FDOT for a nearby traffic count stations, traffic growth has occurred during the past five years (refer to Appendix C). In order to assess impacts with a conservative approach, and to account for unforeseen approved projects (committed development trips) that may impact the study intersections, a 1.73% growth rate was used for purposes of this study.

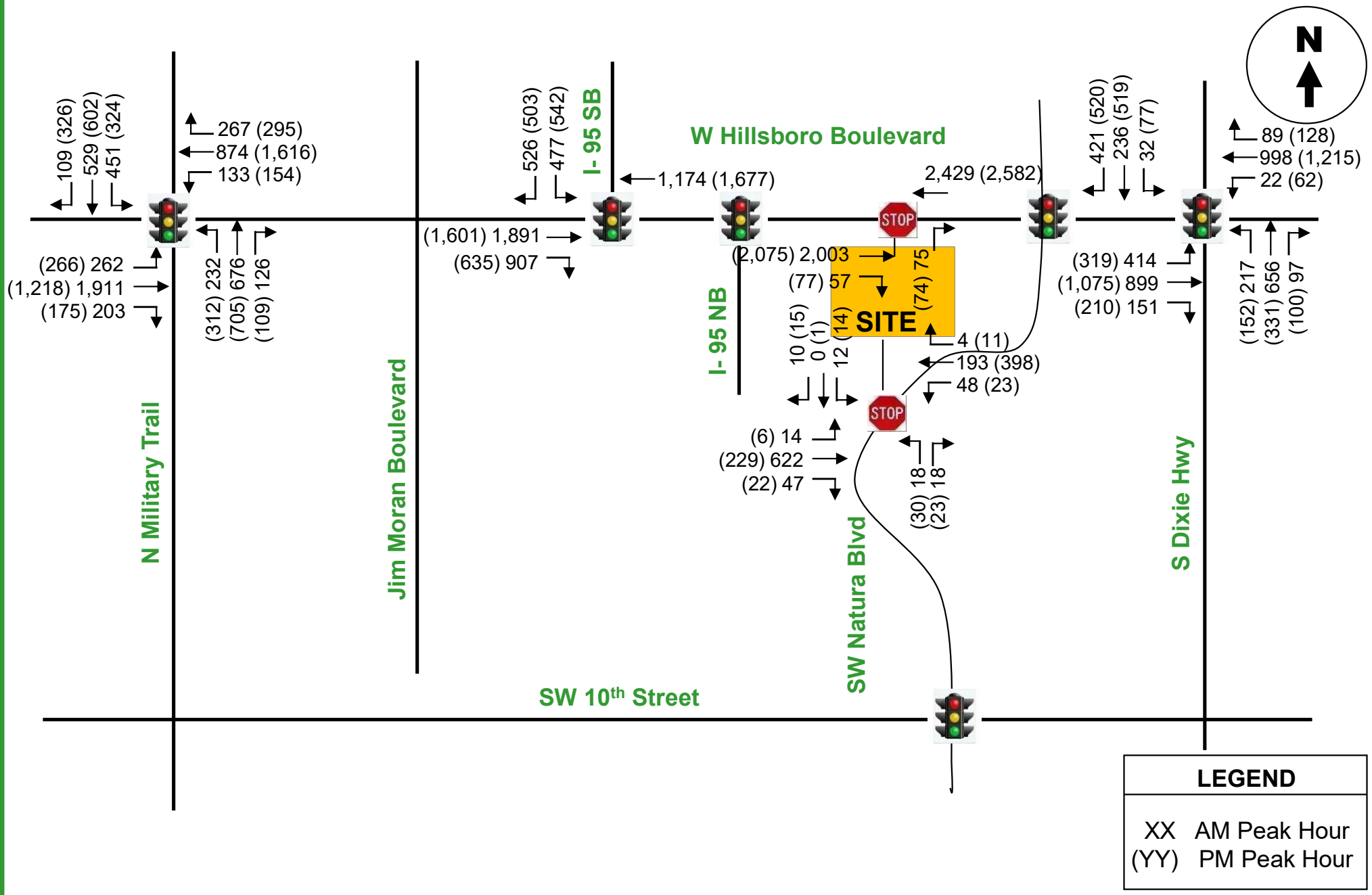
The new trips generated by the proposed project (refer to Figures 4A and 4B) were added to the 2024 background traffic in order to develop total traffic conditions.

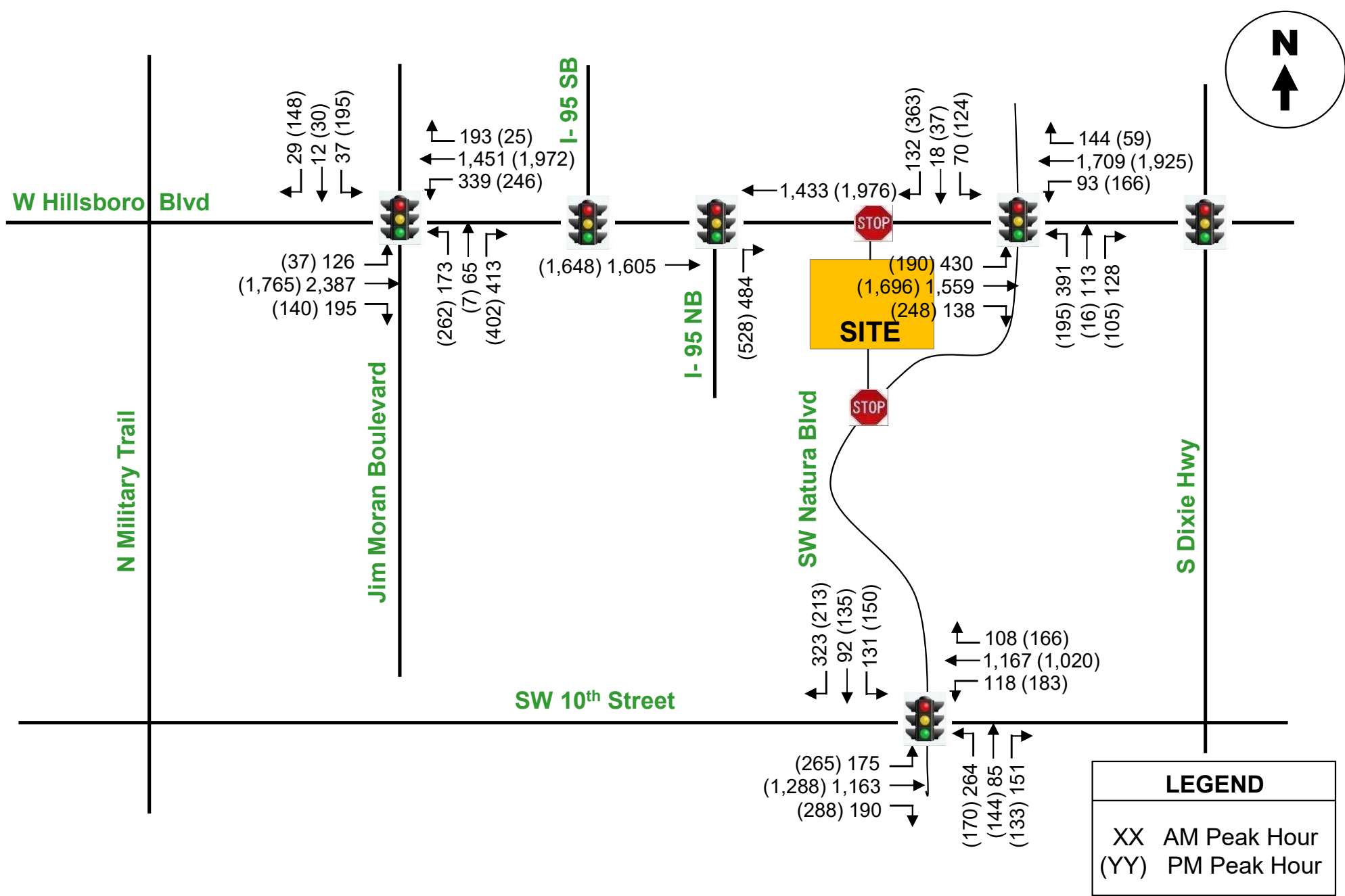
The future traffic projections for the study intersections (peak season adjustments, Covid-19 adjustment, growth rates, and project traffic) are presented in tabular format in Appendix E.

Figures 5A, 5B, 6A and 6B present the year 2024 future traffic volumes for the study area. Figures 5A and 5B includes background traffic only (without the proposed project) and Figures 6A and 6B includes the additional traffic anticipated to be generated by the project.









TOTAL TRAFFIC with PROJECT – Year 2024
AM (PM) Peak Hour Trips

FIGURE 6B
Myla Deerfield
Deerfield Beach, Florida

Level of Service Analyses

Intersection capacity/level of service analyses were conducted for the nine study intersections and the driveways that provide access to the project. The analyses were undertaken following the capacity/level of service procedures outlined in the Highway Capacity Manual (HCM) 6th Edition using the SYNCHRO software. The results of the capacity analyses are summarized in Table 5.

TABLE 5 Intersection Level of Service – Mayla Deerfield			
Intersection	2021 Existing	Future Traffic Conditions	
		2024 w/o Project	2024 With Project
Hillsboro Blvd & Military Tr	D (D) 58.1 (49.9)	E (D) 61.8 (52.1)	E (D) 62.1 (52.1)
SBL (310 ft)	#332 ft (221 ft)	#359 ft (#236 ft)	#360 ft (#242 ft)
WBL (160 ft)	105 ft (110 ft)	110 ft (m113 ft)	110 ft (m114 ft)
WBR (130 ft)	216 ft (288 ft)	233 ft (275 ft)	239 ft (276 ft)
Hillsboro Blvd & Project Dwy NB	B (B) 14.1 (14.2)	B (B) 14.5 (14.7)	C (C) 16.8 (16.6)
Hillsboro Blvd & SW Natura B	D (D) 38.6 (46.5)	D (D) 41.4 (52.1)	D (E) (D)* 42.2 (58.6) (53.9)*
NBL (100 ft)	#589 ft (214 ft)	#616 ft (215 ft)	#653 ft (228 ft)
NBR (160 ft)	64 ft (54 ft)	66 ft (53 ft)	66 ft (54 ft)
EBL (150 ft)	260 ft (131 ft)	272 ft (138 ft)	293 ft (158 ft)
WBL (100 ft)	136 ft (m204)	141 ft (m210)	m165 ft (m#272)
S. Dixie Hwy & Hillsboro Blvd	E (D) 61.0 (52.7)	E (E) 64.7 (55.7)	E (E)/(D)* 66.2 (56.7)/(52.8)*
NBL (225 ft)	230 ft (164 ft)	242 ft (170 ft)	244 ft (172 ft)/(263 ft)*
SBR (120 ft)	410 ft (#618)	454 ft (#717)	464 (#744 ft)/(#378 ft)*
EBL (170 ft)	#391 (201)	#419 (246)	#426 (m#239 ft)/(157ft)*
SW Natura Ave/SW Natura Blvd	B (B) 12.8 (10.2)	B (B) 13.3 (10.4)	B (B) 13.4 (10.4)
NB	A (B)	A (B)	B (B)
SB	9.6 (10.2)	9.7 (10.4)	11.5 (10.9)
SW Natura Blvd & SW 10 St	D (C) 51.0 (33.4)	E (C) 55.2 (33.4)	E D* (D) 56.6/52.3* (35.3)
SBL (100 ft)	174 ft (191 ft)	184 ft (199 ft)	186 ft/176 ft* (200 ft)
SBR (200 ft)	#328 ft (80 ft)	#384 ft (80 ft)	#398 ft/#371 ft* (81 ft)
EBL (120 ft)	105 ft (140 ft)	111 ft (150 ft)	113 ft/134 ft * (153 ft)
WBR (200 ft)	35 ft (38 ft)	38 ft (38 ft)	39 ft/42 ft* (38 ft)
Jim Moran Blvd & Hillsboro B.	C (D) 34.4 (39.0)	D (D) 43.3 (40.7)	D (D) 44.6 (40.9)
Hillsboro Blvd & I-95 SB Rmp	D (B) 37.6 (16.9)	D (B) 39.2 (17.5)	D (B) 39.7 (17.5)
Hillsboro Blvd & I-95 NB Rmp	C (C) 24.3 (27.0)	C (C) 25.4 (27.9)	C (C) 25.6 (28.4)

Source: Highway Capacity Manual 6th Edition

*With Improvements: Signal Timing Optimization.

As indicated in Table 5, all study intersections are currently operating adequately and will continue to operate at a good level of service in the year 2024 with the proposed project in place, except for three intersections. The intersections of Hillsboro Boulevard at Military Trail and Hillsboro Boulevard at Dixie Highway are projected to fail under the future conditions. These intersections fail without the proposed project in place and the increase in delay due to the project traffic is minimal (less than 2 seconds). Hence, the project's traffic impacts are minimal.

On the other hand, the intersection of Hillsboro Boulevard and SW Natura Boulevard is projected to fail during the afternoon period in the year 2024. However, with the implementation of minor signal timing improvements, the delay and LOS are expected to improve (mitigates the project's traffic impacts). Additionally, the following turn-lane improvements are recommended at this intersection:

- Replace the taper dimension (approximately 150 feet) on the westbound left-turn lane to current FDOT standards (50 feet) and provide approximately 100 feet of additional storage length to the west-to-south left-turn lane.
- Replace the taper dimension (approximately 140 feet) on the northbound left-turn lane to current FDOT standards (50 feet) and provide approximately 90 feet of additional storage length to the north-to-west left-turn lane.

The computer printouts of the intersection capacity analyses are contained in Appendix F.

Westbound Hillsboro Boulevard to Northbound I-95 Ramp

Field observations of traffic conditions at the westbound Hillsboro Boulevard to northbound I-95 were undertaken on Wednesday, May 5, 2021. As presented in Appendix G, no backups or traffic queues were observed on the subject on-ramp.

Need for Turn Lanes

As shown in Figure 4A, at the project entrance on Hillsboro Boulevard, the projected eastbound right-turn volume includes 27 AM peak hour trips and 53 PM peak hour trips. The required right-turn volume threshold to justify a right-turn lane is 80 vehicles in a one-hour period. Hence, an eastbound right-turn lane is not warranted based on projected volumes.

Similarly, at the project entrance on SW Natura Boulevard, the projected westbound right-turn volume includes 4 AM peak hour trips and 8 PM peak hour trips (see Figure 4B). The required right-turn volume threshold to justify a right-turn lane is 80 vehicles in a one-hour period. Hence, a westbound right-turn lane is not warranted either. In regards of the other project driveways, the entering volumes are low, a maximum of eight (8) vehicles is projected and since the required volume threshold is not met, dedicated right-turn lanes were not recommended.

CONCLUSIONS AND RECOMMENDATIONS

Mayla Deerfield is a proposed mixed-use development planned to be located on the south side of West Hillsboro Boulevard between I-95 and SW Natura Boulevard in the City of Deerfield Beach in Broward County, Florida. The project site currently consists of three office buildings and a parking garage. The project will be re-developed to add residential units and may include additional office space. The new land uses and intensities are as follows:

Phase 1

- Residential (the addition of up to **360 mid-rise dwelling units**)
- Reduction of Existing **Office Use** from 216,114 sf to **169,672 sf**

Phase 2

- Addition of Parking Deck Office Use (+45,000 sf) and Natura Blvd Offices (+25,000 sf) for an overall increase in **Office Use** from 169,672 sf to **239,672 sf**

Access to the site is provided via a right-turn in/right-turn out driveway on West Hillsboro Boulevard, one full access driveway on Natura Boulevard aligning with Natura Avenue, and three minor driveways on Natura Boulevard (two north and east of the full access driveway and one west of the full access driveway).

The conclusions and recommendations of the traffic study are presented below:

- Phase 1 of the Mayla Deerfield project is anticipated to generate approximately 1,416 daily trips, approximately 72 AM peak hour trips (-9 inbound and 81 outbound) and approximately 91 PM peak hour trips (79 inbound and 12 outbound).

-
- Phase 2 is projected to generate approximately 2,152 daily trips, approximately 138 AM peak hour trips (48 inbound and 90 outbound) and approximately 164 PM peak hour trips (91 inbound and 73 outbound).
 - All study intersections are currently operating adequately and will continue to operate at a good level of service in the year 2024 with the proposed project in place, except for three intersections. The intersections of Hillsboro Boulevard at Military Trail and Hillsboro Boulevard at Dixie Highway are projected to fail under the future conditions. These intersections fail without the proposed project in place and the increase in delay due to the project traffic is minimal (less than 2 seconds). Hence, the project's traffic impacts are minimal.
 - The intersection of Hillsboro Boulevard and SW Natura Boulevard is projected to fail during the afternoon period in the year 2024. However, with the implementation of minor signal timing improvements, the delay and LOS are expected to improve (mitigates the project's traffic impacts). Additionally, the following turn-lane improvements are recommended at this intersection:
 - Replace the taper dimension (approximately 150 feet) on the westbound left-turn lane to current FDOT standards (50 feet) and provide approximately 100 feet of additional storage length to the west-to-south left-turn lane.
 - Replace the taper dimension (approximately 140 feet) on the northbound left-turn lane to current FDOT standards (50 feet) and provide approximately 90 feet of additional storage length to the north-to-west left-turn lane.

APPENDIX A

Site Plan – Hillsboro Center & Traffic Methodology

MEMORANDUM

To: City of Deerfield Beach

From: Joaquin Vargas, P.E.

Date: March 4, 2021 **(Revised on January 27, 2022)**

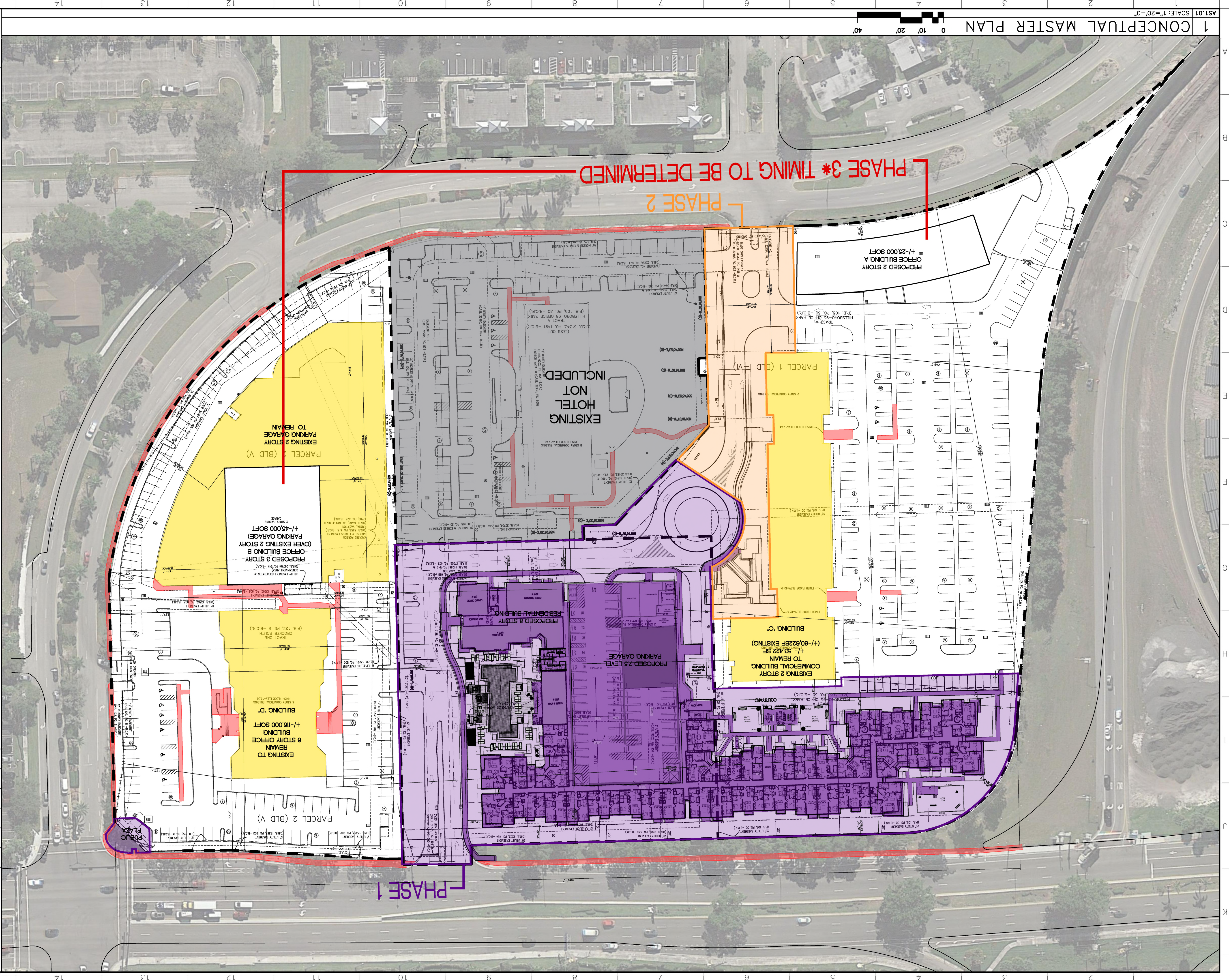
Subject: 600 and 700 W. Hillsboro Boulevard - Traffic Study Methodology

Traffic Analysis

- The trip generation analysis for the proposed uses will be based upon the Institute of Transportation Engineers (ITE) *Trip Generation Manual (10th Edition)*. Table 1 attached documents the trip generation for the project.
- The anticipated land use and intensity is as follows:
 - Phase 1: Residential (addition of up to 360 mid-rise dwelling units), and Reduction of Existing Office Use from 216,114 sf to 169,672 sf.
 - Phase 2: Addition of Parking Deck Office Use (+45,000 sf) and Natura Blvd Offices (+25,000 sf) for an overall increase in Office Use from 169,672 sf to 239,672 sf.
- The trip distribution will be based upon the existing nearby land uses and the transportation network in the vicinity of the project site (i.e., no travel demand modeling will be performed).
- Intersection turning movement counts will be collected for the AM peak period (7:00 AM – 9:00 AM) and the PM peak period (4:00 PM – 6:00 PM). The study intersections include:
 - W. Hillsboro Boulevard and Fairway Dr/Natura Blvd (signalized)
 - Natura Blvd and South Project Driveway/Natura Ave (stop control)
 - Natura Blvd and SW 10th Street (signalized)The traffic counts will include pedestrians and bicyclists.
- Traffic counts will be adjusted to reflect average peak season conditions based upon the most recent available FDOT adjustment factors.
- Machine traffic counts will be collected during a 2-day period at the following nearby FDOT traffic count stations:
 - SITE 860008 (Hillsboro Blvd east of I-95)
 - SITE 869125 (Natura Blvd south of Hillsboro Blvd)
 - SITE 860070 (SW 10th Street east of I-95)

The 2021 traffic counts (during Covid-19) collected at the above three FDOT nearby traffic count stations will be compared against FDOT's 2019 traffic counts (pre-pandemic) to develop an appropriate Covid-19 adjustment factor. The FDOT 2019 traffic counts will be grown to the year 2021 based on historical traffic counts for the adjustment factor determination.

- A growth factor will be applied to the traffic counts to reflect future traffic conditions at project build-out. The growth factor will be based upon historical traffic data available for the area near the project site. (Negative “growth” rates for the study area, if any, will be adjusted to at least a 0.5% growth rate.)
- Existing traffic signal timing data for the study intersections will be obtained from Broward County Traffic Engineering and will be included in the Appendix of the traffic study.
- Traffic analysis figures will be prepared for the following scenarios for each of the intersections analyzed:
 - o Existing traffic
 - o Proposed project traffic distribution
 - o Background conditions for buildout year
 - o Future conditions with project traffic
- Intersection analyses will be conducted using the SYNCHRO software for existing conditions, future conditions without the project, and future conditions with the proposed project in place. Adjustments to the signal timing, if any, will be clearly documented in the traffic study.
- All traffic data obtained for this project will be included in the Appendix of the traffic study.
- Mode splits will be confirmed with City staff prior to the completion of the traffic study.
- Existing and planned transit service as well as existing transit amenities in the immediate area will be documented in the traffic study.
- The project buildout year is 2024.



1 CONCEPTUAL MASTER PLAN

AS1.01 SCALE: 1"=20'-0"



Sheet No.	AS1.00
Principal:	Project Director:
Checked by:	Project Manager:
Drawn by:	Project Engineer:
Scale	Plot Date
2004/0.00	4/8/2021
MASTER PLAN	CONCEPTUAL
Drawing Title	

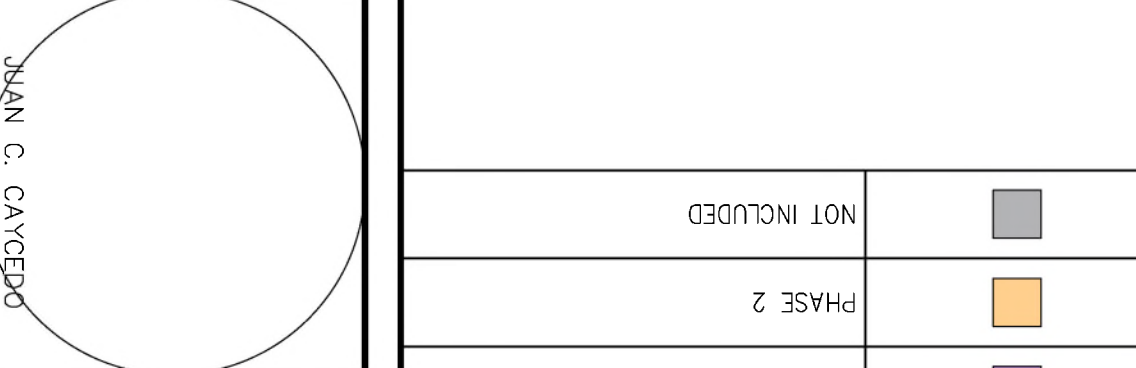
REVISIONS

HILLSBORO MIXED-USE

600 AND 700 W HILLSBORO BLVD.
DEERFIELD BEACH, FL 33441

CONSULTANT

INFO/LOGO



RLC Architects

1400 N. Orange Blvd., Suite 100, Orlando, FL 32802
Tel: 407.393.6655 Fax: 407.393.6657
www.rlcarchitects.com

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LEGEND
EXISTING SIDEWALKS
EXISTING BUILDINGS TO REMAIN
PHASE 1
PHASE 2
NOT INCLUDED

ABBREVIATIONS

BLUR: BUFFER SPACE
SMK: SIDEWALK
DRW: DRIVEWAY
EXT: EXISTING
R.O.W: RIGHT OF WAY
O.R.B: OFFICIAL RECORD BOOK

General Office Building (710)

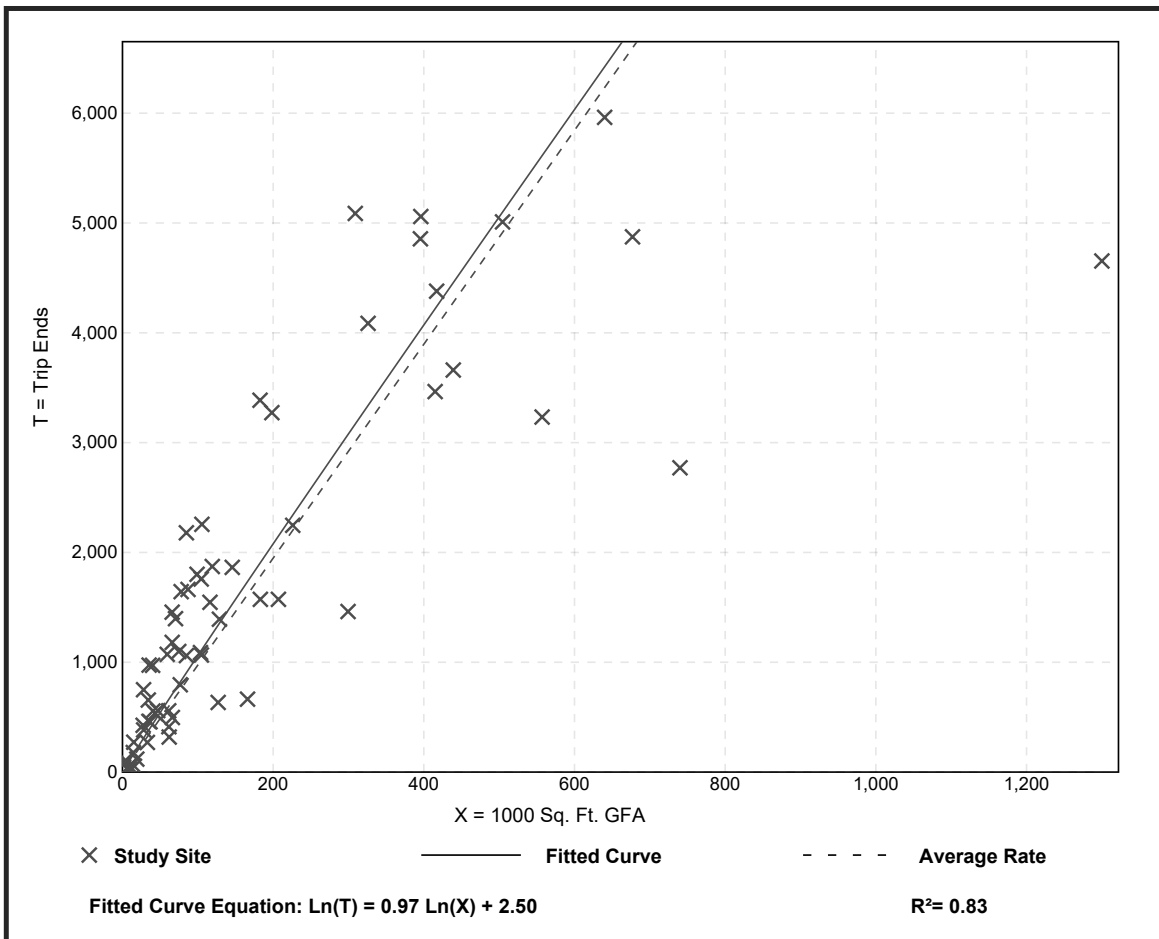
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 66
Avg. 1000 Sq. Ft. GFA: 171
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.74	2.71 - 27.56	5.15

Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

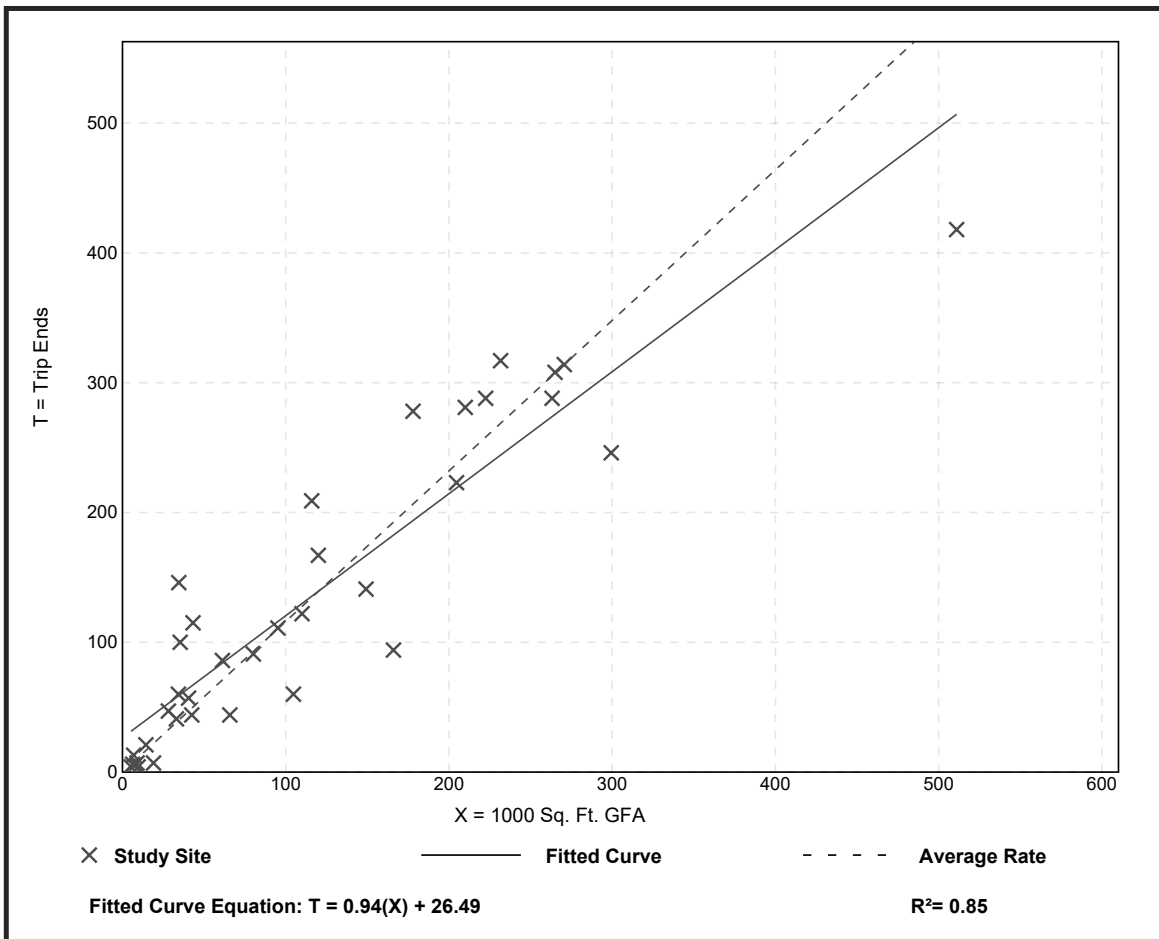
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 35
 Avg. 1000 Sq. Ft. GFA: 117
 Directional Distribution: 86% entering, 14% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.16	0.37 - 4.23	0.47

Data Plot and Equation



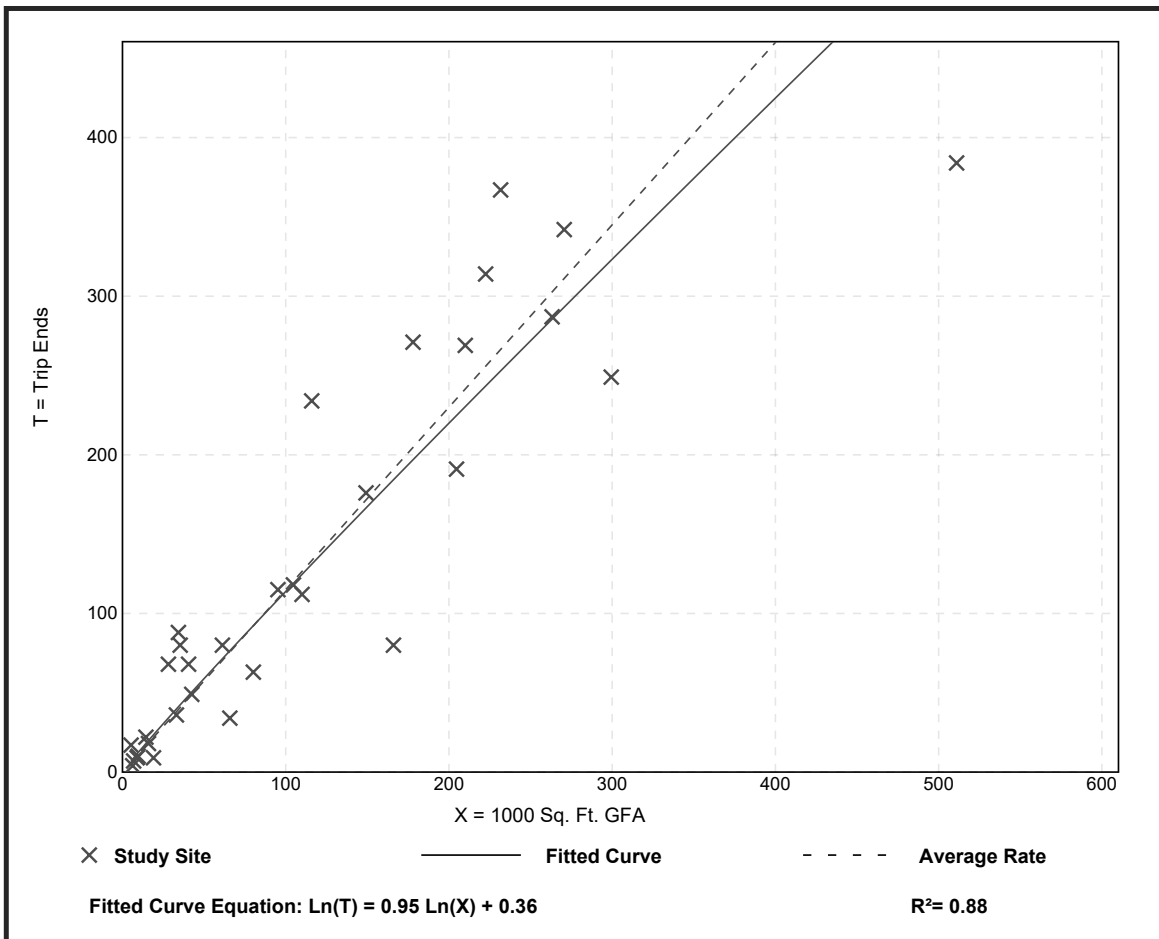
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 32
 Avg. 1000 Sq. Ft. GFA: 114
 Directional Distribution: 16% entering, 84% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.15	0.47 - 3.23	0.42

Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

Multifamily Housing (Mid-Rise) (221)

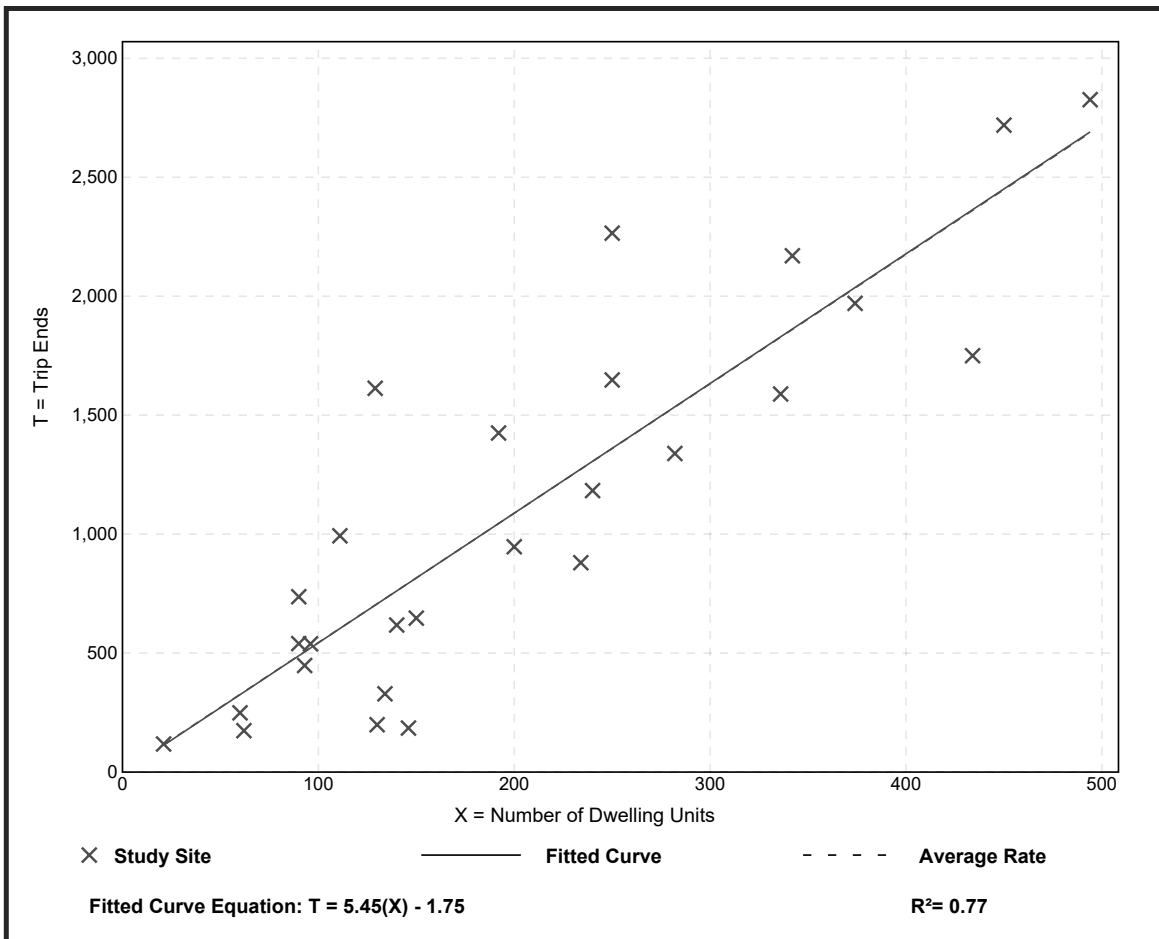
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 27
Avg. Num. of Dwelling Units: 205
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
5.44	1.27 - 12.50	2.03

Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

Multifamily Housing (Mid-Rise) (221)

Vehicle Trip Ends vs: Dwelling Units

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 53

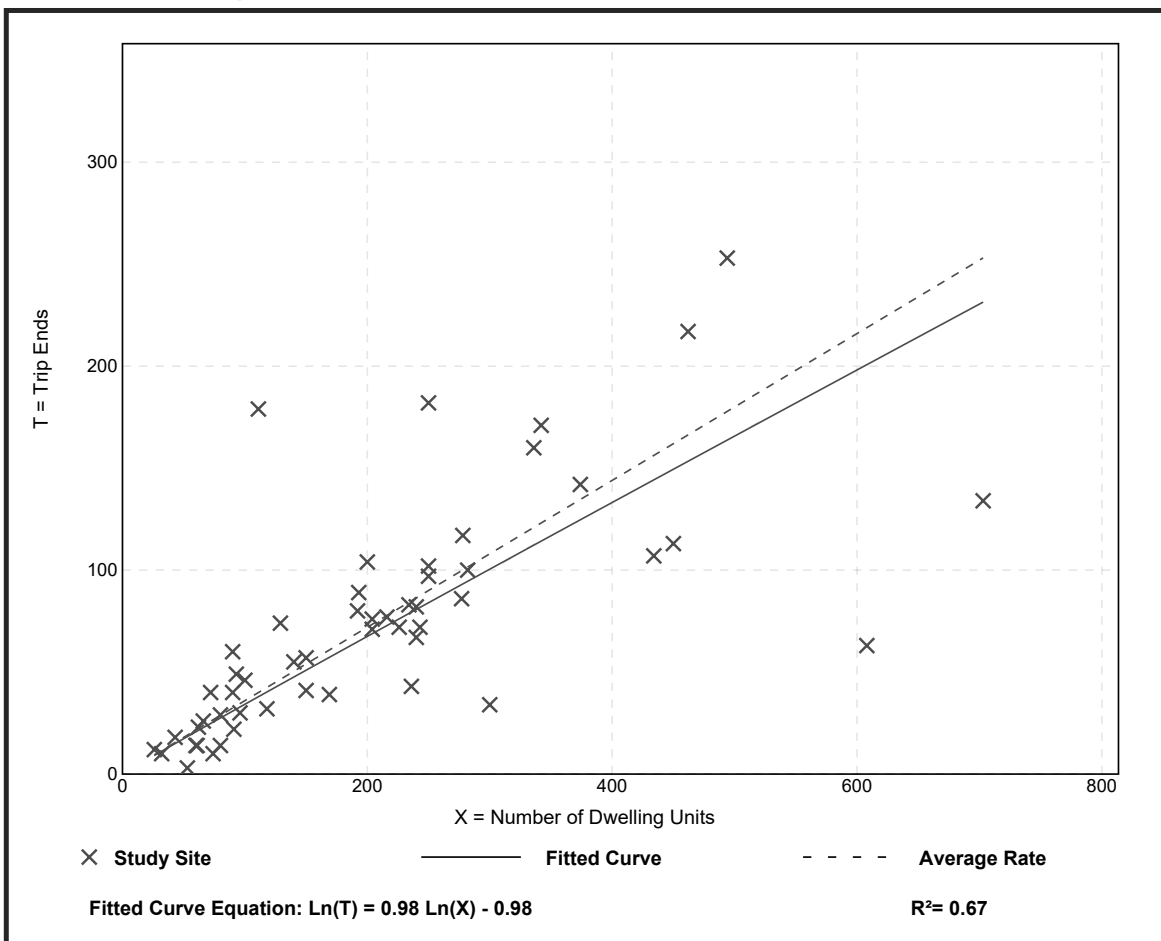
Avg. Num. of Dwelling Units: 207

Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.36	0.06 - 1.61	0.19

Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

Multifamily Housing (Mid-Rise) (221)

Vehicle Trip Ends vs: Dwelling Units

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 60

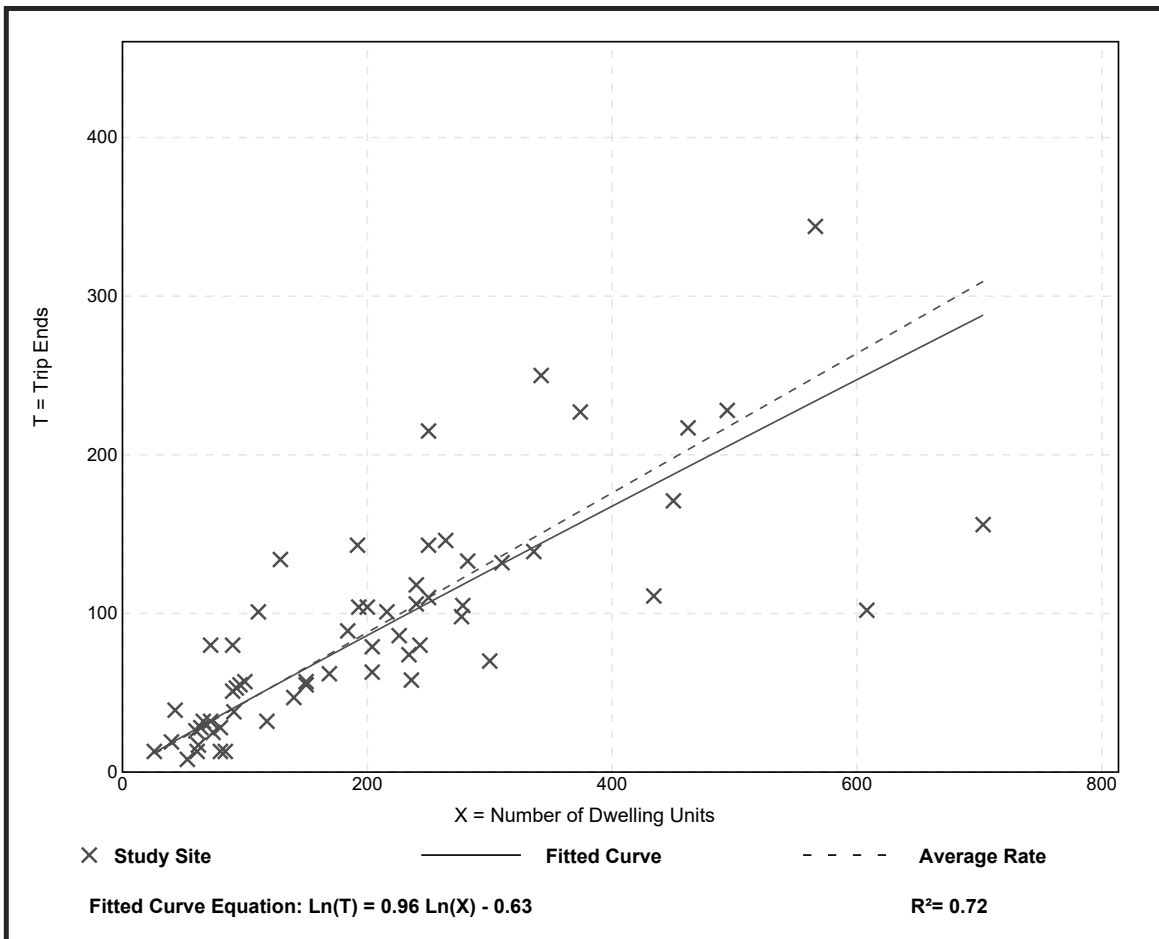
Avg. Num. of Dwelling Units: 208

Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.15 - 1.11	0.19

Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

APPENDIX B

Traffic Counts

Traf Tech Engineering Inc.

File Name : 1-Hillsboro Blvd & Military Trail
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Military Trail From North					Hillsboro Blvd From East					Military Trail From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	17	47	51	0	115	29	129	11	4	173	6	51	24	0	81	26	301	20	2	349	718
07:15	21	88	68	0	177	21	108	6	0	135	14	88	21	0	123	46	296	25	0	367	802
07:30	22	101	86	0	209	43	206	19	0	268	13	103	38	0	154	28	375	28	2	433	1064
07:45	17	125	81	0	223	51	197	31	2	281	18	140	51	0	209	43	383	58	0	484	1197
Total	77	361	286	0	724	144	640	67	6	857	51	382	134	0	567	143	1355	131	4	1633	3781
08:00	23	117	105	0	245	56	166	18	0	240	24	147	39	0	210	41	400	33	3	477	1172
08:15	19	90	82	1	192	60	181	25	3	269	31	133	50	0	214	41	414	60	0	515	1190
08:30	32	108	103	2	245	51	168	27	3	249	31	143	53	0	227	44	385	57	7	493	1214
08:45	26	105	80	1	212	53	187	11	4	255	24	154	52	0	230	42	377	38	7	464	1161
Total	100	420	370	4	894	220	702	81	10	1013	110	577	194	0	881	168	1576	188	17	1949	4737
*** BREAK ***																					
16:00	58	94	59	1	212	88	420	37	3	548	21	111	85	0	217	42	273	50	12	377	1354
16:15	52	115	56	1	224	83	298	34	3	418	20	135	82	0	237	35	258	47	5	345	1224
16:30	67	119	74	1	261	77	352	24	3	456	23	126	74	0	223	42	290	41	7	380	1320
16:45	62	105	58	0	225	75	413	36	8	532	24	147	53	0	224	36	271	57	7	371	1352
Total	239	433	247	3	922	323	1483	131	17	1954	88	519	294	0	901	155	1092	195	31	1473	5250
17:00	81	150	77	0	308	56	334	34	6	430	29	177	79	0	285	45	272	46	8	371	1394
17:15	70	111	84	2	267	93	390	30	1	514	19	147	74	0	240	45	269	65	7	386	1407
17:30	85	134	73	0	292	42	325	23	2	392	27	173	79	0	279	34	284	51	2	371	1334
17:45	86	112	89	0	287	71	367	27	3	468	14	146	87	0	247	27	265	46	4	342	1344
Total	322	507	323	2	1154	262	1416	114	12	1804	89	643	319	0	1051	151	1090	208	21	1470	5479
Grand Total	738	1721	1226	9	3694	949	4241	393	45	5628	338	2121	941	0	3400	617	5113	722	73	6525	19247
Apprch %	20	46.6	33.2	0.2		16.9	75.4	7	0.8		9.9	62.4	27.7	0		9.5	78.4	11.1	1.1		
Total %	3.8	8.9	6.4	0	19.2	4.9	22	2	0.2	29.2	1.8	11	4.9	0	17.7	3.2	26.6	3.8	0.4	33.9	
Autos	731	1696	1208			4175					2090					5019					18915
% Autos	99.1	98.5	98.5	100	98.6	98.3	98.4	95.7	95.6	98.2	95	98.5	99.4	0	98.4	97.6	98.2	97.6	98.6	98.1	98.3
Heavy Vehicles																					
% Heavy Vehicles	0.9	1.5	1.5	0	1.4	1.7	1.6	4.3	4.4	1.8	5	1.5	0.6	0	1.6	2.4	1.8	2.4	1.4	1.9	1.7

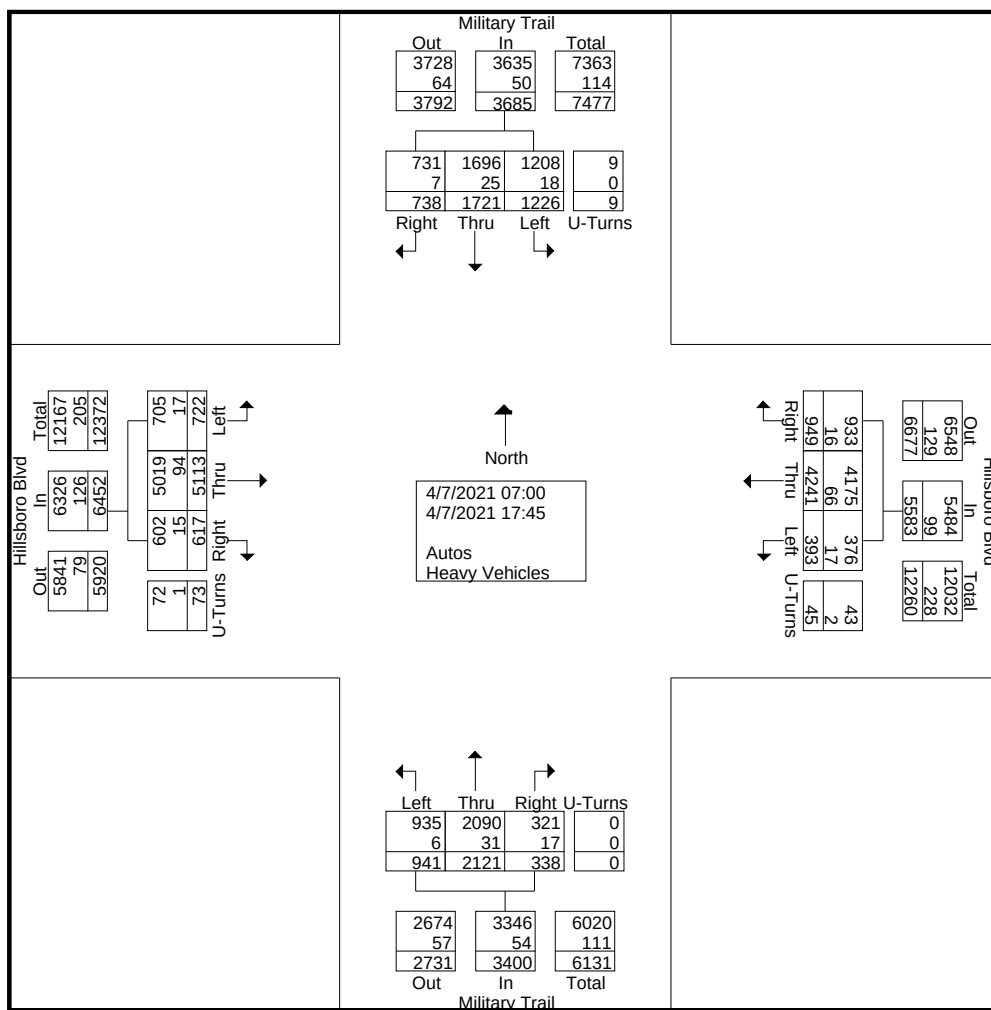
Traf Tech Engineering Inc.

File Name : 1-Hillsboro Blvd & Military Trail

Site Code : 00000000

Start Date : 4/7/2021

Page No : 2



Traf Tech Engineering Inc.

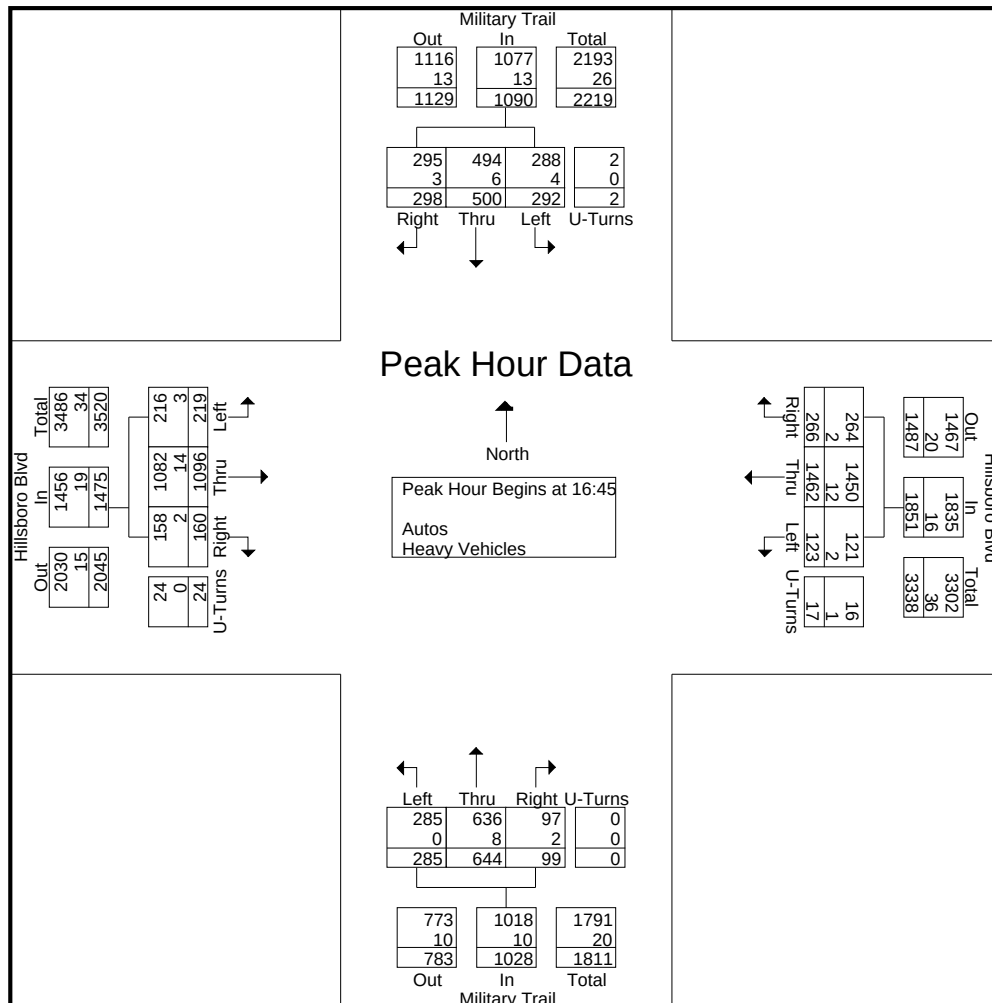
File Name : 1-Hillsboro Blvd & Military Trail

Site Code : 00000000

Start Date : 4/7/2021

Page No : 3

	Military Trail From North					Hillsboro Blvd From East					Military Trail From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	62	105	58	0	225	75	413	36	8	532	24	147	53	0	224	36	271	57	7	371	1352
17:00	81	150	77	0	308	56	334	34	6	430	29	177	79	0	285	45	272	46	8	371	1394
17:15	70	111	84	2	267	93	390	30	1	514	19	147	74	0	240	45	269	65	7	386	1407
17:30	85	134	73	0	292	42	325	23	2	392	27	173	79	0	279	34	284	51	2	371	1334
Total Volume	298	500	292	2	1092	266	1462	123	17	1868	99	644	285	0	1028	160	1096	219	24	1499	5487
% App. Total	27.3	45.8	26.7	0.2		14.2	78.3	6.6	0.9		9.6	62.6	27.7	0		10.7	73.1	14.6	1.6		
PHF	.876	.833	.869	.250	.886	.715	.885	.854	.531	.878	.853	.910	.902	.000	.902	.889	.965	.842	.750	.971	.975
Autos	295	494	288	2	1079	264	1450									1082					
% Autos	99.0	98.8	98.6	100	98.8	99.2	99.2	98.4	94.1	99.1	98.0	98.8	100	0	99.0	98.8	98.7	98.6	100	98.7	98.9
Heavy Vehicles																					
% Heavy Vehicles	1.0	1.2	1.4	0	1.2	0.8	0.8	1.6	5.9	0.9	2.0	1.2	0	0	1.0	1.3	1.3	1.4	0	1.3	1.1



Traf Tech Engineering Inc.

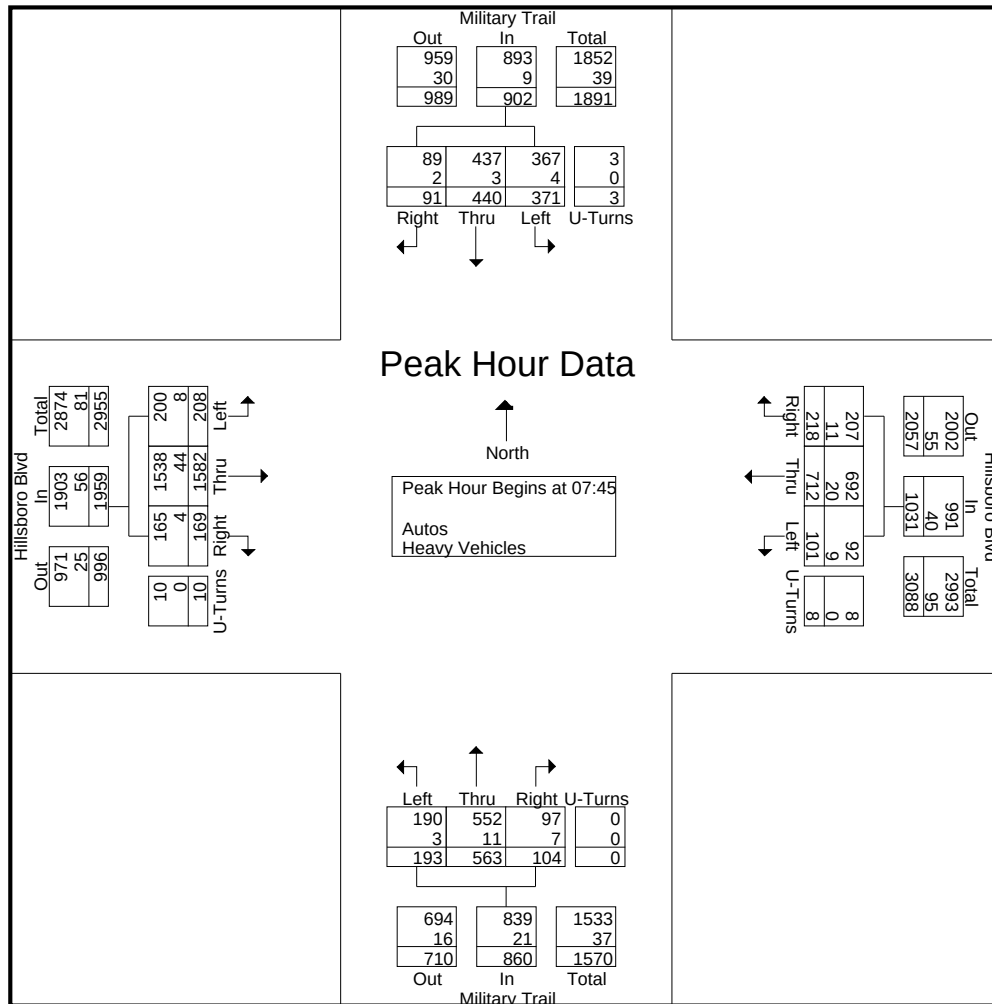
File Name : 1-Hillsboro Blvd & Military Trail

Site Code : 00000000

Start Date : 4/7/2021

Page No : 4

	Military Trail From North					Hillsboro Blvd From East					Military Trail From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	17	125	81	0	223	51	197	31	2	281	18	140	51	0	209	43	383	58	0	484	1197
08:00	23	117	105	0	245	56	166	18	0	240	24	147	39	0	210	41	400	33	3	477	1172
08:15	19	90	82	1	192	60	181	25	3	269	31	133	50	0	214	41	414	60	0	515	1190
08:30	32	108	103	2	245	51	168	27	3	249	31	143	53	0	227	44	385	57	7	493	1214
Total Volume	91	440	371	3	905	218	712	101	8	1039	104	563	193	0	860	169	1582	208	10	1969	4773
% App. Total	10.1	48.6	41	0.3		21	68.5	9.7	0.8		12.1	65.5	22.4	0		8.6	80.3	10.6	0.5		
PHF	.711	.880	.883	.375	.923	.908	.904	.815	.667	.924	.839	.957	.910	.000	.947	.960	.955	.867	.357	.956	.983
Autos	89	437	367	3	896	207	692	92	8	999	97	552	190	0	839	165	1538				
% Autos	97.8	99.3	98.9	100	99.0	95.0	97.2	91.1	100	96.2	93.3	98.0	98.4	0	97.6	97.6	97.2	96.2	100	97.2	97.4
Heavy Vehicles																					
% Heavy Vehicles	2.2	0.7	1.1	0	1.0	5.0	2.8	8.9	0	3.8	6.7	2.0	1.6	0	2.4	2.4	2.8	3.8	0	2.8	2.6



Traf Tech Engineering Inc.

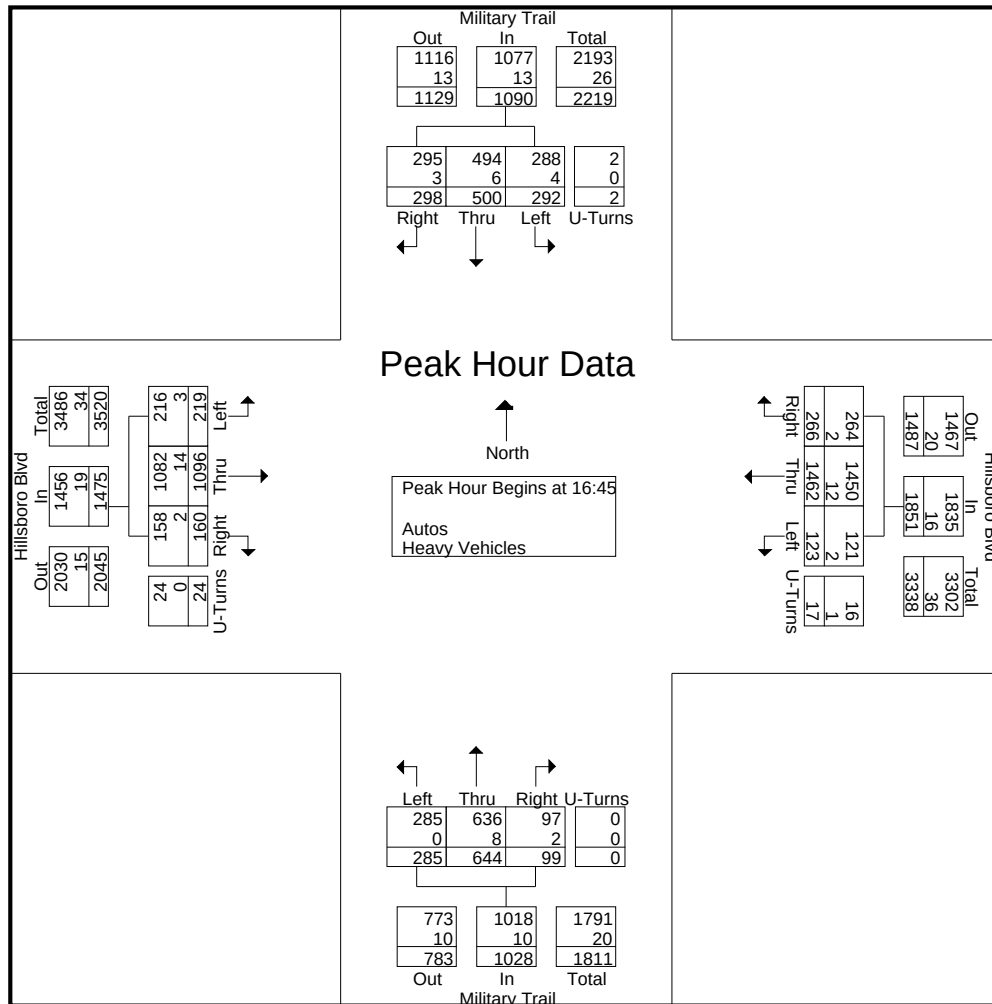
File Name : 1-Hillsboro Blvd & Military Trail

Site Code : 00000000

Start Date : 4/7/2021

Page No : 5

	Military Trail From North					Hillsboro Blvd From East					Military Trail From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	62	105	58	0	225	75	413	36	8	532	24	147	53	0	224	36	271	57	7	371	1352
17:00	81	150	77	0	308	56	334	34	6	430	29	177	79	0	285	45	272	46	8	371	1394
17:15	70	111	84	2	267	93	390	30	1	514	19	147	74	0	240	45	269	65	7	386	1407
17:30	85	134	73	0	292	42	325	23	2	392	27	173	79	0	279	34	284	51	2	371	1334
Total Volume	298	500	292	2	1092	266	1462	123	17	1868	99	644	285	0	1028	160	1096	219	24	1499	5487
% App. Total	27.3	45.8	26.7	0.2		14.2	78.3	6.6	0.9		9.6	62.6	27.7	0		10.7	73.1	14.6	1.6		
PHF	.876	.833	.869	.250	.886	.715	.885	.854	.531	.878	.853	.910	.902	.000	.902	.889	.965	.842	.750	.971	.975
Autos	295	494	288	2	1079	264	1450									1082					
% Autos	99.0	98.8	98.6	100	98.8	99.2	99.2	98.4	94.1	99.1	98.0	98.8	100	0	99.0	98.8	98.7	98.6	100	98.7	98.9
Heavy Vehicles																					
% Heavy Vehicles	1.0	1.2	1.4	0	1.2	0.8	0.8	1.6	5.9	0.9	2.0	1.2	0	0	1.0	1.3	1.3	1.4	0	1.3	1.1



Traf Tech Engineering Inc.

File Name : 2-Hillsboro & Jim Moran Blvd
 Site Code : 00000000
 Start Date : 4/14/2021
 Page No : 1

Groups Printed- Peds & Bikes

	Jim Moran Blvd From North				Hillsboro Blvd From East				Jim Moran Blvd From South				Hillsboro Blvd From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
07:15	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	4
07:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	1	0	0	0	0	0	0	0	3	0	0	1	1	0	0	3	9
08:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
08:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3
08:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	3	0	0	0	2	0	0	0	0	0	0	1	6
*** BREAK ***																	
16:00	0	0	0	1	2	0	0	0	1	0	0	0	0	0	0	2	6
16:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:30	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
16:45	1	0	0	0	1	0	0	2	3	0	0	0	0	0	0	0	7
Total	2	0	0	2	3	0	0	2	4	0	0	0	0	0	0	4	17
17:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
17:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	4
17:30	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
17:45	4	0	0	0	3	0	0	0	0	0	0	0	1	0	0	1	9
Total	5	0	0	1	4	0	0	0	4	0	0	0	1	0	0	3	18
Grand Total	8	0	0	3	10	0	0	2	13	0	0	1	2	0	0	11	50
Apprch %	72.7	0	0	27.3	83.3	0	0	16.7	92.9	0	0	7.1	15.4	0	0	84.6	
Total %	16	0	0	6	20	0	0	4	26	0	0	2	4	0	0	22	

Traf Tech Engineering Inc.

File Name : 2-Hillsboro & Jim Moran Blvd
 Site Code : 00000000
 Start Date : 4/14/2021
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Jim Moran Blvd From North					Hillsboro Blvd From East					Jim Moran Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	2	9	1	13	23	181	51	1	256	48	10	18	0	76	33	344	9	1	387	732
07:15	1	3	6	0	10	25	271	46	3	345	69	9	25	0	103	20	400	12	2	434	892
07:30	3	2	5	0	10	39	282	59	2	382	54	11	27	0	92	30	448	15	1	494	978
07:45	3	3	9	1	16	47	289	86	3	425	79	22	34	1	136	42	459	32	1	534	1111
Total	8	10	29	2	49	134	1023	242	9	1408	250	52	104	1	407	125	1651	68	5	1849	3713
08:00	5	3	8	1	17	55	287	68	3	413	80	9	42	0	131	42	431	26	1	500	1061
08:15	8	3	5	0	16	37	335	66	0	438	91	14	27	0	132	39	574	19	4	636	1222
08:30	8	1	6	1	16	22	276	55	1	354	94	9	40	0	143	39	512	22	0	573	1086
08:45	5	2	12	1	20	27	333	67	4	431	69	8	37	0	114	35	468	11	0	514	1079
Total	26	9	31	3	69	141	1231	256	8	1636	334	40	146	0	520	155	1985	78	5	2223	4448
*** BREAK ***																					
16:00	25	6	27	0	58	11	419	46	8	484	78	0	48	0	126	38	402	9	1	450	1118
16:15	13	6	26	0	45	9	465	54	5	533	70	5	35	0	110	44	419	10	1	474	1162
16:30	20	7	31	0	58	5	390	51	5	451	91	2	78	0	171	29	375	6	4	414	1094
16:45	40	4	42	1	87	6	457	40	7	510	67	1	42	0	110	33	379	7	1	420	1127
Total	98	23	126	1	248	31	1731	191	25	1978	306	8	203	0	517	144	1575	32	7	1758	4501
17:00	40	7	52	0	99	7	479	47	4	537	112	0	64	0	176	35	415	2	1	453	1265
17:15	35	9	52	0	96	5	456	67	4	532	97	3	55	0	155	31	420	12	1	464	1247
17:30	23	4	35	0	62	12	349	47	4	412	77	3	35	0	115	28	357	3	2	390	979
17:45	27	8	30	0	65	13	465	71	8	557	79	2	69	0	150	30	359	8	2	399	1171
Total	125	28	169	0	322	37	1749	232	20	2038	365	8	223	0	596	124	1551	25	6	1706	4662
Grand Total	257	70	355	6	688	343	5734	921	62	7060	1255	108	676	1	2040	548	6762	203	23	7536	17324
Apprch %	37.4	10.2	51.6	0.9		4.9	81.2	13	0.9		61.5	5.3	33.1	0		7.3	89.7	2.7	0.3		
Total %	1.5	0.4	2	0	4	2	33.1	5.3	0.4	40.8	7.2	0.6	3.9	0	11.8	3.2	39	1.2	0.1	43.5	
Autos	248	64	344	6	662	336	5584				1191					6618					16855
% Autos	96.5	91.4	96.9	100	96.2	98	97.4	96.5	100	97.3	94.9	93.5	98.2	100	95.9	98	97.9	92.6	95.7	97.7	97.3
Heavy Vehicles																					
% Heavy Vehicles	3.5	8.6	3.1	0	3.8	2	2.6	3.5	0	2.7	5.1	6.5	1.8	0	4.1	2	2.1	7.4	4.3	2.3	2.7

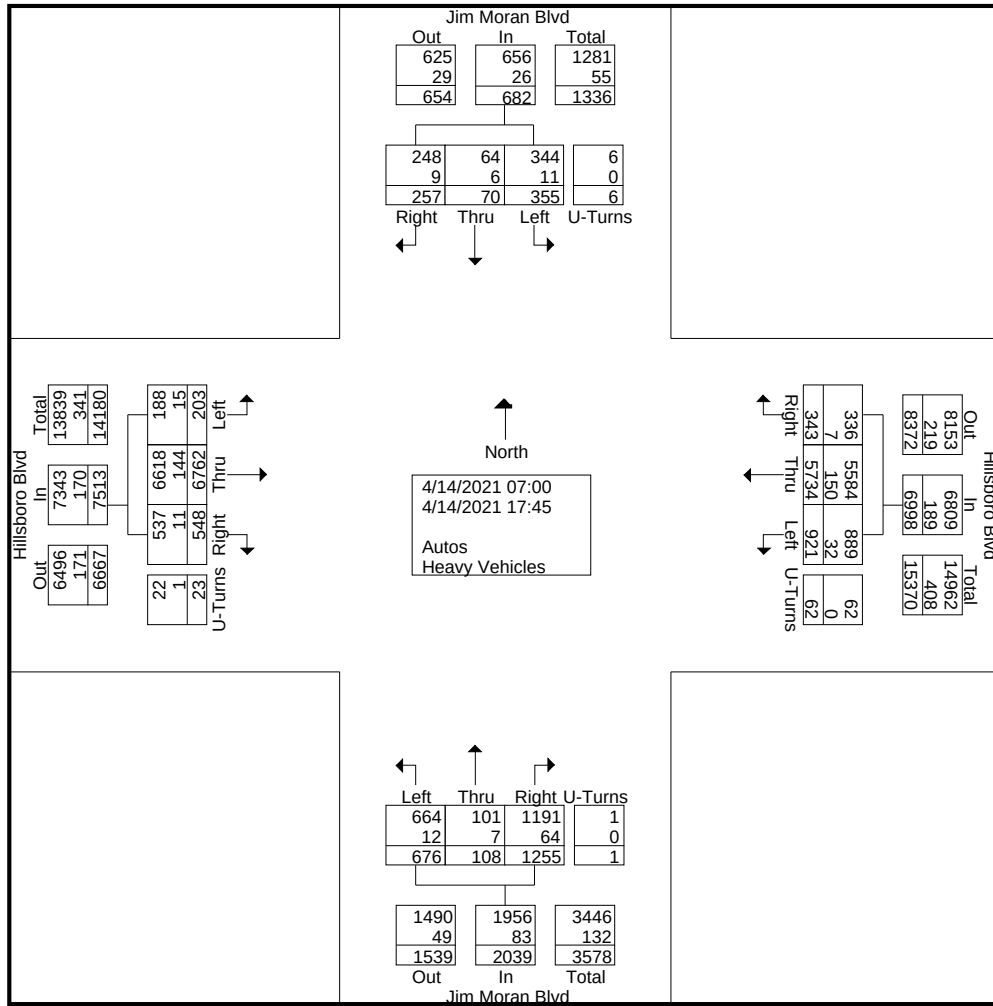
Traf Tech Engineering Inc.

File Name : 2-Hillsboro & Jim Moran Blvd

Site Code : 00000000

Start Date : 4/14/2021

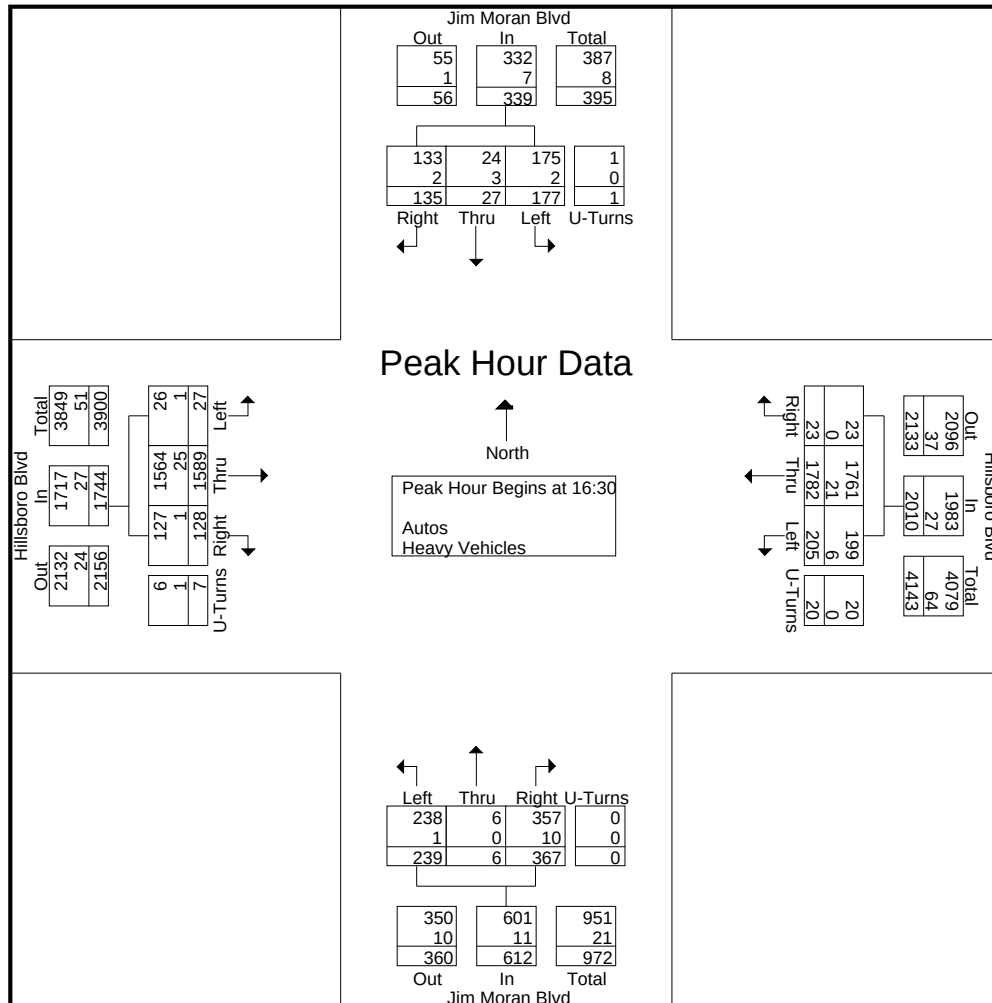
Page No : 2



Traf Tech Engineering Inc.

File Name : 2-Hillsboro & Jim Moran Blvd
 Site Code : 00000000
 Start Date : 4/14/2021
 Page No : 3

	Jim Moran Blvd From North					Hillsboro Blvd From East					Jim Moran Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	20	7	31	0	58	5	390	51	5	451	91	2	78	0	171	29	375	6	4	414	1094
16:45	40	4	42	1	87	6	457	40	7	510	67	1	42	0	110	33	379	7	1	420	1127
17:00	40	7	52	0	99	7	479	47	4	537	112	0	64	0	176	35	415	2	1	453	1265
17:15	35	9	52	0	96	5	456	67	4	532	97	3	55	0	155	31	420	12	1	464	1247
Total Volume	135	27	177	1	340	23	1782	205	20	2030	367	6	239	0	612	128	1589	27	7	1751	4733
% App. Total	39.7	7.9	52.1	0.3		1.1	87.8	10.1	1		60	1	39.1	0		7.3	90.7	1.5	0.4		
PHF	.844	.750	.851	.250	.859	.821	.930	.765	.714	.945	.819	.500	.766	.000	.869	.914	.946	.563	.438	.943	.935
Autos	133	24	175	1	333	23	1761									1564					
% Autos	98.5	88.9	98.9	100	97.9	100	98.8	97.1	100	98.7	97.3	100	99.6	0	98.2	99.2	98.4	96.3	85.7	98.4	98.5
Heavy Vehicles																					
% Heavy Vehicles	1.5	11.1	1.1	0	2.1	0	1.2	2.9	0	1.3	2.7	0	0.4	0	1.8	0.8	1.6	3.7	14.3	1.6	1.5



Traf Tech Engineering Inc.

File Name : 2-Hillsboro & Jim Moran Blvd

Site Code : 00000000

Start Date : 4/14/2021

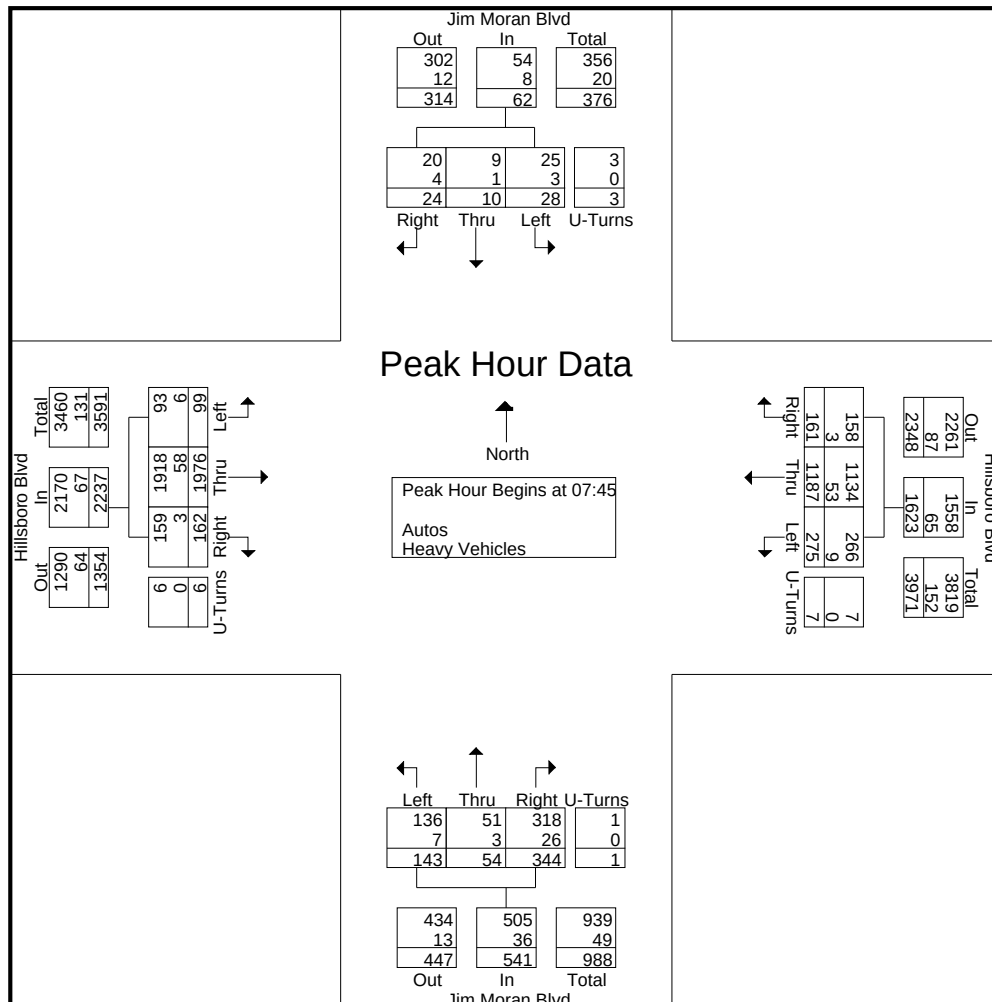
Page No : 4

	Jim Moran Blvd From North					Hillsboro Blvd From East					Jim Moran Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45

07:45	3	3	9	1	16	47	289	86	3	425	79	22	34	1	136	42	459	32	1	534	1111
08:00	5	3	8	1	17	55	287	68	3	413	80	9	42	0	131	42	431	26	1	500	1061
08:15	8	3	5	0	16	37	335	66	0	438	91	14	27	0	132	39	574	19	4	636	1222
08:30	8	1	6	1	16	22	276	55	1	354	94	9	40	0	143	39	512	22	0	573	1086
Total Volume	24	10	28	3	65	161	1187	275	7	1630	344	54	143	1	542	162	1976	99	6	2243	4480
% App. Total	36.9	15.4	43.1	4.6		9.9	72.8	16.9	0.4		63.5	10	26.4	0.2		7.2	88.1	4.4	0.3		
PHF	.750	.833	.778	.750	.956	.732	.886	.799	.583	.930	.915	.614	.851	.250	.948	.964	.861	.773	.375	.882	.917
Autos	20	9	25	3	57	158	1134									1918					
% Autos	83.3	90.0	89.3	100	87.7	98.1	95.5	96.7	100	96.0	92.4	94.4	95.1	100	93.4	98.1	97.1	93.9	100	97.0	96.1
Heavy Vehicles																					
% Heavy Vehicles	16.7	10.0	10.7	0	12.3	1.9	4.5	3.3	0	4.0	7.6	5.6	4.9	0	6.6	1.9	2.9	6.1	0	3.0	3.9



Traf Tech Engineering Inc.

File Name : 2-Hillsboro & Jim Moran Blvd

Site Code : 00000000

Start Date : 4/14/2021

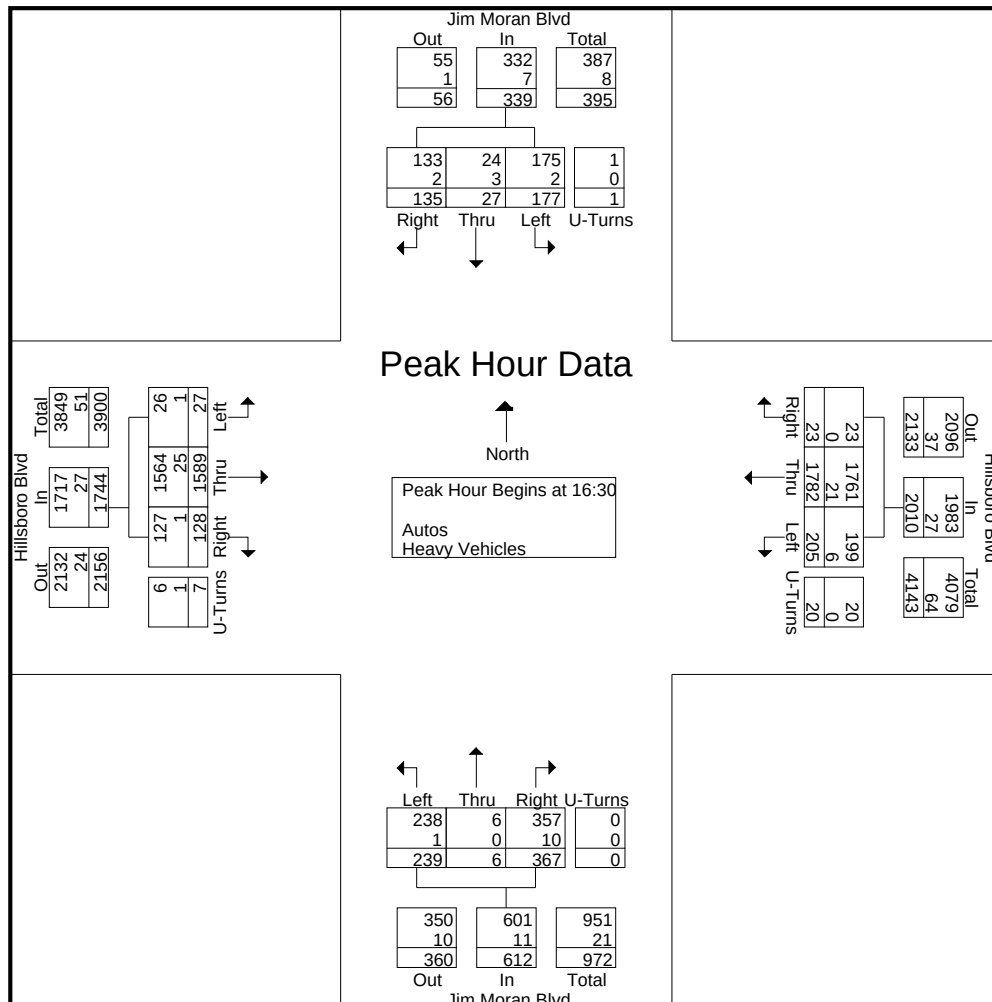
Page No : 5

	Jim Moran Blvd From North					Hillsboro Blvd From East					Jim Moran Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:30

16:30	20	7	31	0	58	5	390	51	5	451	91	2	78	0	171	29	375	6	4	414	1094
16:45	40	4	42	1	87	6	457	40	7	510	67	1	42	0	110	33	379	7	1	420	1127
17:00	40	7	52	0	99	7	479	47	4	537	112	0	64	0	176	35	415	2	1	453	1265
17:15	35	9	52	0	96	5	456	67	4	532	97	3	55	0	155	31	420	12	1	464	1247
Total Volume	135	27	177	1	340	23	1782	205	20	2030	367	6	239	0	612	128	1589	27	7	1751	4733
% App. Total	39.7	7.9	52.1	0.3		1.1	87.8	10.1	1		60	1	39.1	0		7.3	90.7	1.5	0.4		
PHF	.844	.750	.851	.250	.859	.821	.930	.765	.714	.945	.819	.500	.766	.000	.869	.914	.946	.563	.438	.943	.935
Autos	133	24	175	1	333	23	1761									1564					
% Autos	98.5	88.9	98.9	100	97.9	100	98.8	97.1	100	98.7	97.3	100	99.6	0	98.2	99.2	98.4	96.3	85.7	98.4	98.5
Heavy Vehicles																					
% Heavy Vehicles	1.5	11.1	1.1	0	2.1	0	1.2	2.9	0	1.3	2.7	0	0.4	0	1.8	0.8	1.6	3.7	14.3	1.6	1.5



Traf Tech Engineering Inc.

File Name : 1-Hillsboro Blvd & Military Trail

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Peds & Bikes

	Military Trail From North				Hillsboro Blvd From East				Military Trail From South				Hillsboro Blvd From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
*** BREAK ***																	
08:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
08:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
*** BREAK ***																	
16:15	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3
16:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	5
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	3
Grand Total	0	0	0	0	3	0	0	8	1	0	0	0	0	0	0	1	13
Apprch %	0	0	0	0	27.3	0	0	72.7	100	0	0	0	0	0	0	100	
Total %	0	0	0	0	23.1	0	0	61.5	7.7	0	0	0	0	0	0	7.7	

Traf Tech Engineering Inc.

File Name : 3-Hillsboro Blvd & I-95 SB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Autos - Heavy Vehicles

	I-95 SB Off Ramp From North					Hillsboro Blvd From East					I-95 SB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	78	0	64	0	142	0	186	0	0	186	0	0	0	0	0	130	202	0	0	332	660
07:15	109	0	101	0	210	0	202	0	0	202	0	0	0	0	0	193	246	0	0	439	851
07:30	88	0	80	0	168	0	260	0	0	260	0	0	0	0	0	217	311	0	0	528	956
07:45	121	0	92	0	213	0	270	0	0	270	0	0	0	0	0	183	308	0	0	491	974
Total	396	0	337	0	733	0	918	0	0	918	0	0	0	0	0	723	1067	0	0	1790	3441
08:00	111	0	94	0	205	0	287	0	0	287	0	0	0	0	0	226	383	0	0	609	1101
08:15	112	0	120	0	232	0	228	0	0	228	0	0	0	0	0	176	368	0	0	544	1004
08:30	101	0	93	0	194	0	213	0	0	213	0	0	0	0	0	195	422	0	0	617	1024
08:45	114	0	84	0	198	0	249	0	0	249	0	0	0	0	0	158	390	0	0	548	995
Total	438	0	391	0	829	0	977	0	0	977	0	0	0	0	0	755	1563	0	0	2318	4124

*** BREAK ***

16:00	100	0	87	0	187	0	426	0	0	426	0	0	0	0	0	139	297	0	0	436	1049
16:15	99	0	92	0	191	0	396	0	0	396	0	0	0	0	0	138	342	0	0	480	1067
16:30	121	0	116	0	237	0	343	0	0	343	0	0	0	0	0	120	349	0	0	469	1049
16:45	140	0	122	0	262	0	403	0	0	403	0	0	0	0	0	135	335	0	0	470	1135
Total	460	0	417	0	877	0	1568	0	0	1568	0	0	0	0	0	532	1323	0	0	1855	4300
17:00	101	0	106	0	207	0	436	0	0	436	0	0	0	0	0	180	403	0	0	583	1226
17:15	97	0	138	0	235	0	349	0	0	349	0	0	0	0	0	145	352	0	0	497	1081
17:30	82	0	102	0	184	0	383	0	0	383	0	0	0	0	0	129	342	0	0	471	1038
17:45	116	0	123	0	239	0	362	0	0	362	0	0	0	0	0	129	308	0	0	437	1038
Total	396	0	469	0	865	0	1530	0	0	1530	0	0	0	0	0	583	1405	0	0	1988	4383
Grand Total	1690	0	1614	0	3304	0	4993	0	0	4993	0	0	0	0	0	2593	5358	0	0	7951	16248
Apprch %	51.2	0	48.8	0		0	100	0	0		0	0	0	0		32.6	67.4	0	0		
Total %	10.4	0	9.9	0	20.3	0	30.7	0	0	30.7	0	0	0	0	0	16	33	0	0	48.9	
Autos	1640		1579				4904									2529	5215				15867
% Autos	97	0	97.8	0	97.4	0	98.2	0	0	98.2	0	0	0	0	0	97.5	97.3	0	0	97.4	97.7
Heavy Vehicles																					
% Heavy Vehicles	3	0	2.2	0	2.6	0	1.8	0	0	1.8	0	0	0	0	0	2.5	2.7	0	0	2.6	2.3

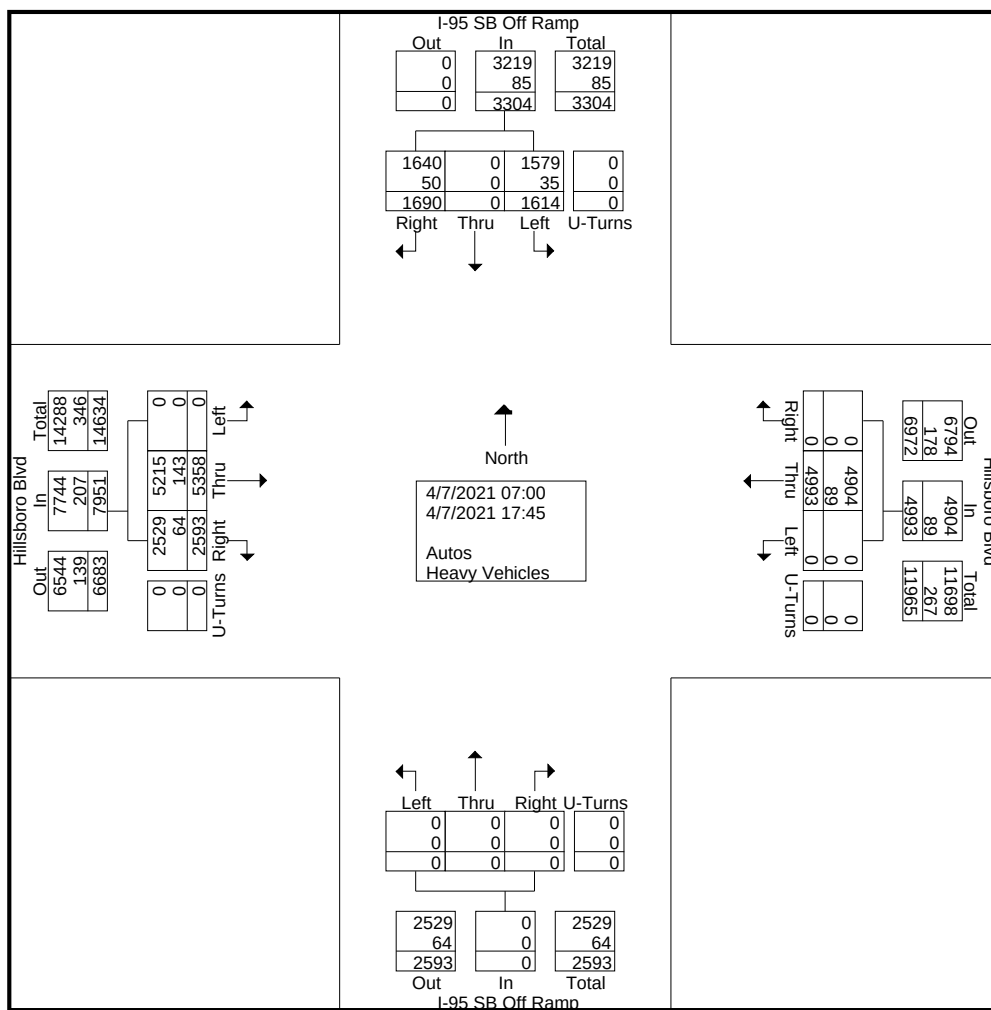
Traf Tech Engineering Inc.

File Name : 3-Hillsboro Blvd & I-95 SB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 2



Traf Tech Engineering Inc.

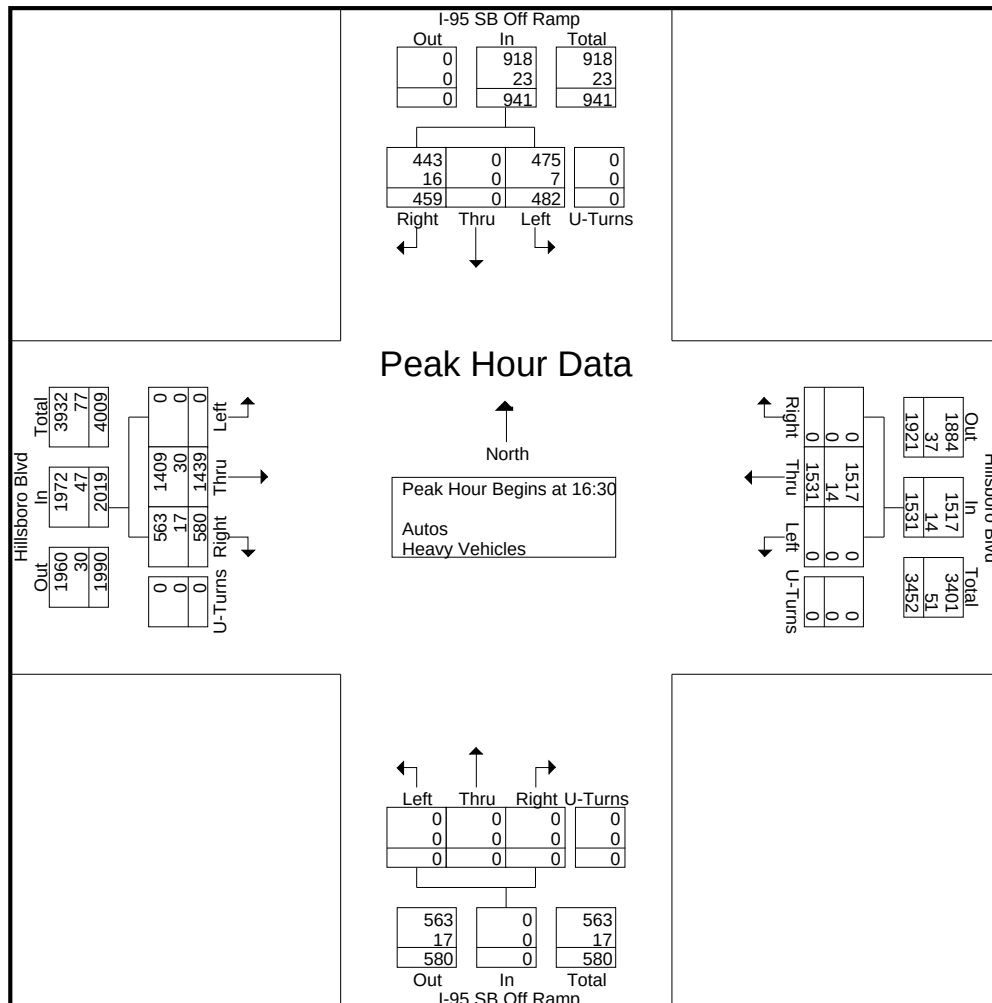
File Name : 3-Hillsboro Blvd & I-95 SB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 3

	I-95 SB Off Ramp From North					Hillsboro Blvd From East					I-95 SB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	121	0	116	0	237	0	343	0	0	343	0	0	0	0	0	120	349	0	0	469	1049
16:45	140	0	122	0	262	0	403	0	0	403	0	0	0	0	0	135	335	0	0	470	1135
17:00	101	0	106	0	207	0	436	0	0	436	0	0	0	0	0	180	403	0	0	583	1226
17:15	97	0	138	0	235	0	349	0	0	349	0	0	0	0	0	145	352	0	0	497	1081
Total Volume	459	0	482	0	941	0	1531	0	0	1531	0	0	0	0	0	580	1439	0	0	2019	4491
% App. Total	48.8	0	51.2	0		0	100	0	0		0	0	0	0		28.7	71.3	0	0		
PHF	.820	.000	.873	.000	.898	.000	.878	.000	.000	.878	.000	.000	.000	.000	.000	.806	.893	.000	.000	.866	.916
Autos	443	0	475	0	918	0	1517									1409					
% Autos	96.5	0	98.5	0	97.6	0	99.1	0	0	99.1	0	0	0	0	0	97.1	97.9	0	0	97.7	98.1
Heavy Vehicles																					
% Heavy Vehicles	3.5	0	1.5	0	2.4	0	0.9	0	0	0.9	0	0	0	0	0	2.9	2.1	0	0	2.3	1.9



Traf Tech Engineering Inc.

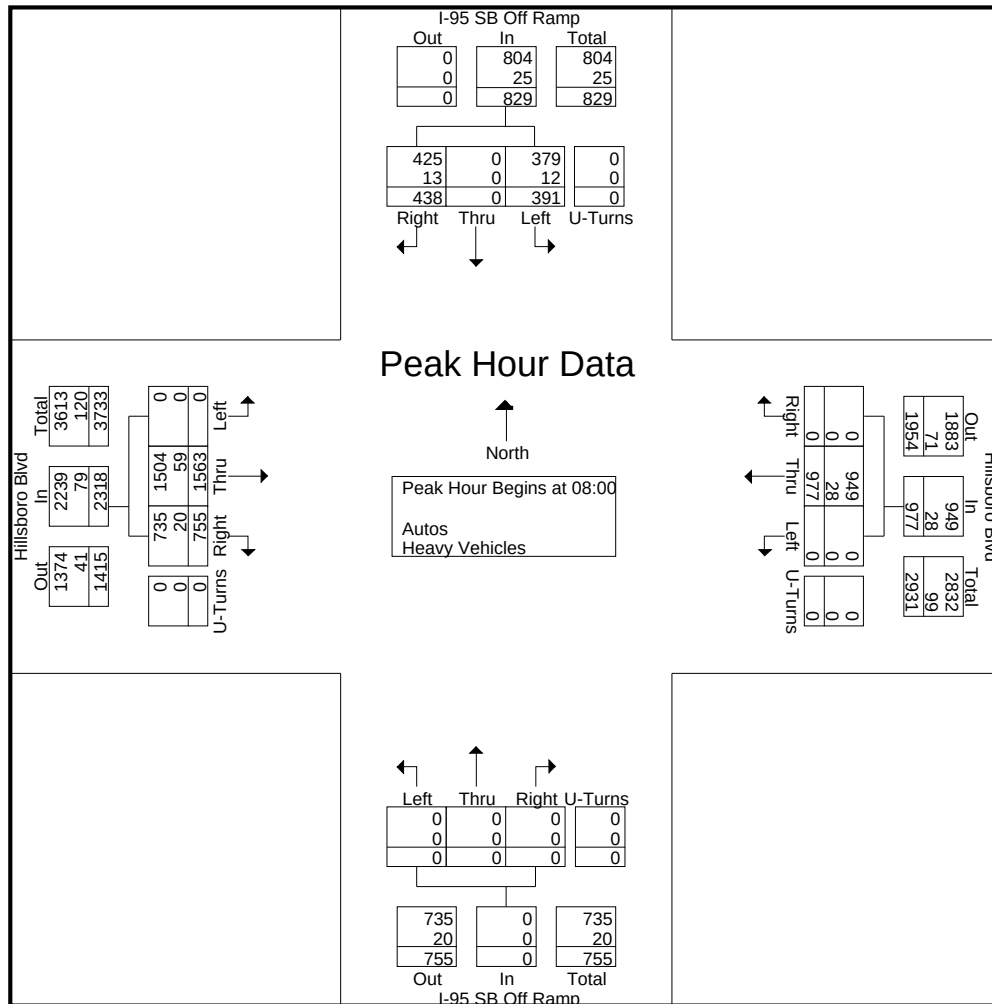
File Name : 3-Hillsboro Blvd & I-95 SB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 4

	I-95 SB Off Ramp From North					Hillsboro Blvd From East					I-95 SB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	111	0	94	0	205	0	287	0	0	287	0	0	0	0	0	226	383	0	0	609	1101
08:15	112	0	120	0	232	0	228	0	0	228	0	0	0	0	0	176	368	0	0	544	1004
08:30	101	0	93	0	194	0	213	0	0	213	0	0	0	0	0	195	422	0	0	617	1024
08:45	114	0	84	0	198	0	249	0	0	249	0	0	0	0	0	158	390	0	0	548	995
Total Volume	438	0	391	0	829	0	977	0	0	977	0	0	0	0	0	755	1563	0	0	2318	4124
% App. Total	52.8	0	47.2	0		0	100	0	0		0	0	0	0		32.6	67.4	0	0		
PHF	.961	.000	.815	.000	.893	.000	.851	.000	.000	.851	.000	.000	.000	.000	.000	.835	.926	.000	.000	.939	.936
Autos	425	0	379	0	804	0	949	0	0	949	0	0	0	0	0	735	1504				
% Autos	97.0	0	96.9	0	97.0	0	97.1	0	0	97.1	0	0	0	0	0	97.4	96.2	0	0	96.6	96.8
Heavy Vehicles																					
% Heavy Vehicles	3.0	0	3.1	0	3.0	0	2.9	0	0	2.9	0	0	0	0	0	2.6	3.8	0	0	3.4	3.2



Traf Tech Engineering Inc.

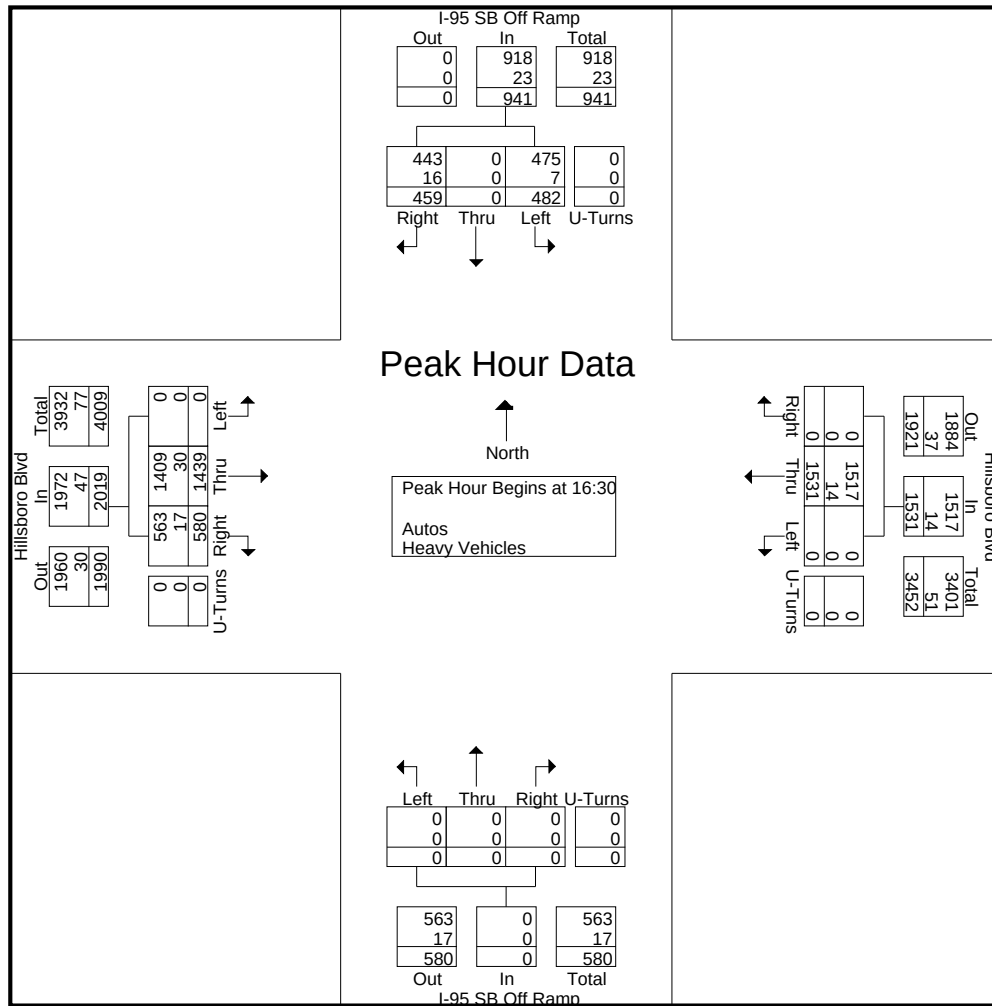
File Name : 3-Hillsboro Blvd & I-95 SB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 5

	I-95 SB Off Ramp From North					Hillsboro Blvd From East					I-95 SB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	121	0	116	0	237	0	343	0	0	343	0	0	0	0	0	120	349	0	0	469	1049
16:45	140	0	122	0	262	0	403	0	0	403	0	0	0	0	0	135	335	0	0	470	1135
17:00	101	0	106	0	207	0	436	0	0	436	0	0	0	0	0	180	403	0	0	583	1226
17:15	97	0	138	0	235	0	349	0	0	349	0	0	0	0	0	145	352	0	0	497	1081
Total Volume	459	0	482	0	941	0	1531	0	0	1531	0	0	0	0	0	580	1439	0	0	2019	4491
% App. Total	48.8	0	51.2	0		0	100	0	0		0	0	0	0		28.7	71.3	0	0		
PHF	.820	.000	.873	.000	.898	.000	.878	.000	.000	.878	.000	.000	.000	.000	.000	.806	.893	.000	.000	.866	.916
Autos	443	0	475	0	918	0	1517									1409					
% Autos	96.5	0	98.5	0	97.6	0	99.1	0	0	99.1	0	0	0	0	0	97.1	97.9	0	0	97.7	98.1
Heavy Vehicles																					
% Heavy Vehicles	3.5	0	1.5	0	2.4	0	0.9	0	0	0.9	0	0	0	0	0	2.9	2.1	0	0	2.3	1.9



Traf Tech Engineering Inc.

File Name : 3-Hillsboro Blvd & I-95 SB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Peds & Bikes

	I-95 SB Off Ramp From North				Hillsboro Blvd From East				I-95 SB Off Ramp From South				Hillsboro Blvd From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total

*** BREAK ***

Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %																	

Traf Tech Engineering Inc.

File Name : 4-Hillsboro Blvd & I-95 NB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Autos - Heavy Vehicles

	I-95 NB Off Ramp From North					Hillsboro Blvd From East					I-95 NB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	0	0	0	0	1	190	0	0	191	86	0	0	0	86	0	174	0	0	174	451
07:15	0	0	0	0	0	0	238	0	0	238	99	0	0	0	99	0	210	0	0	210	547
07:30	0	0	0	0	0	0	267	0	0	267	145	0	0	0	145	0	312	0	0	312	724
07:45	0	0	0	0	0	0	348	0	0	348	124	0	0	0	124	0	233	0	0	233	705
Total	0	0	0	0	0	1	1043	0	0	1044	454	0	0	0	454	0	929	0	0	929	2427
08:00	0	0	0	0	0	0	279	0	0	279	116	0	0	0	116	0	320	0	0	320	715
08:15	0	0	0	0	0	0	309	0	0	309	67	0	0	0	67	0	339	0	0	339	715
08:30	0	0	0	0	0	0	299	0	0	299	72	0	0	0	72	0	352	0	0	352	723
08:45	0	0	0	0	0	0	275	0	0	275	142	0	0	0	142	0	308	0	0	308	725
Total	0	0	0	0	0	0	1162	0	0	1162	397	0	0	0	397	0	1319	0	0	1319	2878
*** BREAK ***																					
16:00	0	0	0	0	0	0	501	0	0	501	106	0	0	0	106	0	290	0	0	290	897
16:15	0	0	0	0	0	0	377	0	0	377	129	0	0	0	129	0	323	0	0	323	829
16:30	0	0	0	0	0	0	443	0	0	443	126	0	0	0	126	0	345	0	0	345	914
16:45	0	0	0	0	0	0	393	0	0	393	112	0	0	0	112	0	319	0	0	319	824
Total	0	0	0	0	0	0	1714	0	0	1714	473	0	0	0	473	0	1277	0	0	1277	3464
17:00	0	0	0	0	0	0	435	0	0	435	121	0	0	0	121	0	416	0	0	416	972
17:15	0	0	0	0	0	0	505	0	0	505	110	0	0	0	110	0	389	0	0	389	1004
17:30	0	0	0	0	0	0	415	0	0	415	131	0	0	0	131	0	320	0	0	320	866
17:45	0	0	0	0	0	0	375	0	0	375	116	0	0	0	116	0	365	0	0	365	856
Total	0	0	0	0	0	0	1730	0	0	1730	478	0	0	0	478	0	1490	0	0	1490	3698
Grand Total	0	0	0	0	0	1	5649	0	0	5650	1802	0	0	0	1802	0	5015	0	0	5015	12467
Apprch %	0	0	0	0		0	100	0	0		100	0	0	0		0	100	0	0		
Total %	0	0	0	0	0	0	45.3	0	0	45.3	14.5	0	0	0	14.5	0	40.2	0	0	40.2	
Autos	0	0	0	0	0	0	5555				1761						4903				12219
% Autos	0	0	0	0	0	0	98.3	0	0	98.3	97.7	0	0	0	97.7	0	97.8	0	0	97.8	98
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	100	1.7	0	0	1.7	2.3	0	0	0	2.3	0	2.2	0	0	2.2	2

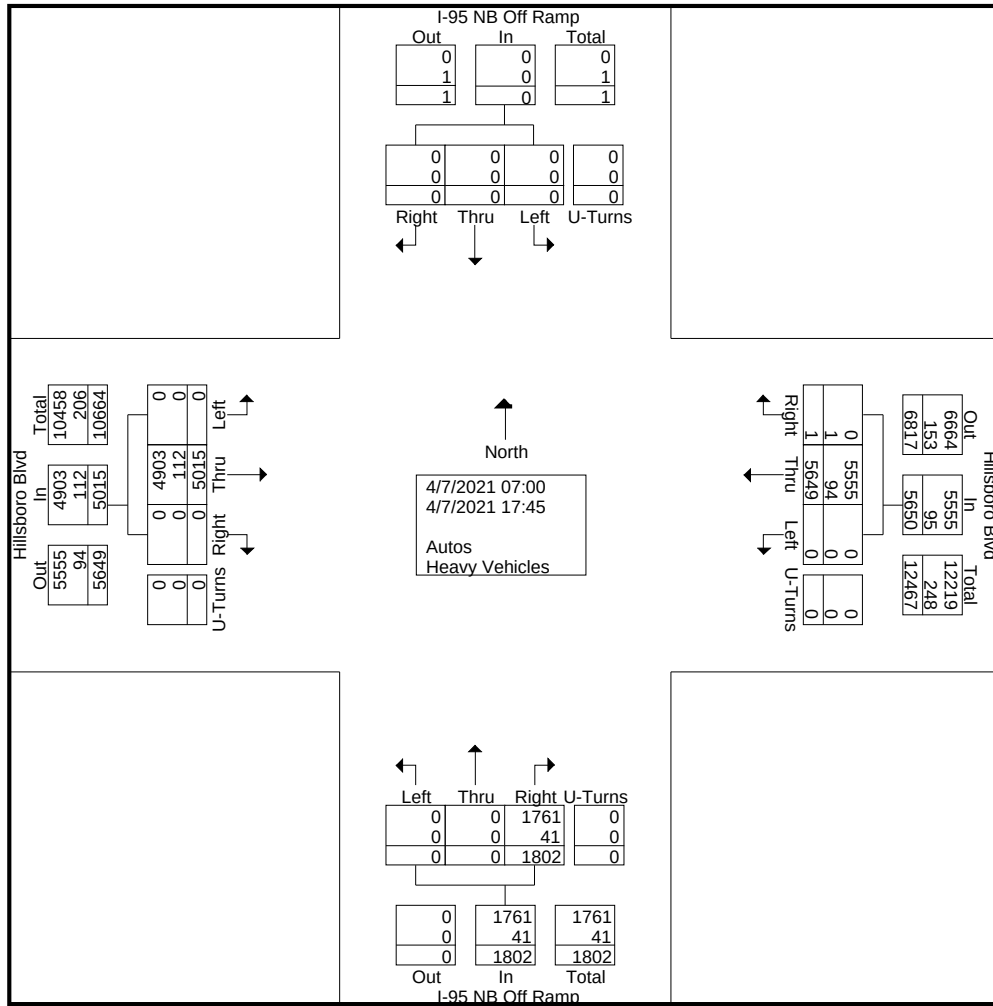
Traf Tech Engineering Inc.

File Name : 4-Hillsboro Blvd & I-95 NB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 2



Traf Tech Engineering Inc.

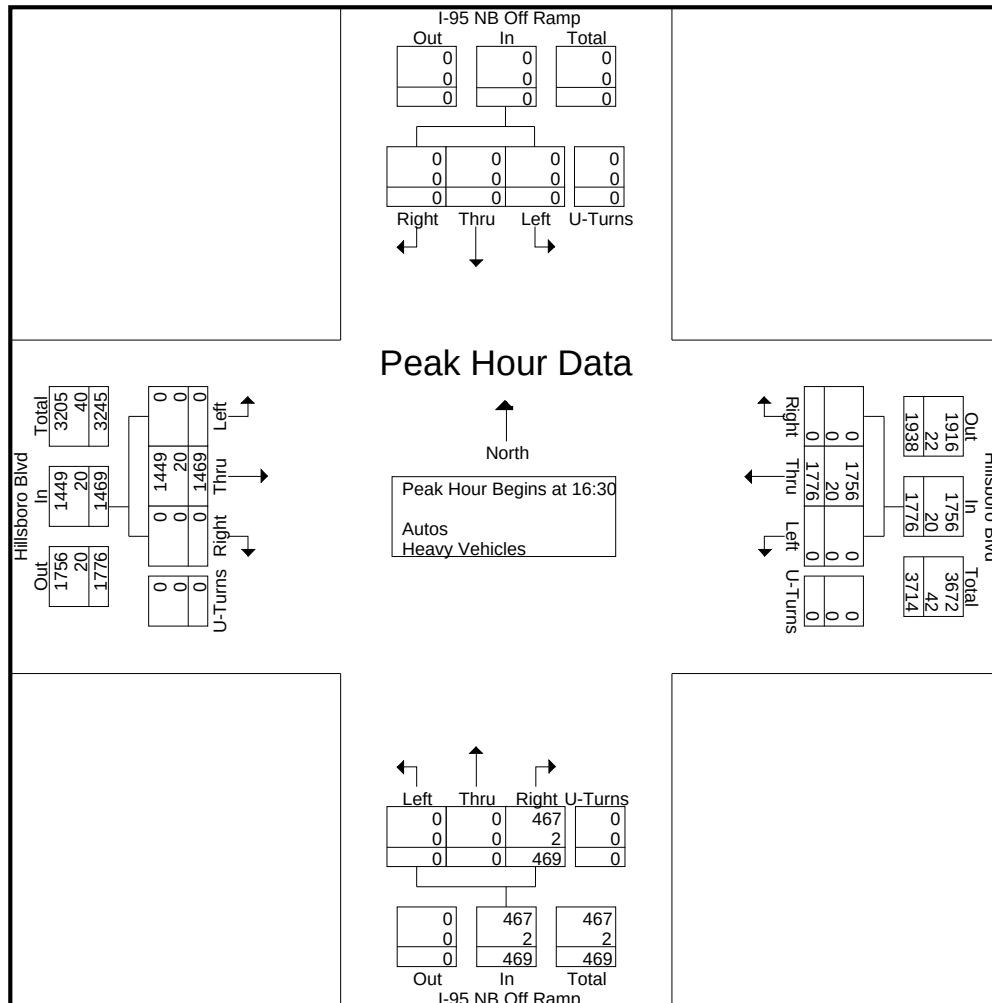
File Name : 4-Hillsboro Blvd & I-95 NB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 3

	I-95 NB Off Ramp From North					Hillsboro Blvd From East					I-95 NB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	443	0	0	443	126	0	0	0	126	0	345	0	0	345	914
16:45	0	0	0	0	0	0	393	0	0	393	112	0	0	0	112	0	319	0	0	319	824
17:00	0	0	0	0	0	0	435	0	0	435	121	0	0	0	121	0	416	0	0	416	972
17:15	0	0	0	0	0	0	505	0	0	505	110	0	0	0	110	0	389	0	0	389	1004
Total Volume	0	0	0	0	0	0	1776	0	0	1776	469	0	0	0	469	0	1469	0	0	1469	3714
% App. Total	0	0	0	0	0	0	100	0	0	100	100	0	0	0	100	0	100	0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.879	.000	.000	.879	.931	.000	.000	.000	.931	.000	.883	.000	.000	.883	.925
Autos	0	0	0	0	0	0	1756										1449				
% Autos	0	0	0	0	0	0	98.9	0	0	98.9	99.6	0	0	0	99.6	0	98.6	0	0	98.6	98.9
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.1	0	0	1.1	0.4	0	0	0	0.4	0	1.4	0	0	1.4	1.1



Traf Tech Engineering Inc.

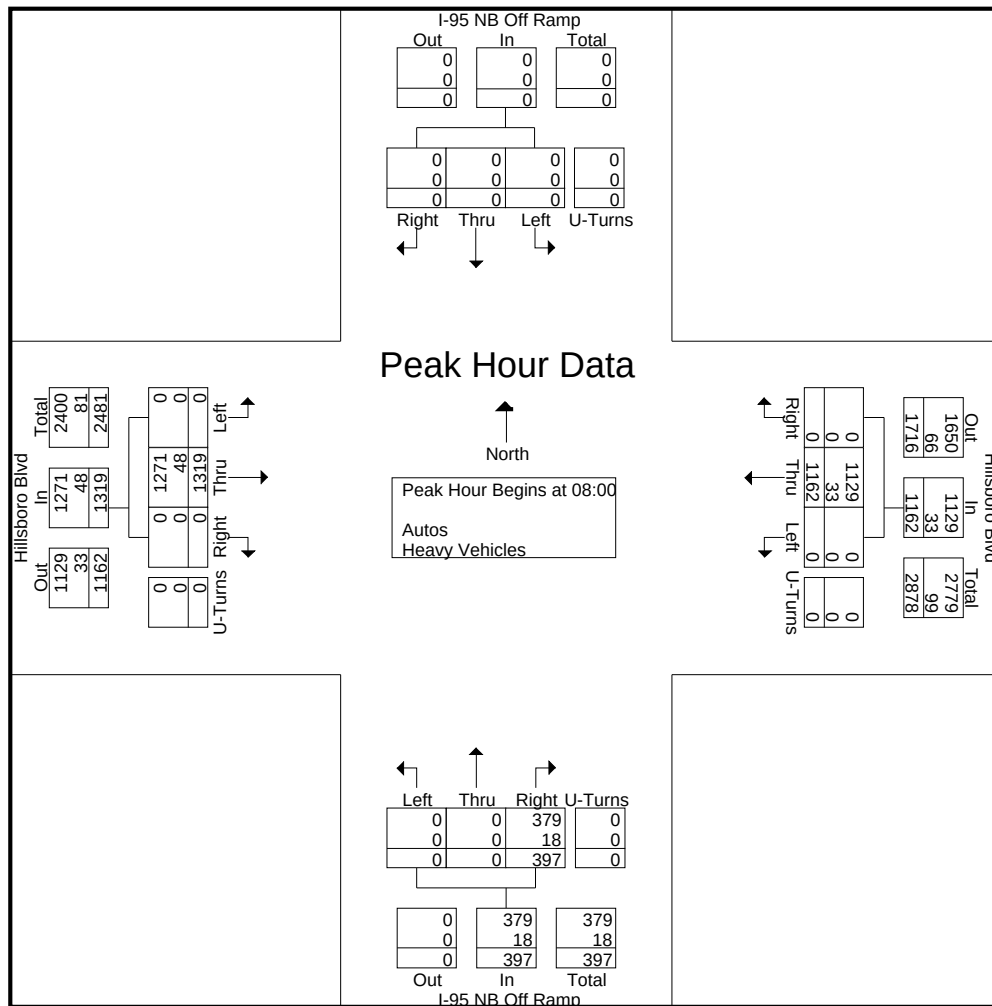
File Name : 4-Hillsboro Blvd & I-95 NB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 4

	I-95 NB Off Ramp From North					Hillsboro Blvd From East					I-95 NB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	0	0	0	0	0	279	0	0	279	116	0	0	0	116	0	320	0	0	320	715
08:15	0	0	0	0	0	0	309	0	0	309	67	0	0	0	67	0	339	0	0	339	715
08:30	0	0	0	0	0	0	299	0	0	299	72	0	0	0	72	0	352	0	0	352	723
08:45	0	0	0	0	0	0	275	0	0	275	142	0	0	0	142	0	308	0	0	308	725
Total Volume	0	0	0	0	0	0	1162	0	0	1162	397	0	0	0	397	0	1319	0	0	1319	2878
% App. Total	0	0	0	0	0	0	100	0	0	100	100	0	0	0	100	0	100	0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.940	.000	.000	.940	.699	.000	.000	.000	.699	.000	.937	.000	.000	.937	.992
Autos	0	0	0	0	0	0	1129								1271						
% Autos	0	0	0	0	0	0	97.2	0	0	97.2	95.5	0	0	0	95.5	0	96.4	0	0	96.4	96.6
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.8	0	0	2.8	4.5	0	0	0	4.5	0	3.6	0	0	3.6	3.4



Traf Tech Engineering Inc.

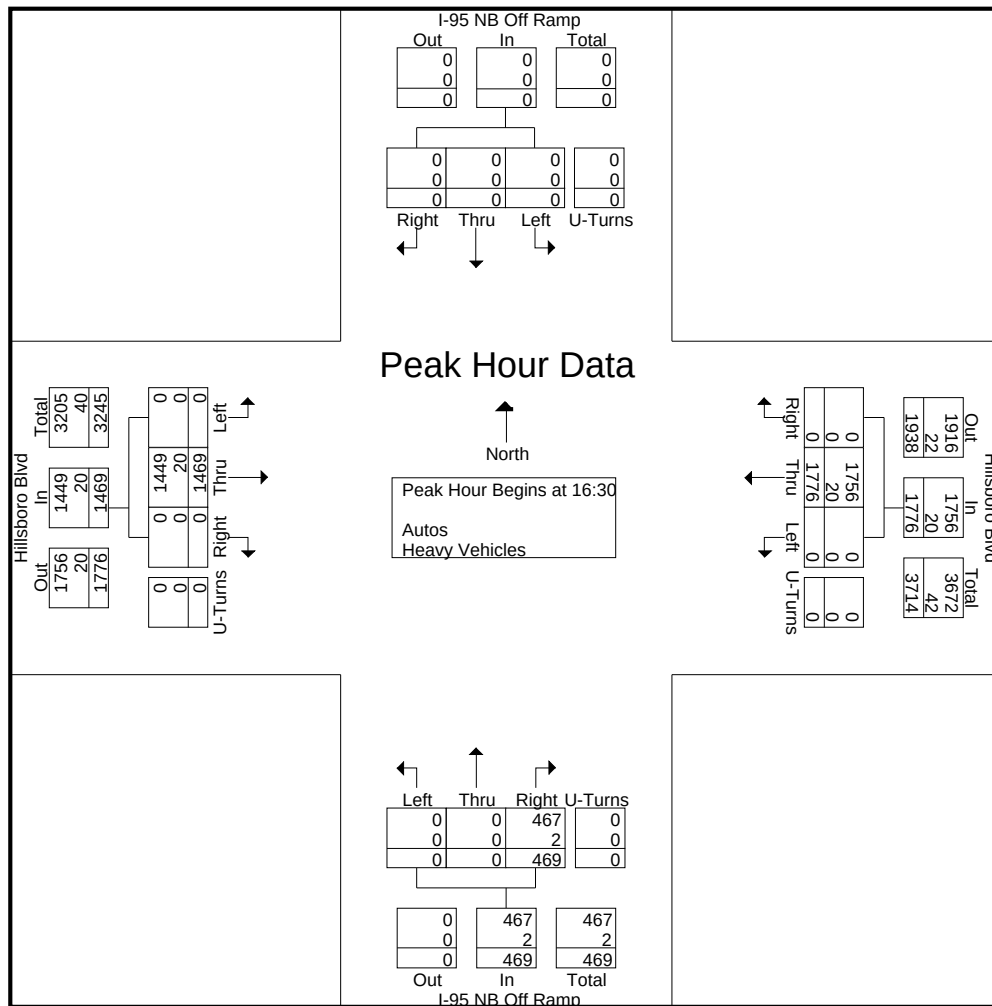
File Name : 4-Hillsboro Blvd & I-95 NB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 5

	I-95 NB Off Ramp From North					Hillsboro Blvd From East					I-95 NB Off Ramp From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	443	0	0	443	126	0	0	0	126	0	345	0	0	345	914
16:45	0	0	0	0	0	0	393	0	0	393	112	0	0	0	112	0	319	0	0	319	824
17:00	0	0	0	0	0	0	435	0	0	435	121	0	0	0	121	0	416	0	0	416	972
17:15	0	0	0	0	0	0	505	0	0	505	110	0	0	0	110	0	389	0	0	389	1004
Total Volume	0	0	0	0	0	0	1776	0	0	1776	469	0	0	0	469	0	1469	0	0	1469	3714
% App. Total	0	0	0	0	0	0	100	0	0	100	100	0	0	0	100	0	100	0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.879	.000	.000	.879	.931	.000	.000	.000	.931	.000	.883	.000	.000	.883	.925
Autos	0	0	0	0	0	0	1756										1449				
% Autos	0	0	0	0	0	0	98.9	0	0	98.9	99.6	0	0	0	99.6	0	98.6	0	0	98.6	98.9
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.1	0	0	1.1	0.4	0	0	0	0.4	0	1.4	0	0	1.4	1.1



Traf Tech Engineering Inc.

File Name : 4-Hillsboro Blvd & I-95 NB Ramp

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Peds & Bikes

	I-95 NB Off Ramp From North				Hillsboro Blvd From East				I-95 NB Off Ramp From South				Hillsboro Blvd From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
*** BREAK ***																	
07:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
*** BREAK ***																	
Total	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
*** BREAK ***																	
08:15	0	0	0	0	0	0	0	0	1	0	0	2	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	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	1	5
*** BREAK ***																	
16:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
17:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
17:15	0	0	0	0	0	0	0	0	1	0	0	4	0	0	0	0	5
17:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	7	0	0	6	0	0	0	0	13
Grand Total	0	0	0	0	0	0	0	0	21	0	0	8	0	0	0	1	30
Apprch %	0	0	0	0	0	0	0	0	72.4	0	0	27.6	0	0	0	100	
Total %	0	0	0	0	0	0	0	0	70	0	0	26.7	0	0	0	3.3	

Traf Tech Engineering Inc.

File Name : 5-Hillsboro Blvd & Right-inOut Driveway

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Autos - Heavy Vehicles

	From North					Hillsboro Blvd From East					Hillsboro Center From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	0	0	0	0	0	318	0	0	318	6	0	0	0	6	4	265	0	0	269	593
07:15	0	0	0	0	0	0	417	0	0	417	2	0	0	0	2	1	310	0	0	311	730
07:30	0	0	0	0	0	0	441	0	0	441	2	0	0	0	2	3	375	0	0	378	821
07:45	0	0	0	0	0	0	562	0	0	562	2	0	0	0	2	11	441	0	0	452	1016
Total	0	0	0	0	0	0	1738	0	0	1738	12	0	0	0	12	19	1391	0	0	1410	3160
08:00	0	0	0	0	0	0	472	0	0	472	4	0	0	0	4	2	407	0	0	409	885
08:15	0	0	0	0	0	0	455	0	0	455	1	0	0	0	1	6	407	0	0	413	869
08:30	0	0	0	0	0	0	491	0	0	491	4	0	0	0	4	6	412	0	0	418	913
08:45	0	0	0	0	0	0	492	0	0	492	1	0	0	0	1	9	438	0	0	447	940
Total	0	0	0	0	0	0	1910	0	0	1910	10	0	0	0	10	23	1664	0	0	1687	3607

*** BREAK ***

16:00	0	0	1	0	1	0	630	0	0	630	6	0	0	0	6	2	438	0	0	440	1077
16:15	0	0	0	0	0	0	486	0	0	486	1	0	0	0	1	8	413	0	0	421	908
16:30	0	0	0	0	0	0	587	0	0	587	5	0	0	0	5	4	487	0	0	491	1083
16:45	0	0	0	0	0	0	569	0	0	569	3	0	0	0	3	1	415	0	0	416	988
Total	0	0	1	0	1	0	2272	0	0	2272	15	0	0	0	15	15	1753	0	0	1768	4056
17:00	0	0	0	0	0	0	542	0	0	542	4	0	0	0	4	7	507	0	0	514	1060
17:15	0	0	0	0	0	0	621	0	0	621	9	0	0	0	9	10	486	0	0	496	1126
17:30	0	0	0	0	0	0	535	0	0	535	2	0	0	0	2	7	440	0	0	447	984
17:45	0	1	0	0	1	0	482	0	0	482	5	0	0	0	5	2	491	0	0	493	981
Total	0	1	0	0	1	0	2180	0	0	2180	20	0	0	0	20	26	1924	0	0	1950	4151
Grand Total	0	1	1	0	2	0	8100	0	0	8100	57	0	0	0	57	83	6732	0	0	6815	14974
Apprch %	0	50	50	0		0	100	0	0		100	0	0	0		1.2	98.8	0	0		
Total %	0	0	0	0	0	0	54.1	0	0	54.1	0.4	0	0	0	0.4	0.6	45	0	0	45.5	
Autos	0	1	1	0	2	0	7967										6583				14691
% Autos	0	100	100	0	100	0	98.4	0	0	98.4	100	0	0	0	100	98.8	97.8	0	0	97.8	98.1
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.6	0	0	1.6	0	0	0	0	0	1.2	2.2	0	0	2.2	1.9

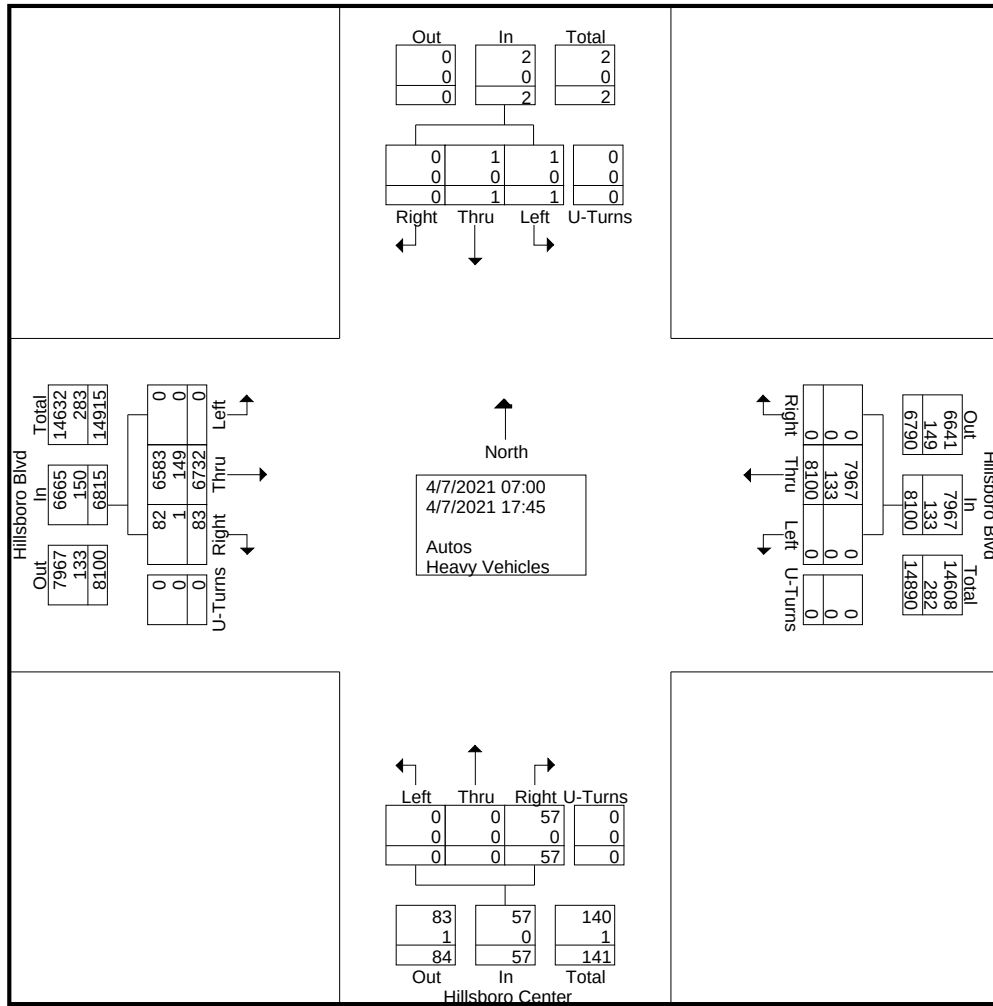
Traf Tech Engineering Inc.

File Name : 5-Hillsboro Blvd & Right-inOut Driveway

Site Code : 00000000

Start Date : 4/7/2021

Page No : 2



Traf Tech Engineering Inc.

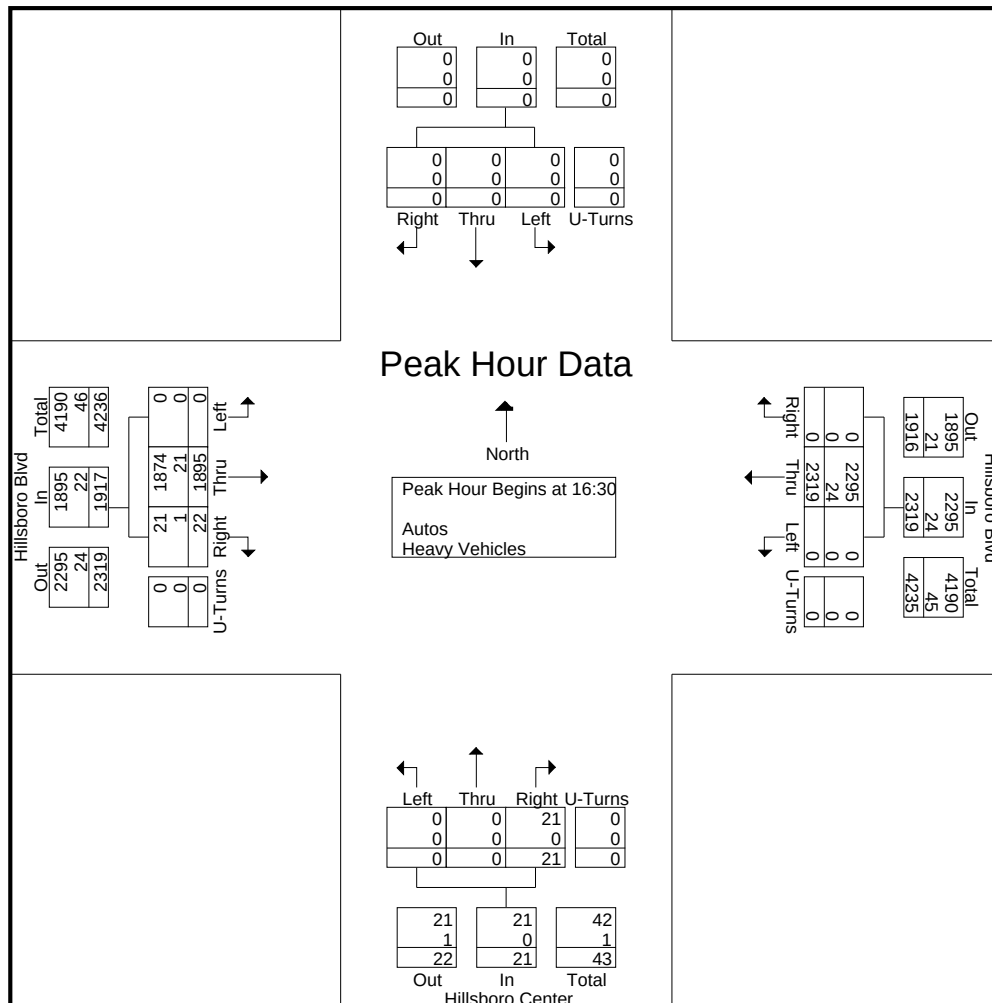
File Name : 5-Hillsboro Blvd & Right-inOut Driveway

Site Code : 00000000

Start Date : 4/7/2021

Page No : 3

	From North					Hillsboro Blvd From East					Hillsboro Center From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	587	0	0	587	5	0	0	0	5	4	487	0	0	491	1083
16:45	0	0	0	0	0	0	569	0	0	569	3	0	0	0	3	1	415	0	0	416	988
17:00	0	0	0	0	0	0	542	0	0	542	4	0	0	0	4	7	507	0	0	514	1060
17:15	0	0	0	0	0	0	621	0	0	621	9	0	0	0	9	10	486	0	0	496	1126
Total Volume	0	0	0	0	0	0	2319	0	0	2319	21	0	0	0	21	22	1895	0	0	1917	4257
% App. Total	0	0	0	0	0	0	100	0	0	100	100	0	0	0	100	1.1	98.9	0	0	99.9	99.9
PHF	.000	.000	.000	.000	.000	.000	.934	.000	.000	.934	.583	.000	.000	.000	.583	.550	.934	.000	.000	.932	.945
Autos	0	0	0	0	0	0	2295	0	0	2295	1874	0	0	0	1874	1874	0	0	0	1874	1874
% Autos	0	0	0	0	0	0	99.0	0	0	99.0	100	0	0	0	100	95.5	98.9	0	0	98.9	98.9
Heavy Vehicles	0	0	0	0	0	0	1.0	0	0	1.0	0	0	0	0	0	4.5	1.1	0	0	1.1	1.1
% Heavy Vehicles	0	0	0	0	0	0	1.0	0	0	1.0	0	0	0	0	0	4.5	1.1	0	0	1.1	1.1



Traf Tech Engineering Inc.

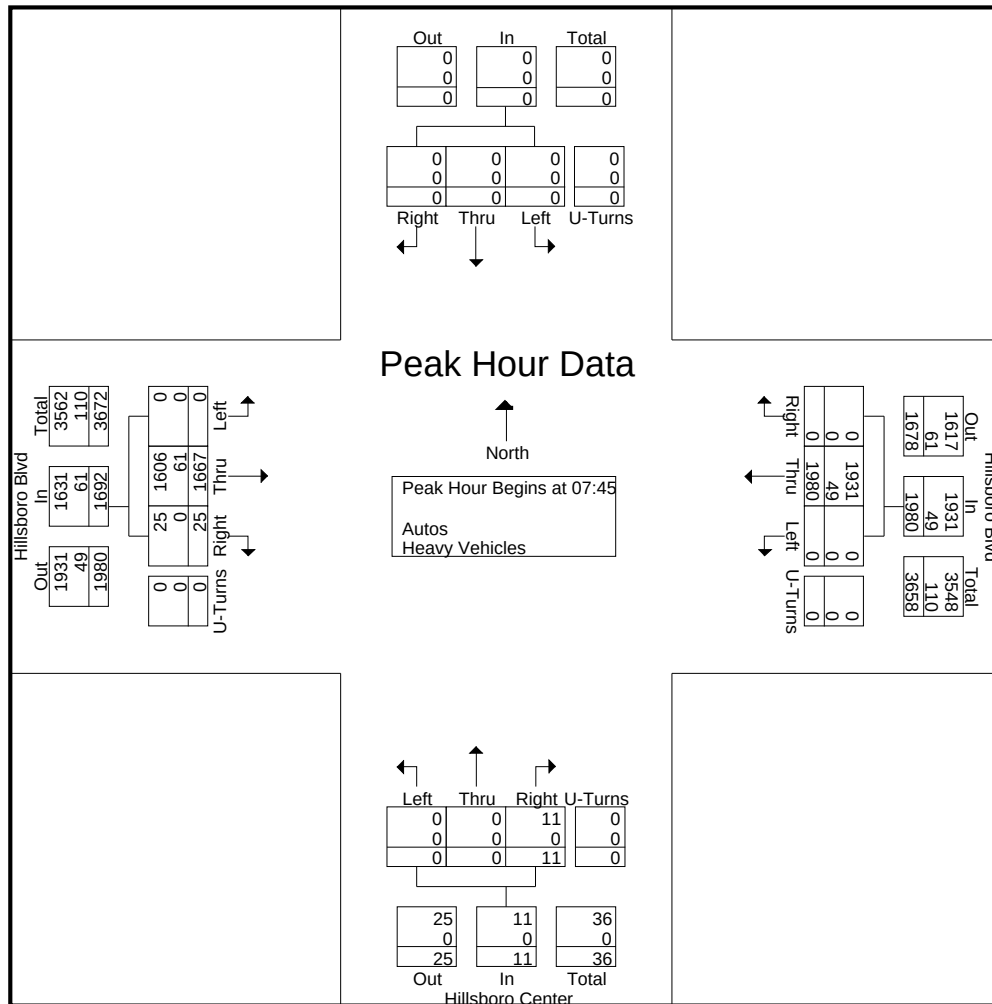
File Name : 5-Hillsboro Blvd & Right-inOut Driveway

Site Code : 00000000

Start Date : 4/7/2021

Page No : 4

	From North					Hillsboro Blvd From East					Hillsboro Center From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	0	0	0	0	0	0	562	0	0	562	2	0	0	0	2	11	441	0	0	452	1016
08:00	0	0	0	0	0	0	472	0	0	472	4	0	0	0	4	2	407	0	0	409	885
08:15	0	0	0	0	0	0	455	0	0	455	1	0	0	0	1	6	407	0	0	413	869
08:30	0	0	0	0	0	0	491	0	0	491	4	0	0	0	4	6	412	0	0	418	913
Total Volume	0	0	0	0	0	0	1980	0	0	1980	11	0	0	0	11	25	1667	0	0	1692	3683
% App. Total	0	0	0	0	0	0	100	0	0	100	100	0	0	0	100	1.5	98.5	0	0	96.4	97.0
PHF	.000	.000	.000	.000	.000	.000	.881	.000	.000	.881	.688	.000	.000	.000	.688	.568	.945	.000	.000	.936	.906
Autos	0	0	0	0	0	0	1931	0	0	1931	100	0	0	0	100	100	96.3	0	0	96.4	97.0
% Autos	0	0	0	0	0	0	97.5	0	0	97.5	100	0	0	0	100	100	96.3	0	0	96.4	97.0
Heavy Vehicles	0	0	0	0	0	0	2.5	0	0	2.5	0	0	0	0	0	0	3.7	0	0	3.6	3.0
% Heavy Vehicles	0	0	0	0	0	0	2.5	0	0	2.5	0	0	0	0	0	0	3.7	0	0	3.6	3.0



Traf Tech Engineering Inc.

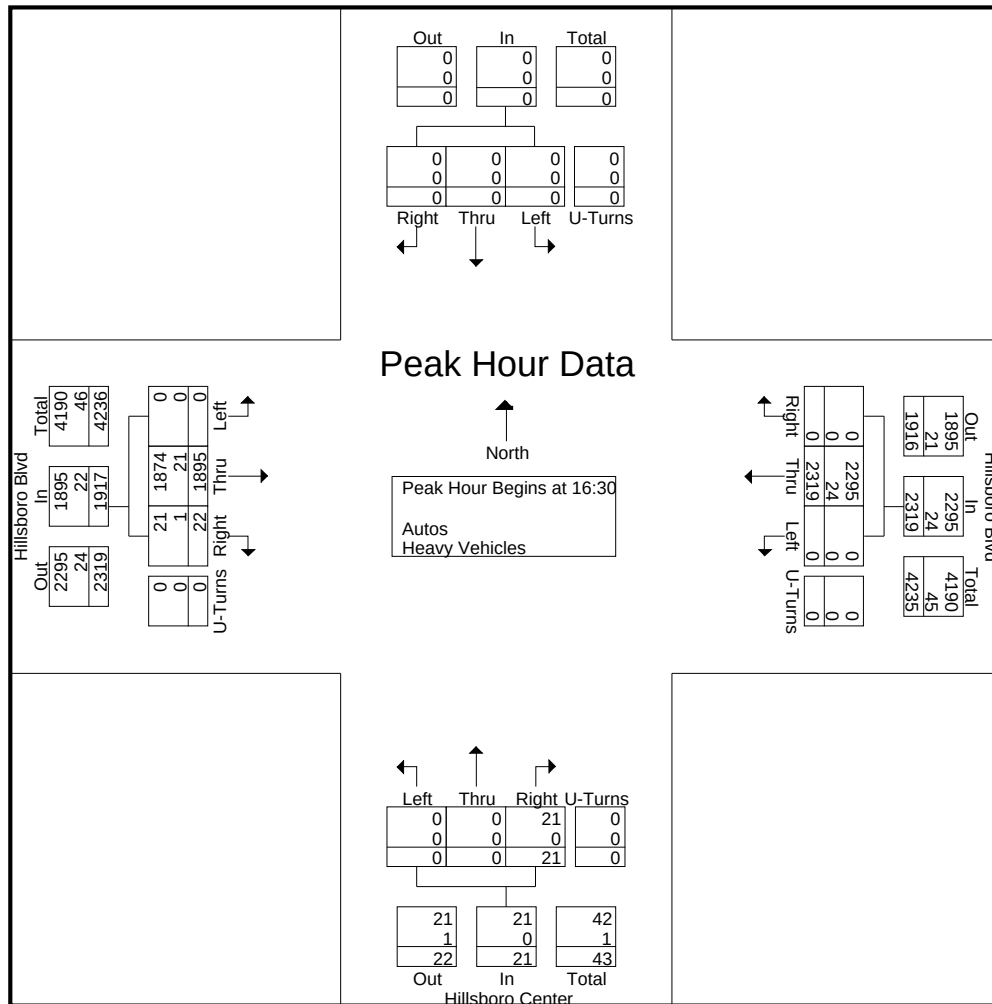
File Name : 5-Hillsboro Blvd & Right-inOut Driveway

Site Code : 00000000

Start Date : 4/7/2021

Page No : 5

	From North					Hillsboro Blvd From East					Hillsboro Center From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	587	0	0	587	5	0	0	0	5	4	487	0	0	491	1083
16:45	0	0	0	0	0	0	569	0	0	569	3	0	0	0	3	1	415	0	0	416	988
17:00	0	0	0	0	0	0	542	0	0	542	4	0	0	0	4	7	507	0	0	514	1060
17:15	0	0	0	0	0	0	621	0	0	621	9	0	0	0	9	10	486	0	0	496	1126
Total Volume	0	0	0	0	0	0	2319	0	0	2319	21	0	0	0	21	22	1895	0	0	1917	4257
% App. Total	0	0	0	0	0	0	100	0	0	100	100	0	0	0	100	1.1	98.9	0	0	98.9	98.9
PHF	.000	.000	.000	.000	.000	.000	.934	.000	.000	.934	.583	.000	.000	.000	.583	.550	.934	.000	.000	.932	.945
Autos	0	0	0	0	0	0	2295	0	0	2295	1874	0	0	0	1874	1874	0	0	0	1874	1874
% Autos	0	0	0	0	0	0	99.0	0	0	99.0	100	0	0	0	100	95.5	98.9	0	0	98.9	98.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	1.0	0	0	1.0	0	0	0	0	0	4.5	1.1	0	0	1.1	1.1



Traf Tech Engineering Inc.

File Name : 5-Hillsboro Blvd & Right-inOut Driveway

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Peds & Bikes

	From North				Hillsboro Blvd From East				Hillsboro Center From South				Hillsboro Blvd From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total

*** BREAK ***

Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %																	

Traf Tech Engineering Inc.

File Name : 6-Hillsboro Blvd & SW Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	SW Natural Blvd From North					Hillsboro Blvd From East					SW Natural Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	21	2	6	0	29	12	226	7	0	245	21	2	51	0	74	22	188	29	3	242	590
07:15	19	2	5	0	26	14	336	5	0	355	18	7	55	0	80	24	256	45	4	329	790
07:30	21	0	14	0	35	16	302	6	0	324	32	9	105	0	146	30	296	60	3	389	894
07:45	29	0	10	0	39	29	421	11	0	461	43	12	98	0	153	23	298	51	3	375	1028
Total	90	4	35	0	129	71	1285	29	0	1385	114	30	309	0	453	99	1038	185	13	1335	3302
08:00	24	5	24	0	53	29	376	16	0	421	22	14	77	1	114	43	344	74	6	467	1055
08:15	23	2	10	0	35	20	327	13	0	360	27	20	70	0	117	28	298	63	7	396	908
08:30	27	5	13	0	45	38	383	16	1	438	27	34	84	0	145	23	300	70	4	397	1025
08:45	36	3	10	1	50	33	336	17	1	387	28	26	81	0	135	21	333	99	6	459	1031
Total	110	15	57	1	183	120	1422	62	2	1606	104	94	312	1	511	115	1275	306	23	1719	4019

*** BREAK ***

16:00	89	12	20	0	121	17	505	18	1	541	28	1	34	1	64	40	383	18	5	446	1172
16:15	52	10	17	0	79	8	373	16	2	399	24	5	51	0	80	43	368	29	10	450	1008
16:30	61	3	22	0	86	10	450	25	1	486	24	2	52	1	79	47	367	25	5	444	1095
16:45	56	8	30	0	94	14	466	31	5	516	17	5	38	2	62	56	377	27	2	462	1134
Total	258	33	89	0	380	49	1794	90	9	1942	93	13	175	4	285	186	1495	99	22	1802	4409
17:00	110	9	26	0	145	6	373	28	2	409	34	3	51	1	89	54	369	29	5	457	1100
17:15	64	6	27	0	97	19	514	29	1	563	19	5	31	1	56	56	440	34	10	540	1256
17:30	101	11	30	0	142	15	405	25	3	448	24	2	40	2	68	60	342	31	9	442	1100
17:45	52	5	20	0	77	12	322	27	2	363	22	6	55	3	86	63	386	33	7	489	1015
Total	327	31	103	0	461	52	1614	109	8	1783	99	16	177	7	299	233	1537	127	31	1928	4471
Grand Total	785	83	284	1	1153	292	6115	290	19	6716	410	153	973	12	1548	633	5345	717	89	6784	16201
Apprch %	68.1	7.2	24.6	0.1		4.3	91.1	4.3	0.3		26.5	9.9	62.9	0.8		9.3	78.8	10.6	1.3		
Total %	4.8	0.5	1.8	0	7.1	1.8	37.7	1.8	0.1	41.5	2.5	0.9	6	0.1	9.6	3.9	33	4.4	0.5	41.9	
Autos	763	80	278	1	1122	284	6016										5208				15888
% Autos	97.2	96.4	97.9	100	97.3	97.3	98.4	99	100	98.4	99.3	98.7	99	100	99	99.4	97.4	98	97.8	97.7	98.1
Heavy Vehicles																					
% Heavy Vehicles	2.8	3.6	2.1	0	2.7	2.7	1.6	1	0	1.6	0.7	1.3	1	0	1	0.6	2.6	2	2.2	2.3	1.9

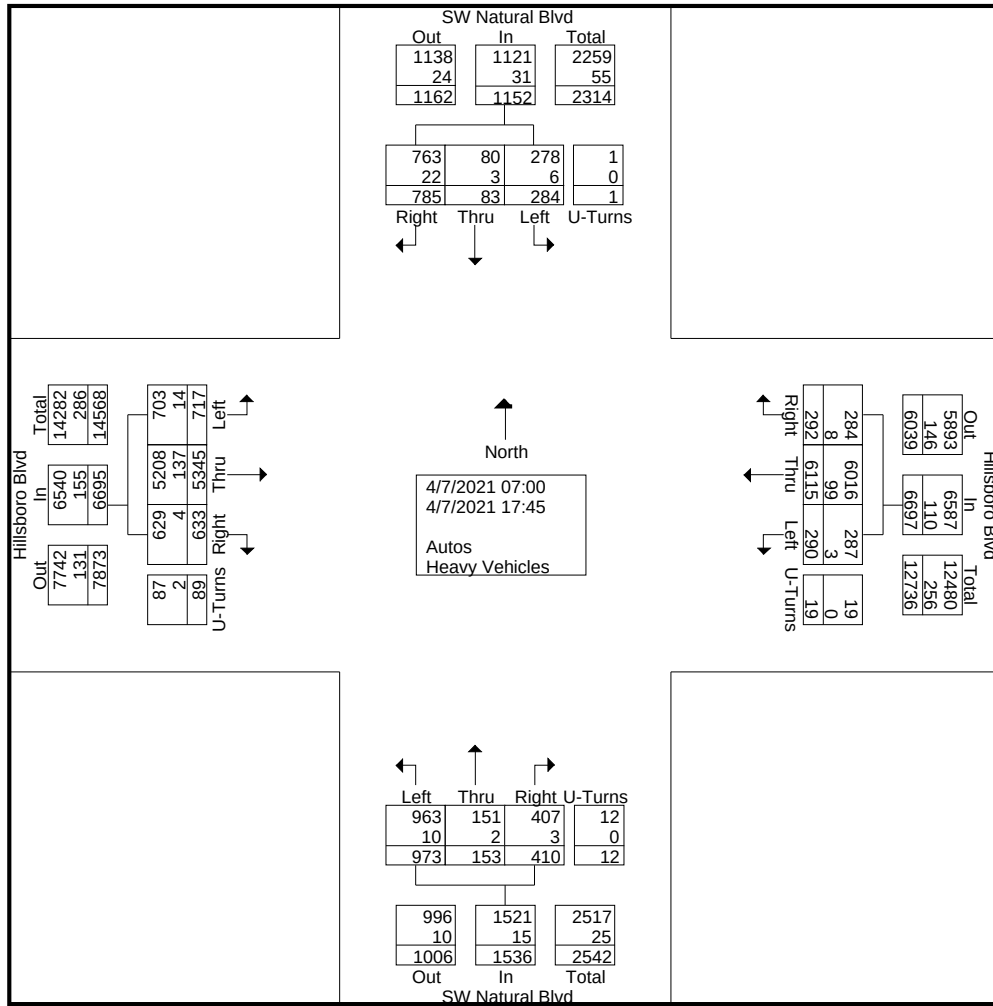
Traf Tech Engineering Inc.

File Name : 6-Hillsboro Blvd & SW Natural Blvd

Site Code : 00000000

Start Date : 4/7/2021

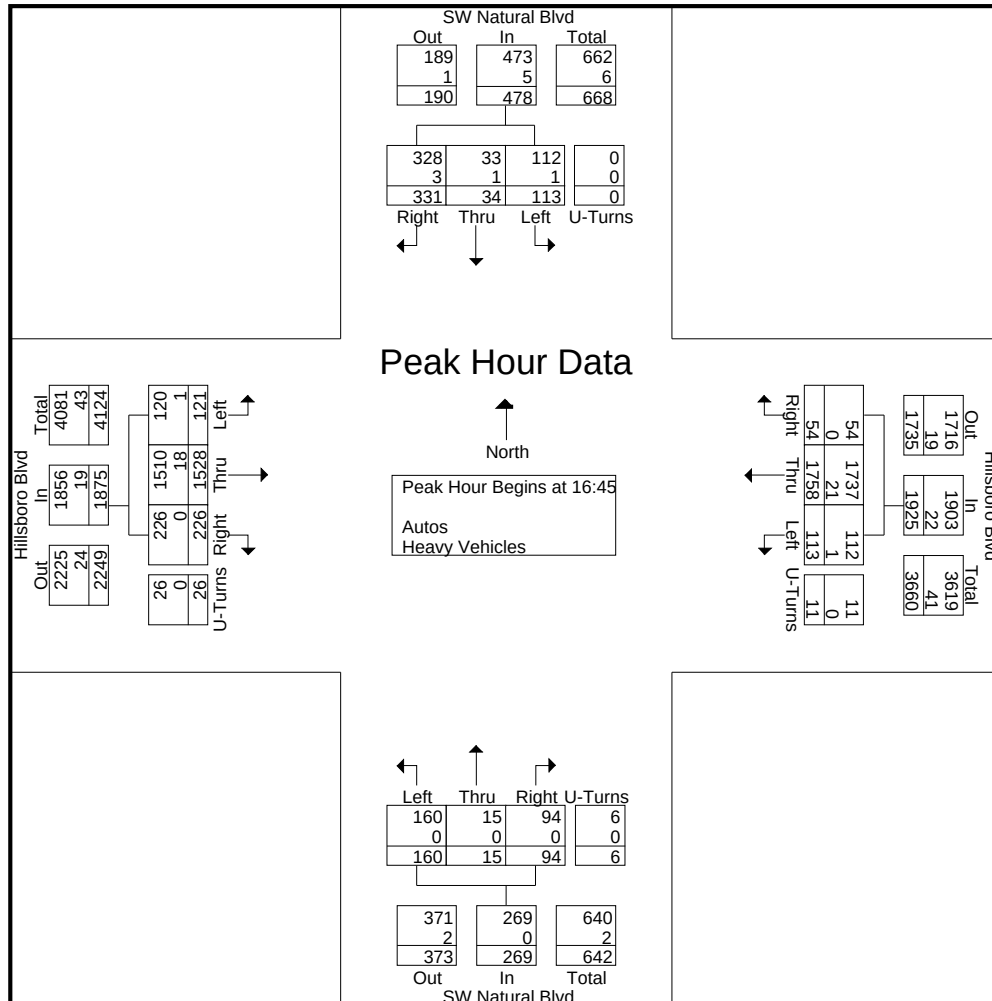
Page No : 2



Traf Tech Engineering Inc.

File Name : 6-Hillsboro Blvd & SW Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 3

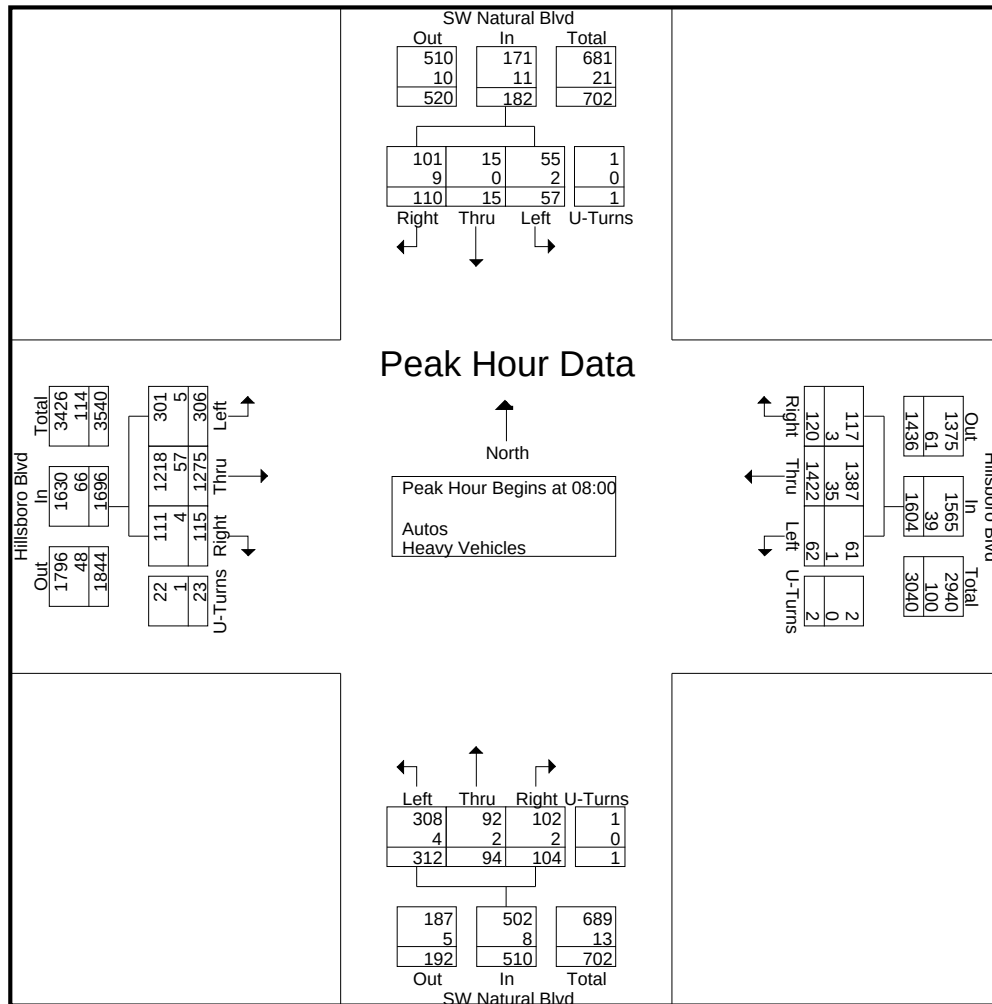
	SW Natural Blvd From North					Hillsboro Blvd From East					SW Natural Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	56	8	30	0	94	14	466	31	5	516	17	5	38	2	62	56	377	27	2	462	1134
17:00	110	9	26	0	145	6	373	28	2	409	34	3	51	1	89	54	369	29	5	457	1100
17:15	64	6	27	0	97	19	514	29	1	563	19	5	31	1	56	56	440	34	10	540	1256
17:30	101	11	30	0	142	15	405	25	3	448	24	2	40	2	68	60	342	31	9	442	1100
Total Volume	331	34	113	0	478	54	1758	113	11	1936	94	15	160	6	275	226	1528	121	26	1901	4590
% App. Total	69.2	7.1	23.6	0		2.8	90.8	5.8	0.6		34.2	5.5	58.2	2.2		11.9	80.4	6.4	1.4		
PHF	.752	.773	.942	.000	.824	.711	.855	.911	.550	.860	.691	.750	.784	.750	.772	.942	.868	.890	.650	.880	.914
Autos	328	33	112	0	473	54	1737									1510					
% Autos	99.1	97.1	99.1	0	99.0	100	98.8	99.1	100	98.9	100	100	100	100	100	100	98.8	99.2	100	99.0	99.0
Heavy Vehicles																					
% Heavy Vehicles	0.9	2.9	0.9	0	1.0	0	1.2	0.9	0	1.1	0	0	0	0	0	0	1.2	0.8	0	1.0	1.0



Traf Tech Engineering Inc.

File Name : 6-Hillsboro Blvd & SW Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 4

	SW Natural Blvd From North					Hillsboro Blvd From East					SW Natural Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	24	5	24	0	53	29	376	16	0	421	22	14	77	1	114	43	344	74	6	467	1055
08:15	23	2	10	0	35	20	327	13	0	360	27	20	70	0	117	28	298	63	7	396	908
08:30	27	5	13	0	45	38	383	16	1	438	27	34	84	0	145	23	300	70	4	397	1025
08:45	36	3	10	1	50	33	336	17	1	387	28	26	81	0	135	21	333	99	6	459	1031
Total Volume	110	15	57	1	183	120	1422	62	2	1606	104	94	312	1	511	115	1275	306	23	1719	4019
% App. Total	60.1	8.2	31.1	0.5		7.5	88.5	3.9	0.1		20.4	18.4	61.1	0.2		6.7	74.2	17.8	1.3		
PHF	.764	.750	.594	.250	.863	.789	.928	.912	.500	.917	.929	.691	.929	.250	.881	.669	.927	.773	.821	.920	.952
Autos	101	15	55	1	172	117	1387									1218					
% Autos	91.8	100	96.5	100	94.0	97.5	97.5	98.4	100	97.6	98.1	97.9	98.7	100	98.4	96.5	95.5	98.4	95.7	96.1	96.9
Heavy Vehicles																					
% Heavy Vehicles	8.2	0	3.5	0	6.0	2.5	2.5	1.6	0	2.4	1.9	2.1	1.3	0	1.6	3.5	4.5	1.6	4.3	3.9	3.1



Traf Tech Engineering Inc.

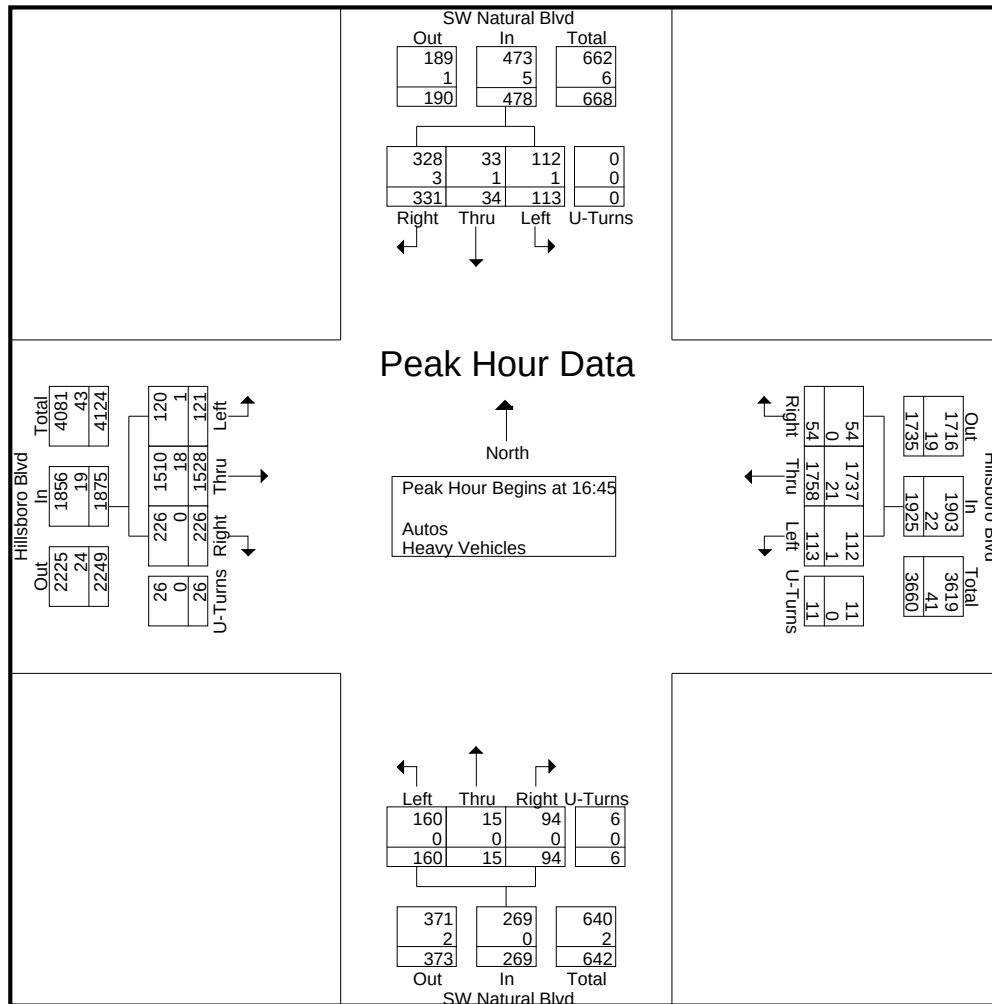
File Name : 6-Hillsboro Blvd & SW Natural Blvd

Site Code : 00000000

Start Date : 4/7/2021

Page No : 5

	SW Natural Blvd From North					Hillsboro Blvd From East					SW Natural Blvd From South					Hillsboro Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
16:45	56	8	30	0	94	14	466	31	5	516	17	5	38	2	62	56	377	27	2	462	1134
17:00	110	9	26	0	145	6	373	28	2	409	34	3	51	1	89	54	369	29	5	457	1100
17:15	64	6	27	0	97	19	514	29	1	563	19	5	31	1	56	56	440	34	10	540	1256
17:30	101	11	30	0	142	15	405	25	3	448	24	2	40	2	68	60	342	31	9	442	1100
Total Volume	331	34	113	0	478	54	1758	113	11	1936	94	15	160	6	275	226	1528	121	26	1901	4590
% App. Total	69.2	7.1	23.6	0		2.8	90.8	5.8	0.6		34.2	5.5	58.2	2.2		11.9	80.4	6.4	1.4		
PHF	.752	.773	.942	.000	.824	.711	.855	.911	.550	.860	.691	.750	.784	.750	.772	.942	.868	.890	.650	.880	.914
Autos	328	33	112	0	473	54	1737									1510					
% Autos	99.1	97.1	99.1	0	99.0	100	98.8	99.1	100	98.9	100	100	100	100	100	100	98.8	99.2	100	99.0	99.0
Heavy Vehicles																					
% Heavy Vehicles	0.9	2.9	0.9	0	1.0	0	1.2	0.9	0	1.1	0	0	0	0	0	0	1.2	0.8	0	1.0	1.0



Traf Tech Engineering Inc.

File Name : 6-Hillsboro Blvd & SW Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Peds & Bikes

	SW Natural Blvd From North				Hillsboro Blvd From East				SW Natural Blvd From South				Hillsboro Blvd From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	3
07:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
07:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2	0	0	1	1	0	0	1	2	0	0	0	0	0	0	0	7
08:00	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
*** BREAK ***																	
08:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
08:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	1	0	0	2	2	0	0	0	0	0	0	0	6
*** BREAK ***																	
16:00	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
16:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	2	3	0	0	0	0	0	0	1	7
*** BREAK ***																	
17:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	2	2	0	0	6	7	0	0	0	0	0	0	1	21
Apprch %	60	0	0	40	25	0	0	75	100	0	0	0	0	0	0	100	
Total %	14.3	0	0	9.5	9.5	0	0	28.6	33.3	0	0	0	0	0	0	4.8	

Traf Tech Engineering Inc.

File Name : 7-Hillsboro Blvd & Dixie Hwy
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	From North					From East					From South					From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	60	26	3	0	89	14	136	3	0	153	9	58	26	0	93	18	129	41	0	188	523
07:15	62	30	5	0	97	11	145	3	0	159	20	71	33	0	124	22	125	62	0	209	589
07:30	67	22	0	0	89	20	213	2	0	235	13	82	45	0	140	23	145	81	1	250	714
07:45	102	60	6	0	168	14	187	5	0	206	25	152	49	0	226	34	179	109	0	322	922
Total	291	138	14	0	443	59	681	13	0	753	67	363	153	0	583	97	578	293	1	969	2748
08:00	87	39	7	0	133	21	213	2	0	236	14	121	39	0	174	32	190	82	0	304	847
08:15	80	42	7	0	129	22	229	8	1	260	22	108	45	0	175	33	201	77	3	314	878
08:30	77	55	7	0	139	17	193	2	0	212	20	165	47	0	232	24	163	65	1	253	836
08:45	81	39	11	0	131	36	219	8	0	263	16	149	40	0	205	26	204	78	1	309	908
Total	325	175	32	0	532	96	854	20	1	971	72	543	171	0	786	115	758	302	5	1180	3469
*** BREAK ***																					
16:00	88	101	12	2	203	27	280	17	1	325	21	71	30	0	122	45	190	62	2	299	949
16:15	86	84	14	0	184	26	298	13	2	339	25	69	30	1	125	55	231	83	3	372	1020
16:30	108	103	16	0	227	17	258	9	0	284	31	77	33	0	141	58	188	71	5	322	974
16:45	116	99	21	0	236	24	304	12	1	341	16	62	38	0	116	41	241	47	4	333	1026
Total	398	387	63	2	850	94	1140	51	4	1289	93	279	131	1	504	199	850	263	14	1326	3969
17:00	124	120	13	1	258	36	270	6	0	312	27	82	28	1	138	56	258	82	2	398	1106
17:15	135	144	14	0	293	34	249	12	0	295	22	81	36	1	140	50	217	73	6	346	1074
17:30	92	111	20	1	224	23	270	22	1	316	26	77	32	0	135	43	252	67	4	366	1041
17:45	98	114	17	1	230	29	201	10	0	240	22	82	41	1	146	56	236	76	5	373	989
Total	449	489	64	3	1005	122	990	50	1	1163	97	322	137	3	559	205	963	298	17	1483	4210
Grand Total	1463	1189	173	5	2830	371	3665	134	6	4176	329	1507	592	4	2432	616	3149	1156	37	4958	14396
Apprch %	51.7	42	6.1	0.2		8.9	87.8	3.2	0.1		13.5	62	24.3	0.2		12.4	63.5	23.3	0.7		
Total %	10.2	8.3	1.2	0	19.7	2.6	25.5	0.9	0	29	2.3	10.5	4.1	0	16.9	4.3	21.9	8	0.3	34.4	
Autos	1448	1168				3618					1476					3086	1133				14120
% Autos	99	98.2	99.4	100	98.7	98.9	98.7	94.8	100	98.6	97.3	97.9	94.9	100	97.1	95.9	98	98	100	97.8	98.1
Heavy Vehicles																					
% Heavy Vehicles	1	1.8	0.6	0	1.3	1.1	1.3	5.2	0	1.4	2.7	2.1	5.1	0	2.9	4.1	2	2	0	2.2	1.9

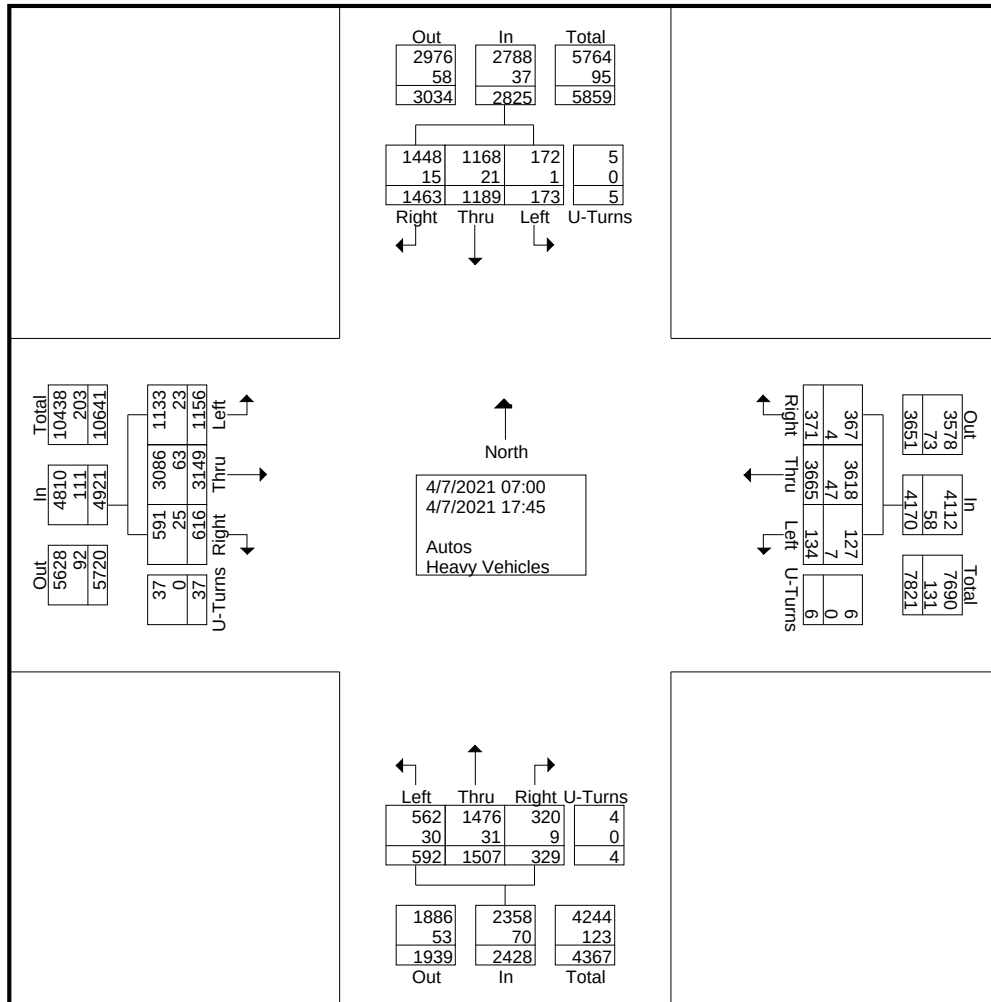
Traf Tech Engineering Inc.

File Name : 7-Hillsboro Blvd & Dixie Hwy

Site Code : 00000000

Start Date : 4/7/2021

Page No : 2



Traf Tech Engineering Inc.

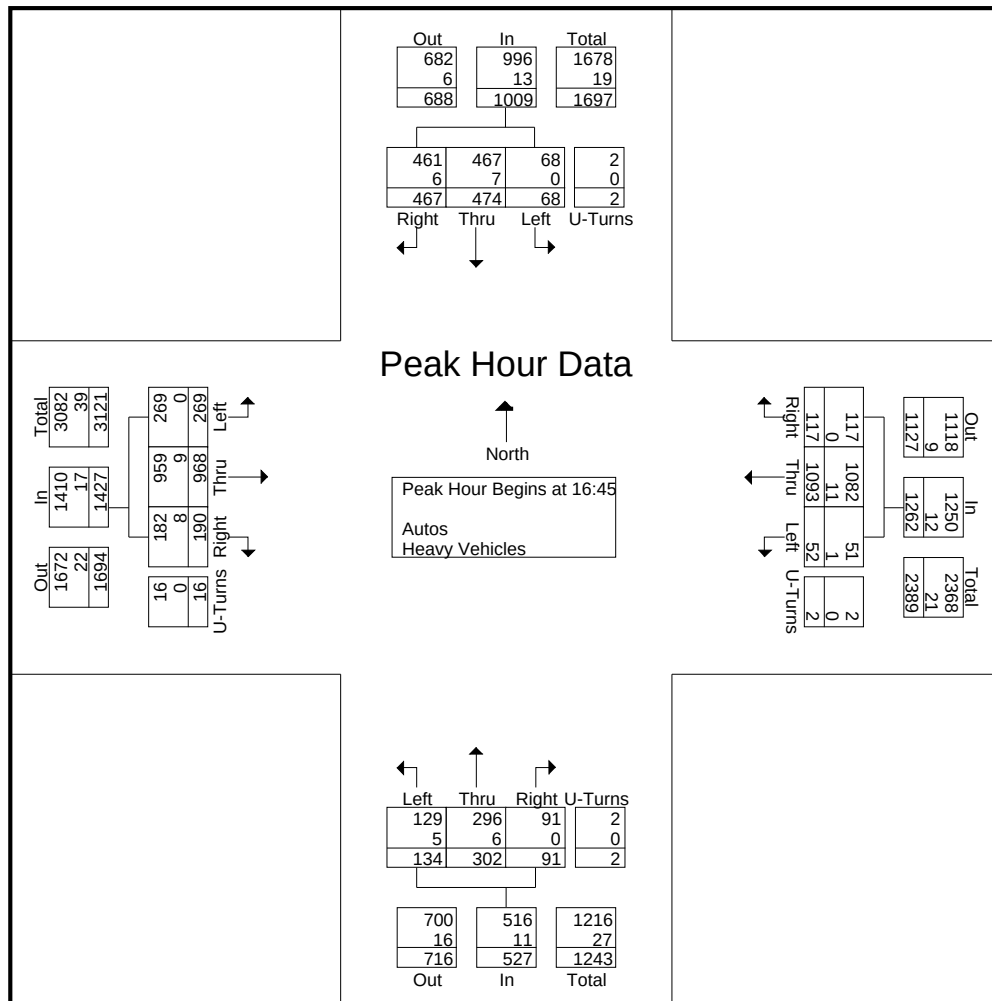
File Name : 7-Hillsboro Blvd & Dixie Hwy

Site Code : 00000000

Start Date : 4/7/2021

Page No : 3

	From North					From East					From South					From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	116	99	21	0	236	24	304	12	1	341	16	62	38	0	116	41	241	47	4	333	1026
17:00	124	120	13	1	258	36	270	6	0	312	27	82	28	1	138	56	258	82	2	398	1106
17:15	135	144	14	0	293	34	249	12	0	295	22	81	36	1	140	50	217	73	6	346	1074
17:30	92	111	20	1	224	23	270	22	1	316	26	77	32	0	135	43	252	67	4	366	1041
Total Volume	467	474	68	2	1011	117	1093	52	2	1264	91	302	134	2	529	190	968	269	16	1443	4247
% App. Total	46.2	46.9	6.7	0.2		9.3	86.5	4.1	0.2		17.2	57.1	25.3	0.4		13.2	67.1	18.6	1.1		
PHF	.865	.823	.810	.500	.863	.813	.899	.591	.500	.927	.843	.921	.882	.500	.945	.848	.938	.820	.667	.906	.960
Autos	461	467	68	2	998	117	1082														
% Autos	98.7	98.5	100	100	98.7	100	99.0	98.1	100	99.1	100	98.0	96.3	100	97.9	95.8	99.1	100	100	98.8	98.8
Heavy Vehicles																					
% Heavy Vehicles	1.3	1.5	0	0	1.3	0	1.0	1.9	0	0.9	0	2.0	3.7	0	2.1	4.2	0.9	0	0	1.2	1.2



Traf Tech Engineering Inc.

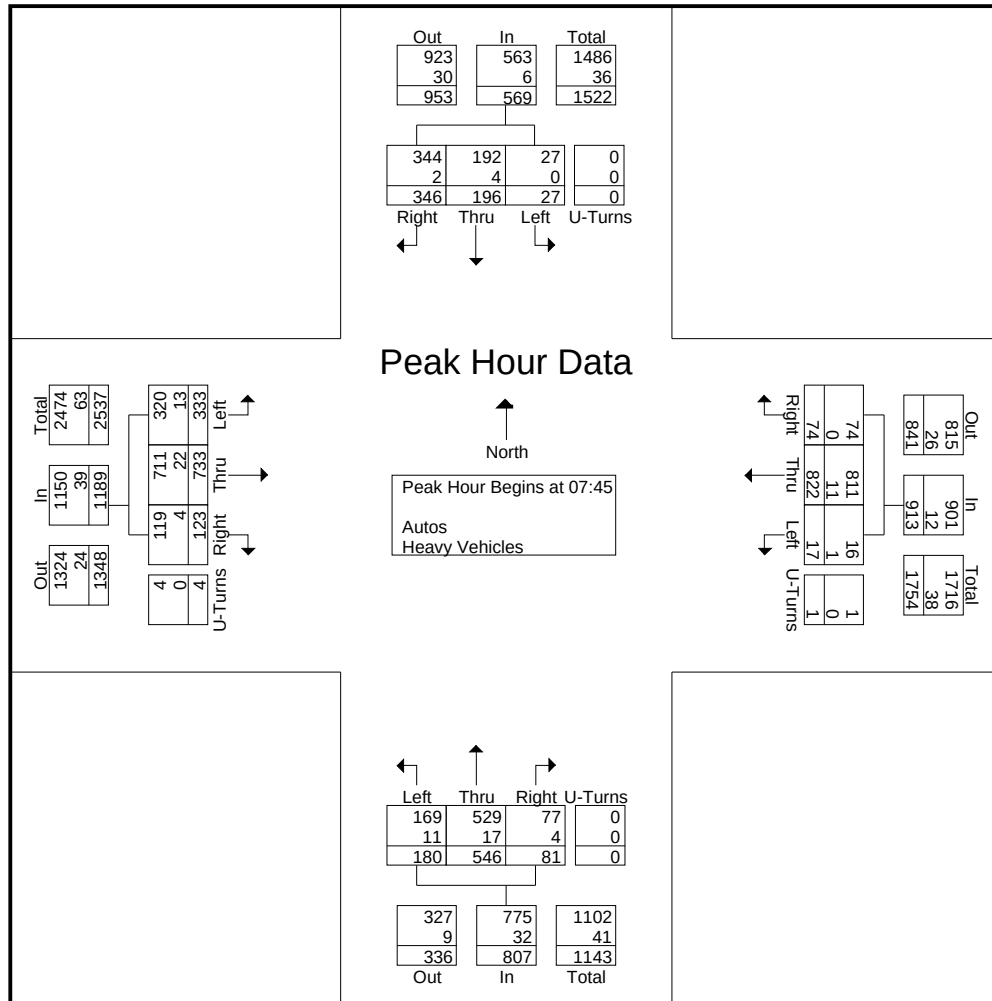
File Name : 7-Hillsboro Blvd & Dixie Hwy

Site Code : 00000000

Start Date : 4/7/2021

Page No : 4

	From North					From East					From South					From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	102	60	6	0	168	14	187	5	0	206	25	152	49	0	226	34	179	109	0	322	922
08:00	87	39	7	0	133	21	213	2	0	236	14	121	39	0	174	32	190	82	0	304	847
08:15	80	42	7	0	129	22	229	8	1	260	22	108	45	0	175	33	201	77	3	314	878
08:30	77	55	7	0	139	17	193	2	0	212	20	165	47	0	232	24	163	65	1	253	836
Total Volume	346	196	27	0	569	74	822	17	1	914	81	546	180	0	807	123	733	333	4	1193	3483
% App. Total	60.8	34.4	4.7	0		8.1	89.9	1.9	0.1		10	67.7	22.3	0		10.3	61.4	27.9	0.3		
PHF	.848	.817	.964	.000	.847	.841	.897	.531	.250	.879	.810	.827	.918	.000	.870	.904	.912	.764	.333	.926	.944
Autos	344	192	27	0	563	74	811	16	1	902	77	529	169	0	775	119	711	320	4	1154	3394
% Autos	99.4	98.0	100	0	98.9	100	98.7	94.1	100	98.7	95.1	96.9	93.9	0	96.0	96.7	97.0	96.1	100	96.7	97.4
Heavy Vehicles																					
% Heavy Vehicles	0.6	2.0	0	0	1.1	0	1.3	5.9	0	1.3	4.9	3.1	6.1	0	4.0	3.3	3.0	3.9	0	3.3	2.6



Traf Tech Engineering Inc.

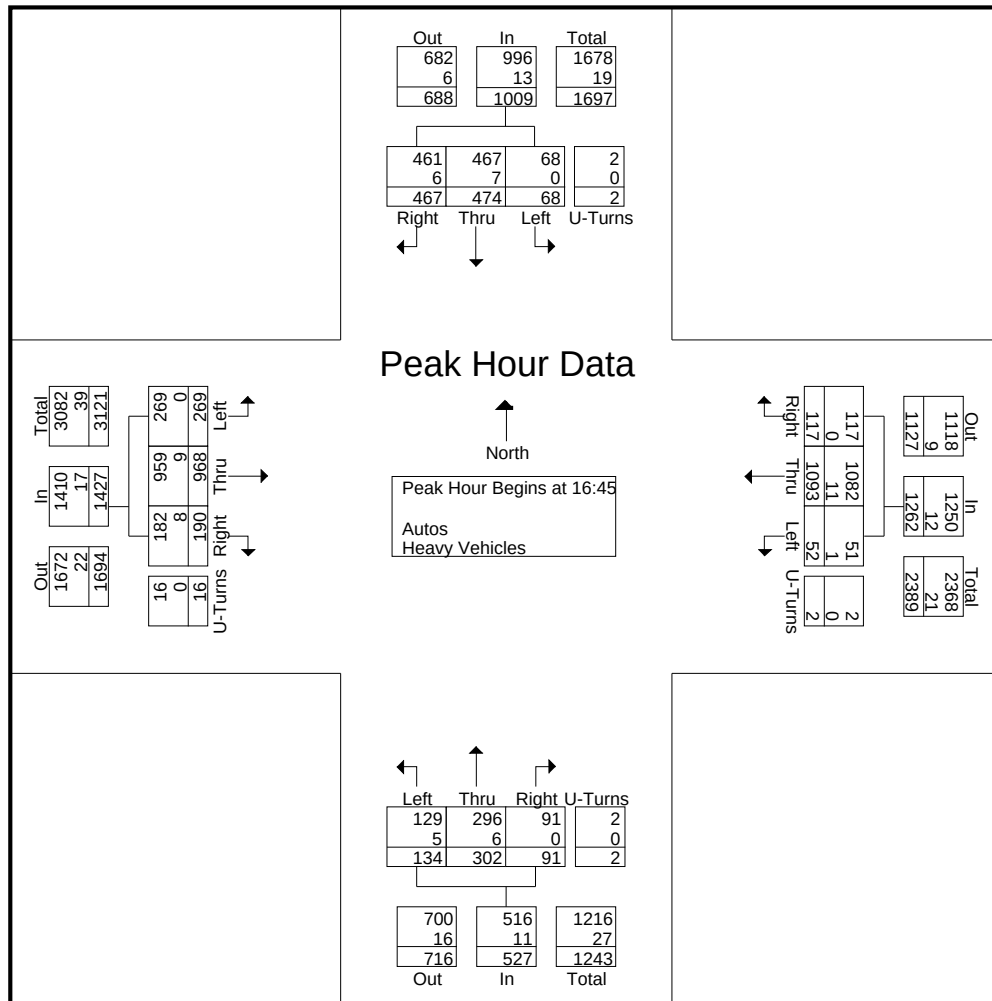
File Name : 7-Hillsboro Blvd & Dixie Hwy

Site Code : 00000000

Start Date : 4/7/2021

Page No : 5

	From North					From East					From South					From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	116	99	21	0	236	24	304	12	1	341	16	62	38	0	116	41	241	47	4	333	1026
17:00	124	120	13	1	258	36	270	6	0	312	27	82	28	1	138	56	258	82	2	398	1106
17:15	135	144	14	0	293	34	249	12	0	295	22	81	36	1	140	50	217	73	6	346	1074
17:30	92	111	20	1	224	23	270	22	1	316	26	77	32	0	135	43	252	67	4	366	1041
Total Volume	467	474	68	2	1011	117	1093	52	2	1264	91	302	134	2	529	190	968	269	16	1443	4247
% App. Total	46.2	46.9	6.7	0.2		9.3	86.5	4.1	0.2		17.2	57.1	25.3	0.4		13.2	67.1	18.6	1.1		
PHF	.865	.823	.810	.500	.863	.813	.899	.591	.500	.927	.843	.921	.882	.500	.945	.848	.938	.820	.667	.906	.960
Autos	461	467	68	2	998	117	1082				100	98.0	96.3	100	97.9	95.8	99.1	100	100	98.8	98.8
% Autos	98.7	98.5	100	100	98.7	100	99.0	98.1	100	99.1	100	98.0	96.3	100	97.9	95.8	99.1	100	100	98.8	98.8
Heavy Vehicles																					
% Heavy Vehicles	1.3	1.5	0	0	1.3	0	1.0	1.9	0	0.9	0	2.0	3.7	0	2.1	4.2	0.9	0	0	1.2	1.2



Traf Tech Engineering Inc.

File Name : 7-Hillsboro Blvd & Dixie Hwy

Site Code : 00000000

Start Date : 4/7/2021

Page No : 1

Groups Printed- Peds & Bikes

	From North				From East				From South				From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
*** BREAK ***																	
07:45	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
Total	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
*** BREAK ***																	
08:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
*** BREAK ***																	
16:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
16:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
16:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	2	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	5
*** BREAK ***																	
17:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3
Grand Total	7	0	0	1	1	0	0	1	2	0	0	0	1	0	0	2	15
Apprch %	87.5	0	0	12.5	50	0	0	50	100	0	0	0	33.3	0	0	66.7	
Total %	46.7	0	0	6.7	6.7	0	0	6.7	13.3	0	0	0	6.7	0	0	13.3	

Traf Tech Engineering Inc.

File Name : 8-Natural Blvd & SW Natural Ave
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	SW Natural Ave From North					SW Natural Blvd From East					SW Natural Ave From South					SW Natural Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	0	0	0	1	2	24	7	0	33	3	0	2	0	5	1	74	1	0	76	115
07:15	1	1	1	0	3	1	28	7	0	36	2	0	4	0	6	4	85	1	0	90	135
07:30	1	0	2	0	3	1	25	6	2	34	6	1	3	0	10	3	133	3	0	139	186
07:45	1	0	2	0	3	0	33	7	0	40	5	0	1	0	6	3	151	3	0	157	206
Total	4	1	5	0	10	4	110	27	2	143	16	1	10	0	27	11	443	8	0	462	642
08:00	2	0	1	0	3	1	45	9	0	55	2	0	3	0	5	11	85	1	0	97	160
08:15	1	0	0	0	1	0	41	12	0	53	6	0	4	0	10	9	133	0	0	142	206
08:30	1	0	0	0	1	0	35	8	0	43	5	0	3	0	8	12	134	1	0	147	199
08:45	2	0	1	0	3	0	31	11	0	42	2	0	5	0	7	7	164	7	0	178	230
Total	6	0	2	0	8	1	152	40	0	193	15	0	15	0	30	39	516	9	0	564	795

*** BREAK ***

16:00	0	0	2	0	2	0	62	9	0	71	10	0	2	0	12	4	40	3	1	48	133
16:15	3	0	5	0	8	1	58	9	0	68	7	0	6	0	13	0	47	1	0	48	137
16:30	2	0	2	0	4	0	68	3	0	71	6	0	4	0	10	0	46	4	0	50	135
16:45	2	0	1	0	3	3	86	8	0	97	4	0	4	0	8	8	49	0	0	57	165
Total	7	0	10	0	17	4	274	29	0	307	27	0	16	0	43	12	182	8	1	203	570
17:00	2	0	1	0	3	1	91	5	1	98	11	0	12	0	23	3	50	0	0	53	177
17:15	7	1	2	0	10	0	88	5	0	93	3	0	4	0	7	7	44	1	0	52	162
17:30	2	0	2	0	4	1	95	5	0	101	4	0	7	0	11	4	48	1	0	53	169
17:45	1	0	1	0	2	1	82	5	0	88	3	0	4	0	7	6	63	0	0	69	166
Total	12	1	6	0	19	3	356	20	1	380	21	0	27	0	48	20	205	2	0	227	674
Grand Total	29	2	23	0	54	12	892	116	3	1023	79	1	68	0	148	82	1346	27	1	1456	2681
Apprch %	53.7	3.7	42.6	0		1.2	87.2	11.3	0.3		53.4	0.7	45.9	0		5.6	92.4	1.9	0.1		
Total %	1.1	0.1	0.9	0	2	0.4	33.3	4.3	0.1	38.2	2.9	0	2.5	0	5.5	3.1	50.2	1	0	54.3	
Autos	29	1	22	0	52	12	884	112	3	1011	75	1	65	0	141	76	1331				
% Autos	100	50	95.7	0	96.3	100	99.1	96.6	100	98.8	94.9	100	95.6	0	95.3	92.7	98.9	96.3	100	98.5	98.4
Heavy Vehicles																					
% Heavy Vehicles	0	50	4.3	0	3.7	0	0.9	3.4	0	1.2	5.1	0	4.4	0	4.7	7.3	1.1	3.7	0	1.5	1.6

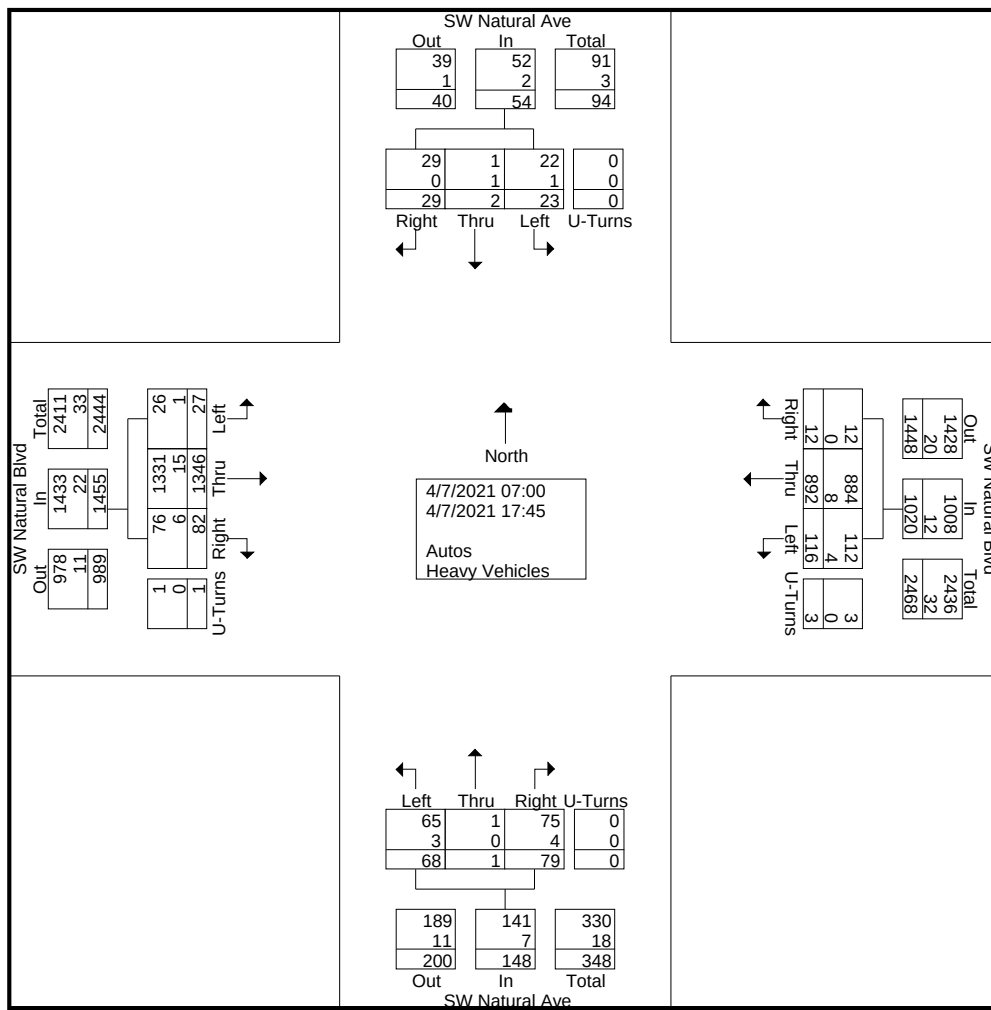
Traf Tech Engineering Inc.

File Name : 8-Natural Blvd & SW Natural Ave

Site Code : 00000000

Start Date : 4/7/2021

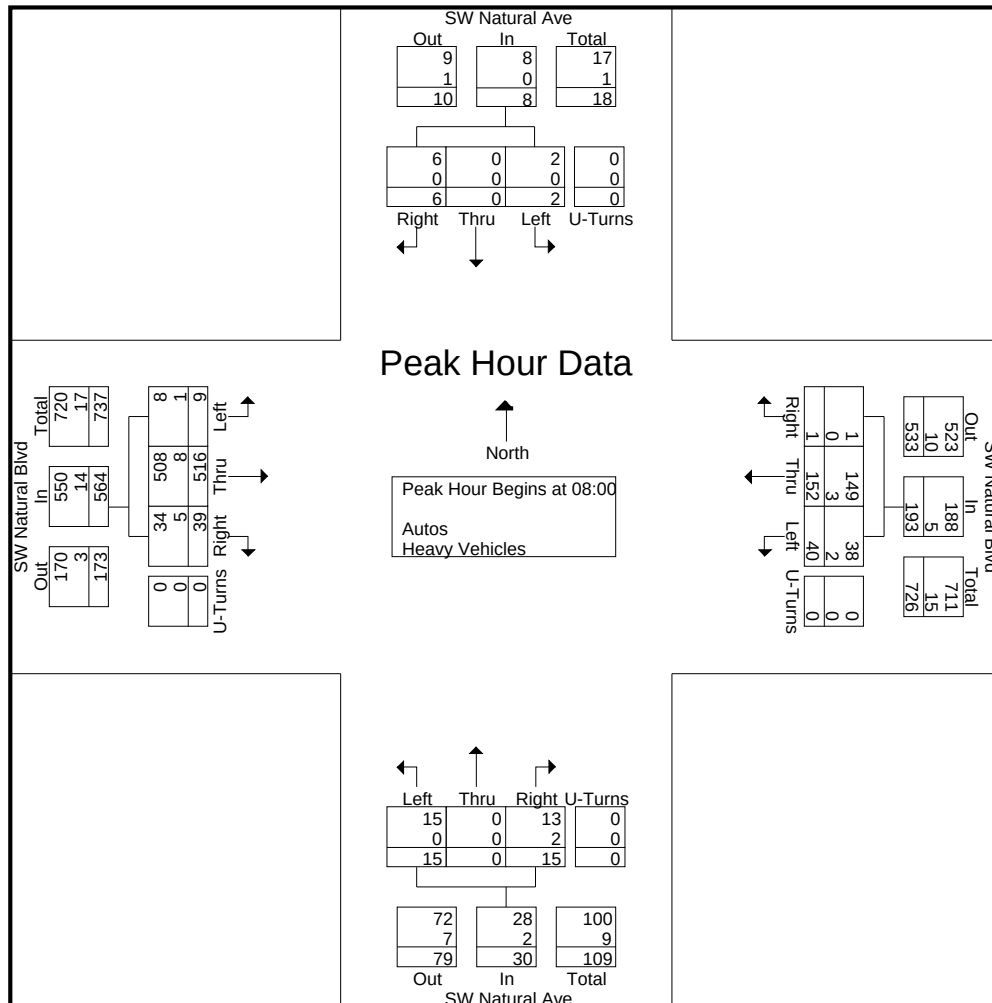
Page No : 2



Traf Tech Engineering Inc.

File Name : 8-Natural Blvd & SW Natural Ave
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 3

	SW Natural Ave From North					SW Natural Blvd From East					SW Natural Ave From South					SW Natural Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	2	0	1	0	3	1	45	9	0	55	2	0	3	0	5	11	85	1	0	97	160
08:15	1	0	0	0	1	0	41	12	0	53	6	0	4	0	10	9	133	0	0	142	206
08:30	1	0	0	0	1	0	35	8	0	43	5	0	3	0	8	12	134	1	0	147	199
08:45	2	0	1	0	3	0	31	11	0	42	2	0	5	0	7	7	164	7	0	178	230
Total Volume	6	0	2	0	8	1	152	40	0	193	15	0	15	0	30	39	516	9	0	564	795
% App. Total	75	0	25	0		0.5	78.8	20.7	0		50	0	50	0		6.9	91.5	1.6	0		
PHF	.750	.000	.500	.000	.667	.250	.844	.833	.000	.877	.625	.000	.750	.000	.750	.813	.787	.321	.000	.792	.864
Autos	6	0	2	0	8	1	149	38	0	188	13	0	15	0	28	34	508	8	0	550	774
% Autos	100	0	100	0	100	100	98.0	95.0	0	97.4	86.7	0	100	0	93.3	87.2	98.4	88.9	0	97.5	97.4
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.0	5.0	0	2.6	13.3	0	0	0	6.7	12.8	1.6	11.1	0	2.5	2.6



Traf Tech Engineering Inc.

File Name : 8-Natural Blvd & SW Natural Ave

Site Code : 00000000

Start Date : 4/7/2021

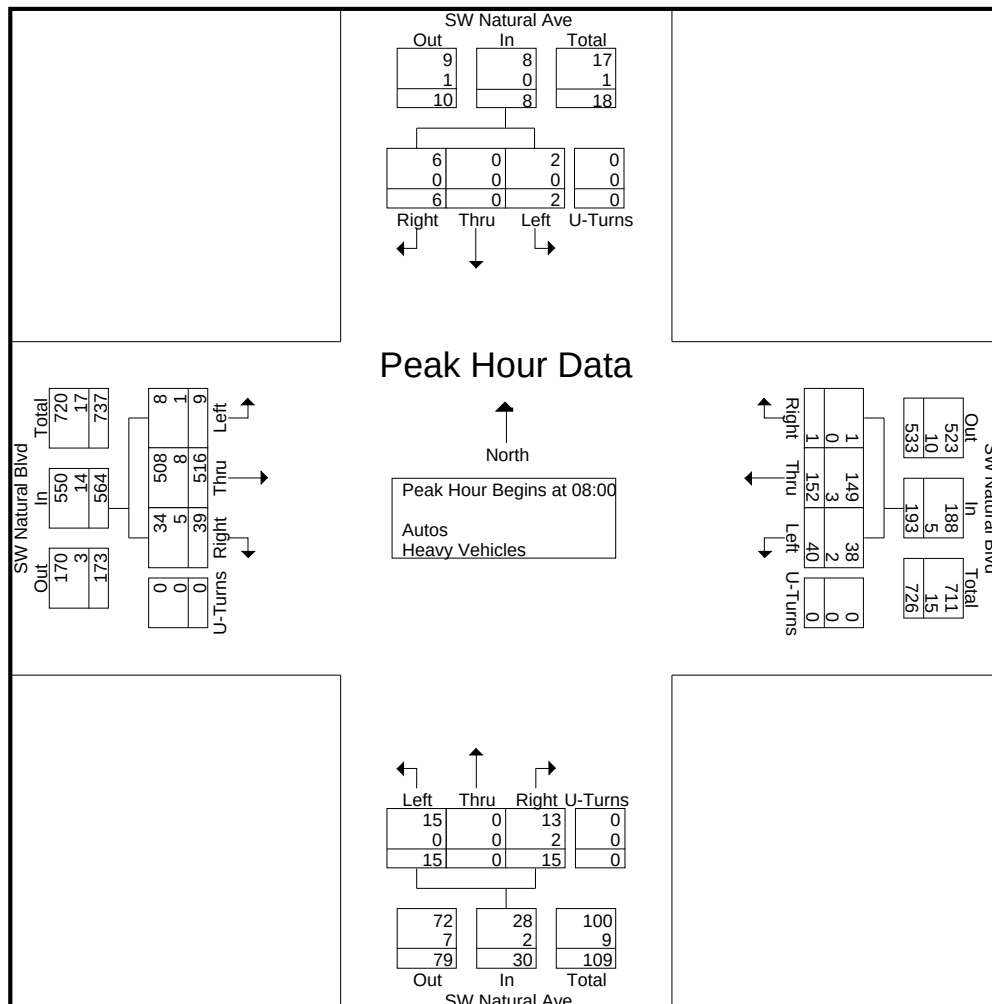
Page No : 4

	SW Natural Ave From North					SW Natural Blvd From East					SW Natural Ave From South					SW Natural Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00

08:00	2	0	1	0	3	1	45	9	0	55	2	0	3	0	5	11	85	1	0	97	160
08:15	1	0	0	0	1	0	41	12	0	53	6	0	4	0	10	9	133	0	0	142	206
08:30	1	0	0	0	1	0	35	8	0	43	5	0	3	0	8	12	134	1	0	147	199
08:45	2	0	1	0	3	0	31	11	0	42	2	0	5	0	7	7	164	7	0	178	230
Total Volume	6	0	2	0	8	1	152	40	0	193	15	0	15	0	30	39	516	9	0	564	795
% App. Total	75	0	25	0		0.5	78.8	20.7	0		50	0	50	0		6.9	91.5	1.6	0		
PHF	.750	.000	.500	.000	.667	.250	.844	.833	.000	.877	.625	.000	.750	.000	.750	.813	.787	.321	.000	.792	.864
Autos	6	0	2	0	8	1	149	38	0	188	13	0	15	0	28	34	508	8	0	550	774
% Autos	100	0	100	0	100	100	98.0	95.0	0	97.4	86.7	0	100	0	93.3	87.2	98.4	88.9	0	97.5	97.4
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.0	5.0	0	2.6	13.3	0	0	0	6.7	12.8	1.6	11.1	0	2.5	2.6



Traf Tech Engineering Inc.

File Name : 8-Natural Blvd & SW Natural Ave

Site Code : 00000000

Start Date : 4/7/2021

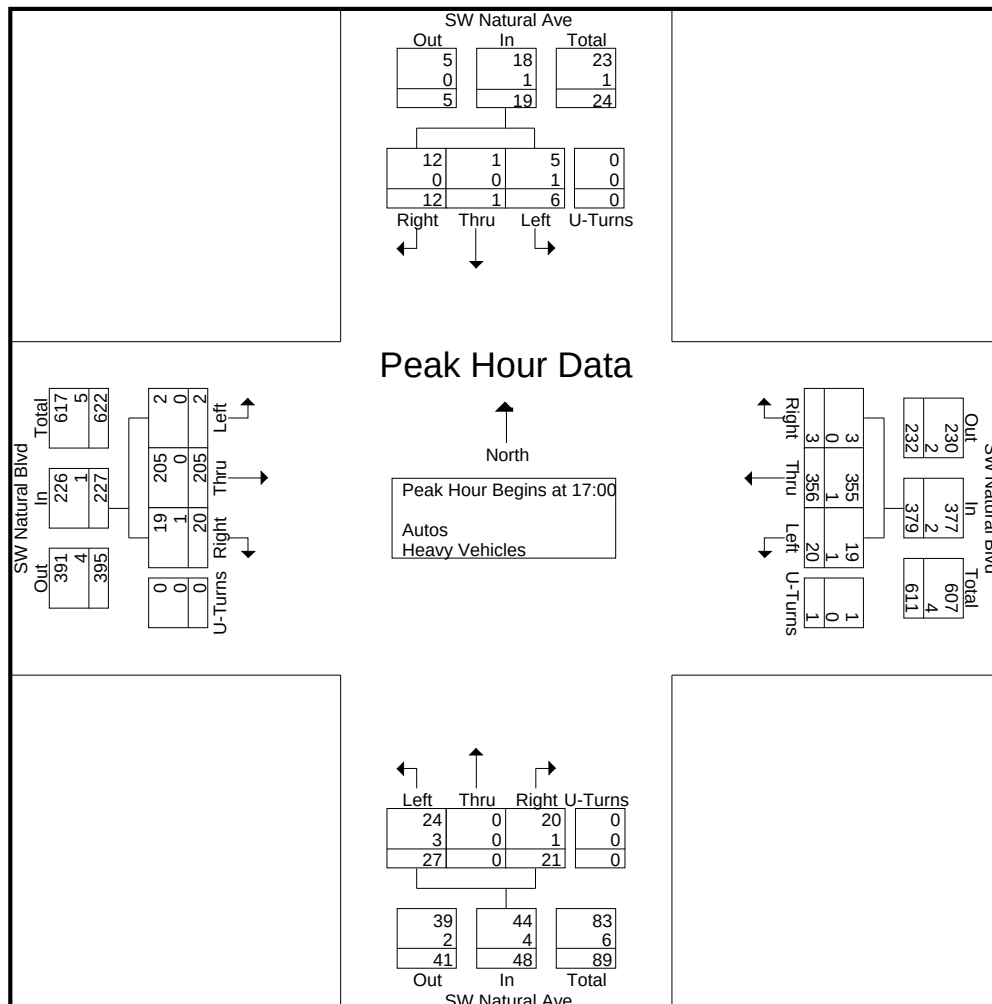
Page No : 5

	SW Natural Ave From North					SW Natural Blvd From East					SW Natural Ave From South					SW Natural Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 17:00

17:00	2	0	1	0	3	1	91	5	1	98	11	0	12	0	23	3	50	0	0	53	177
17:15	7	1	2	0	10	0	88	5	0	93	3	0	4	0	7	7	44	1	0	52	162
17:30	2	0	2	0	4	1	95	5	0	101	4	0	7	0	11	4	48	1	0	53	169
17:45	1	0	1	0	2	1	82	5	0	88	3	0	4	0	7	6	63	0	0	69	166
Total Volume	12	1	6	0	19	3	356	20	1	380	21	0	27	0	48	20	205	2	0	227	674
% App. Total	63.2	5.3	31.6	0		0.8	93.7	5.3	0.3		43.8	0	56.2	0		8.8	90.3	0.9	0		
PHF	.429	.250	.750	.000	.475	.750	.937	1.00	.250	.941	.477	.000	.563	.000	.522	.714	.813	.500	.000	.822	.952
Autos	12	1	5	0	18	3	355	19	1	378	20	0	24	0	44	19	205	2	0	226	666
% Autos	100	100	83.3	0	94.7	100	99.7	95.0	100	99.5	95.2	0	88.9	0	91.7	95.0	100	100	0	99.6	98.8
Heavy Vehicles																					
% Heavy Vehicles	0	0	16.7	0	5.3	0	0.3	5.0	0	0.5	4.8	0	11.1	0	8.3	5.0	0	0	0	0.4	1.2



Traf Tech Engineering Inc.

File Name : 8-Natural Blvd & SW Natural Ave
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Peds & Bikes

	SW Natural Ave From North				SW Natural Blvd From East				SW Natural Ave From South				SW Natural Blvd From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
*** BREAK ***																	
08:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
*** BREAK ***																	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	

Traf Tech Engineering Inc.

File Name : 9-SW 10th St & Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	SW Natural Blvd From North					SW 10th Street From East					SW Natural Blvd From South					SW 10th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	67	19	17	0	103	14	188	15	2	219	24	14	43	1	82	52	192	15	1	260	664
07:15	59	17	23	0	99	21	237	19	11	288	27	23	51	0	101	63	205	22	1	291	779
07:30	95	26	27	0	148	29	293	28	6	356	39	37	53	1	130	52	221	23	1	297	931
07:45	48	12	25	1	86	18	219	23	4	264	19	50	56	0	125	45	250	33	0	328	803
Total	269	74	92	1	436	82	937	85	23	1127	109	124	203	2	438	212	868	93	3	1176	3177
08:00	64	18	30	0	112	19	218	9	4	250	34	45	62	0	141	33	240	35	0	308	811
08:15	58	18	23	1	100	23	241	19	5	288	34	38	48	0	120	28	257	50	1	336	844
08:30	54	13	28	0	95	18	228	19	4	269	25	45	36	0	106	22	295	73	1	391	861
08:45	45	7	31	0	83	22	193	11	8	234	24	72	46	0	142	23	241	49	2	315	774
Total	221	56	112	1	390	82	880	58	21	1041	117	200	192	0	509	106	1033	207	4	1350	3290
*** BREAK ***																					
16:00	38	25	18	0	81	26	253	30	4	313	26	26	36	0	88	39	265	49	1	354	836
16:15	44	21	32	0	97	32	214	25	9	280	21	32	55	2	110	37	274	49	2	362	849
16:30	29	30	21	0	80	26	247	23	5	301	24	29	32	1	86	52	257	48	2	359	826
16:45	43	32	25	0	100	38	194	35	7	274	25	26	44	1	96	47	272	52	0	371	841
Total	154	108	96	0	358	122	908	113	25	1168	96	113	167	4	380	175	1068	198	5	1446	3352
17:00	52	28	29	0	109	36	249	32	4	321	33	34	34	1	102	55	291	51	4	401	933
17:15	42	27	36	0	105	25	252	37	6	320	30	21	30	0	81	72	318	64	2	456	962
17:30	43	30	43	0	116	43	215	43	8	309	30	36	55	1	122	59	272	65	3	399	946
17:45	54	36	28	0	118	47	215	29	8	299	28	39	34	0	101	64	295	57	4	420	938
Total	191	121	136	0	448	151	931	141	26	1249	121	130	153	2	406	250	1176	237	13	1676	3779
Grand Total	835	359	436	2	1632	437	3656	397	95	4585	443	567	715	8	1733	743	4145	735	25	5648	13598
Apprch %	51.2	22	26.7	0.1		9.5	79.7	8.7	2.1		25.6	32.7	41.3	0.5		13.2	73.4	13	0.4		
Total %	6.1	2.6	3.2	0	12	3.2	26.9	2.9	0.7	33.7	3.3	4.2	5.3	0.1	12.7	5.5	30.5	5.4	0.2	41.5	
Autos	826	354	426	2	1608	430	3557									4042					13292
% Autos	98.9	98.6	97.7	100	98.5	98.4	97.3	94.2	98.9	97.2	98	98.9	98.6	100	98.6	98.8	97.5	98	100	97.8	97.7
Heavy Vehicles																					
% Heavy Vehicles	1.1	1.4	2.3	0	1.5	1.6	2.7	5.8	1.1	2.8	2	1.1	1.4	0	1.4	1.2	2.5	2	0	2.2	2.3

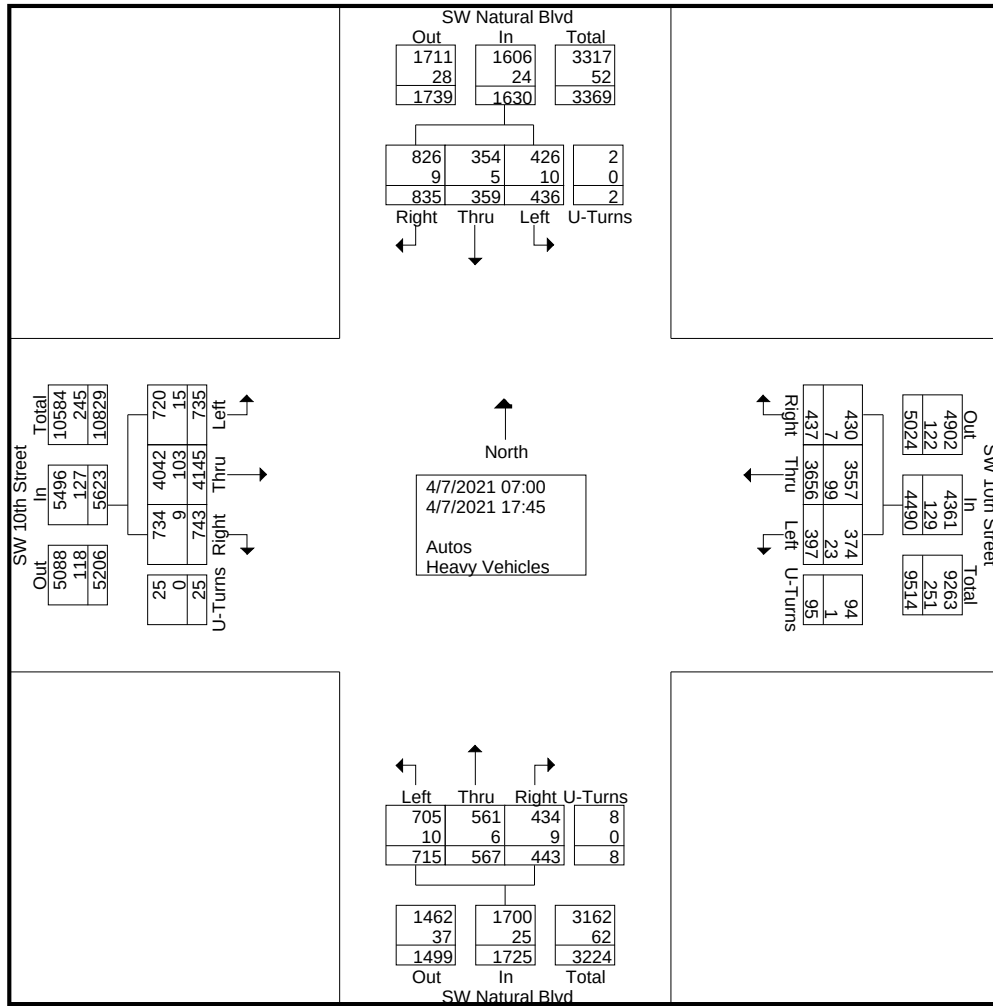
Traf Tech Engineering Inc.

File Name : 9-SW 10th St & Natural Blvd

Site Code : 00000000

Start Date : 4/7/2021

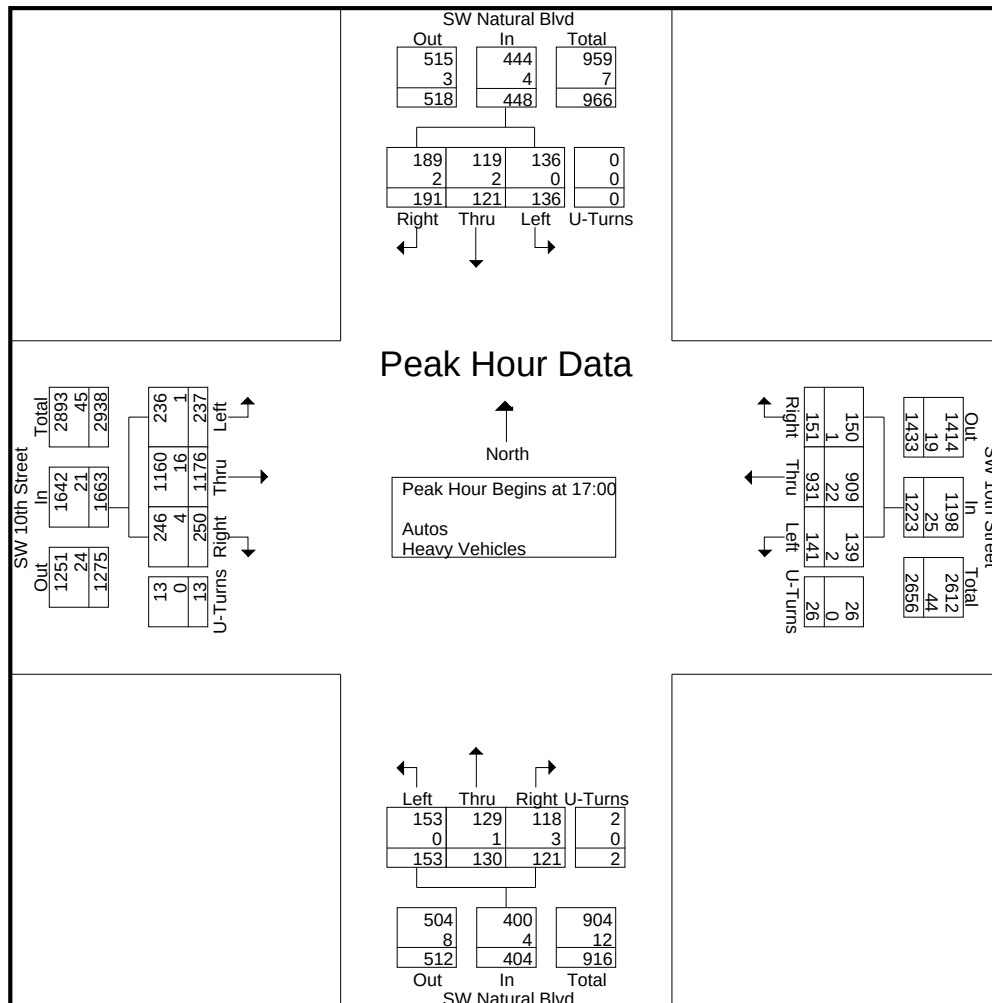
Page No : 2



Traf Tech Engineering Inc.

File Name : 9-SW 10th St & Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 3

	SW Natural Blvd From North					SW 10th Street From East					SW Natural Blvd From South					SW 10th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	52	28	29	0	109	36	249	32	4	321	33	34	34	1	102	55	291	51	4	401	933
17:15	42	27	36	0	105	25	252	37	6	320	30	21	30	0	81	72	318	64	2	456	962
17:30	43	30	43	0	116	43	215	43	8	309	30	36	55	1	122	59	272	65	3	399	946
17:45	54	36	28	0	118	47	215	29	8	299	28	39	34	0	101	64	295	57	4	420	938
Total Volume	191	121	136	0	448	151	931	141	26	1249	121	130	153	2	406	250	1176	237	13	1676	3779
% App. Total	42.6	27	30.4	0		12.1	74.5	11.3	2.1		29.8	32	37.7	0.5		14.9	70.2	14.1	0.8		
PHF	.884	.840	.791	.000	.949	.803	.924	.820	.813	.973	.917	.833	.695	.500	.832	.868	.925	.912	.813	.919	.982
Autos	189	119	136	0	444	150	909	139	26	1224	118	129	153	2	402	246	1160				
% Autos	99.0	98.3	100	0	99.1	99.3	97.6	98.6	100	98.0	97.5	99.2	100	100	99.0	98.4	98.6	99.6	100	98.7	98.6
Heavy Vehicles																					
% Heavy Vehicles	1.0	1.7	0	0	0.9	0.7	2.4	1.4	0	2.0	2.5	0.8	0	0	1.0	1.6	1.4	0.4	0	1.3	1.4



Traf Tech Engineering Inc.

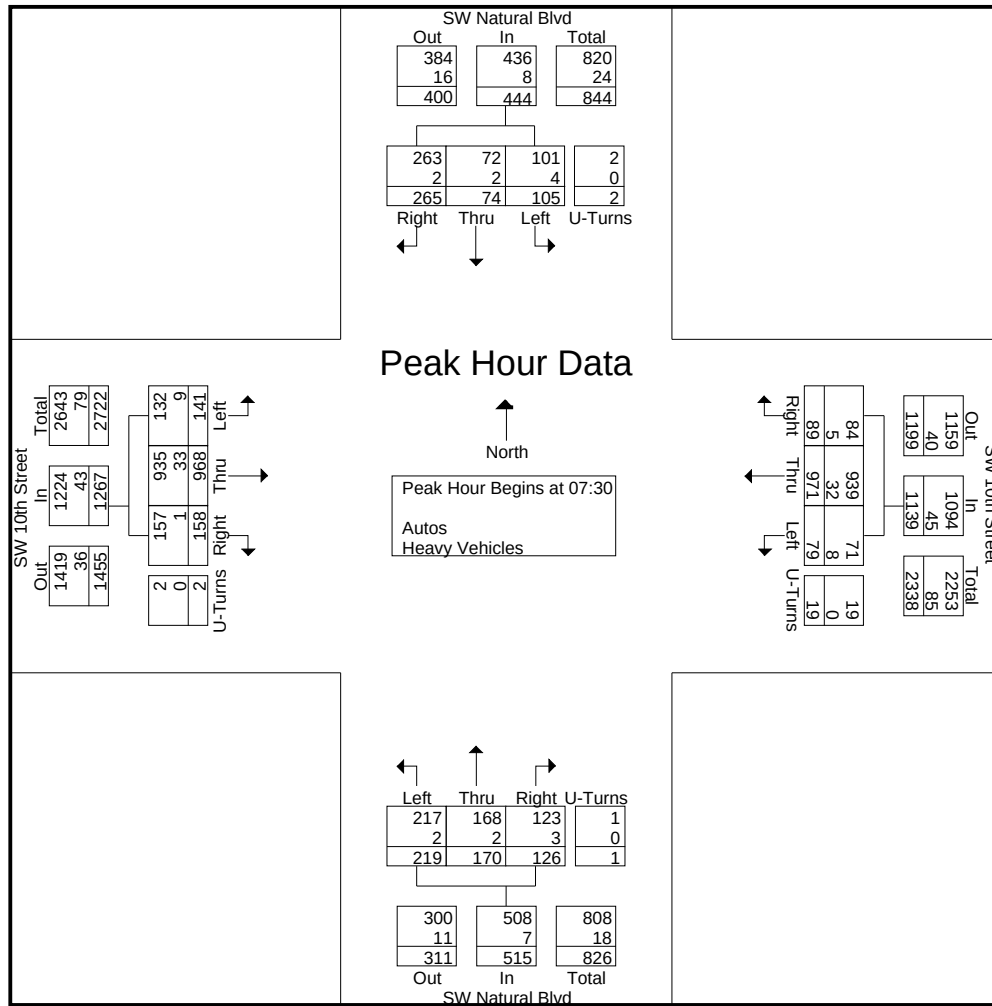
File Name : 9-SW 10th St & Natural Blvd

Site Code : 00000000

Start Date : 4/7/2021

Page No : 4

	SW Natural Blvd From North					SW 10th Street From East					SW Natural Blvd From South					SW 10th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	95	26	27	0	148	29	293	28	6	356	39	37	53	1	130	52	221	23	1	297	931
07:45	48	12	25	1	86	18	219	23	4	264	19	50	56	0	125	45	250	33	0	328	803
08:00	64	18	30	0	112	19	218	9	4	250	34	45	62	0	141	33	240	35	0	308	811
08:15	58	18	23	1	100	23	241	19	5	288	34	38	48	0	120	28	257	50	1	336	844
Total Volume	265	74	105	2	446	89	971	79	19	1158	126	170	219	1	516	158	968	141	2	1269	3389
% App. Total	59.4	16.6	23.5	0.4		7.7	83.9	6.8	1.6		24.4	32.9	42.4	0.2		12.5	76.3	11.1	0.2		
PHF	.697	.712	.875	.500	.753	.767	.828	.705	.792	.813	.808	.850	.883	.250	.915	.760	.942	.705	.500	.944	.910
Autos	263	72	101	2	438	84	939	71	19	1113	123	168	217	1	509	157	935	132	2	1226	3286
% Autos	99.2	97.3	96.2	100	98.2	94.4	96.7	89.9	100	96.1	97.6	98.8	99.1	100	98.6	99.4	96.6	93.6	100	96.6	97.0
Heavy Vehicles																					
% Heavy Vehicles	0.8	2.7	3.8	0	1.8	5.6	3.3	10.1	0	3.9	2.4	1.2	0.9	0	1.4	0.6	3.4	6.4	0	3.4	3.0



Traf Tech Engineering Inc.

File Name : 9-SW 10th St & Natural Blvd

Site Code : 00000000

Start Date : 4/7/2021

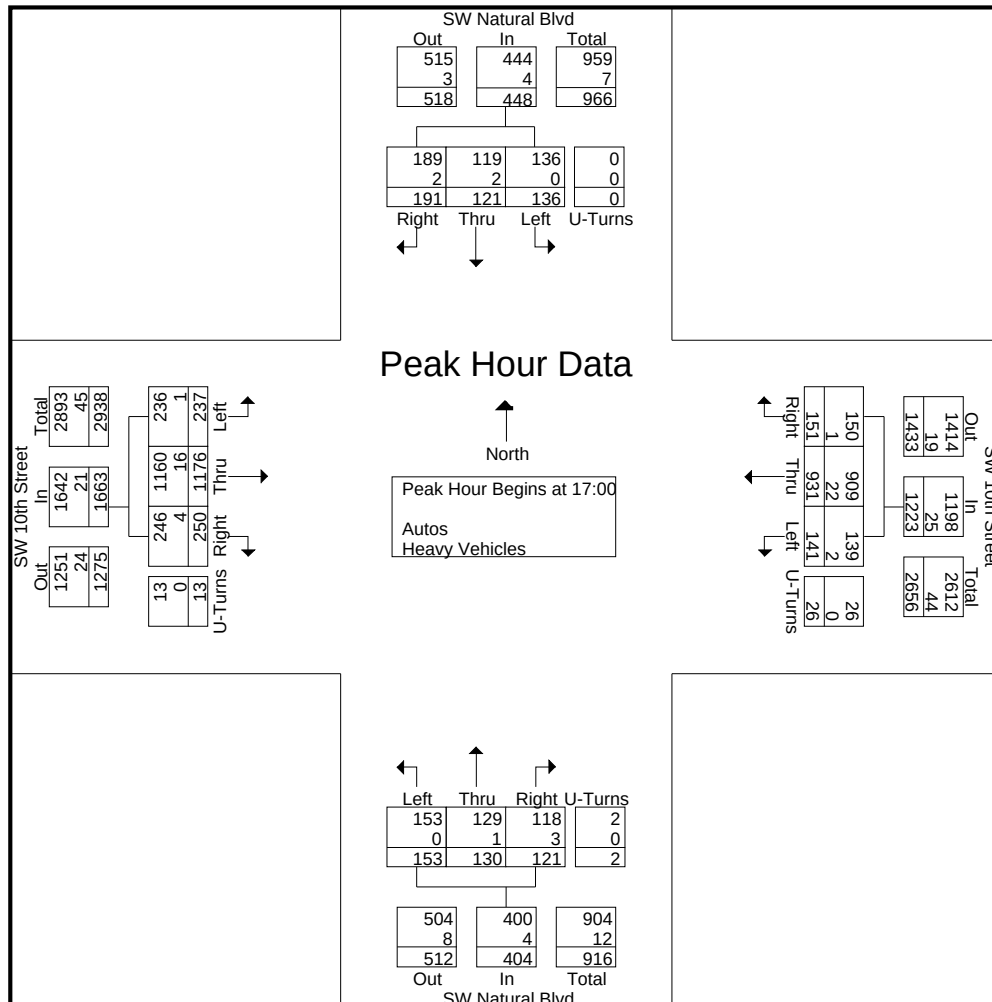
Page No : 5

	SW Natural Blvd From North					SW 10th Street From East					SW Natural Blvd From South					SW 10th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 17:00

17:00	52	28	29	0	109	36	249	32	4	321	33	34	34	1	102	55	291	51	4	401	933
17:15	42	27	36	0	105	25	252	37	6	320	30	21	30	0	81	72	318	64	2	456	962
17:30	43	30	43	0	116	43	215	43	8	309	30	36	55	1	122	59	272	65	3	399	946
17:45	54	36	28	0	118	47	215	29	8	299	28	39	34	0	101	64	295	57	4	420	938
Total Volume	191	121	136	0	448	151	931	141	26	1249	121	130	153	2	406	250	1176	237	13	1676	3779
% App. Total	42.6	27	30.4	0		12.1	74.5	11.3	2.1		29.8	32	37.7	0.5		14.9	70.2	14.1	0.8		
PHF	.884	.840	.791	.000	.949	.803	.924	.820	.813	.973	.917	.833	.695	.500	.832	.868	.925	.912	.813	.919	.982
Autos	189	119	136	0	444	150	909	139	26	1224	118	129	153	2	402	246	1160				
% Autos	99.0	98.3	100	0	99.1	99.3	97.6	98.6	100	98.0	97.5	99.2	100	100	99.0	98.4	98.6	99.6	100	98.7	98.6
Heavy Vehicles																					
% Heavy Vehicles	1.0	1.7	0	0	0.9	0.7	2.4	1.4	0	2.0	2.5	0.8	0	0	1.0	1.6	1.4	0.4	0	1.3	1.4



Traf Tech Engineering Inc.

File Name : 9-SW 10th St & Natural Blvd
 Site Code : 00000000
 Start Date : 4/7/2021
 Page No : 1

Groups Printed- Peds & Bikes

	SW Natural Blvd From North				SW 10th Street From East				SW Natural Blvd From South				SW 10th Street From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
07:15	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	3
07:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	2	0	0	3	1	0	0	0	0	0	0	0	7
*** BREAK ***																	
08:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
Total	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
16:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
16:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	2	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	6
17:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
17:15	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
17:30	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	3
17:45	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	3
Total	0	0	0	1	5	0	0	3	1	0	0	1	0	0	0	0	11
Grand Total	2	0	0	1	11	0	0	7	2	0	0	1	0	0	0	1	25
Apprch %	66.7	0	0	33.3	61.1	0	0	38.9	66.7	0	0	33.3	0	0	0	100	
Total %	8	0	0	4	44	0	0	28	8	0	0	4	0	0	0	4	

Traf Tech Engineering Inc.

Date Start: 14-Apr-21
I-95 NB On Ramp from WB Hillsboro Blvd

Start Time	Mon 12-Apr-21	Tue 13-Apr-21	Wed 14-Apr-21	Thu 15-Apr-21	Fri 16-Apr-21	Average Day	Sat 17-Apr-21	Sun 18-Apr-21	Week Average
12:00 AM	*	*	58	53	*	56	*	*	56
01:00	*	*	28	27	*	28	*	*	28
02:00	*	*	15	17	*	16	*	*	16
03:00	*	*	14	17	*	16	*	*	16
04:00	*	*	38	42	*	40	*	*	40
05:00	*	*	94	101	*	98	*	*	98
06:00	*	*	307	297	*	302	*	*	302
07:00	*	*	683	690	*	686	*	*	686
08:00	*	*	677	690	*	684	*	*	684
09:00	*	*	467	465	*	466	*	*	466
10:00	*	*	420	419	*	420	*	*	420
11:00	*	*	434	453	*	444	*	*	444
12:00 PM	*	*	451	401	*	426	*	*	426
01:00	*	*	427	407	*	417	*	*	417
02:00	*	*	435	443	*	439	*	*	439
03:00	*	*	540	514	*	527	*	*	527
04:00	*	*	519	502	*	510	*	*	510
05:00	*	*	502	514	*	508	*	*	508
06:00	*	*	392	452	*	422	*	*	422
07:00	*	*	287	318	*	302	*	*	302
08:00	*	*	284	241	*	262	*	*	262
09:00	*	*	196	191	*	194	*	*	194
10:00	*	*	185	171	*	178	*	*	178
11:00	*	*	87	120	*	104	*	*	104
Day Total	0	0	7540	7545	0	7545	0	0	7545
% Avg. WkDay	0.0%	0.0%	99.9%	100.0%	0.0%				
% Avg. Week	0.0%	0.0%	99.9%	100.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	-	-	07:00	07:00	-	-	07:00	-	-
Vol.	-	-	683	690	-	-	686	-	-
PM Peak	-	-	15:00	15:00	-	-	15:00	-	-
Vol.	-	-	540	514	-	-	527	-	-
Grand Total	0	0	7540	7545	0	7545	0	0	7545
ADT	ADT 7,462		AADT 7,462						

Traf Tech Engineering Inc.

Date Start: 07-Apr-21
NATURA BLVD., S OF HILLSBORO BLVD.

Start Time	07-Apr-21 Wed	NORTHBOUND	SOUTHBOUND	Combined Total	
12:00 AM		20	54	74	
01:00		12	23	35	
02:00		7	19	26	
03:00		19	12	31	
04:00		26	13	39	
05:00		72	22	94	
06:00		181	59	240	
07:00		500	143	643	
08:00		552	216	768	
09:00		292	158	450	
10:00		248	170	418	
11:00		251	180	431	
12:00 PM		251	234	485	
01:00		267	187	454	
02:00		251	260	511	
03:00		272	242	514	
04:00		263	342	605	
05:00		277	431	708	
06:00		237	309	546	
07:00		186	259	445	
08:00		141	206	347	
09:00		113	145	258	
10:00		160	125	285	
11:00		82	86	168	
Total		4680	3895	8575	
Percent		54.6%	45.4%		

Traf Tech Engineering Inc.

Date Start: 07-Apr-21
NATURA BLVD., S OF HILLSBORO BLVD.

Start Time	08-Apr-21 Thu	NORTHBOUND	SOUTHBOUND	Combined Total	
12:00 AM		27	43	70	
01:00		10	33	43	
02:00		9	19	28	
03:00		10	10	20	
04:00		35	17	52	
05:00		70	15	85	
06:00		172	70	242	
07:00		502	115	617	
08:00		501	207	708	
09:00		296	178	474	
10:00		231	169	400	
11:00		216	178	394	
12:00 PM		273	219	492	
01:00		227	233	460	
02:00		228	238	466	
03:00		287	279	566	
04:00		287	332	619	
05:00		300	423	723	
06:00		228	350	578	
07:00		203	278	481	
08:00		156	213	369	
09:00		98	168	266	
10:00		190	138	328	
11:00		111	90	201	
Total		4667	4015	8682	
Percent		53.8%	46.2%		
Grand Total		9347	7910		
Percentage		54.2%	45.8%		

ADT

ADT 8,730

AADT 8,730

Traf Tech Engineering Inc.

Date Start: 07-Apr-21
SR 810/HILLSBORO BLVD - E OF I-95

Start Time	07-Apr-21 Wed	EASTBOUND	WESTBOUND	Combined Total	
12:00 AM		192	282	474	
01:00		128	155	283	
02:00		76	109	185	
03:00		74	113	187	
04:00		100	133	233	
05:00		286	345	631	
06:00		801	816	1617	
07:00		1426	1763	3189	
08:00		1767	1905	3672	
09:00		1800	1662	3462	
10:00		1562	1577	3139	
11:00		1742	1701	3443	
12:00 PM		1745	1824	3569	
01:00		1690	1698	3388	
02:00		1716	2037	3753	
03:00		1781	2110	3891	
04:00		1803	2262	4065	
05:00		1960	2252	4212	
06:00		1586	1819	3405	
07:00		1363	1524	2887	
08:00		1109	1285	2394	
09:00		911	966	1877	
10:00		711	964	1675	
11:00		602	710	1312	
Total		26931	30012	56943	
Percent		47.3%	52.7%		

Traf Tech Engineering Inc.

Date Start: 07-Apr-21
SR 810/HILLSBORO BLVD - E OF I-95

Start Time	08-Apr-21 Thu	EASTBOUND	WESTBOUND	Combined Total	
12:00 AM		249	262	511	
01:00		133	124	257	
02:00		123	112	235	
03:00		95	110	205	
04:00		122	154	276	
05:00		297	352	649	
06:00		845	805	1650	
07:00		1437	1822	3259	
08:00		1962	1840	3802	
09:00		1882	1567	3449	
10:00		1526	1554	3080	
11:00		1649	1649	3298	
12:00 PM		1739	1825	3564	
01:00		1787	1533	3320	
02:00		1670	1829	3499	
03:00		1710	2275	3985	
04:00		1763	2372	4135	
05:00		1874	2322	4196	
06:00		1624	1784	3408	
07:00		1325	1465	2790	
08:00		1081	1218	2299	
09:00		791	919	1710	
10:00		688	916	1604	
11:00		535	666	1201	
Total		26907	29475	56382	
Percent		47.7%	52.3%		
Grand Total		53838	59487		
Percentage		47.5%	52.5%		

ADT

ADT 26,713

AADT 26,713

Traf Tech Engineering Inc.

Date Start: 07-Apr-21
SW 10 ST DEERFIELD - E OF I-95

Start Time	07-Apr-21 Wed	EASTBOUND	WESTBOUND	Combined Total	
12:00 AM		202	150	352	
01:00		115	84	199	
02:00		73	66	139	
03:00		78	67	145	
04:00		143	128	271	
05:00		246	320	566	
06:00		527	798	1325	
07:00		1062	1464	2526	
08:00		1335	1415	2750	
09:00		912	1078	1990	
10:00		867	1069	1936	
11:00		989	1042	2031	
12:00 PM		1092	1161	2253	
01:00		1021	1413	2434	
02:00		1098	1210	2308	
03:00		1356	1357	2713	
04:00		1296	1425	2721	
05:00		1450	1381	2831	
06:00		1281	1127	2408	
07:00		1206	1023	2229	
08:00		976	856	1832	
09:00		802	637	1439	
10:00		782	388	1170	
11:00		431	266	697	
Total		19340	19925	39265	
Percent		49.3%	50.7%		

Traf Tech Engineering Inc.

Date Start: 07-Apr-21
SW 10 ST DEERFIELD - E OF I-95

Start Time	08-Apr-21 Thu	EASTBOUND	WESTBOUND	Combined Total	
12:00 AM		204	142	346	
01:00		96	80	176	
02:00		78	71	149	
03:00		81	80	161	
04:00		66	151	217	
05:00		159	364	523	
06:00		366	892	1258	
07:00		901	1664	2565	
08:00		1111	1558	2669	
09:00		1041	1136	2177	
10:00		892	1030	1922	
11:00		916	1203	2119	
12:00 PM		1070	1212	2282	
01:00		1053	1281	2334	
02:00		1153	1396	2549	
03:00		1288	1532	2820	
04:00		1421	1535	2956	
05:00		1462	1368	2830	
06:00		1348	1283	2631	
07:00		1065	1055	2120	
08:00		911	974	1885	
09:00		678	691	1369	
10:00		825	467	1292	
11:00		528	253	781	
Total		18713	21418	40131	
Percent		46.6%	53.4%		
Grand Total		38053	41343		
Percentage		47.9%	52.1%		

ADT

ADT 34,350

AADT 34,350

APPENDIX C

Signal Timing, PSCF, Historical Data, and Growth Rate

Station : 1091 - SW 10 St & Natura Blvd/SW 11 Way (Standard File)

Phase	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		18		19		18		19								
Min Green	4	15	4	6	4	15	4	6								
Gap Ext	1.5	3	1.5	2	1.5	3	1.5	2								
Max1	15	45	12	25	12	45	15	25								
Max2																
Yellow Clr	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

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

Preempt LP

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

Broward County

Timing Sheet

4/12/2021 1:51:01 PM

Station : 1091 - SW 10 St & Natura Blvd/SW 11 Way (Standard File)

[illegible]

Station : 1107 - Hillsboro Blvd & Dixie Hwy (Standard File)

Phase	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		23		26		23		28								
Min Green	5	10	4	6	5	10	4	6								
Gap Ext	2	3	2	2.5	2	3	2	2.5								
Max1	15	45	15	40	18	45	15	40								
Max2																
Yellow Clr	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5								
Red Clr	2	2	2	2	2	2	2	2								
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call					ON											
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable																
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Preemption

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

Preempt LP

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

Broward County

Timing Sheet

4/12/2021 1:50:04 PM

Station : 1107 - Hillsboro Blvd & Dixie Hwy (Standard File)

[illegible]

Station : 1109 - Hillsboro Blvd & I-95 SB Ramp (Standard File)

Phase	1	2 (ET)	3 (SL)	4	5	6	7	8 (SR)	9	10	11	12	13	14	15	16
Walk		7														
Ped Clearance		20														
Min Green		12	6					6								
Gap Ext		3	2.5					2.5								
Max1		80	40					40								
Max2																
Yellow Clr	3.5	4.5	4.5	3.5	3.5	3.5	3.5	4.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr		2	2					2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable		ON	ON					ON								
Auto Flash Entry								ON								
Auto Flash Exit		ON														
Non-Actuated 1																
Non-Actuated 2																
Lock Call			ON					ON	ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON														
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON														
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON			ON	ON
Override Higher Preempt	ON	ON			ON	ON
Flash in Dwell	ON	ON			ON	ON
Link to Preempt						
Delay						
Min Duration						
Min Green			6	6		
Min Walk						
Ped Clear						
Track Green						
Min Dwell			15	15		
Max Presence			180	180		
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1			8	2		
Dwell Cyc Veh 2			3			
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

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

Broward County

Timing Sheet

4/12/2021 1:48:54 PM

Station : 1109 - Hillsboro Blvd & I-95 SB Ramp (Standard File)

[illegible]

Station : 1253 - Hillsboro Blvd & SW 12 Ave/Jim Moran Blvd (Standard File)

Phase	1 (EL)	2 (WT)	3 (WR)	4 (NT)	5 (WL)	6 (ET)	7	8	9	10	11	12	13	14	15	16
Walk		7	7	7		7										
Ped Clearance		22	22	27		22										
Min Green	5	12	6	6	5	12										
Gap Ext	1.5	3	2	2	1.5	3										
Max1	20	80	35	20	20	80										
Max2																
Yellow Clr	4.5	4.5	4	4	4.5	4.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit	30															
Dynamic Max Step	10															
Enable	ON	ON	ON	ON	ON	ON										
Auto Flash Entry				ON												
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON				ON				ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	5	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green	20					
Min Dwell	5	8	8	8	8	8
Max Presence		180	180	180	180	180
Track Veh 1	1					
Track Veh 2	6					
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	3	2	3	2	4	1
Dwell Cyc Veh 2	4	6		5		6
Dwell Cyc Veh 3	5					
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

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

Broward County

Timing Sheet

4/12/2021 1:58:33 PM

Station : 1253 - Hillsboro Blvd & SW 12 Ave/Jim Moran Blvd (Standard File)

[illegible]

Station : 1262 - Hillsboro Blvd & Military Trail (Standard File)

Phase	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		30		32		30		29								
Min Green	4	8	4	6	4	8	4	6								
Gap Ext	1.5	3	1.5	2	1.5	3	1.5	2								
Max1	15	50	15	35	25	50	15	35								
Max2																
Yellow Clr	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

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

Preempt LP

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

Broward County

Timing Sheet

4/12/2021 1:46:46 PM

Station : 1262 - Hillsboro Blvd & Military Trail (Standard File)

[illegible]

Station : 1314 - Hillsboro Blvd & Natura Blvd (Standard File)

Phase	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		26		31		26		31								
Min Green	5	10	4	6	5	10	4	6								
Gap Ext	2	3	2	2	1.5	3	1.5	2								
Max1	18	50	18	30	18	50	18	30								
Max2																
Yellow Clr	4.5	4.5	4	4	4.5	4.5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

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

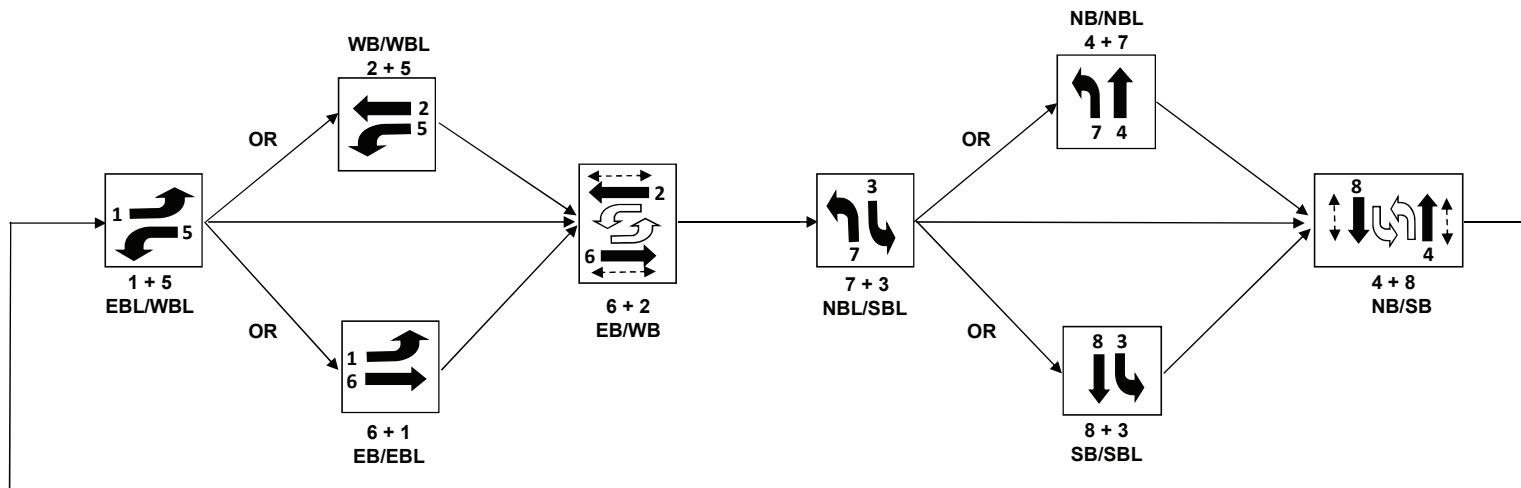
Preempt LP

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

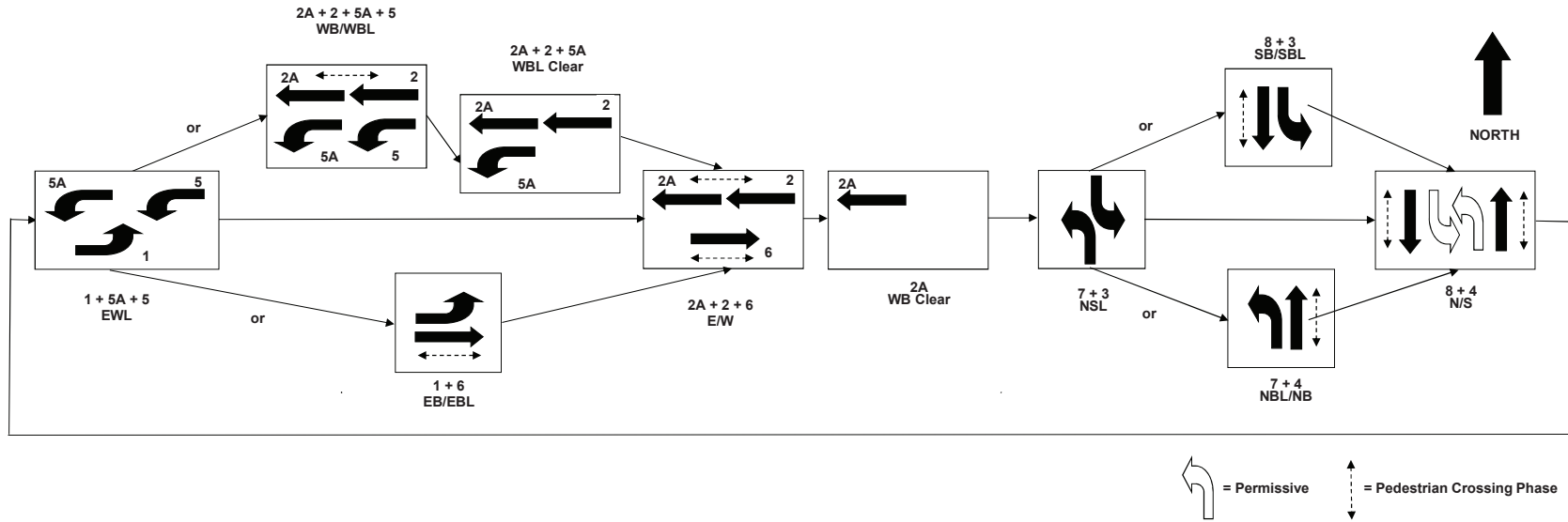
Broward County Timing Sheet 4/12/2021 1:49:28 PM
Station : 1314 - Hillsboro Blvd & Natura Blvd (Standard File)

[illegible]

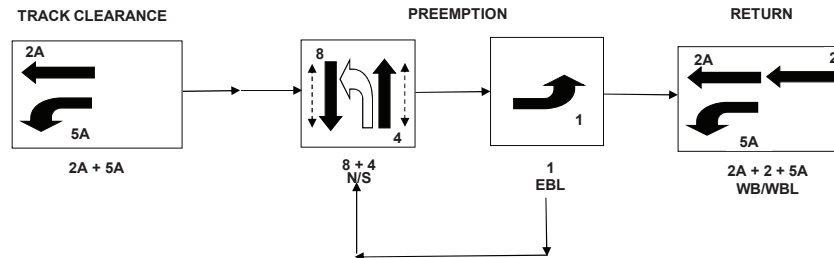
Sequence of Operation for SW 10 Street and Natura Blvd/SW 11 Way (1091) Deerfield Beach



Sequence of Operation Hillsboro Boulevard (SR 810) and Dixie Highway (SR 811) Intersection Number 1107 (Deerfild Beach)

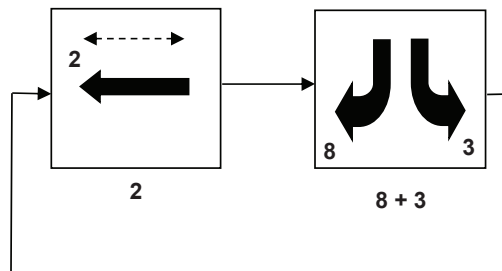


RAILROAD PREEMPTION SEQUENCE:
(A) TRACK CLEAR: 12G, 4.5Y, 2AR (HEADS 2A + 5A, WB/WBL FAR SIDE).
(B) ACTIVE PHASES: N/S DIXIE (PHASES 4 + 8), EBL (PHASE 1)



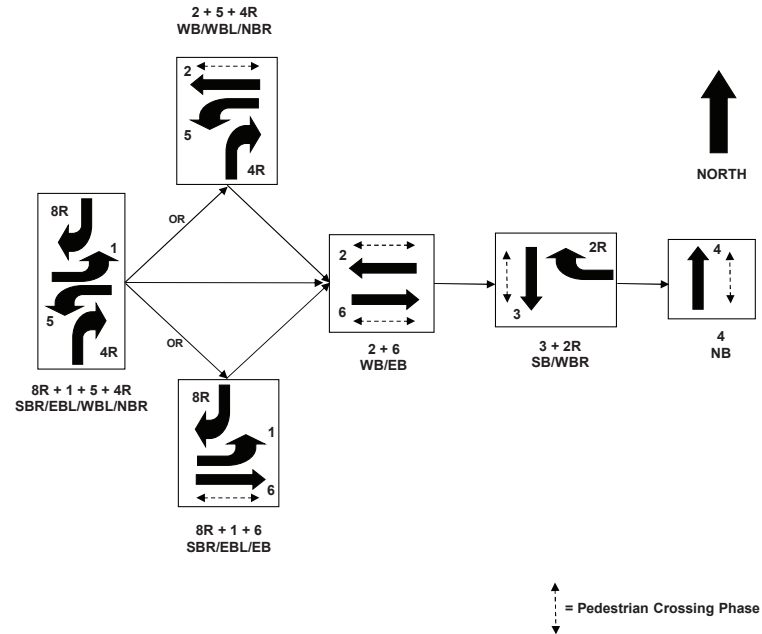
Sequence of Operation

Hillsboro Boulevard (SR 810 and I-95 (SR 9)
Intersection Number 1109 (Deerfield Beach) Mod 12 and Higher



Sequence of Operation

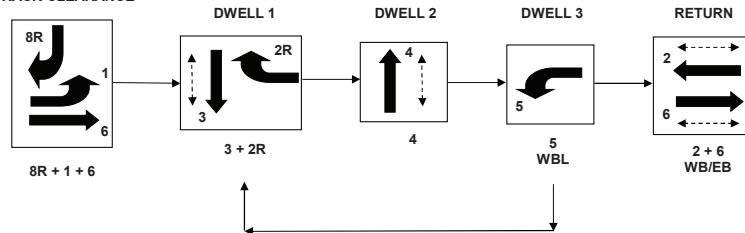
Hillsboro Boulevard (SR 810) and SW 12 Avenue/Moran Avenue
Intersection Number 1253 (Deerfield Beach) Mod 18 and Higher



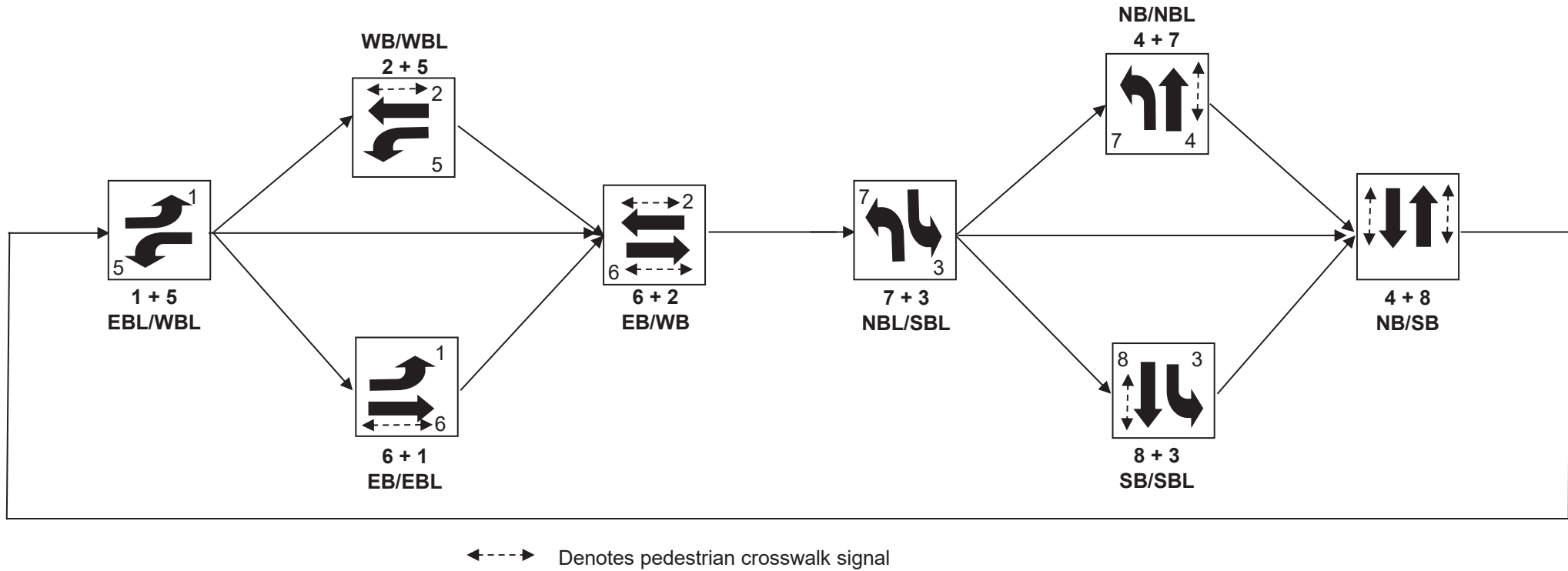
RAILROAD PREEMPTION SEQUENCE:

- (A) TRACK CLEARANCE = 20 SECONDS GREEN EB/EBL (PHASES 1 + 6);
- (B) DWELL 1: SB (PHASE 3);
- (C) DWELL 2: NB (PHASE 4);
- (D) DWELL 3: WBL (PHASE 5);

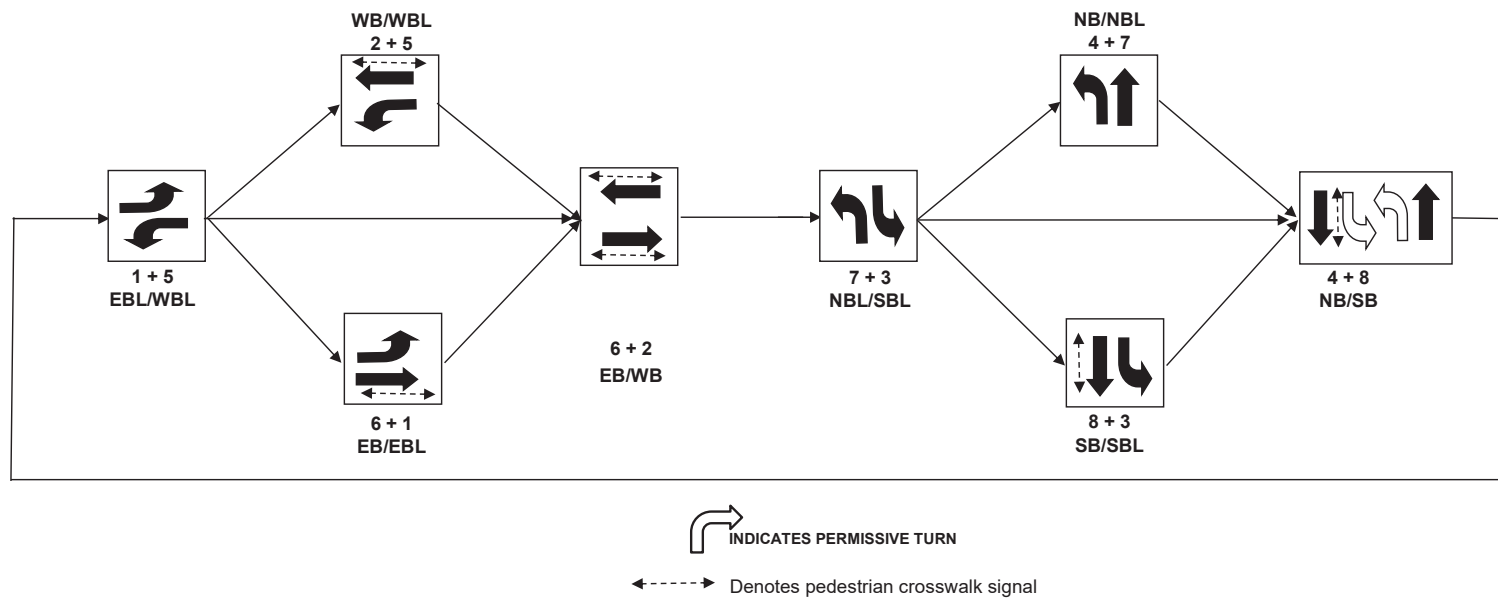
TRACK CLEARANCE



Sequence of Operation for (1262), Hillsboro Blvd (SR 810) and Military Trail/NW 9 Ave
Deerfield Beach



**SEQUENCE of OPERATION for (1314) Hillsboro Blvd (SR810) & Natura Blvd
Deerfield**





BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1091	Initial Operation Date	8/7/90
Controller Type	2070 LN	System Number	1091
Modification Number	8	Modification Date	09/17/2020
Drawing/Project No	DES. GRP. 5	FPL Grid Number	87893144301
Intersection	SW 10 STREET (DEERFIELD) and NATURA BLVD./SW 11 WAY		
Municipality	DEERFIELD BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Initial Green(MIN)	4	15	4	6	4	15	4	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	15	45	12	25	12	45	15	25
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		18		19		18		19
Permissive	5 SECT		5 SECT		5 SECT		5 SECT	
Flash Operation		YELLOW		RED		YELLOW		RED

Attachment

NOTES:

1. ANTI-BACKDOWN EAST/WEST: PHASES 2+6 ON--->OMIT PHASES 1+5.
2. DUAL ENTRY HARDWIRED NORTH/SOUTH.
3. FLASH OPERATION: 0000-0600, 7 DAYS.
4. MOD. 8 UPDATES WALK VALUES ON PHASES 4 & 8 PER CURRENT STANDARDS.

Submitted By _____

Approved By _____



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1107	Initial Operation Date	UNKNOWN
Controller Type	2070 LN	System Number	1107
Modification Number	19	Modification Date	06/06/2018
Drawing/Project No	230656-1-52-01	FPL Grid Number	87994124201
Intersection	HILLSBORO BLVD. (SR 810) and DIXIE HWY. (SR 811)		
Municipality	DEERFIELD BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2,2A	3	4	5,5A	6	7	8
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Initial Green(MIN)	5	10	4	6	5	10	4	6
Vehicle Ext.(GAP)	2.0	3.0	2.0	2.5	2.0	3.0	2.0	2.5
Maximum Green I	15	45	15	40	18	45	15	40
Maximum Green II								
Yellow Clearance	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		23		26		23		28
Permissive	DUAL		YES		NO		YES	
Flash Operation	RED	YELLOW		RED	RED	YELLOW		RED

Attachment **1107-18 SOP.pdf**

NOTES:

1. DOUBLE CLEARANCE WB/WBL (HEADS 2,2A,5,5A):
COMBINATION PROVIDES DOUBLE CLEARANCE WB AND WBL OF 4G, 4.5Y AND 2AR BY
DISPLAYING 2A AFTER 2 AND 5A AFTER 5.
2. RAILROAD PREEMPTION SEQUENCE:
(A) TRACK CLEAR: 12G, 4.5Y, 2AR (HEADS 2A+5A, WB/WBL FARSIDE).
(B) ACTIVE PHASES: N/S DIXIE (PHASES 4+8) THEN EBL (PHASE 1).
(C) RETURN TO EAST/WEST (PHASES 2+6).
3. DUAL ENTRY HARDWIRED NORTH/SOUTH.
4. MOD. 19 UPDATES WALK VALUES ON PHASES 4 & 8 PER CURRENT STANDARDS.

Submitted By _____

Approved By _____



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1109	Initial Operation Date	UNKNOWN
Controller Type	2070	System Number	1109
Modification Number	12	Modification Date	05/08/2020
Drawing/Project No	228259-6-52-01	FPL Grid Number	87794974101
Intersection	HILLSBORO BLVD. (SR 810) and I-95 INTERCHANGE (SR 9)		
Municipality	DEERFIELD BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number		2	3					8R
Direction		WB	SBL					SBR
Initial Green(MIN)		12	6					6
Vehicle Ext.(GAP)		3.0	2.5					2.5
Maximum Green I		60	40					40
Maximum Green II								
Yellow Clearance		4.5	4.5					4.5
All Red Clearance		2.0	2.0					2.0
Phase Recall		MAX	OFF					OFF
Detector Delay			LOCK					LOCK
Walk		7						
Pedestrian Clearance		20						
Permissive								
Flash Operation		YELLOW	RED					RED

Attachment

NOTES:

1. WB QUEUE DETECTION CALL ON--->OMIT PHASE 8 (SB-RIGHT). NOT USED AT THIS TIME.
2. WB DEPARTURE DETECTION: 25 FT ZONE EACH LANE, PARALLEL TO THE WBR TAPER APPROACHING NEXT SIGNAL WITH 15 SECOND DELAY (BEGINS 90 FT FROM CAMERA).
3. DETECTION NOT USED WB (APPROACH), SIGNAL OPERATES SEMI-ACTUATED.
4. MOD. 12 UPDATES NOTES, NO CHANGE IN TIMNG.

Submitted By _____

Approved By _____



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1253	Initial Operation Date	3/21/81
Controller Type	2070 LN (BIU)	System Number	1253
Modification Number	18	Modification Date	05/04/2020
Drawing/Project No	86120-3520	FPL Grid Number	87794863805
Intersection	HILLSBORO BLVD. (SR 810) and SW 12/MORAN AVENUE		
Municipality	DEERFIELD BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1,8R	2	3,8,8R	4,4R,7	5,4R	6		
Direction	EBL	WB	SB	NB	WBL	EB		
Initial Green(MIN)	5	12	6	6	5	12		
Vehicle Ext.(GAP)	1.5	3.0	2.0	2.0	1.5	3.0		
Maximum Green I	20	60	25	20	20	60		
Maximum Green II								
Yellow Clearance	4.5	4.5	4.0	4.0	4.5	4.5		
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0		
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN		
Detector Delay			30-RT	30-RT				
Walk		7	7	7		7		
Pedestrian Clearance		22	22	27		22		
Permissive	NO				DUAL			
Flash Operation	RED	YELLOW	RED	RED	RED	YELLOW		

Attachment

NOTES:

1. WBR (HEAD 2R) HARDWIRED TO PHASE 3 (SB).
2. SBR (HEAD 8R) HARDWIRED TO PHASE 1 (EBL).
3. NBR (HEAD 4R) HARDWIRED TO PHASE 5 (WBL).
4. RAILROAD PREEMPTION:
 - (A) TRACK CLEAR: 20 EB/EBL (PHASES 1+6).
 - (B) DWELL 1: SB (PHASE 3).
 - (C) DWELL 2: NB (PHASE 4).
 - (D) DWELL 3: WBL (PHASE 5).
 - (E) RETURN: E/W (PHASES 2+6).
5. MOD. 18 UPDATES PRE-EMPTION NOTES.

Submitted By _____

Approved By _____



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1262	Initial Operation Date	2/3/81
Controller Type	2070	System Number	1262
Modification Number	11	Modification Date	06/18/2019
Drawing/Project No	78422	FPL Grid Number	87794334101
Intersection	HILLSBORO BLVD. (SR 810) and MILITARY TR./NW 9 AVE.		
Municipality	DEERFIELD BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Initial Green(MIN)	4	8	4	6	4	8	4	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	15	40	15	35	25	40	15	35
Maximum Green II								
Yellow Clearance	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7+A		7+A		7+A		7+A
Pedestrian Clearance		30		32		30		29
Permissive	DUAL		DUAL		DUAL		DUAL	
Flash Operation	RED	RED	RED	RED	RED	RED	RED	RED

Attachment

NOTES:

1. DUAL ENTRY HARDWIRED NORTH/SOUTH.
2. AUDIBLE PEDESTRIAN SIGNALS: E/W BEEP, N/S TONE.
3. MOD. 11 UPDATES ALL PEDESTRIAN CLEARANCE VALUES.

Submitted By _____

Approved By _____



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1314	Initial Operation Date	7/19/83
Controller Type	2070 LN	System Number	1314
Modification Number	15	Modification Date	08/08/2019
Drawing/Project No	DES. GRP. 1	FPL Grid Number	87894524201
Intersection	HILLSBORO BLVD. (SR 810) and NATURA BOULEVARD		
Municipality	DEERFIELD BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Initial Green(MIN)	5	10	4	6	5	10	4	6
Vehicle Ext.(GAP)	2.0	3.0	2.0	2.0	1.5	3.0	1.5	2.0
Maximum Green I	18	50	18	30	18	50	18	30
Maximum Green II								
Yellow Clearance	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		34		23		34		23
Permissive	NO		5-SECT		NO		5-SECT	
Flash Operation	RED	YELLOW		RED	RED	YELLOW		RED

Attachment

NOTES:

1. DUAL ENTRY HARDWIRED NORTH/SOUTH.
2. MOD. 15 UPDATES PEDESTRIAN CLEARANCE AND WALK.

Submitted By _____

Approved By _____

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8601 CEN.-W OF US1 TO SR7

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

* PEAK SEASON

14-FEB-2020 15:39:26

830UPD

4_8601_PKSEASON.TXT

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0008 - SR 810/HILLSBORO BLVD - E OF SR 9/I-95

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2019	60000	C	E 29000		W 31000	9.00	54.60	3.80
2018	54500	F	E 28500		W 26000	9.00	54.50	2.40
2017	54500	C	E 28500		W 26000	9.00	51.90	2.40
2016	52000	C	E 26000		W 26000	9.00	54.10	3.50
2015	51000	C	E 25000		W 26000	9.00	54.00	3.60
2014	51000	C	E 24500		W 26500	9.00	54.20	3.80
2013	55500	C	E 28500		W 27000	9.00	53.60	5.90
2012	55500	C	E 28000		W 27500	9.00	52.20	2.80
2011	53500	C	E 27000		W 26500	9.00	52.50	4.60
2010	47500	C	E 24500		W 23000	8.35	52.69	4.60
2009	52500	C	E 26500		W 26000	8.53	53.89	4.40
2008	49500	C	E 24000		W 25500	8.81	54.16	5.60
2007	50500	C	E 25500		W 25000	8.63	55.75	2.40
2006	59500	C	E 29500		W 30000	8.40	55.34	2.40
2005	59500	C	E 30000		W 29500	8.20	51.70	1.90
2004	58500	C	E 30000		W 28500	9.10	55.30	1.90

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0070 - SW 10 ST DEERFIELD - E OF SR 9/I-95

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2019	34000	C	E 17000		W 17000	9.00	54.60	5.50
2018	44000	C	E 20500		W 23500	9.00	54.50	5.20
2017	36500	C	E 17500		W 19000	9.00	51.90	5.20
2016	35000	C	E 17500		W 17500	9.00	54.10	5.20
2015	28000	C	E 13000		W 15000	9.00	54.90	6.80
2014	25500	C	E 13000		W 12500	9.00	54.50	6.80
2013	26500	C	E 10500		W 16000	9.00	54.60	6.80
2012	26500	C	E 13000		W 13500	9.00	55.00	4.30
2011	27000	C	E 13000		W 14000	9.00	54.50	4.30
2010	28000	C	E 13500		W 14500	9.37	54.06	4.30
2009	28000	C	E 14000		W 14000	9.31	53.74	11.00
2008	32500	C	E 15500		W 17000	9.70	54.48	11.00
2007	29000	C	E 14500		W 14500	9.10	53.47	8.10
2006	29000	C	E 14500		W 14500	9.48	53.59	3.10
2005	27500	C	E 13500		W 14000	10.60	58.90	3.30
2004	27500	C	E 13500		W 14000	10.40	56.30	3.30

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 4081 - I-95 NB ON RAMP FROM SR-869/10TH ST

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----	-----	-----	-----	-----
2019	18500 C	N	18500	0	8.00	99.90	9.40
2018	14000 F		0	0	9.00	99.90	6.20
2017	13500 C	N	13500	0	9.00	99.90	3.80
2016	18500 F		0	0	9.00	99.90	6.10
2015	18000 C	N	18000	0	9.00	99.90	5.90
2014	15500 F				9.00	99.90	6.10
2013	15500 C	N	15500	0	9.00	99.90	6.80
2012	12500 F		0	0	9.00	99.90	5.90
2011	12500 C	N	12500	0	9.00	99.90	5.80
2010	13000 F		0	0	7.47	99.99	5.50
2009	13000 C	N	13000	0	7.63	99.99	5.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 9125 - NATURA BLVD., S OF HILLSBORO BLVD.

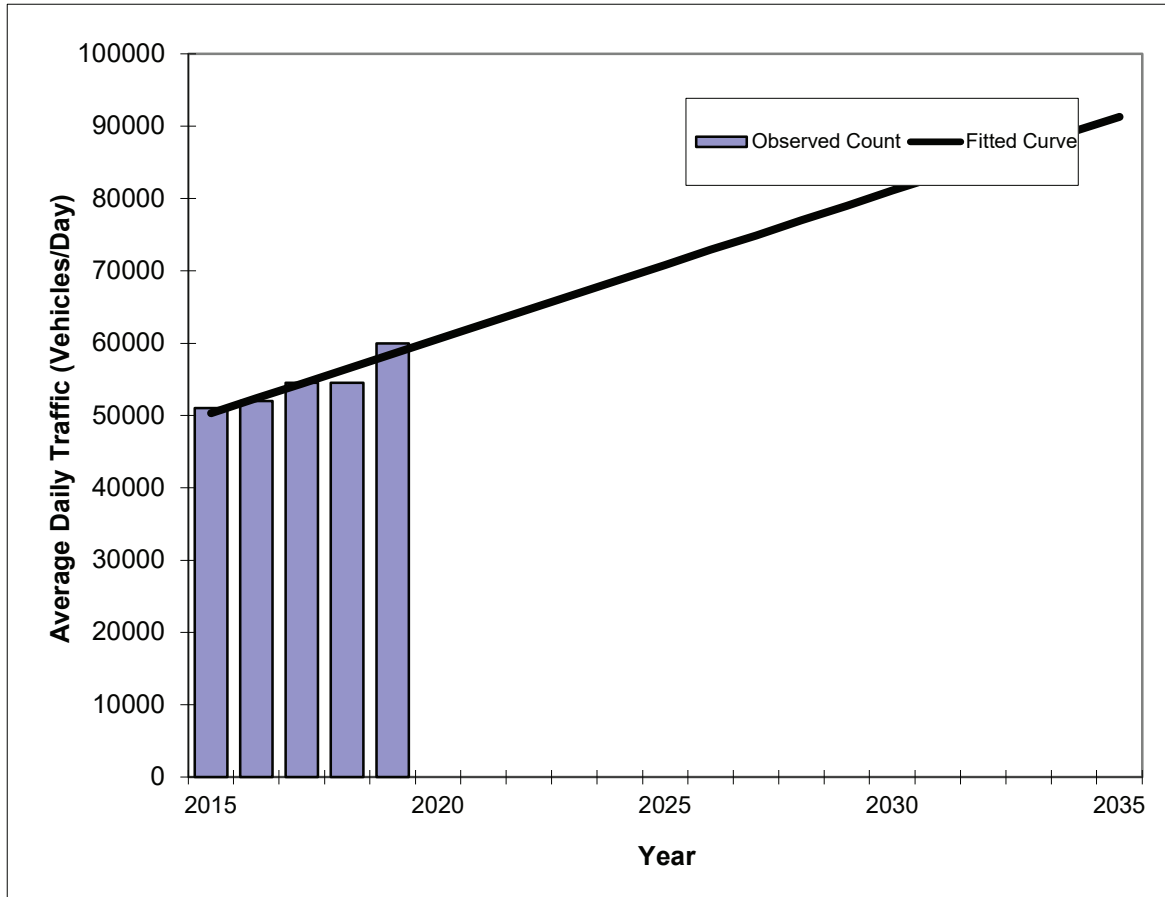
YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2019	10600 T	N	5800	S	4800	9.00	54.60	5.50
2018	10600 S	N	5800	S	4800	9.00	54.50	6.00
2017	10600 F	N	5800	S	4800	9.00	51.90	6.20
2016	10600 C	N	5800	S	4800	9.00	54.10	2.90
2015	7400 V		0		0	9.00	54.00	3.40
2014	7300 R					9.00	54.20	7.40
2013	7200 T		0		0	9.00	53.60	7.60
2012	7200 S		0		0	9.00	52.20	5.90
2011	7200 F		0		0	9.00	52.50	6.30
2010	7200 C	N	3900	S	3300	8.35	52.69	9.30
2009	6600 F	N	3400	S	3200	8.53	53.89	5.30
2008	6800 C	N	3500	S	3300	8.81	54.16	6.50
2007	8700 C	N	4200	S	4500	8.63	55.75	4.80
2006	9200 C	N	5000	S	4200	8.40	55.34	2.90
2005	8000 C	N	4200	S	3800	8.20	51.70	0.00

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

Traffic Trends - V03.a **SR 810/HILLSBORO BLVD -- E OF SR 9/I-95**

FIN#	1234
Location	1

County:	Broward (86)
Station #:	860008
Highway:	SR 810/HILLSBORO BLVD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	51000	50300
2016	52000	52400
2017	54500	54400
2018	54500	56500
2019	60000	58500
2021 Opening Year Trend		
2021	N/A	62600
2022 Mid-Year Trend		
2022	N/A	64700
2024 Design Year Trend		
2024	N/A	68800
TRANPLAN Forecasts/Trends		

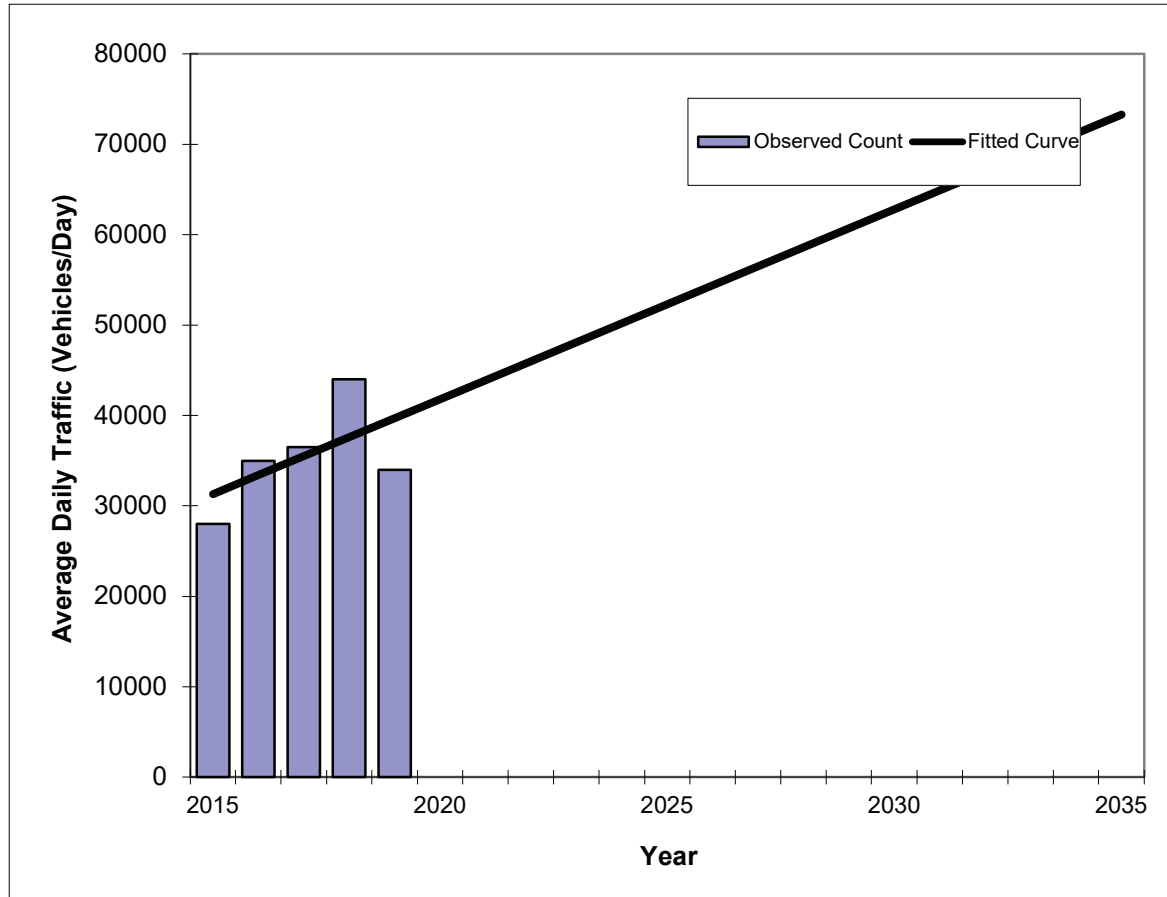
** Annual Trend Increase:	2,050
Trend R-squared:	86.29%
Trend Annual Historic Growth Rate:	4.08%
Trend Growth Rate (2019 to Design Year):	3.52%
Printed:	23-Apr-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends - V03.a **SW 10 ST DEERFIELD -- E OF SR 9/I-95**

FIN#	1234
Location	2

County:	Broward (86)
Station #:	860070
Highway:	SW 10 ST DEERFIELD



Traffic (ADT/AADT)		
Year	Count*	Trend**
2015	28000	31300
2016	35000	33400
2017	36500	35500
2018	44000	37600
2019	34000	39700
2021 Opening Year Trend		
2021	N/A	43900
2022 Mid-Year Trend		
2022	N/A	46000
2024 Design Year Trend		
2024	N/A	50200
TRANPLAN Forecasts/Trends		

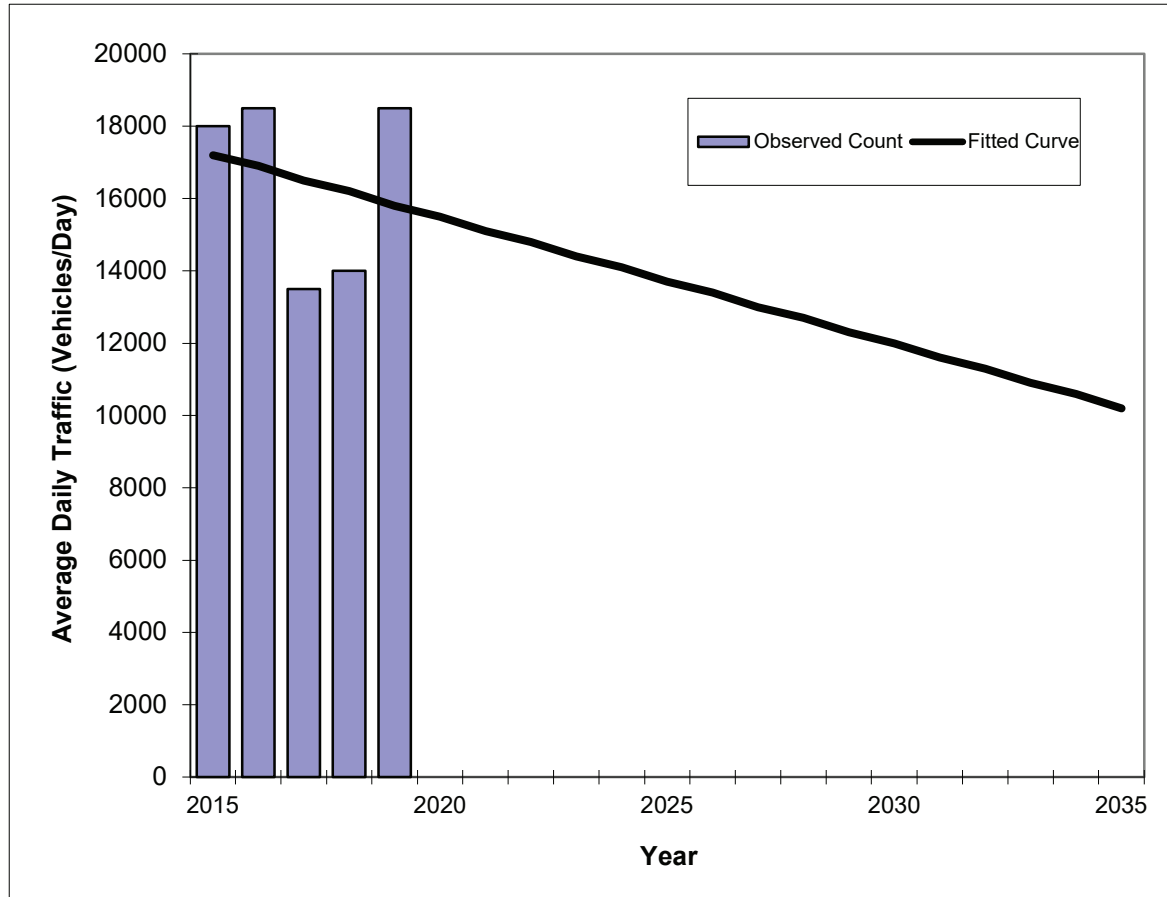
** Annual Trend Increase:	2,100
Trend R-squared:	33.41%
Trend Annual Historic Growth Rate:	6.71%
Trend Growth Rate (2019 to Design Year):	5.29%
Printed:	23-Apr-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends - V03.a **I-95 NB ON RAMP -- FROM SR-869/10TH ST**

FIN#	1234
Location	3

County:	Broward (86)
Station #:	864081
Highway:	I-95 NB ON RAMP



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	18000	17200
2016	18500	16900
2017	13500	16500
2018	14000	16200
2019	18500	15800
2021 Opening Year Trend		
2021	N/A	15100
2022 Mid-Year Trend		
2022	N/A	14800
2024 Design Year Trend		
2024	N/A	14100
TRANPLAN Forecasts/Trends		

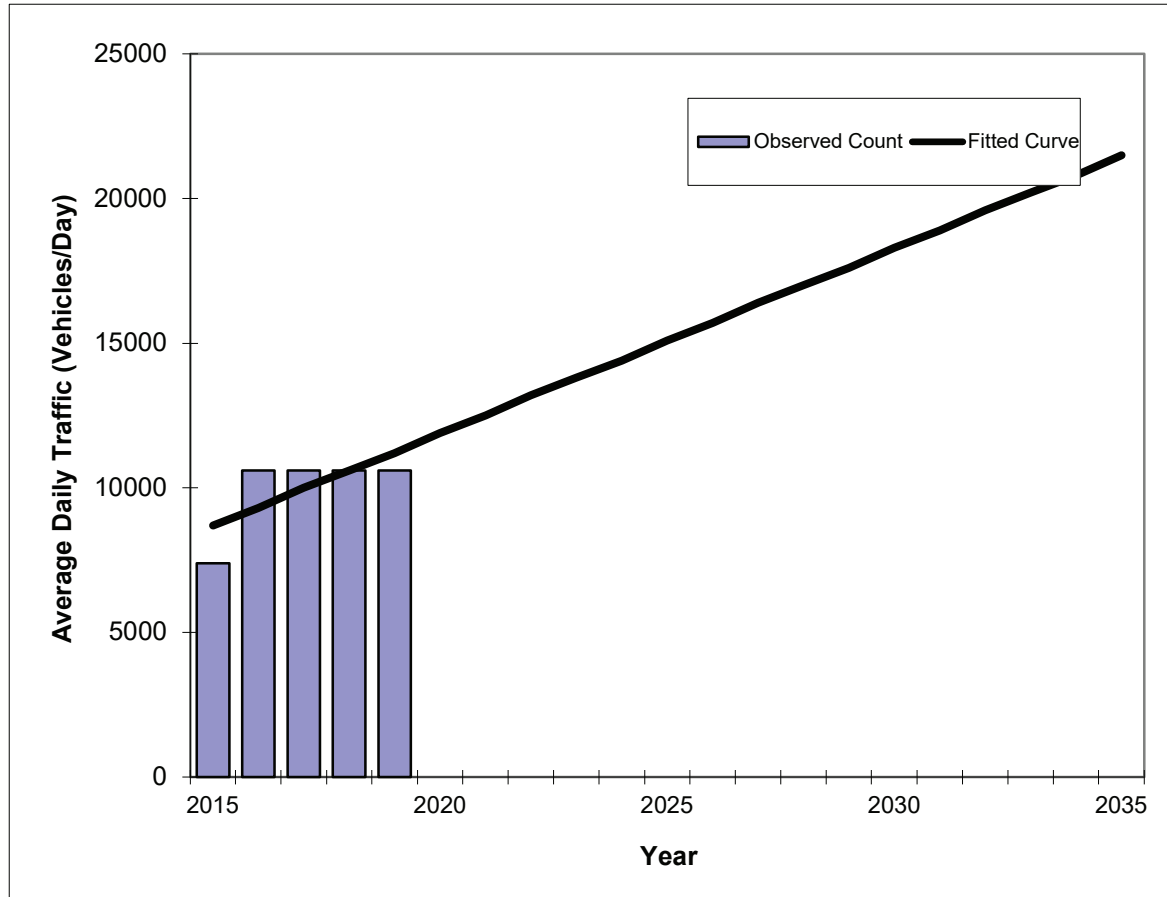
** Annual Trend Increase:	-350
Trend R-squared:	4.80%
Trend Annual Historic Growth Rate:	-2.03%
Trend Growth Rate (2019 to Design Year):	-2.15%
Printed:	23-Apr-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends - V03.a **NATURA BLVD -- S OF HILLSBORO BLVD**

FIN#	1234
Location	4

County:	Broward (86)
Station #:	869125
Highway:	NATURA BLVD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	7400	8700
2016	10600	9300
2017	10600	10000
2018	10600	10600
2019	10600	11200
2021 Opening Year Trend		
2021	N/A	12500
2022 Mid-Year Trend		
2022	N/A	13200
2024 Design Year Trend		
2024	N/A	14400
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	640
Trend R-squared:	50.00%
Trend Annual Historic Growth Rate:	7.18%
Trend Growth Rate (2019 to Design Year):	5.71%
Printed:	23-Apr-21
Straight Line Growth Option	

*Axle-Adjusted

Growth Rate Trend Analysis Calculations

Description	Station #			
	0008	0070	4081	9125
Trend Growth Rate(1)	4.64	1.27	0.21	0.00
Adjusted Growth Rate (2)	4.64	1.27	0.50	0.50
Average Growth Rate	1.73			
Growth Rate Used	1.73			

Notes:

1: Refer to Trend Analysis Chart

2: If the resulting growth rate is negative, a 0.5 growth rate was used

APPENDIX D

Covid -19 Factors

COUNTY: 86
STATION: 0008
DESCRIPTION: SR 810/HILLSBORO BLVD - E OF SR 9/I-95
START DATE: 01/15/2019
START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	176	83	66	71	396	121	82	67	49	319	715	
0100	54	53	67	66	240	39	36	33	44	152	392	
0200	53	44	38	35	170	43	37	22	25	127	297	
0300	49	37	28	35	149	49	24	18	34	125	274	
0400	36	30	35	42	143	43	35	46	58	182	325	
0500	48	54	108	125	335	70	72	101	115	358	693	
0600	141	210	250	323	924	136	165	274	276	851	1775	
0700	353	455	513	504	1825	312	430	477	560	1779	3604	
0800	475	583	550	568	2176	476	551	479	494	2000	4176	
0900	414	416	401	414	1645	417	486	394	418	1715	3360	
1000	361	382	383	411	1537	353	380	375	421	1529	3066	
1100	433	380	463	491	1767	386	395	456	462	1699	3466	
1200	471	460	471	438	1840	508	517	401	471	1897	3737	
1300	451	439	455	406	1751	452	538	482	469	1941	3692	
1400	407	407	433	358	1605	490	478	533	525	2026	3631	
1500	414	417	479	459	1769	595	557	634	513	2299	4068	
1600	468	413	417	413	1711	583	533	611	645	2372	4083	
1700	497	516	455	449	1917	623	594	580	483	2280	4197	
1800	448	459	429	443	1779	581	501	384	421	1887	3666	
1900	375	393	351	372	1491	354	335	353	242	1284	2775	
2000	310	285	271	229	1095	287	249	250	251	1037	2132	
2100	228	219	244	198	889	206	302	259	220	987	1876	
2200	229	197	194	168	788	293	264	247	213	1017	1805	
2300	181	160	148	116	605	269	218	202	173	862	1467	
24-HOUR TOTALS:					28547						30725	59272

PEAK VOLUME INFORMATION						
DIRECTION: E			DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	2176	745	2066	745	4178
P.M.	1700	1917	1630	2473	1645	4323
DAILY	800	2176	1630	2473	1645	4323

TRUCK PERCENTAGE		4.24	3.47		3.84	

CLASSIFICATION SUMMARY DATABASE																	
DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	122	23014	4200	178	741	92	5	111	78	2	3	1	0	0	0	1211	28547
W	68	25459	4131	141	627	62	21	123	89	2	1	0	1	0	0	1067	30725

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0008 - SR 810/HILLSBORO BLVD - E OF SR 9/I-95

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2019	60000	C	E 29000		W 31000	9.00	54.60	3.80
2018	54500	F	E 28500		W 26000	9.00	54.50	2.40
2017	54500	C	E 28500		W 26000	9.00	51.90	2.40
2016	52000	C	E 26000		W 26000	9.00	54.10	3.50
2015	51000	C	E 25000		W 26000	9.00	54.00	3.60
2014	51000	C	E 24500		W 26500	9.00	54.20	3.80
2013	55500	C	E 28500		W 27000	9.00	53.60	5.90
2012	55500	C	E 28000		W 27500	9.00	52.20	2.80
2011	53500	C	E 27000		W 26500	9.00	52.50	4.60
2010	47500	C	E 24500		W 23000	8.35	52.69	4.60
2009	52500	C	E 26500		W 26000	8.53	53.89	4.40
2008	49500	C	E 24000		W 25500	8.81	54.16	5.60
2007	50500	C	E 25500		W 25000	8.63	55.75	2.40
2006	59500	C	E 29500		W 30000	8.40	55.34	2.40
2005	59500	C	E 30000		W 29500	8.20	51.70	1.90
2004	58500	C	E 30000		W 28500	9.10	55.30	1.90

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

COUNTY: 86
STATION: 0070
DESCRIPTION: SW 10 ST DEERFIELD - E OF SR 9/I-95
START DATE: 04/23/2019
START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL	
0000	59	50	39	28	176	31	46	26	24	127	303	
0100	26	26	20	20	92	25	20	22	19	86	178	
0200	21	15	17	11	64	18	19	13	10	60	124	
0300	13	9	11	14	47	9	10	13	21	53	100	
0400	10	14	25	29	78	5	26	29	41	101	179	
0500	36	41	60	51	188	40	64	87	82	273	461	
0600	93	81	128	188	490	114	156	204	229	703	1193	
0700	232	293	311	321	1157	294	304	339	326	1263	2420	
0800	301	289	264	291	1145	319	314	311	258	1202	2347	
0900	259	222	226	229	936	239	213	224	237	913	1849	
1000	214	237	208	219	878	209	207	212	221	849	1727	
1100	229	254	230	245	958	213	216	254	204	887	1845	
1200	240	270	234	245	989	237	262	291	299	1089	2078	
1300	245	242	249	245	981	262	255	268	246	1031	2012	
1400	219	230	233	280	962	268	287	265	308	1128	2090	
1500	275	291	328	320	1214	299	298	321	285	1203	2417	
1600	313	302	325	342	1282	330	309	301	276	1216	2498	
1700	299	333	385	372	1389	290	332	292	314	1228	2617	
1800	383	321	287	282	1273	320	281	251	249	1101	2374	
1900	233	225	234	211	903	262	207	201	212	882	1785	
2000	229	196	174	190	789	196	189	209	164	758	1547	
2100	148	136	140	127	551	145	144	157	108	554	1105	
2200	138	117	122	75	452	107	114	87	87	395	847	
2300	60	68	59	52	239	75	86	54	50	265	504	
24-HOUR TOTALS:					17233						17367	34600

PEAK VOLUME INFORMATION					
DIRECTION: E			DIRECTION: W		COMBINED DIRECTIONS
A.M.	HOUR	VOLUME	HOUR	VOLUME	HOUR VOLUME
P.M.	715	1226	730	1298	730 2520
DAILY	1715	1473	1715	1258	1715 2731
	1715	1473	730	1298	1715 2731
TRUCK PERCENTAGE	5.16		5.83		5.50

CLASSIFICATION SUMMARY DATABASE																
DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK TOTVOL
E	77	13841	2334	106	421	141	43	85	50	39	0	0	5	0	91	890 17233
W	177	13663	2334	148	478	115	45	77	80	51	1	0	17	0	181	1012 17367

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0070 - SW 10 ST DEERFIELD - E OF SR 9/I-95

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2019	34000	C	E 17000		W 17000	9.00	54.60	5.50
2018	44000	C	E 20500		W 23500	9.00	54.50	5.20
2017	36500	C	E 17500		W 19000	9.00	51.90	5.20
2016	35000	C	E 17500		W 17500	9.00	54.10	5.20
2015	28000	C	E 13000		W 15000	9.00	54.90	6.80
2014	25500	C	E 13000		W 12500	9.00	54.50	6.80
2013	26500	C	E 10500		W 16000	9.00	54.60	6.80
2012	26500	C	E 13000		W 13500	9.00	55.00	4.30
2011	27000	C	E 13000		W 14000	9.00	54.50	4.30
2010	28000	C	E 13500		W 14500	9.37	54.06	4.30
2009	28000	C	E 14000		W 14000	9.31	53.74	11.00
2008	32500	C	E 15500		W 17000	9.70	54.48	11.00
2007	29000	C	E 14500		W 14500	9.10	53.47	8.10
2006	29000	C	E 14500		W 14500	9.48	53.59	3.10
2005	27500	C	E 13500		W 14000	10.60	58.90	3.30
2004	27500	C	E 13500		W 14000	10.40	56.30	3.30

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*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

COUNTY: 86
STATION: 4081
DESCRIPTION: I-95 NB ON RAMP FROM SR-869/10TH ST
START DATE: 01/08/2019
START TIME: 0000

	DIRECTION: N				
TIME	1ST	2ND	3RD	4TH	TOTAL
0000	38	26	47	41	152
0100	27	21	13	30	91
0200	17	30	31	9	87
0300	8	35	29	11	83
0400	27	31	38	44	140
0500	46	57	93	119	315
0600	183	192	292	341	1008
0700	375	454	473	534	1836
0800	410	445	428	430	1713
0900	403	332	324	362	1421
1000	278	297	326	310	1211
1100	311	283	305	273	1172
1200	272	240	247	222	981
1300	292	264	294	293	1143
1400	212	260	295	281	1048
1500	272	305	308	291	1176
1600	270	331	275	319	1195
1700	297	254	296	292	1139
1800	266	244	221	254	985
1900	224	206	198	157	785
2000	165	123	112	133	533
2100	112	95	109	124	440
2200	67	90	92	58	307
2300	67	44	65	52	228

24-HOUR TOTALS: 19189

PEAK VOLUME INFORMATION

	HOUR	VOLUME
A.M.	715	1871
P.M.	1615	1222
DAILY	715	1871

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 4081 - I-95 NB ON RAMP FROM SR-869/10TH ST

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----	-----	-----	-----	-----
2019	18500 C	N	18500	0	8.00	99.90	9.40
2018	14000 F		0	0	9.00	99.90	6.20
2017	13500 C	N	13500	0	9.00	99.90	3.80
2016	18500 F		0	0	9.00	99.90	6.10
2015	18000 C	N	18000	0	9.00	99.90	5.90
2014	15500 F				9.00	99.90	6.10
2013	15500 C	N	15500	0	9.00	99.90	6.80
2012	12500 F		0	0	9.00	99.90	5.90
2011	12500 C	N	12500	0	9.00	99.90	5.80
2010	13000 F		0	0	7.47	99.99	5.50
2009	13000 C	N	13000	0	7.63	99.99	5.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 9125 - NATURA BLVD., S OF HILLSBORO BLVD.

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2019	10600 T	N	5800	S	4800	9.00	54.60	5.50
2018	10600 S	N	5800	S	4800	9.00	54.50	6.00
2017	10600 F	N	5800	S	4800	9.00	51.90	6.20
2016	10600 C	N	5800	S	4800	9.00	54.10	2.90
2015	7400 V		0		0	9.00	54.00	3.40
2014	7300 R					9.00	54.20	7.40
2013	7200 T		0		0	9.00	53.60	7.60
2012	7200 S		0		0	9.00	52.20	5.90
2011	7200 F		0		0	9.00	52.50	6.30
2010	7200 C	N	3900	S	3300	8.35	52.69	9.30
2009	6600 F	N	3400	S	3200	8.53	53.89	5.30
2008	6800 C	N	3500	S	3300	8.81	54.16	6.50
2007	8700 C	N	4200	S	4500	8.63	55.75	4.80
2006	9200 C	N	5000	S	4200	8.40	55.34	2.90
2005	8000 C	N	4200	S	3800	8.20	51.70	0.00

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

TABLE D
Covid-19 Adjustment Factor

Roadway	Location	Daily Volume		2021 Covid-19	Adjustment Factor
		2019 (1) Pre Covid-19	2021 (2) Pre Covid-19		
SR 810/HILLSBORO BLVD	E OF SR 9/I-95	60,000	62,094	56,663	1.10
SW 10 ST DEERFIELD	E OF SR 9/I-95	34,000	35,187	39,698	0.89
I-95 NB ON RAMP	FROM SR-869/10TH ST	18,500	19,146	7,543	2.54
NATURA BLVD	S OF HILLSBORO BLVD	10,600	10,970	8,629	1.27
Totals		60,000	127,397	112,532	1.13

Source: FDOT Transportations Statistics Office & Traffic Counts

TABLE D-1
Covid-19 Adjustment Factor

Roadway	Location	AM Peak Hour Volumes		2021 Covid-19	Adjustment Factor
		2019 (1) Pre Covid-19	2021 (2) Pre Covid-19		
SR 810/HILLSBORO BLVD	E OF SR 9/I-95	4,178	4,324	3,737	1.16
SW 10 ST DEERFIELD	E OF SR 9/I-95	2,520	2,608	2,710	0.96
I-95 NB ON RAMP	FROM SR-869/10TH ST	1,871	1,936	687	2.82
NATURA BLVD	S OF HILLSBORO BLVD		0	738	0.00
Totals		4,178	8,868	7,871	1.13

Source: FDOT Transportations Statistics Office & Traffic Counts

TABLE D-2
Covid-19 Adjustment Factor

Roadway	Location	PM Peak Hour Volumes		2021 Covid-19	Adjustment Factor
		2019 (1) Pre Covid-19	2021 (2) Pre Covid-19		
SR 810/HILLSBORO BLVD	E OF SR 9/I-95	4,323	4,474	4,204	1.06
SW 10 ST DEERFIELD	E OF SR 9/I-95	2,731	2,826	2,898	0.98
I-95 NB ON RAMP	FROM SR-869/10TH ST	1,222	1,265	527	2.40
NATURA BLVD	S OF HILLSBORO BLVD		0	716	0.00
Totals		4,323	8,565	8,345	1.03

Source: FDOT Transportations Statistics Office & Traffic Counts

Growth Rate: 1.73

APPENDIX E

Future Turning Movement Volumes

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Military Trail AM Peak Hour

Description	Military Trail Northbound			Military Trail Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	193	563	104	374	440	91	218	1,582	169	109	712	218
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	220	643	119	427	502	104	249	1,806	193	124	813	249
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	232	676	125	449	529	109	262	1,901	203	131	856	262
Mayla Deerfield			1	2				10		2	18	5
2024 Total Traffic	232	676	126	451	529	109	262	1,911	203	133	874	267

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Military Trail PM Peak Hour

Description	Military Trail Northbound			Military Trail Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	285	644	99	294	550	298	243	1,096	160	140	1,462	266
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	296	670	103	306	572	310	253	1,140	166	146	1,521	277
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	312	705	108	322	602	326	266	1,200	175	153	1,601	291
Mayla Deerfield			1	2			18			1	15	4
2024 Total Traffic	312	705	109	324	602	326	266	1,218	175	154	1,616	295

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Jim Moran Blvd AM Peak Hour

Description	Jim Moran Blvd Northbound			Jim Moran Blvd Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	144	54	344	31	10	24	105	1,976	162	282	1,187	161
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	164	62	393	35	11	27	120	2,255	185	322	1,355	184
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	173	65	413	37	12	29	126	2,374	195	339	1,426	193
Mayla Deerfield							13			25		
2024 Total Traffic	173	65	413	37	12	29	126	2,387	195	339	1,451	193

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Jim Moran Blvd PM Peak Hour

Description	Jim Moran Blvd Northbound			Jim Moran Blvd Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	239	6	367	178	27	135	34	1,589	128	225	1,782	23
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	249	6	382	185	28	140	35	1,653	133	234	1,854	24
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	262	7	402	195	30	148	37	1,740	140	246	1,952	25
Mayla Deerfield							25			20		
2024 Total Traffic	262	7	402	195	30	148	37	1,765	140	246	1,972	25

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and I-95 SB Ramp AM Peak Hour

Description	I-95 SB Ramp Northbound			I-95 SB Ramp Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)				391		438		1,563	755		977	
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	0	0	0	446	0	500	0	1,784	862	0	1,115	0
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	0	0	0	470	0	526	0	1,878	907	0	1,174	0
Mayla Deerfield				7				13				
2024 Total Traffic	0	0	0	477	0	526	0	1,891	907	0	1,174	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and I-95 SB Ramp PM Peak Hour

Description	I-95 SB Ramp Northbound			I-95 SB Ramp Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)				482		459		1,439	580		1,531	
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	0	0	0	501	0	477	0	1,497	603	0	1,593	0
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	0	0	0	528	0	503	0	1,576	635	0	1,677	0
Mayla Deerfield				14				25				
2024 Total Traffic	0	0	0	542	0	503	0	1,601	635	0	1,677	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and I-95 NB Ramp AM Peak Hour

Description	I-95 NB Ramp Northbound			I-95 NB Ramp Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)			397					1,319			1,162	
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	0	0	453	0	0	0	0	1,505	0	0	1,326	0
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	0	0	477	0	0	0	0	1,585	0	0	1,396	0
Mayla Deerfield			7					20			37	
2024 Total Traffic	0	0	484	0	0	0	0	1,605	0	0	1,433	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and I-95 NB Ramp PM Peak Hour

Description	I-95 NB Ramp Northbound			I-95 NB Ramp Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)			469					1,469			1,776	
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	0	0	488	0	0	0	0	1,528	0	0	1,848	0
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	0	0	514	0	0	0	0	1,609	0	0	1,945	0
Mayla Deerfield			14					39			31	
2024 Total Traffic	0	0	528	0	0	0	0	1,648	0	0	1,976	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Driveway AM Peak Hour

Description	Driveway Northbound			Driveway Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)			11					1,667	25		1,980	
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	0	0	13	0	0	0	0	1,903	29	0	2,260	0
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	0	0	13	0	0	0	0	2,003	30	0	2,379	0
Mayla Deerfield			62						27		50	
2024 Total Traffic	0	0	75	0	0	0	0	2,003	57	0	2,429	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Driveway PM Peak Hour

Description	Driveway Northbound			Driveway Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)			21					1,895	22		2,319	
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	0	0	22	0	0	0	0	1,971	23	0	2,412	0
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	0	0	23	0	0	0	0	2,075	24	0	2,540	0
Mayla Deerfield			51						53		42	
2024 Total Traffic	0	0	74	0	0	0	0	2,075	77	0	2,582	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Natura Boulevard AM Peak Hour

Description	Natura Boulevard Northbound			Natura Boulevard Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	313	94	104	58	15	110	329	1,275	115	64	1,422	120
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	357	107	119	66	17	126	375	1,455	131	73	1,623	137
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	376	113	125	70	18	132	395	1,532	138	77	1,709	144
Mayla Deerfield	15		3				35	27		16		
2024 Total Traffic	391	113	128	70	18	132	430	1,559	138	93	1,709	144

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Natura Boulevard PM Peak Hour

Description	Natura Boulevard Northbound			Natura Boulevard Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	166	15	94	113	34	331	147	1,528	226	124	1,758	54
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	173	16	98	118	35	344	153	1,590	235	129	1,829	56
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	182	16	103	124	37	363	161	1,674	248	136	1,925	59
Mayla Deerfield	13		2				29	22		30		
2024 Total Traffic	195	16	105	124	37	363	190	1,696	248	166	1,925	59

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Dixie Highway AM Peak Hour

Description	Dixie Hwy Northbound			Dixie Hwy Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	180	546	81	27	196	346	337	733	123	18	822	74
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	205	623	92	31	224	395	385	837	140	21	938	84
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	216	656	97	32	236	416	405	881	148	22	988	89
Mayla Deerfield	1					5	9	18	3		10	
2024 Total Traffic	217	656	97	32	236	421	414	899	151	22	998	89

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Hillsboro Boulevard and Dixie Highway PM Peak Hour

Description	Dixie Hwy Northbound			Dixie Hwy Southbound			Hillsboro Blvd Eastbound			Hillsboro Blvd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	136	302	91	70	474	467	285	968	190	57	1,093	117
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	141	314	95	73	493	486	296	1,007	198	59	1,137	122
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	149	331	100	77	519	511	312	1,060	208	62	1,197	128
Mayla Deerfield	3					9	7	15	2		18	
2024 Total Traffic	152	331	100	77	519	520	319	1,075	210	62	1,215	128

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Natura Avenue and Natura Boulevard AM Peak Hour

Description	Natura Avenue Northbound			Natura Avenue Southbound			Natura Boulevard Eastbound			Natura Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	15		15	2		6	9	516	39	40	152	1
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	17	0	17	2	0	7	10	589	45	46	173	1
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	18	0	18	2	0	7	11	620	47	48	183	1
Mayla Deerfield				10		3	3	2			10	3
2024 Total Traffic	18	0	18	12	0	10	14	622	47	48	193	4

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Natura Avenue and Natura Boulevard PM Peak Hour

Description	Natura Avenue Northbound			Natura Avenue Southbound			Natura Boulevard Eastbound			Natura Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	27		21	6	1	12	2	205	20	21	356	3
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	28	0	22	6	1	12	2	213	21	22	370	3
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	30	0	23	7	1	13	2	225	22	23	390	3
Mayla Deerfield				7		2	4	4			8	8
2024 Total Traffic	30	0	23	14	1	15	6	229	22	23	398	11

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 10 Street and Natura Boulevard AM Peak Hour

Description	Natura Boulevard Northbound			Natura Boulevard Southbound			SW 10 Street Eastbound			SW 10 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	220	70	126	107	74	265	143	968	158	98	971	89
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
2021 Peak Season Traffic	251	80	144	122	84	302	163	1,105	180	112	1,108	102
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	264	84	151	129	89	318	172	1,163	190	118	1,167	107
Mayla Deerfield		1		2	3	5	3					1
2024 Total Traffic	264	85	151	131	92	323	175	1,163	190	118	1,167	108

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 10 Street and Natura Boulevard PM Peak Hour

Description	Natura Boulevard Northbound			Natura Boulevard Southbound			SW 10 Street Eastbound			SW 10 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (4/7/2021)	155	130	121	136	121	191	237	1,176	263	167	931	151
Season Adjustment Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Covid-19 Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2021 Peak Season Traffic	161	135	126	141	126	199	247	1,223	274	174	969	157
Annual Growth Rate	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
2024 Background Traffic	170	142	133	149	133	209	260	1,288	288	183	1,020	165
Mayla Deerfield		2		1	2	4	5					1
2024 Total Traffic	170	144	133	150	135	213	265	1,288	288	183	1,020	166

APPENDIX F

SYNCHRO Analyses

Timings

101: Military Trail & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	 	  	 	  		 	  	 	  
Traffic Volume (vph)	249	1806	124	813	249	220	643	427	502
Future Volume (vph)	249	1806	124	813	249	220	643	427	502
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	1	6	5	2		7	4	3	8
Permitted Phases					2				
Detector Phase	1	6	5	2	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	4.0	8.0	4.0	8.0	8.0	4.0	6.0	4.0	8.0
Minimum Split (s)	20.0	43.5	10.5	43.5	43.5	10.5	38.0	10.5	38.0
Total Split (s)	20.0	73.0	20.0	73.0	73.0	29.0	38.0	29.0	38.0
Total Split (%)	12.5%	45.6%	12.5%	45.6%	45.6%	18.1%	23.8%	18.1%	23.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	13.9	73.6	9.8	69.5	69.5	14.3	28.7	21.9	36.3
Actuated g/C Ratio	0.09	0.46	0.06	0.43	0.43	0.09	0.18	0.14	0.23
v/c Ratio	0.85	0.88	0.60	0.38	0.32	0.73	0.86	0.93	0.54
Control Delay	96.7	45.1	71.2	51.4	28.7	84.9	72.1	94.7	54.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	45.1	71.2	51.4	28.7	84.9	72.1	94.7	54.1
LOS	F	D	E	D	C	F	E	F	D
Approach Delay		50.8		48.7			75.0		70.9
Approach LOS		D		D			E		E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 100 (63%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 58.5

Intersection LOS: E

Intersection Capacity Utilization 92.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 101: Military Trail & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
20 s	73 s	29 s	38 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
20 s	73 s	29 s	38 s

Queues

101: Military Trail & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	254	2040	127	830	254	224	777	436	618
v/c Ratio	0.85	0.88	0.60	0.38	0.32	0.73	0.86	0.93	0.54
Control Delay	96.7	45.1	71.2	51.4	28.7	84.9	72.1	94.7	54.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	45.1	71.2	51.4	28.7	84.9	72.1	94.7	54.1
Queue Length 50th (ft)	136	711	69	262	97	119	283	235	200
Queue Length 95th (ft)	#218	#869	105	343	216	163	332	#332	249
Internal Link Dist (ft)		751		2620			541		790
Turn Bay Length (ft)	260		160		130	300		310	
Base Capacity (vph)	303	2314	289	2208	800	482	992	482	1140
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	0.84	0.88	0.44	0.38	0.32	0.46	0.78	0.90	0.54

Intersection Summary

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

HCM 6th Signalized Intersection Summary 101: Military Trail & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1806	193	124	813	249	220	643	119	427	502	104
Future Volume (veh/h)	249	1806	193	124	813	249	220	643	119	427	502	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	1843	197	127	830	254	224	656	121	436	512	106
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	2233	237	170	2253	699	268	757	138	475	997	202
Arrive On Green	0.08	0.48	0.48	0.02	0.15	0.15	0.08	0.17	0.17	0.14	0.23	0.23
Sat Flow, veh/h	3456	4687	498	3456	5106	1585	3456	4339	790	3456	4255	861
Grp Volume(v), veh/h	254	1336	704	127	830	254	224	513	264	436	407	211
Grp Sat Flow(s),veh/h/ln	1728	1702	1781	1728	1702	1585	1728	1702	1725	1728	1702	1713
Q Serve(g_s), s	11.6	54.1	54.8	5.9	23.5	23.1	10.2	23.4	23.9	19.9	16.6	17.2
Cycle Q Clear(g_c), s	11.6	54.1	54.8	5.9	23.5	23.1	10.2	23.4	23.9	19.9	16.6	17.2
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.46	1.00		0.50
Lane Grp Cap(c), veh/h	292	1622	848	170	2253	699	268	594	301	475	797	401
V/C Ratio(X)	0.87	0.82	0.83	0.75	0.37	0.36	0.84	0.86	0.88	0.92	0.51	0.53
Avail Cap(c_a), veh/h	292	1622	848	292	2253	699	486	670	340	486	797	401
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.4	36.1	36.3	77.7	48.2	48.1	72.8	64.2	64.4	68.1	53.3	53.5
Incr Delay (d2), s/veh	22.8	4.9	9.2	2.1	0.4	1.3	2.6	9.4	19.0	21.7	0.2	0.6
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	6.0	22.8	25.1	2.7	10.8	10.1	4.6	10.8	12.0	10.2	7.1	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	41.0	45.5	79.8	48.6	49.3	75.4	73.6	83.3	89.9	53.5	54.1
LnGrp LOS	F	D	D	E	D	D	E	E	F	F	D	D
Approach Vol, veh/h	2294			1211			1001			1054		
Approach Delay, s/veh	48.4			52.0			76.6			68.7		
Approach LOS	D			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	77.1	28.5	34.4	14.4	82.7	18.9	44.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	13.5	66.5	22.5	31.5	13.5	66.5	22.5	31.5				
Max Q Clear Time (g_c+I1), s	13.6	25.5	21.9	25.9	7.9	56.8	12.2	19.2				
Green Ext Time (p_c), s	0.0	7.2	0.1	1.7	0.1	7.7	0.2	2.0				
Intersection Summary												
HCM 6th Ctrl Delay	58.1											
HCM 6th LOS	E											
Notes												

HCM 6th TWSC
105: Project Driveway & Hillsboro Boulevard

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1903	29	0	2260	0	13
Future Vol, veh/h	1903	29	0	2260	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2091	32	0	2484	0	14

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1062
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 4.5
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	- 0	- 0 411
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 411
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	411	-	-	-
HCM Lane V/C Ratio	0.035	-	-	-
HCM Control Delay (s)	14.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  						
Traffic Volume (vph)	375	1455	131	73	1623	357	107	119	66	17	126
Future Volume (vph)	375	1455	131	73	1623	357	107	119	66	17	126
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	24.5	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	28.0	71.0	71.0	23.0	66.0	20.0	46.0	46.0	20.0	46.0	46.0
Total Split (%)	17.5%	44.4%	44.4%	14.4%	41.3%	12.5%	28.8%	28.8%	12.5%	28.8%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	23.1	99.1	99.1	10.9	86.9	28.8	15.3	15.3	20.7	11.0	11.0
Actuated g/C Ratio	0.14	0.62	0.62	0.07	0.54	0.18	0.10	0.10	0.13	0.07	0.07
v/c Ratio	0.80	0.49	0.14	0.64	0.68	1.52	0.64	0.48	0.35	0.14	0.57
Control Delay	78.6	18.2	4.8	95.6	29.1	295.4	85.8	16.1	57.9	69.2	19.7
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	78.6	18.2	4.8	95.6	29.1	295.4	85.8	16.1	57.9	69.2	19.7
LOS	E	B	A	F	C	F	F	B	E	E	B
Approach Delay		28.9			31.8		200.0			35.7	
Approach LOS		C			C		F			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 26 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.52

Intersection Signal Delay: 52.1

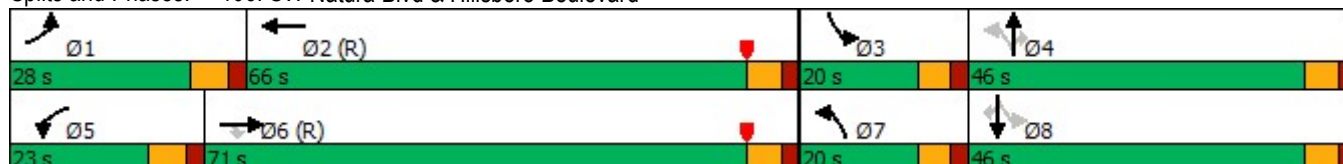
Intersection LOS: D

Intersection Capacity Utilization 87.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard



Queues

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	395	1532	138	77	1852	376	113	125	69	18	133
v/c Ratio	0.80	0.49	0.14	0.64	0.68	1.52	0.64	0.48	0.35	0.14	0.57
Control Delay	78.6	18.2	4.8	95.6	29.1	295.4	85.8	16.1	57.9	69.2	19.7
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	78.6	18.2	4.8	95.6	29.1	295.4	85.8	16.1	57.9	69.2	19.7
Queue Length 50th (ft)	208	300	12	80	490	~455	117	0	62	18	0
Queue Length 95th (ft)	260	422	51	136	658	#589	181	64	104	44	67
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	513	3150	1021	182	2734	247	465	484	242	465	495
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	0.77	0.49	0.14	0.42	0.68	1.52	0.24	0.26	0.29	0.04	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.

HCM 6th Signalized Intersection Summary 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	375	1455	131	73	1623	137	357	107	119	66	17	126
Future Volume (veh/h)	375	1455	131	73	1623	137	357	107	119	66	17	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	395	1532	138	77	1708	144	376	113	125	69	18	133
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	434	3074	954	95	2542	214	314	268	227	226	189	159
Arrive On Green	0.17	0.80	0.80	0.07	0.70	0.70	0.09	0.14	0.14	0.04	0.10	0.10
Sat Flow, veh/h	3456	5106	1585	1781	4798	404	1781	1870	1582	1781	1870	1580
Grp Volume(v), veh/h	395	1532	138	77	1211	641	376	113	125	69	18	133
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1798	1781	1870	1582	1781	1870	1580
Q Serve(g_s), s	18.0	15.9	3.1	6.8	31.9	32.1	14.0	8.8	11.8	5.5	1.4	13.2
Cycle Q Clear(g_c), s	18.0	15.9	3.1	6.8	31.9	32.1	14.0	8.8	11.8	5.5	1.4	13.2
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	434	3074	954	95	1803	952	314	268	227	226	189	159
V/C Ratio(X)	0.91	0.50	0.14	0.81	0.67	0.67	1.20	0.42	0.55	0.31	0.10	0.83
Avail Cap(c_a), veh/h	464	3074	954	184	1803	952	314	468	395	302	468	395
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	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	65.7	7.9	6.7	73.5	15.8	15.9	64.9	62.5	63.7	60.7	65.3	70.6
Incr Delay (d2), s/veh	20.2	0.6	0.3	6.0	2.0	3.8	114.9	0.4	0.8	0.3	0.1	4.3
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	8.7	4.4	1.2	3.2	10.1	11.2	16.2	4.3	4.8	2.5	0.7	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.9	8.5	7.0	79.5	17.8	19.6	179.8	62.9	64.5	61.0	65.4	75.0
LnGrp LOS	F	A	A	E	B	B	F	E	E	E	E	E
Approach Vol, veh/h	2065			1929			614			220		
Approach Delay, s/veh	23.2			20.9			134.8			69.8		
Approach LOS	C			C			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.6	91.3	13.2	28.9	15.1	102.8	20.0	22.1				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	21.5	59.5	14.0	40.0	16.5	64.5	14.0	40.0				
Max Q Clear Time (g_c+I1), s	20.0	34.1	7.5	13.8	8.8	17.9	16.0	15.2				
Green Ext Time (p_c), s	0.1	14.3	0.0	0.6	0.0	15.8	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	38.6											
HCM 6th LOS	D											

Timings

107: S. Dixie Highway & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  		 		 	
Traffic Volume (vph)	385	837	21	938	205	623	31	224	395
Future Volume (vph)	385	837	21	938	205	623	31	224	395
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	1	6	5	2	7	4	3	8	1
Permitted Phases			2		4		8		8
Detector Phase	1	6	5	2	7	4	3	8	1
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	4.0	6.0	4.0	6.0	5.0
Minimum Split (s)	11.5	36.5	11.5	36.5	10.5	39.5	10.5	41.5	11.5
Total Split (s)	22.0	69.0	22.0	69.0	24.0	45.0	24.0	45.0	22.0
Total Split (%)	13.8%	43.1%	13.8%	43.1%	15.0%	28.1%	15.0%	28.1%	13.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	25.0	87.9	69.4	63.8	51.7	41.0	34.8	28.4	53.4
Actuated g/C Ratio	0.16	0.55	0.43	0.40	0.32	0.26	0.22	0.18	0.33
v/c Ratio	0.76	0.38	0.09	0.54	0.60	0.85	0.26	0.38	0.72
Control Delay	63.5	48.3	18.4	37.9	47.5	65.5	39.5	58.1	39.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	48.3	18.4	37.9	47.5	65.5	39.5	58.1	39.7
LOS	E	D	B	D	D	E	D	E	D
Approach Delay		52.6		37.6		61.5		46.0	
Approach LOS		D		D		E		D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 132 (83%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 49.6

Intersection LOS: D

Intersection Capacity Utilization 76.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 107: S. Dixie Highway & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
22 s	69 s	24 s	45 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
22 s	69 s	24 s	45 s

Existing AM Peak Hour

Synchro 10 Light Report

Queues

107: S. Dixie Highway & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	410	1039	22	1087	218	761	33	238	420
v/c Ratio	0.76	0.38	0.09	0.54	0.60	0.85	0.26	0.38	0.72
Control Delay	63.5	48.3	18.4	37.9	47.5	65.5	39.5	58.1	39.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	48.3	18.4	37.9	47.5	65.5	39.5	58.1	39.7
Queue Length 50th (ft)	224	380	9	319	173	397	23	115	284
Queue Length 95th (ft)	#391	446	26	367	230	451	46	149	410
Internal Link Dist (ft)		2890		691		540		364	
Turn Bay Length (ft)	170		180		225		270		120
Base Capacity (vph)	536	2736	366	2010	368	916	247	851	586
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	0.76	0.38	0.06	0.54	0.59	0.83	0.13	0.28	0.72

Intersection Summary

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

HCM 6th Signalized Intersection Summary 107: S. Dixie Highway & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  			 			 	
Traffic Volume (veh/h)	385	837	140	21	938	84	205	623	92	31	224	395
Future Volume (veh/h)	385	837	140	21	938	84	205	623	92	31	224	395
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	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	410	890	149	22	998	89	218	663	98	33	238	420
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	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2089	348	238	1897	169	372	1001	148	179	855	530
Arrive On Green	0.03	0.16	0.16	0.02	0.40	0.40	0.10	0.32	0.32	0.02	0.24	0.24
Sat Flow, veh/h	3456	4399	733	1781	4773	425	1781	3100	458	1781	3554	1563
Grp Volume(v), veh/h	410	688	351	22	711	376	218	380	381	33	238	420
Grp Sat Flow(s),veh/h/ln	1728	1702	1728	1781	1702	1794	1781	1777	1781	1781	1777	1563
Q Serve(g_s), s	15.5	29.2	29.4	1.2	25.5	25.5	14.4	29.4	29.5	2.2	8.7	38.5
Cycle Q Clear(g_c), s	15.5	29.2	29.4	1.2	25.5	25.5	14.4	29.4	29.5	2.2	8.7	38.5
Prop In Lane	1.00		0.42	1.00		0.24	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	335	1616	820	238	1353	713	372	574	575	179	855	530
V/C Ratio(X)	1.22	0.43	0.43	0.09	0.53	0.53	0.59	0.66	0.66	0.18	0.28	0.79
Avail Cap(c_a), veh/h	335	1616	820	376	1353	713	384	574	575	337	855	530
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.4	47.7	47.8	28.5	36.7	36.7	38.3	46.7	46.7	45.4	49.4	48.0
Incr Delay (d2), s/veh	122.2	0.7	1.4	0.1	1.5	2.8	1.4	2.6	2.6	0.2	0.1	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	13.5	14.0	0.5	10.7	11.6	6.4	13.3	13.4	1.0	3.9	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	199.7	48.5	49.3	28.5	38.2	39.5	39.7	49.3	49.3	45.6	49.6	55.9
LnGrp LOS	F	D	D	C	D	D	D	D	D	D	D	E
Approach Vol, veh/h	1449			1109			979			691		
Approach Delay, s/veh	91.4			38.4			47.2			53.2		
Approach LOS	F			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	70.1	9.8	58.1	9.6	82.5	22.9	45.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	15.5	62.5	17.5	38.5	15.5	62.5	17.5	38.5				
Max Q Clear Time (g_c+I1), s	17.5	27.5	4.2	31.5	3.2	31.4	16.4	40.5				
Green Ext Time (p_c), s	0.0	7.8	0.0	2.2	0.0	7.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	61.0											
HCM 6th LOS	E											

HCM 6th TWSC

108: SW Natura Avenue/SW Natura Blvd & SW Natura Boulevard

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	589	45	46	173	1	17	0	17	2	0	7
Future Vol, veh/h	10	589	45	46	173	1	17	0	17	2	0	7
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	120	-	-	60	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	685	52	53	201	1	20	0	20	2	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	738	0	0	943	1044	370	675	1070	101
Stage 1	-	-	-	-	-	-	736	736	-	308	308	-
Stage 2	-	-	-	-	-	-	207	308	-	367	762	-
Critical Hdwy	4.14	-	-	4.14	-	-	5.5	6.54	4.5	5.5	6.54	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.54	-	5.5	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1367	-	-	864	-	-	371	228	806	498	220	1001
Stage 1	-	-	-	-	-	-	466	423	-	740	659	-
Stage 2	-	-	-	-	-	-	776	659	-	625	412	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1367	-	-	863	-	-	348	212	805	460	205	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	348	212	-	460	205	-
Stage 1	-	-	-	-	-	-	461	419	-	733	619	-
Stage 2	-	-	-	-	-	-	722	619	-	604	408	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			2			12.8			9.6		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	348	805	1367	-	-	863	-	-	794
HCM Lane V/C Ratio	0.057	0.025	0.009	-	-	0.062	-	-	0.013
HCM Control Delay (s)	16	9.6	7.7	-	-	9.4	-	-	9.6
HCM Lane LOS	C	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0.2	-	-	0

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	163	1105	112	1108	102	251	80	144	122	84	302
Future Volume (vph)	163	1105	112	1108	102	251	80	144	122	84	302
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	90.0	20.0	90.0	90.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	12.5%	56.3%	12.5%	56.3%	56.3%	12.5%	18.8%	18.8%	12.5%	18.8%	18.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	102.3	92.4	98.5	90.5	90.5	35.1	21.1	21.1	32.0	19.6	19.6
Actuated g/C Ratio	0.64	0.58	0.62	0.57	0.57	0.22	0.13	0.13	0.20	0.12	0.12
v/c Ratio	0.60	0.49	0.51	0.42	0.12	0.92	0.19	0.46	0.45	0.41	0.94
Control Delay	19.2	21.0	18.5	21.3	3.6	90.7	61.8	12.6	53.4	68.8	64.6
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	19.2	21.0	18.5	21.3	3.6	90.7	61.8	12.6	53.4	68.8	64.6
LOS	B	C	B	C	A	F	E	B	D	E	E
Approach Delay		20.8		19.7			62.2			62.6	
Approach LOS		C		B			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 84 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 31.3

Intersection LOS: C

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	90 s	20 s	30 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	90 s	20 s	30 s

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	179	1412	123	1218	112	276	88	158	134	92	332
v/c Ratio	0.60	0.49	0.51	0.42	0.12	0.92	0.19	0.46	0.45	0.41	0.94
Control Delay	19.2	21.0	18.5	21.3	3.6	90.7	61.8	12.6	53.4	68.8	64.6
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	19.2	21.0	18.5	21.3	3.6	90.7	61.8	12.6	53.4	68.8	64.6
Queue Length 50th (ft)	68	316	45	271	1	253	43	0	112	88	162
Queue Length 95th (ft)	105	380	75	328	35	#410	72	69	174	147	#328
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	333	2886	293	2874	942	300	530	368	312	279	393
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	0.54	0.49	0.42	0.42	0.12	0.92	0.17	0.43	0.43	0.33	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	1105	180	112	1108	102	251	80	144	122	84	302
Future Volume (veh/h)	163	1105	180	112	1108	102	251	80	144	122	84	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1214	198	123	1218	112	276	88	158	134	92	332
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	2462	402	270	2770	860	303	576	256	339	281	237
Arrive On Green	0.06	0.56	0.56	0.04	0.54	0.54	0.09	0.16	0.16	0.08	0.15	0.15
Sat Flow, veh/h	1781	4423	721	1781	5106	1585	1781	3554	1579	1781	1870	1579
Grp Volume(v), veh/h	179	934	478	123	1218	112	276	88	158	134	92	332
Grp Sat Flow(s),veh/h/ln	1781	1702	1741	1781	1702	1585	1781	1777	1579	1781	1870	1579
Q Serve(g_s), s	7.1	26.8	26.8	4.9	22.9	5.6	14.0	3.4	14.9	10.1	7.0	24.0
Cycle Q Clear(g_c), s	7.1	26.8	26.8	4.9	22.9	5.6	14.0	3.4	14.9	10.1	7.0	24.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	1895	969	270	2770	860	303	576	256	339	281	237
V/C Ratio(X)	0.57	0.49	0.49	0.46	0.44	0.13	0.91	0.15	0.62	0.40	0.33	1.40
Avail Cap(c_a), veh/h	354	1895	969	338	2770	860	303	576	256	360	281	237
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	17.1	21.7	21.7	17.5	22.0	18.0	59.4	57.6	62.4	51.9	60.8	68.0
Incr Delay (d2), s/veh	0.7	0.9	1.8	0.4	0.5	0.3	29.5	0.0	3.3	0.3	0.3	204.4
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	3.0	11.1	11.6	2.1	9.4	2.2	7.0	1.6	6.3	4.6	3.4	23.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	22.6	23.5	18.0	22.5	18.3	88.8	57.6	65.7	52.2	61.0	272.4
LnGrp LOS	B	C	C	B	C	B	F	E	E	D	E	F
Approach Vol, veh/h	1591			1453			522			558		
Approach Delay, s/veh	22.3			21.8			76.6			184.6		
Approach LOS	C			C			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.2	93.8	18.1	31.9	13.9	96.1	20.0	30.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	83.0	14.0	24.0	13.0	83.0	14.0	24.0				
Max Q Clear Time (g_c+I1), s	9.1	24.9	12.1	16.9	6.9	28.8	16.0	26.0				
Green Ext Time (p_c), s	0.1	13.2	0.0	0.4	0.0	14.7	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	51.0											
HCM 6th LOS	D											
Notes												

Timings

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	120	2255	322	1355	184	164	62	393	35	11	27
Future Volume (vph)	120	2255	322	1355	184	164	62	393	35	11	27
Turn Type	Prot	NA	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6	5	2	3	4	4	5	3	3	1
Permitted Phases					2			4			3
Detector Phase	1	6	5	2	3	4	4	5	3	3	1
Switch Phase											
Minimum Initial (s)	5.0	12.0	5.0	12.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0
Minimum Split (s)	11.5	35.5	11.5	35.5	20.0	30.0	30.0	11.5	20.0	20.0	11.5
Total Split (s)	31.0	82.0	28.0	79.0	20.0	30.0	30.0	28.0	20.0	20.0	31.0
Total Split (%)	19.4%	51.3%	17.5%	49.4%	12.5%	18.8%	18.8%	17.5%	12.5%	12.5%	19.4%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	15.6	88.6	26.5	99.4	113.2	12.7	12.7	38.6	7.3	7.3	22.4
Actuated g/C Ratio	0.10	0.55	0.17	0.62	0.71	0.08	0.08	0.24	0.05	0.05	0.14
v/c Ratio	0.76	0.95	0.62	0.47	0.17	0.66	0.46	0.94	0.33	0.32	0.11
Control Delay	98.4	29.1	70.3	14.5	1.5	82.9	79.7	71.6	85.0	84.3	0.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	29.1	70.3	14.6	1.5	82.9	79.7	71.6	85.0	84.3	0.8
LOS	F	C	E	B	A	F	E	E	F	F	A
Approach Delay		32.3		23.0			75.4			53.8	
Approach LOS		C		C			E			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 153 (96%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 34.4

Intersection LOS: C

Intersection Capacity Utilization 94.1%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 102: Jim Moran Boulevard & Hillsboro Boulevard



Queues

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	2652	350	1473	200	178	67	427	25	25	29
v/c Ratio	0.76	0.95	0.62	0.47	0.17	0.66	0.46	0.94	0.33	0.32	0.11
Control Delay	98.4	29.1	70.3	14.5	1.5	82.9	79.7	71.6	85.0	84.3	0.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	29.1	70.3	14.6	1.5	82.9	79.7	71.6	85.0	84.3	0.8
Queue Length 50th (ft)	142	993	178	230	10	94	68	329	27	27	0
Queue Length 95th (ft)	m169	#1234	232	278	24	135	120	430	63	63	0
Internal Link Dist (ft)		2620		495			677			792	
Turn Bay Length (ft)	375		400		330	200		250	200		200
Base Capacity (vph)	271	2787	583	3160	1236	514	279	463	147	150	360
Starvation Cap Reductn	0	0	0	683	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	0.48	0.95	0.60	0.59	0.16	0.35	0.24	0.92	0.17	0.17	0.08

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

102: Jim Moran Boulevard & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	2255	185	322	1355	184	164	62	393	35	11	27
Future Volume (vph)	120	2255	185	322	1355	184	164	62	393	35	11	27
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	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lane Util. Factor	1.00	0.91		0.97	0.91	1.00	0.97	1.00	1.00	0.95	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	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	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	0.97	1.00
Satd. Flow (prot)	1770	5023		3433	5085	1583	3433	1863	1571	1681	1725	1576
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5023		3433	5085	1583	3433	1863	1571	1681	1725	1576
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	2451	201	350	1473	200	178	67	427	38	12	29
RTOR Reduction (vph)	0	5	0	0	0	67	0	0	77	0	0	25
Lane Group Flow (vph)	130	2647	0	350	1473	133	178	67	350	25	25	4
Confl. Peds. (#/hr)							2					2
Confl. Bikes (#/hr)			2						3			
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6		5	2	3	4	4	5	3	3	1
Permitted Phases						2			4			3
Actuated Green, G (s)	15.6	88.5		26.5	99.4	106.7	12.7	12.7	39.2	7.3	7.3	22.9
Effective Green, g (s)	15.6	88.5		26.5	99.4	106.7	12.7	12.7	39.2	7.3	7.3	22.9
Actuated g/C Ratio	0.10	0.55		0.17	0.62	0.67	0.08	0.08	0.25	0.05	0.05	0.14
Clearance Time (s)	6.5	6.5		6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Vehicle Extension (s)	1.5	3.0		1.5	3.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5
Lane Grp Cap (vph)	172	2778		568	3159	1055	272	147	384	76	78	225
v/s Ratio Prot	0.07	c0.53		0.10	0.29	0.01	0.05	0.04	c0.15	c0.01	0.01	0.00
v/s Ratio Perm						0.08			0.07			0.00
v/c Ratio	0.76	0.95		0.62	0.47	0.13	0.65	0.46	0.91	0.33	0.32	0.02
Uniform Delay, d1	70.3	33.8		62.0	16.2	9.7	71.5	70.3	58.7	74.0	73.9	58.9
Progression Factor	1.17	0.64		1.07	0.81	1.02	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.1	6.3		1.3	0.5	0.0	4.3	0.8	24.9	0.9	0.9	0.0
Delay (s)	92.1	27.9		67.7	13.6	9.9	75.8	71.2	83.6	74.9	74.8	58.9
Level of Service	F	C		E	B	A	E	E	F	E	E	E
Approach Delay (s)		30.9			22.6			80.3			69.0	
Approach LOS		C			C			F			E	
Intersection Summary												
HCM 2000 Control Delay		34.4					HCM 2000 Level of Service		C			
HCM 2000 Volume to Capacity ratio		0.91										
Actuated Cycle Length (s)		160.0					Sum of lost time (s)		25.0			
Intersection Capacity Utilization		94.1%					ICU Level of Service		F			
Analysis Period (min)		15										
c Critical Lane Group												

Existing AM Peak Hour

Synchro 10 Light Report

Timings

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Configurations	↑↑↑	↰	↱↱
Traffic Volume (vph)	1115	446	500
Future Volume (vph)	1115	446	500
Turn Type	NA	Prot	Prot
Protected Phases	2	3	8
Permitted Phases			
Detector Phase	2	3	8
Switch Phase			
Minimum Initial (s)	12.0	6.0	6.0
Minimum Split (s)	33.5	24.5	24.5
Total Split (s)	106.0	54.0	54.0
Total Split (%)	66.3%	33.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	None
Act Effect Green (s)	101.8	45.2	45.2
Actuated g/C Ratio	0.64	0.28	0.28
v/c Ratio	0.37	0.95	0.59
Control Delay	14.5	85.0	37.2
Queue Delay	0.0	0.0	0.0
Total Delay	14.5	85.0	37.2
LOS	B	F	D
Approach Delay	14.5	59.7	
Approach LOS	B	E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 14 (9%), Referenced to phase 2:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 35.2

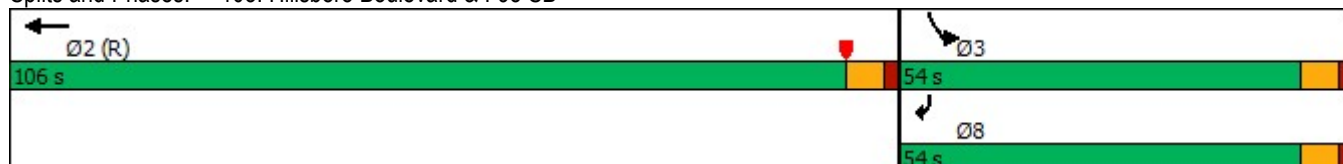
Intersection LOS: D

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 103: Hillsboro Boulevard & I-95 SB



Queues

103: Hillsboro Boulevard & I-95 SB



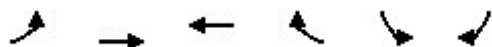
Lane Group	WBT	SBL	SBR
Lane Group Flow (vph)	1186	474	532
v/c Ratio	0.37	0.95	0.59
Control Delay	14.5	85.0	37.2
Queue Delay	0.0	0.0	0.0
Total Delay	14.5	85.0	37.2
Queue Length 50th (ft)	214	479	193
Queue Length 95th (ft)	244	#688	262
Internal Link Dist (ft)	1220	531	
Turn Bay Length (ft)			
Base Capacity (vph)	3234	525	934
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	11	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.90	0.57

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

103: Hillsboro Boulevard & I-95 SB



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↑		↑	↑↑
Traffic Volume (vph)	0	0	1115	0	446	500
Future Volume (vph)	0	0	1115	0	446	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.5		6.5	6.5
Lane Util. Factor			0.91		1.00	0.88
Frt			1.00		1.00	0.85
Flt Protected			1.00		0.95	1.00
Satd. Flow (prot)			5085		1770	2787
Flt Permitted			1.00		0.95	1.00
Satd. Flow (perm)			5085		1770	2787
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	1186	0	474	532
RTOR Reduction (vph)	0	0	0	0	0	109
Lane Group Flow (vph)	0	0	1186	0	474	423
Turn Type			NA		Prot	Prot
Protected Phases			2		3	8
Permitted Phases						
Actuated Green, G (s)			101.8		45.2	45.2
Effective Green, g (s)			101.8		45.2	45.2
Actuated g/C Ratio			0.64		0.28	0.28
Clearance Time (s)			6.5		6.5	6.5
Vehicle Extension (s)			3.0		2.5	2.5
Lane Grp Cap (vph)			3235		500	787
v/s Ratio Prot			c0.23		c0.27	0.15
v/s Ratio Perm						
v/c Ratio			0.37		0.95	0.54
Uniform Delay, d1			13.8		56.2	48.6
Progression Factor			1.00		1.00	1.00
Incremental Delay, d2			0.3		27.4	0.6
Delay (s)			14.1		83.6	49.1
Level of Service			B		F	D
Approach Delay (s)		0.0	14.1		65.4	
Approach LOS		A	B		E	
Intersection Summary						
HCM 2000 Control Delay			37.6		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.55			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			57.1%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Timings

104: I-95 NB & Hillsboro Boulevard

	→	↗
Lane Group	EBT	NBR
Lane Configurations	↑↑↑	↑↑
Traffic Volume (vph)	1505	453
Future Volume (vph)	1505	453
Turn Type	NA	Prot
Protected Phases	6	7
Permitted Phases		
Detector Phase	6	7
Switch Phase		
Minimum Initial (s)	12.0	6.0
Minimum Split (s)	24.5	24.5
Total Split (s)	106.0	54.0
Total Split (%)	66.3%	33.8%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)	119.5	27.5
Actuated g/C Ratio	0.75	0.17
v/c Ratio	0.40	0.85
Control Delay	9.5	69.0
Queue Delay	0.0	0.0
Total Delay	9.5	69.0
LOS	A	E
Approach Delay	9.5	
Approach LOS	A	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 14 (9%), Referenced to phase 2: and 6:EBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: I-95 NB & Hillsboro Boulevard



Queues

104: I-95 NB & Hillsboro Boulevard



Lane Group	EBT	NBR
Lane Group Flow (vph)	1520	458
v/c Ratio	0.40	0.85
Control Delay	9.5	69.0
Queue Delay	0.0	0.0
Total Delay	9.5	69.0
Queue Length 50th (ft)	290	228
Queue Length 95th (ft)	424	286
Internal Link Dist (ft)	1220	
Turn Bay Length (ft)		
Base Capacity (vph)	3798	878
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.40	0.52
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

104: I-95 NB & Hillsboro Boulevard

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↗↗
Traffic Volume (vph)	1505	0	0	0	0	453
Future Volume (vph)	1505	0	0	0	0	453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5					6.5
Lane Util. Factor	0.91					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	5085					2787
Flt Permitted	1.00					1.00
Satd. Flow (perm)	5085					2787
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	1520	0	0	0	0	458
RTOR Reduction (vph)	0	0	0	0	0	60
Lane Group Flow (vph)	1520	0	0	0	0	398
Turn Type	NA					Prot
Protected Phases	6					7
Permitted Phases						
Actuated Green, G (s)	119.5					27.5
Effective Green, g (s)	119.5					27.5
Actuated g/C Ratio	0.75					0.17
Clearance Time (s)	6.5					6.5
Vehicle Extension (s)	3.5					2.0
Lane Grp Cap (vph)	3797					479
v/s Ratio Prot	c0.30					c0.14
v/s Ratio Perm						
v/c Ratio	0.40					0.83
Uniform Delay, d1	7.3					64.0
Progression Factor	1.19					1.00
Incremental Delay, d2	0.3					11.2
Delay (s)	9.0					75.2
Level of Service	A					E
Approach Delay (s)	9.0			0.0	75.2	
Approach LOS	A			A	E	
Intersection Summary						
HCM 2000 Control Delay		24.3		HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio		0.48				
Actuated Cycle Length (s)		160.0		Sum of lost time (s)		13.0
Intersection Capacity Utilization		57.1%		ICU Level of Service		B
Analysis Period (min)		15				
c Critical Lane Group						

Timings

101: Military Trail & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	262	1901	131	856	262	232	676	449	529
Future Volume (vph)	262	1901	131	856	262	232	676	449	529
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	1	6	5	2		7	4	3	8
Permitted Phases					2				
Detector Phase	1	6	5	2	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	4.0	8.0	4.0	8.0	8.0	4.0	6.0	4.0	8.0
Minimum Split (s)	20.0	43.5	10.5	43.5	43.5	10.5	38.0	10.5	38.0
Total Split (s)	20.0	73.0	20.0	73.0	73.0	29.0	38.0	29.0	38.0
Total Split (%)	12.5%	45.6%	12.5%	45.6%	45.6%	18.1%	23.8%	18.1%	23.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	14.1	72.1	10.1	68.1	68.1	14.9	29.4	22.3	36.8
Actuated g/C Ratio	0.09	0.45	0.06	0.43	0.43	0.09	0.18	0.14	0.23
v/c Ratio	0.88	0.95	0.62	0.40	0.34	0.74	0.88	0.96	0.56
Control Delay	99.8	51.9	70.1	53.2	30.7	84.5	73.8	99.1	54.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.8	51.9	70.1	53.2	30.7	84.5	73.8	99.1	54.7
LOS	F	D	E	D	C	F	E	F	D
Approach Delay		57.2		50.2			76.2		73.0
Approach LOS		E		D			E		E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 100 (63%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 62.1

Intersection LOS: E

Intersection Capacity Utilization 96.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 101: Military Trail & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	73 s	29 s	38 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	73 s	29 s	38 s

Queues

101: Military Trail & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	267	2147	134	873	267	237	818	458	651
v/c Ratio	0.88	0.95	0.62	0.40	0.34	0.74	0.88	0.96	0.56
Control Delay	99.8	51.9	70.1	53.2	30.7	84.5	73.8	99.1	54.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.8	51.9	70.1	53.2	30.7	84.5	73.8	99.1	54.7
Queue Length 50th (ft)	144	791	73	284	116	126	298	248	212
Queue Length 95th (ft)	#236	#959	110	359	233	170	351	#359	265
Internal Link Dist (ft)		751		2620			541		790
Turn Bay Length (ft)	260		160		130	300		310	
Base Capacity (vph)	303	2268	289	2165	788	482	992	482	1154
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	0.88	0.95	0.46	0.40	0.34	0.49	0.82	0.95	0.56

Intersection Summary

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

HCM 6th Signalized Intersection Summary

101: Military Trail & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	1901	203	131	856	262	232	676	125	449	529	109
Future Volume (veh/h)	262	1901	203	131	856	262	232	676	125	449	529	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1940	207	134	873	267	237	690	128	458	540	111
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	2180	231	177	2205	685	281	783	143	486	1022	206
Arrive On Green	0.08	0.46	0.46	0.02	0.14	0.14	0.08	0.18	0.18	0.14	0.24	0.24
Sat Flow, veh/h	3456	4689	496	3456	5106	1585	3456	4334	794	3456	4260	858
Grp Volume(v), veh/h	267	1404	743	134	873	267	237	540	278	458	429	222
Grp Sat Flow(s),veh/h/ln	1728	1702	1781	1728	1702	1585	1728	1702	1724	1728	1702	1713
Q Serve(g_s), s	12.3	60.1	61.2	6.2	24.9	24.5	10.8	24.7	25.2	21.0	17.5	18.1
Cycle Q Clear(g_c), s	12.3	60.1	61.2	6.2	24.9	24.5	10.8	24.7	25.2	21.0	17.5	18.1
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.46	1.00		0.50
Lane Grp Cap(c), veh/h	292	1583	828	177	2205	685	281	615	311	486	816	411
V/C Ratio(X)	0.92	0.89	0.90	0.76	0.40	0.39	0.84	0.88	0.89	0.94	0.53	0.54
Avail Cap(c_a), veh/h	292	1583	828	292	2205	685	486	670	339	486	816	411
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.7	39.0	39.3	77.6	49.6	49.5	72.5	63.8	64.0	68.1	52.9	53.1
Incr Delay (d2), s/veh	31.1	7.8	14.4	2.1	0.5	1.4	2.6	11.3	21.9	26.7	0.3	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	6.6	25.9	29.1	2.8	11.5	10.7	4.9	11.6	12.9	11.0	7.5	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.8	46.8	53.7	79.7	50.1	50.9	75.1	75.1	86.0	94.8	53.2	53.9
LnGrp LOS	F	D	D	E	D	D	E	E	F	F	D	D
Approach Vol, veh/h	2414			1274			1055			1109		
Approach Delay, s/veh	55.2			53.4			78.0			70.5		
Approach LOS	E			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	75.6	29.0	35.4	14.7	80.9	19.5	44.9				
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	13.5	66.5	22.5	31.5	13.5	66.5	22.5	31.5				
Max Q Clear Time (g_c+l1), s	14.3	26.9	23.0	27.2	8.2	63.2	12.8	20.1				
Green Ext Time (p_c), s	0.0	7.7	0.0	1.5	0.1	2.9	0.2	2.1				
Intersection Summary												
HCM 6th Ctrl Delay	61.8											
HCM 6th LOS	E											
Notes												

HCM 6th TWSC
105: Project Driveway & Hillsboro Boulevard

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2003	30	0	2379	0	13
Future Vol, veh/h	2003	30	0	2379	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2201	33	0	2614	0	14
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1117
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	393
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	393
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	14.5			
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	393	-	-	-		
HCM Lane V/C Ratio	0.036	-	-	-		
HCM Control Delay (s)	14.5	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  						
Traffic Volume (vph)	395	1532	138	77	1709	376	113	125	70	18	132
Future Volume (vph)	395	1532	138	77	1709	376	113	125	70	18	132
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	24.5	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	28.0	71.0	71.0	23.0	66.0	20.0	46.0	46.0	20.0	46.0	46.0
Total Split (%)	17.5%	44.4%	44.4%	14.4%	41.3%	12.5%	28.8%	28.8%	12.5%	28.8%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	24.5	98.0	98.0	11.2	84.8	29.3	15.6	15.6	21.9	11.8	11.8
Actuated g/C Ratio	0.15	0.61	0.61	0.07	0.53	0.18	0.10	0.10	0.14	0.07	0.07
v/c Ratio	0.79	0.52	0.14	0.66	0.73	1.56	0.65	0.49	0.37	0.14	0.57
Control Delay	76.7	19.4	5.4	95.8	32.2	309.7	86.3	15.8	57.5	68.2	18.7
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	76.7	19.4	5.4	95.8	32.2	309.7	86.3	15.8	57.5	68.2	18.7
LOS	E	B	A	F	C	F	F	B	E	E	B
Approach Delay		29.4			34.7		208.7			35.1	
Approach LOS		C			C		F			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 26 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.56

Intersection Signal Delay: 54.6

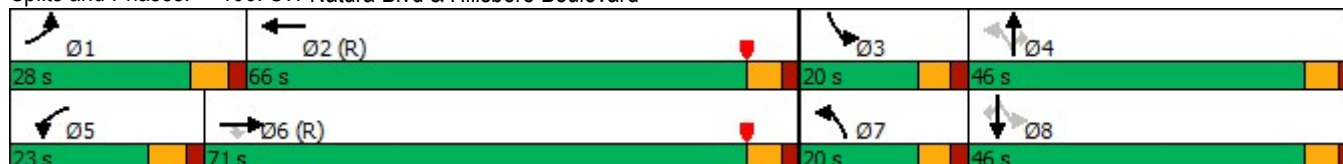
Intersection LOS: D

Intersection Capacity Utilization 90.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard



Queues

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	416	1613	145	81	1951	396	119	132	74	19	139
v/c Ratio	0.79	0.52	0.14	0.66	0.73	1.56	0.65	0.49	0.37	0.14	0.57
Control Delay	76.7	19.4	5.4	95.8	32.2	309.7	86.3	15.8	57.5	68.2	18.7
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	76.7	19.4	5.4	95.8	32.2	309.7	86.3	15.8	57.5	68.2	18.7
Queue Length 50th (ft)	219	331	15	84	555	~481	123	0	66	19	0
Queue Length 95th (ft)	272	464	56	141	731	#616	189	66	108	46	67
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	535	3115	1010	182	2666	254	465	489	245	465	500
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	0.78	0.52	0.14	0.45	0.73	1.56	0.26	0.27	0.30	0.04	0.28

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 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	395	1532	138	77	1709	144	376	113	125	70	18	132
Future Volume (veh/h)	395	1532	138	77	1709	144	376	113	125	70	18	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	416	1613	145	81	1799	152	396	119	132	74	19	139
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	3043	945	100	2498	210	318	270	228	227	195	165
Arrive On Green	0.17	0.79	0.79	0.07	0.69	0.69	0.09	0.14	0.14	0.05	0.10	0.10
Sat Flow, veh/h	3456	5106	1585	1781	4798	404	1781	1870	1582	1781	1870	1580
Grp Volume(v), veh/h	416	1613	145	81	1275	676	396	119	132	74	19	139
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1798	1781	1870	1582	1781	1870	1580
Q Serve(g_s), s	18.9	18.1	3.5	7.2	36.7	37.0	14.0	9.3	12.5	5.9	1.5	13.8
Cycle Q Clear(g_c), s	18.9	18.1	3.5	7.2	36.7	37.0	14.0	9.3	12.5	5.9	1.5	13.8
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	3043	945	100	1772	936	318	270	228	227	195	165
V/C Ratio(X)	0.92	0.53	0.15	0.81	0.72	0.72	1.25	0.44	0.58	0.33	0.10	0.84
Avail Cap(c_a), veh/h	464	3043	945	184	1772	936	318	468	395	298	468	395
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	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	65.2	8.6	7.1	73.2	17.4	17.5	64.6	62.6	63.9	60.0	64.8	70.3
Incr Delay (d2), s/veh	22.3	0.7	0.3	5.9	2.6	4.8	134.6	0.4	0.9	0.3	0.1	4.4
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	9.3	4.9	1.3	3.4	12.0	13.3	18.2	4.5	5.1	2.7	0.7	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	9.2	7.4	79.1	20.0	22.3	199.2	63.0	64.8	60.4	64.9	74.7
LnGrp LOS	F	A	A	E	B	C	F	E	E	E	E	E
Approach Vol, veh/h	2174			2032			647			232		
Approach Delay, s/veh	24.1			23.1			146.7			69.3		
Approach LOS	C			C			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.5	89.8	13.6	29.1	15.4	101.8	20.0	22.7				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	21.5	59.5	14.0	40.0	16.5	64.5	14.0	40.0				
Max Q Clear Time (g_c+l1), s	20.9	39.0	7.9	14.5	9.2	20.1	16.0	15.8				
Green Ext Time (p_c), s	0.1	13.2	0.0	0.6	0.0	16.9	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	41.4											
HCM 6th LOS	D											

Timings

107: S. Dixie Highway & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  		 		 	
Traffic Volume (vph)	405	881	22	988	216	656	32	236	416
Future Volume (vph)	405	881	22	988	216	656	32	236	416
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	1	6	5	2	7	4	3	8	1
Permitted Phases			2		4		8		8
Detector Phase	1	6	5	2	7	4	3	8	1
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	4.0	6.0	4.0	6.0	5.0
Minimum Split (s)	11.5	36.5	11.5	36.5	10.5	39.5	10.5	41.5	11.5
Total Split (s)	22.0	69.0	22.0	69.0	24.0	45.0	24.0	45.0	22.0
Total Split (%)	13.8%	43.1%	13.8%	43.1%	15.0%	28.1%	15.0%	28.1%	13.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	24.0	85.5	68.1	62.5	54.0	43.2	36.9	30.5	54.5
Actuated g/C Ratio	0.15	0.53	0.43	0.39	0.34	0.27	0.23	0.19	0.34
v/c Ratio	0.84	0.41	0.09	0.58	0.61	0.85	0.27	0.37	0.75
Control Delay	68.2	50.5	19.0	39.5	46.6	63.8	38.7	56.6	43.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	50.5	19.0	39.5	46.6	63.8	38.7	56.6	43.0
LOS	E	D	B	D	D	E	D	E	D
Approach Delay		55.5		39.1		60.0		47.5	
Approach LOS		E		D		E		D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 132 (83%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 50.9

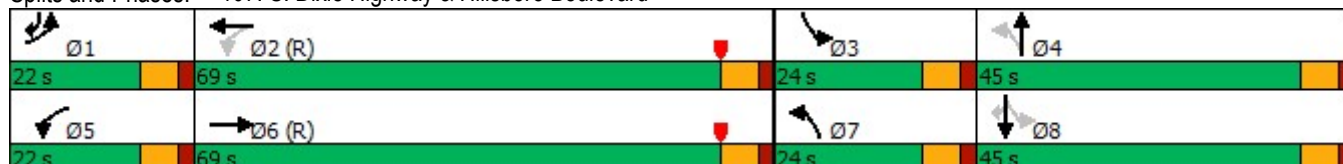
Intersection LOS: D

Intersection Capacity Utilization 78.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 107: S. Dixie Highway & Hillsboro Boulevard



Queues

107: S. Dixie Highway & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	431	1094	23	1146	230	801	34	251	443
v/c Ratio	0.84	0.41	0.09	0.58	0.61	0.85	0.27	0.37	0.75
Control Delay	68.2	50.5	19.0	39.5	46.6	63.8	38.7	56.6	43.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	50.5	19.0	39.5	46.6	63.8	38.7	56.6	43.0
Queue Length 50th (ft)	239	421	10	342	179	414	23	120	320
Queue Length 95th (ft)	#419	468	27	391	242	481	47	157	454
Internal Link Dist (ft)		2890		691		540		364	
Turn Bay Length (ft)	170		180		225		270		120
Base Capacity (vph)	515	2664	352	1969	379	950	248	851	590
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	0.84	0.41	0.07	0.58	0.61	0.84	0.14	0.29	0.75

Intersection Summary

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

HCM 6th Signalized Intersection Summary 107: S. Dixie Highway & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	 
Traffic Volume (veh/h)	405	881	148	22	988	89	216	656	97	32	236	416
Future Volume (veh/h)	405	881	148	22	988	89	216	656	97	32	236	416
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	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	431	937	157	23	1051	95	230	698	103	34	251	443
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	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2064	345	222	1871	169	373	1014	149	172	855	530
Arrive On Green	0.03	0.15	0.15	0.02	0.39	0.39	0.11	0.33	0.33	0.02	0.24	0.24
Sat Flow, veh/h	3456	4397	734	1781	4767	430	1781	3100	457	1781	3554	1563
Grp Volume(v), veh/h	431	725	369	23	750	396	230	400	401	34	251	443
Grp Sat Flow(s),veh/h/ln	1728	1702	1727	1781	1702	1793	1781	1777	1781	1781	1777	1563
Q Serve(g_s), s	15.5	31.0	31.1	1.2	27.5	27.5	15.2	31.3	31.3	2.3	9.2	38.5
Cycle Q Clear(g_c), s	15.5	31.0	31.1	1.2	27.5	27.5	15.2	31.3	31.3	2.3	9.2	38.5
Prop In Lane	1.00		0.42	1.00		0.24	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	335	1598	811	222	1336	704	373	581	582	172	855	530
V/C Ratio(X)	1.29	0.45	0.46	0.10	0.56	0.56	0.62	0.69	0.69	0.20	0.29	0.84
Avail Cap(c_a), veh/h	335	1598	811	359	1336	704	377	581	582	329	855	530
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.4	48.9	49.0	29.1	37.9	37.9	38.1	46.8	46.8	45.5	49.6	49.0
Incr Delay (d2), s/veh	147.3	0.8	1.6	0.1	1.7	3.2	2.2	3.2	3.2	0.2	0.1	11.0
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	14.1	14.4	14.8	0.5	11.6	12.5	6.8	14.2	14.3	1.0	4.1	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	224.8	49.7	50.6	29.2	39.6	41.1	40.3	49.9	50.0	45.7	49.8	60.0
LnGrp LOS	F	D	D	C	D	D	D	D	D	D	D	E
Approach Vol, veh/h		1525			1169			1031			728	
Approach Delay, s/veh		99.4			39.9			47.8			55.8	
Approach LOS		F			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	69.3	9.9	58.8	9.7	81.6	23.7	45.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	15.5	62.5	17.5	38.5	15.5	62.5	17.5	38.5				
Max Q Clear Time (g_c+I1), s	17.5	29.5	4.3	33.3	3.2	33.1	17.2	40.5				
Green Ext Time (p_c), s	0.0	8.3	0.0	1.9	0.0	7.7	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			64.7									
HCM 6th LOS			E									

HCM 6th TWSC

108: SW Natura Avenue/SW Natura Blvd & SW Natura Boulevard

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑		↰	↑↑		↰	↑			↕	
Traffic Vol, veh/h	11	620	47	48	183	1	18	0	18	2	0	7
Future Vol, veh/h	11	620	47	48	183	1	18	0	18	2	0	7
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	120	-	-	60	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	721	55	56	213	1	21	0	21	2	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	214	0	0	777	0	0	995	1102	389	713	1129	107
Stage 1	-	-	-	-	-	-	776	776	-	326	326	-
Stage 2	-	-	-	-	-	-	219	326	-	387	803	-
Critical Hdwy	4.14	-	-	4.14	-	-	5.5	6.54	4.5	5.5	6.54	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.54	-	5.5	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1353	-	-	835	-	-	350	210	794	478	203	996
Stage 1	-	-	-	-	-	-	446	406	-	726	647	-
Stage 2	-	-	-	-	-	-	763	647	-	608	394	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1353	-	-	834	-	-	327	194	793	438	187	996
Mov Cap-2 Maneuver	-	-	-	-	-	-	327	194	-	438	187	-
Stage 1	-	-	-	-	-	-	441	402	-	719	604	-
Stage 2	-	-	-	-	-	-	706	604	-	586	390	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			2			13.3			9.7		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	327		793	1353	-	-	834	-	-	776		
HCM Lane V/C Ratio	0.064		0.026	0.009	-	-	0.067	-	-	0.013		
HCM Control Delay (s)	16.8		9.7	7.7	-	-	9.6	-	-	9.7		
HCM Lane LOS	C		A	A	-	-	A	-	-	A		
HCM 95th %tile Q(veh)	0.2		0.1	0	-	-	0.2	-	-	0		

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	172	1163	118	1167	107	264	84	151	129	89	318
Future Volume (vph)	172	1163	118	1167	107	264	84	151	129	89	318
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	90.0	20.0	90.0	90.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	12.5%	56.3%	12.5%	56.3%	56.3%	12.5%	18.8%	18.8%	12.5%	18.8%	18.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	100.3	89.8	96.6	88.0	88.0	37.0	23.0	23.0	34.2	21.6	21.6
Actuated g/C Ratio	0.63	0.56	0.60	0.55	0.55	0.23	0.14	0.14	0.21	0.14	0.14
v/c Ratio	0.68	0.53	0.59	0.46	0.13	0.93	0.18	0.45	0.45	0.39	0.96
Control Delay	23.9	22.9	22.4	22.9	4.2	90.3	60.8	12.1	52.3	67.1	70.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	22.9	22.4	22.9	4.2	90.3	60.8	12.1	52.3	67.1	70.8
LOS	C	C	C	C	A	F	E	B	D	E	E
Approach Delay		23.0		21.5			61.6			65.7	
Approach LOS		C		C			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 84 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 33.1

Intersection LOS: C

Intersection Capacity Utilization 72.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	90 s	20 s	30 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	90 s	20 s	30 s

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	189	1487	130	1282	118	290	92	166	142	98	349
v/c Ratio	0.68	0.53	0.59	0.46	0.13	0.93	0.18	0.45	0.45	0.39	0.96
Control Delay	23.9	22.9	22.4	22.9	4.2	90.3	60.8	12.1	52.3	67.1	70.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	22.9	22.4	22.9	4.2	90.3	60.8	12.1	52.3	67.1	70.8
Queue Length 50th (ft)	75	351	50	300	4	265	44	0	118	93	192
Queue Length 95th (ft)	111	415	79	350	38	#453	74	71	184	156	#384
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	308	2808	270	2796	919	313	530	374	328	279	386
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	0.61	0.53	0.48	0.46	0.13	0.93	0.17	0.44	0.43	0.35	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	172	1163	190	118	1167	107	264	84	151	129	89	318
Future Volume (veh/h)	172	1163	190	118	1167	107	264	84	151	129	89	318
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	1278	209	130	1282	118	290	92	166	142	98	349
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2452	401	258	2756	855	298	562	250	338	281	237
Arrive On Green	0.06	0.55	0.55	0.05	0.54	0.54	0.09	0.16	0.16	0.08	0.15	0.15
Sat Flow, veh/h	1781	4421	723	1781	5106	1585	1781	3554	1579	1781	1870	1579
Grp Volume(v), veh/h	189	984	503	130	1282	118	290	92	166	142	98	349
Grp Sat Flow(s),veh/h/ln	1781	1702	1740	1781	1702	1585	1781	1777	1579	1781	1870	1579
Q Serve(g_s), s	7.6	29.0	29.0	5.2	24.7	5.9	14.0	3.6	15.8	10.7	7.5	24.0
Cycle Q Clear(g_c), s	7.6	29.0	29.0	5.2	24.7	5.9	14.0	3.6	15.8	10.7	7.5	24.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	301	1888	965	258	2756	855	298	562	250	338	281	237
V/C Ratio(X)	0.63	0.52	0.52	0.50	0.47	0.14	0.97	0.16	0.66	0.42	0.35	1.47
Avail Cap(c_a), veh/h	338	1888	965	322	2756	855	298	562	250	353	281	237
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	18.1	22.3	22.3	18.3	22.6	18.3	60.6	58.2	63.3	51.7	61.0	68.0
Incr Delay (d2), s/veh	1.9	1.0	2.0	0.6	0.6	0.3	44.6	0.1	5.3	0.3	0.3	234.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.0	12.5	2.2	10.2	2.3	8.8	1.6	6.8	4.9	3.6	25.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	23.3	24.3	18.9	23.2	18.7	105.2	58.2	68.6	52.0	61.3	302.7
LnGrp LOS	B	C	C	B	C	B	F	E	E	D	E	F
Approach Vol, veh/h		1676			1530			548			589	
Approach Delay, s/veh		23.3			22.5			86.2			202.1	
Approach LOS		C			C			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	93.3	18.7	31.3	14.3	95.7	20.0	30.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	83.0	14.0	24.0	13.0	83.0	14.0	24.0				
Max Q Clear Time (g_c+I1), s	9.6	26.7	12.7	17.8	7.2	31.0	16.0	26.0				
Green Ext Time (p_c), s	0.1	14.2	0.0	0.3	0.0	15.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			55.2									
HCM 6th LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	126	2374	339	1426	193	173	65	413	37	12	29
Future Volume (vph)	126	2374	339	1426	193	173	65	413	37	12	29
Turn Type	Prot	NA	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6	5	2	3	4	4	5	3	3	1
Permitted Phases					2			4			3
Detector Phase	1	6	5	2	3	4	4	5	3	3	1
Switch Phase											
Minimum Initial (s)	5.0	12.0	5.0	12.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0
Minimum Split (s)	11.5	35.5	11.5	35.5	20.0	30.0	30.0	11.5	20.0	20.0	11.5
Total Split (s)	31.0	82.0	28.0	79.0	20.0	30.0	30.0	28.0	20.0	20.0	31.0
Total Split (%)	19.4%	51.3%	17.5%	49.4%	12.5%	18.8%	18.8%	17.5%	12.5%	12.5%	19.4%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	16.3	85.8	28.6	98.2	112.1	13.1	13.1	41.3	7.4	7.4	23.2
Actuated g/C Ratio	0.10	0.54	0.18	0.61	0.70	0.08	0.08	0.26	0.05	0.05	0.14
v/c Ratio	0.76	1.03	0.60	0.50	0.18	0.67	0.46	0.94	0.34	0.34	0.11
Control Delay	96.4	47.7	68.5	15.4	1.6	82.8	79.4	71.1	84.9	85.0	1.0
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.4	47.7	68.5	15.6	1.6	82.8	79.4	71.1	84.9	85.0	1.0
LOS	F	D	E	B	A	F	E	E	F	F	A
Approach Delay		50.0		23.4			75.1			53.4	
Approach LOS		D		C			E			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 153 (96%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 43.4

Intersection LOS: D

Intersection Capacity Utilization 97.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 102: Jim Moran Boulevard & Hillsboro Boulevard



Queues

102: Jim Moran Boulevard & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	137	2792	368	1550	210	188	71	449	26	27	32
v/c Ratio	0.76	1.03	0.60	0.50	0.18	0.67	0.46	0.94	0.34	0.34	0.11
Control Delay	96.4	47.7	68.5	15.4	1.6	82.8	79.4	71.1	84.9	85.0	1.0
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.4	47.7	68.5	15.6	1.6	82.8	79.4	71.1	84.9	85.0	1.0
Queue Length 50th (ft)	150	~1143	185	250	11	100	72	351	28	29	0
Queue Length 95th (ft)	m168	#1342	244	341	26	141	125	#475	64	66	2
Internal Link Dist (ft)		2620		495			677			792	
Turn Bay Length (ft)	375		400		330	200		250	200		200
Base Capacity (vph)	271	2700	617	3120	1228	514	279	480	147	150	361
Starvation Cap Reductn	0	0	0	618	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	0.51	1.03	0.60	0.62	0.17	0.37	0.25	0.94	0.18	0.18	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.

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

HCM Signalized Intersection Capacity Analysis

102: Jim Moran Boulevard & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	2374	195	339	1426	193	173	65	413	37	12	29
Future Volume (vph)	126	2374	195	339	1426	193	173	65	413	37	12	29
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	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lane Util. Factor	1.00	0.91		0.97	0.91	1.00	0.97	1.00	1.00	0.95	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	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	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	0.97	1.00
Satd. Flow (prot)	1770	5022		3433	5085	1583	3433	1863	1571	1681	1725	1576
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5022		3433	5085	1583	3433	1863	1571	1681	1725	1576
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)	137	2580	212	368	1550	210	188	71	449	40	13	32
RTOR Reduction (vph)	0	5	0	0	0	71	0	0	73	0	0	27
Lane Group Flow (vph)	137	2787	0	368	1550	139	188	71	376	26	27	5
Confl. Peds. (#/hr)							2					2
Confl. Bikes (#/hr)			2						3			
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6		5	2	3	4	4	5	3	3	1
Permitted Phases						2			4			3
Actuated Green, G (s)	16.3	85.9		28.6	98.2	105.6	13.1	13.1	41.7	7.4	7.4	23.7
Effective Green, g (s)	16.3	85.9		28.6	98.2	105.6	13.1	13.1	41.7	7.4	7.4	23.7
Actuated g/C Ratio	0.10	0.54		0.18	0.61	0.66	0.08	0.08	0.26	0.05	0.05	0.15
Clearance Time (s)	6.5	6.5		6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Vehicle Extension (s)	1.5	3.0		1.5	3.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5
Lane Grp Cap (vph)	180	2696		613	3120	1044	281	152	409	77	79	233
v/s Ratio Prot	0.08	c0.55		0.11	0.30	0.01	0.05	0.04	c0.16	0.02	c0.02	0.00
v/s Ratio Perm						0.08			0.08			0.00
v/c Ratio	0.76	1.03		0.60	0.50	0.13	0.67	0.47	0.92	0.34	0.34	0.02
Uniform Delay, d1	70.0	37.0		60.4	17.2	10.1	71.3	70.1	57.5	73.9	73.9	58.2
Progression Factor	1.17	0.64		1.08	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.2	22.8		1.1	0.5	0.0	4.6	0.8	24.8	1.0	0.9	0.0
Delay (s)	90.8	46.4		66.2	14.5	10.2	76.0	70.9	82.4	74.9	74.9	58.2
Level of Service	F	D		E	B	B	E	E	F	E	E	E
Approach Delay (s)		48.5			23.0			79.5			68.6	
Approach LOS		D			C			E			E	
Intersection Summary												
HCM 2000 Control Delay		43.3										
HCM 2000 Volume to Capacity ratio		0.96										
Actuated Cycle Length (s)		160.0							25.0			
Intersection Capacity Utilization		97.9%										
Analysis Period (min)		15										
c Critical Lane Group												

Timings

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Configurations	↑↑↑	↘	↗
Traffic Volume (vph)	1174	470	526
Future Volume (vph)	1174	470	526
Turn Type	NA	Prot	Prot
Protected Phases	2	3	8
Permitted Phases			
Detector Phase	2	3	8
Switch Phase			
Minimum Initial (s)	12.0	6.0	6.0
Minimum Split (s)	33.5	24.5	24.5
Total Split (s)	106.0	54.0	54.0
Total Split (%)	66.3%	33.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	None
Act Effct Green (s)	100.4	46.6	46.6
Actuated g/C Ratio	0.63	0.29	0.29
v/c Ratio	0.39	0.97	0.62
Control Delay	15.3	88.3	40.0
Queue Delay	0.0	0.0	0.0
Total Delay	15.3	88.3	40.0
LOS	B	F	D
Approach Delay	15.3	62.8	
Approach LOS	B	E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 14 (9%), Referenced to phase 2:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 37.1

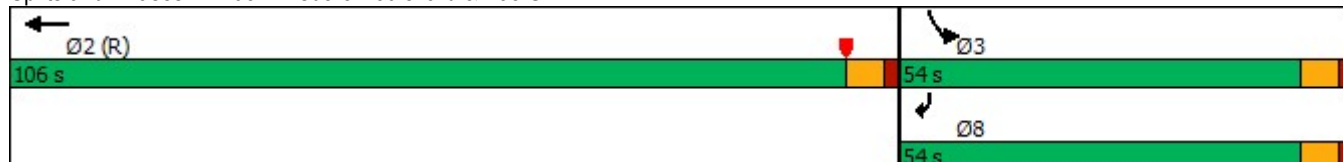
Intersection LOS: D

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 103: Hillsboro Boulevard & I-95 SB



Queues

103: Hillsboro Boulevard & I-95 SB



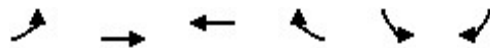
Lane Group	WBT	SBL	SBR
Lane Group Flow (vph)	1249	500	560
v/c Ratio	0.39	0.97	0.62
Control Delay	15.3	88.3	40.0
Queue Delay	0.0	0.0	0.0
Total Delay	15.3	88.3	40.0
Queue Length 50th (ft)	229	515	221
Queue Length 95th (ft)	260	#746	294
Internal Link Dist (ft)	1220	531	
Turn Bay Length (ft)			
Base Capacity (vph)	3191	525	920
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	47	0	1
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.40	0.95	0.61

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

103: Hillsboro Boulevard & I-95 SB



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↑		↑	↑↑
Traffic Volume (vph)	0	0	1174	0	470	526
Future Volume (vph)	0	0	1174	0	470	526
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.5		6.5	6.5
Lane Util. Factor			0.91		1.00	0.88
Frt			1.00		1.00	0.85
Flt Protected			1.00		0.95	1.00
Satd. Flow (prot)			5085		1770	2787
Flt Permitted			1.00		0.95	1.00
Satd. Flow (perm)			5085		1770	2787
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	1249	0	500	560
RTOR Reduction (vph)	0	0	0	0	0	94
Lane Group Flow (vph)	0	0	1249	0	500	466
Turn Type			NA		Prot	Prot
Protected Phases			2		3	8
Permitted Phases						
Actuated Green, G (s)			100.4		46.6	46.6
Effective Green, g (s)			100.4		46.6	46.6
Actuated g/C Ratio			0.63		0.29	0.29
Clearance Time (s)			6.5		6.5	6.5
Vehicle Extension (s)			3.0		2.5	2.5
Lane Grp Cap (vph)			3190		515	811
v/s Ratio Prot			c0.25		c0.28	0.17
v/s Ratio Perm						
v/c Ratio			0.39		0.97	0.58
Uniform Delay, d1			14.7		56.0	48.3
Progression Factor			1.00		1.00	1.00
Incremental Delay, d2			0.4		32.1	0.8
Delay (s)			15.1		88.2	49.1
Level of Service			B		F	D
Approach Delay (s)		0.0	15.1		67.5	
Approach LOS		A	B		E	
Intersection Summary						
HCM 2000 Control Delay			39.2		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.57			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			59.6%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Timings

104: I-95 NB & Hillsboro Boulevard

	→	↗
Lane Group	EBT	NBR
Lane Configurations	↑↑↑	↗↗
Traffic Volume (vph)	1585	477
Future Volume (vph)	1585	477
Turn Type	NA	Prot
Protected Phases	6	7
Permitted Phases		
Detector Phase	6	7
Switch Phase		
Minimum Initial (s)	12.0	6.0
Minimum Split (s)	24.5	24.5
Total Split (s)	106.0	54.0
Total Split (%)	66.3%	33.8%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)	117.5	29.5
Actuated g/C Ratio	0.73	0.18
v/c Ratio	0.43	0.86
Control Delay	11.2	70.2
Queue Delay	0.0	0.0
Total Delay	11.2	70.2
LOS	B	E
Approach Delay	11.2	
Approach LOS	B	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 14 (9%), Referenced to phase 2: and 6:EBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: I-95 NB & Hillsboro Boulevard



Queues

104: I-95 NB & Hillsboro Boulevard



Lane Group	EBT	NBR
Lane Group Flow (vph)	1601	482
v/c Ratio	0.43	0.86
Control Delay	11.2	70.2
Queue Delay	0.0	0.0
Total Delay	11.2	70.2
Queue Length 50th (ft)	343	249
Queue Length 95th (ft)	m455	306
Internal Link Dist (ft)	1220	
Turn Bay Length (ft)		
Base Capacity (vph)	3733	868
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.43	0.56

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

104: I-95 NB & Hillsboro Boulevard

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↗↗
Traffic Volume (vph)	1585	0	0	0	0	477
Future Volume (vph)	1585	0	0	0	0	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5					6.5
Lane Util. Factor	0.91					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	5085					2787
Flt Permitted	1.00					1.00
Satd. Flow (perm)	5085					2787
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	1601	0	0	0	0	482
RTOR Reduction (vph)	0	0	0	0	0	48
Lane Group Flow (vph)	1601	0	0	0	0	434
Turn Type	NA					Prot
Protected Phases	6					7
Permitted Phases						
Actuated Green, G (s)	117.5					29.5
Effective Green, g (s)	117.5					29.5
Actuated g/C Ratio	0.73					0.18
Clearance Time (s)	6.5					6.5
Vehicle Extension (s)	3.5					2.0
Lane Grp Cap (vph)	3734					513
v/s Ratio Prot	c0.31					c0.16
v/s Ratio Perm						
v/c Ratio	0.43					0.85
Uniform Delay, d1	8.2					63.1
Progression Factor	1.23					1.00
Incremental Delay, d2	0.4					11.7
Delay (s)	10.5					74.8
Level of Service	B					E
Approach Delay (s)	10.5			0.0	74.8	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay		25.4		HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio		0.51				
Actuated Cycle Length (s)		160.0		Sum of lost time (s)		13.0
Intersection Capacity Utilization		59.6%		ICU Level of Service		B
Analysis Period (min)		15				
c Critical Lane Group						

Timings

101: Military Trail & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	262	1911	133	874	267	232	676	451	529
Future Volume (vph)	262	1911	133	874	267	232	676	451	529
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	1	6	5	2		7	4	3	8
Permitted Phases					2				
Detector Phase	1	6	5	2	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	4.0	8.0	4.0	8.0	8.0	4.0	6.0	4.0	8.0
Minimum Split (s)	20.0	43.5	10.5	43.5	43.5	10.5	38.0	10.5	38.0
Total Split (s)	20.0	73.0	20.0	73.0	73.0	29.0	38.0	29.0	38.0
Total Split (%)	12.5%	45.6%	12.5%	45.6%	45.6%	18.1%	23.8%	18.1%	23.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	14.1	71.9	10.2	68.1	68.1	14.9	29.4	22.4	36.9
Actuated g/C Ratio	0.09	0.45	0.06	0.43	0.43	0.09	0.18	0.14	0.23
v/c Ratio	0.88	0.95	0.62	0.41	0.35	0.74	0.88	0.96	0.56
Control Delay	100.0	52.9	71.2	53.0	30.2	84.5	73.8	99.5	54.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.0	52.9	71.2	53.0	30.2	84.5	73.8	99.5	54.6
LOS	F	D	E	D	C	F	E	F	D
Approach Delay		58.1		50.1			76.2		73.2
Approach LOS		E		D			E		E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 100 (63%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 62.4

Intersection LOS: E

Intersection Capacity Utilization 96.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 101: Military Trail & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	73 s	29 s	38 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	73 s	29 s	38 s

Queues

101: Military Trail & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	267	2157	136	892	272	237	819	460	651
v/c Ratio	0.88	0.95	0.62	0.41	0.35	0.74	0.88	0.96	0.56
Control Delay	100.0	52.9	71.2	53.0	30.2	84.5	73.8	99.5	54.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.0	52.9	71.2	53.0	30.2	84.5	73.8	99.5	54.6
Queue Length 50th (ft)	144	799	73	292	114	126	298	250	211
Queue Length 95th (ft)	#236	#967	110	367	239	170	352	#360	265
Internal Link Dist (ft)		751		2620			541		790
Turn Bay Length (ft)	260		160		130	300		310	
Base Capacity (vph)	303	2262	289	2162	787	482	991	482	1157
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	0.88	0.95	0.47	0.41	0.35	0.49	0.83	0.95	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

101: Military Trail & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	1911	203	133	874	267	232	676	126	451	529	109
Future Volume (veh/h)	262	1911	203	133	874	267	232	676	126	451	529	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1950	207	136	892	272	237	690	129	460	540	111
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	2178	229	179	2204	684	281	782	145	486	1022	206
Arrive On Green	0.08	0.46	0.46	0.02	0.14	0.14	0.08	0.18	0.18	0.14	0.24	0.24
Sat Flow, veh/h	3456	4691	494	3456	5106	1585	3456	4328	799	3456	4260	858
Grp Volume(v), veh/h	267	1411	746	136	892	272	237	541	278	460	429	222
Grp Sat Flow(s),veh/h/ln	1728	1702	1781	1728	1702	1585	1728	1702	1723	1728	1702	1713
Q Serve(g_s), s	12.3	60.7	61.8	6.3	25.4	25.0	10.8	24.8	25.2	21.1	17.5	18.1
Cycle Q Clear(g_c), s	12.3	60.7	61.8	6.3	25.4	25.0	10.8	24.8	25.2	21.1	17.5	18.1
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.46	1.00		0.50
Lane Grp Cap(c), veh/h	292	1580	827	179	2204	684	281	615	312	486	817	411
V/C Ratio(X)	0.92	0.89	0.90	0.76	0.40	0.40	0.84	0.88	0.89	0.95	0.53	0.54
Avail Cap(c_a), veh/h	292	1580	827	292	2204	684	486	670	339	486	817	411
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.7	39.2	39.5	77.6	49.9	49.7	72.5	63.8	64.0	68.2	52.9	53.1
Incr Delay (d2), s/veh	31.1	8.1	15.0	2.1	0.5	1.5	2.6	11.4	22.0	27.6	0.3	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	6.6	26.2	29.5	2.9	11.8	10.9	4.9	11.6	12.9	11.1	7.5	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.8	47.3	54.6	79.7	50.4	51.2	75.1	75.2	86.1	95.7	53.2	53.9
LnGrp LOS	F	D	D	E	D	D	E	E	F	F	D	D
Approach Vol, veh/h	2424			1300			1056			1111		
Approach Delay, s/veh	55.8			53.6			78.0			70.9		
Approach LOS	E			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	75.6	29.0	35.4	14.8	80.8	19.5	44.9				
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	13.5	66.5	22.5	31.5	13.5	66.5	22.5	31.5				
Max Q Clear Time (g_c+l1), s	14.3	27.4	23.1	27.2	8.3	63.8	12.8	20.1				
Green Ext Time (p_c), s	0.0	7.9	0.0	1.5	0.1	2.4	0.2	2.1				
Intersection Summary												
HCM 6th Ctrl Delay	62.1											
HCM 6th LOS	E											
Notes												

HCM 6th TWSC
105: Project Driveway & Hillsboro Boulevard

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	2003	57	0	2429	0	75
Future Vol, veh/h	2003	57	0	2429	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2201	63	0	2669	0	82

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1132
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 4.5
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	- 0	- 0 388
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 388
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	388	-	-	-
HCM Lane V/C Ratio	0.212	-	-	-
HCM Control Delay (s)	16.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  						
Traffic Volume (vph)	430	1559	138	93	1709	391	113	128	70	18	132
Future Volume (vph)	430	1559	138	93	1709	391	113	128	70	18	132
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	24.5	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	28.0	71.0	71.0	23.0	66.0	20.0	46.0	46.0	20.0	46.0	46.0
Total Split (%)	17.5%	44.4%	44.4%	14.4%	41.3%	12.5%	28.8%	28.8%	12.5%	28.8%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	27.6	96.5	96.5	12.7	81.7	29.3	15.6	15.6	21.9	11.8	11.8
Actuated g/C Ratio	0.17	0.60	0.60	0.08	0.51	0.18	0.10	0.10	0.14	0.07	0.07
v/c Ratio	0.77	0.54	0.15	0.70	0.76	1.62	0.65	0.49	0.37	0.14	0.57
Control Delay	72.3	20.6	5.7	99.1	29.8	335.5	86.3	15.8	57.5	68.2	18.7
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	72.3	20.6	5.7	99.1	29.8	335.5	86.3	15.8	57.5	68.2	18.7
LOS	E	C	A	F	C	F	F	B	E	E	B
Approach Delay		30.1			33.1		226.2			35.1	
Approach LOS		C			C		F			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 26 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.62

Intersection Signal Delay: 56.7

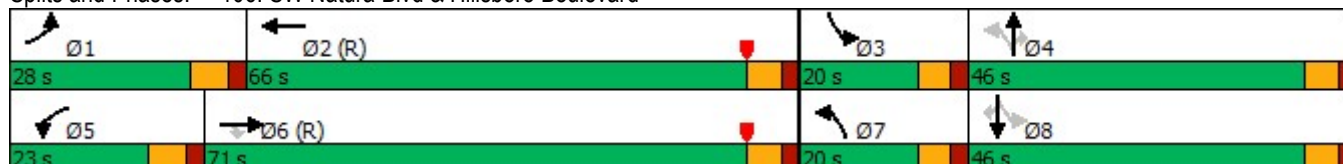
Intersection LOS: E

Intersection Capacity Utilization 92.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard



Queues

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	453	1641	145	98	1951	412	119	135	74	19	139
v/c Ratio	0.77	0.54	0.15	0.70	0.76	1.62	0.65	0.49	0.37	0.14	0.57
Control Delay	72.3	20.6	5.7	99.1	29.8	335.5	86.3	15.8	57.5	68.2	18.7
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	72.3	20.6	5.7	99.1	29.8	335.5	86.3	15.8	57.5	68.2	18.7
Queue Length 50th (ft)	236	349	16	103	681	~516	123	0	66	19	0
Queue Length 95th (ft)	293	489	58	m165	809	#653	189	66	108	46	67
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	591	3066	996	186	2569	254	465	491	245	465	500
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	0.77	0.54	0.15	0.53	0.76	1.62	0.26	0.27	0.30	0.04	0.28

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 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	1559	138	93	1709	144	391	113	128	70	18	132
Future Volume (veh/h)	430	1559	138	93	1709	144	391	113	128	70	18	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	453	1641	145	98	1799	152	412	119	135	74	19	139
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	2994	929	117	2482	209	318	270	228	227	195	165
Arrive On Green	0.13	0.59	0.59	0.13	1.00	1.00	0.09	0.14	0.14	0.05	0.10	0.10
Sat Flow, veh/h	3456	5106	1585	1781	4798	404	1781	1870	1582	1781	1870	1580
Grp Volume(v), veh/h	453	1641	145	98	1275	676	412	119	135	74	19	139
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1798	1781	1870	1582	1781	1870	1580
Q Serve(g_s), s	20.9	31.3	6.7	8.6	0.0	0.0	14.0	9.3	12.8	5.9	1.5	13.8
Cycle Q Clear(g_c), s	20.9	31.3	6.7	8.6	0.0	0.0	14.0	9.3	12.8	5.9	1.5	13.8
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	2994	929	117	1761	930	318	270	228	227	195	165
V/C Ratio(X)	0.98	0.55	0.16	0.84	0.72	0.73	1.30	0.44	0.59	0.33	0.10	0.84
Avail Cap(c_a), veh/h	464	2994	929	184	1761	930	318	468	395	298	468	395
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	20.2	15.1	68.7	0.0	0.0	64.6	62.6	64.0	60.0	64.8	70.3
Incr Delay (d2), s/veh	35.2	0.7	0.4	7.5	1.9	3.7	155.0	0.4	0.9	0.3	0.1	4.4
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	11.4	12.1	2.6	3.9	0.5	0.9	20.0	4.5	5.2	2.7	0.7	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.2	20.9	15.4	76.2	1.9	3.7	219.6	63.0	65.0	60.4	64.9	74.7
LnGrp LOS	F	C	B	E	A	A	F	E	E	E	E	E
Approach Vol, veh/h	2239			2049			666			232		
Approach Delay, s/veh	37.4			6.0			160.3			69.3		
Approach LOS	D			A			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	89.3	13.6	29.1	17.0	100.3	20.0	22.7				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	21.5	59.5	14.0	40.0	16.5	64.5	14.0	40.0				
Max Q Clear Time (g_c+l1), s	22.9	2.0	7.9	14.8	10.6	33.3	16.0	15.8				
Green Ext Time (p_c), s	0.0	22.2	0.0	0.6	0.0	15.0	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	42.2											
HCM 6th LOS	D											

Timings

107: S. Dixie Highway & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  		 		 	
Traffic Volume (vph)	414	899	22	998	217	656	32	236	421
Future Volume (vph)	414	899	22	998	217	656	32	236	421
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	1	6	5	2	7	4	3	8	1
Permitted Phases			2		4		8		8
Detector Phase	1	6	5	2	7	4	3	8	1
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	4.0	6.0	4.0	6.0	5.0
Minimum Split (s)	11.5	36.5	11.5	36.5	10.5	39.5	10.5	41.5	11.5
Total Split (s)	22.0	69.0	22.0	69.0	24.0	45.0	24.0	45.0	22.0
Total Split (%)	13.8%	43.1%	13.8%	43.1%	15.0%	28.1%	15.0%	28.1%	13.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	24.0	85.5	68.1	62.5	54.0	43.2	36.9	30.5	54.5
Actuated g/C Ratio	0.15	0.53	0.43	0.39	0.34	0.27	0.23	0.19	0.34
v/c Ratio	0.85	0.42	0.10	0.59	0.61	0.85	0.27	0.37	0.76
Control Delay	67.3	46.3	19.0	39.6	46.7	63.8	38.7	56.6	43.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.3	46.3	19.0	39.6	46.7	63.8	38.7	56.6	43.8
LOS	E	D	B	D	D	E	D	E	D
Approach Delay		52.2		39.2		60.0		48.0	
Approach LOS		D		D		E		D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 132 (83%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 49.9

Intersection LOS: D

Intersection Capacity Utilization 79.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 107: S. Dixie Highway & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
22 s	69 s	24 s	45 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
22 s	69 s	24 s	45 s

Future AM Peak Hour

Synchro 10 Light Report

Queues

107: S. Dixie Highway & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	440	1117	23	1157	231	801	34	251	448
v/c Ratio	0.85	0.42	0.10	0.59	0.61	0.85	0.27	0.37	0.76
Control Delay	67.3	46.3	19.0	39.6	46.7	63.8	38.7	56.6	43.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.3	46.3	19.0	39.6	46.7	63.8	38.7	56.6	43.8
Queue Length 50th (ft)	240	433	10	346	180	414	23	120	327
Queue Length 95th (ft)	#426	478	27	396	244	481	47	157	464
Internal Link Dist (ft)		2890		691		540		364	
Turn Bay Length (ft)	170		180		225		270		120
Base Capacity (vph)	515	2664	348	1969	379	950	248	851	589
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	0.85	0.42	0.07	0.59	0.61	0.84	0.14	0.29	0.76

Intersection Summary

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

HCM 6th Signalized Intersection Summary 107: S. Dixie Highway & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	 	 
Traffic Volume (veh/h)	414	899	151	22	998	89	217	656	97	32	236	421
Future Volume (veh/h)	414	899	151	22	998	89	217	656	97	32	236	421
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	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	440	956	161	23	1062	95	231	698	103	34	251	448
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	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2061	346	217	1871	167	374	1015	150	172	855	530
Arrive On Green	0.03	0.15	0.15	0.02	0.39	0.39	0.11	0.33	0.33	0.02	0.24	0.24
Sat Flow, veh/h	3456	4393	737	1781	4771	426	1781	3100	457	1781	3554	1563
Grp Volume(v), veh/h	440	740	377	23	757	400	231	400	401	34	251	448
Grp Sat Flow(s),veh/h/ln	1728	1702	1727	1781	1702	1794	1781	1777	1781	1781	1777	1563
Q Serve(g_s), s	15.5	31.7	31.8	1.2	27.8	27.9	15.2	31.2	31.3	2.3	9.2	38.5
Cycle Q Clear(g_c), s	15.5	31.7	31.8	1.2	27.8	27.9	15.2	31.2	31.3	2.3	9.2	38.5
Prop In Lane	1.00		0.43	1.00		0.24	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	335	1597	810	217	1335	703	374	582	583	172	855	530
V/C Ratio(X)	1.31	0.46	0.47	0.11	0.57	0.57	0.62	0.69	0.69	0.20	0.29	0.85
Avail Cap(c_a), veh/h	335	1597	810	354	1335	703	376	582	583	329	855	530
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.4	49.3	49.3	29.2	38.0	38.0	38.1	46.7	46.7	45.5	49.6	49.2
Incr Delay (d2), s/veh	158.3	0.8	1.6	0.1	1.8	3.3	2.2	3.2	3.2	0.2	0.1	11.8
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	14.6	14.7	15.2	0.5	11.7	12.7	6.9	14.2	14.3	1.0	4.1	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	235.8	50.1	51.0	29.3	39.8	41.3	40.3	49.9	49.9	45.7	49.8	61.0
LnGrp LOS	F	D	D	C	D	D	D	D	D	D	D	E
Approach Vol, veh/h		1557			1180			1032			733	
Approach Delay, s/veh		102.8			40.1			47.7			56.5	
Approach LOS		F			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	69.3	9.9	58.9	9.7	81.6	23.7	45.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	15.5	62.5	17.5	38.5	15.5	62.5	17.5	38.5				
Max Q Clear Time (g_c+I1), s	17.5	29.9	4.3	33.3	3.2	33.8	17.2	40.5				
Green Ext Time (p_c), s	0.0	8.4	0.0	1.9	0.0	7.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			66.2									
HCM 6th LOS			E									

HCM 6th TWSC

108: SW Natura Avenue/SW Natura Blvd & SW Natura Boulevard

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	622	47	48	193	4	18	0	18	12	0	10
Future Vol, veh/h	14	622	47	48	193	4	18	0	18	12	0	10
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	120	-	-	60	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	723	55	56	224	5	21	0	21	14	0	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	229	0	0	779	0	0	1008	1125	390	733	1150	115
Stage 1	-	-	-	-	-	-	784	784	-	339	339	-
Stage 2	-	-	-	-	-	-	224	341	-	394	811	-
Critical Hdwy	4.14	-	-	4.14	-	-	5.5	6.54	4.5	5.5	6.54	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.54	-	5.5	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1336	-	-	834	-	-	345	204	793	468	197	990
Stage 1	-	-	-	-	-	-	442	402	-	716	638	-
Stage 2	-	-	-	-	-	-	758	637	-	602	391	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1336	-	-	833	-	-	320	188	792	428	181	990
Mov Cap-2 Maneuver	-	-	-	-	-	-	320	188	-	428	181	-
Stage 1	-	-	-	-	-	-	436	397	-	707	595	-
Stage 2	-	-	-	-	-	-	699	594	-	579	386	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.9			13.4			11.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	320	792	1336	-	-	833	-	-	577			
HCM Lane V/C Ratio	0.065	0.026	0.012	-	-	0.067	-	-	0.044			
HCM Control Delay (s)	17	9.7	7.7	-	-	9.6	-	-	11.5			
HCM Lane LOS	C	A	A	-	-	A	-	-	B			
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0.2	-	-	0.1			

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	175	1163	118	1167	108	264	85	151	131	92	323
Future Volume (vph)	175	1163	118	1167	108	264	85	151	131	92	323
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	90.0	20.0	90.0	90.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	12.5%	56.3%	12.5%	56.3%	56.3%	12.5%	18.8%	18.8%	12.5%	18.8%	18.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	99.8	89.3	96.0	87.4	87.4	37.4	23.4	23.4	34.7	22.1	22.1
Actuated g/C Ratio	0.62	0.56	0.60	0.55	0.55	0.23	0.15	0.15	0.22	0.14	0.14
v/c Ratio	0.69	0.53	0.59	0.46	0.13	0.92	0.18	0.45	0.45	0.39	0.96
Control Delay	25.0	23.1	22.8	23.3	4.2	89.1	60.5	12.0	52.1	66.9	71.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	23.1	22.8	23.3	4.2	89.1	60.5	12.0	52.1	66.9	71.8
LOS	C	C	C	C	A	F	E	B	D	E	E
Approach Delay		23.3		21.7			60.9			66.3	
Approach LOS		C		C			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 84 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 33.4

Intersection LOS: C

Intersection Capacity Utilization 73.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	90 s	20 s	30 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	90 s	20 s	30 s

Future AM Peak Hour

Synchro 10 Light Report

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	192	1487	130	1282	119	290	93	166	144	101	355
v/c Ratio	0.69	0.53	0.59	0.46	0.13	0.92	0.18	0.45	0.45	0.39	0.96
Control Delay	25.0	23.1	22.8	23.3	4.2	89.1	60.5	12.0	52.1	66.9	71.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	23.1	22.8	23.3	4.2	89.1	60.5	12.0	52.1	66.9	71.8
Queue Length 50th (ft)	76	351	50	300	5	265	45	0	120	96	200
Queue Length 95th (ft)	113	415	79	350	39	#454	74	71	186	159	#398
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	306	2791	268	2777	914	314	534	376	332	279	386
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	0.63	0.53	0.49	0.46	0.13	0.92	0.17	0.44	0.43	0.36	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	175	1163	190	118	1167	108	264	85	151	131	92	323
Future Volume (veh/h)	175	1163	190	118	1167	108	264	85	151	131	92	323
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1278	209	130	1282	119	290	93	166	144	101	355
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	2452	401	258	2751	854	296	559	248	338	281	237
Arrive On Green	0.06	0.55	0.55	0.05	0.54	0.54	0.09	0.16	0.16	0.08	0.15	0.15
Sat Flow, veh/h	1781	4421	723	1781	5106	1585	1781	3554	1579	1781	1870	1579
Grp Volume(v), veh/h	192	984	503	130	1282	119	290	93	166	144	101	355
Grp Sat Flow(s),veh/h/ln	1781	1702	1740	1781	1702	1585	1781	1777	1579	1781	1870	1579
Q Serve(g_s), s	7.7	29.0	29.0	5.2	24.7	6.0	14.0	3.6	15.8	10.8	7.8	24.0
Cycle Q Clear(g_c), s	7.7	29.0	29.0	5.2	24.7	6.0	14.0	3.6	15.8	10.8	7.8	24.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	1888	965	258	2751	854	296	559	248	338	281	237
V/C Ratio(X)	0.64	0.52	0.52	0.50	0.47	0.14	0.98	0.17	0.67	0.43	0.36	1.50
Avail Cap(c_a), veh/h	338	1888	965	322	2751	854	296	559	248	351	281	237
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	18.2	22.3	22.3	18.4	22.7	18.4	60.7	58.3	63.5	51.6	61.1	68.0
Incr Delay (d2), s/veh	2.1	1.0	2.0	0.6	0.6	0.3	46.8	0.1	5.5	0.3	0.3	245.5
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	12.0	12.5	2.2	10.2	2.3	9.0	1.7	6.8	4.9	3.7	25.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	23.4	24.3	18.9	23.3	18.7	107.5	58.4	69.0	51.9	61.4	313.5
LnGrp LOS	C	C	C	B	C	B	F	E	E	D	E	F
Approach Vol, veh/h	1679			1531			549			600		
Approach Delay, s/veh	23.3			22.6			87.5			208.3		
Approach LOS	C			C			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.8	93.2	18.8	31.2	14.3	95.7	20.0	30.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	83.0	14.0	24.0	13.0	83.0	14.0	24.0				
Max Q Clear Time (g_c+I1), s	9.7	26.7	12.8	17.8	7.2	31.0	16.0	26.0				
Green Ext Time (p_c), s	0.1	14.2	0.0	0.3	0.0	15.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	56.6											
HCM 6th LOS	E											
Notes												

Timings

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	126	2387	339	1451	193	173	65	413	37	12	29
Future Volume (vph)	126	2387	339	1451	193	173	65	413	37	12	29
Turn Type	Prot	NA	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6	5	2	3	4	4	5	3	3	1
Permitted Phases					2			4			3
Detector Phase	1	6	5	2	3	4	4	5	3	3	1
Switch Phase											
Minimum Initial (s)	5.0	12.0	5.0	12.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0
Minimum Split (s)	11.5	35.5	11.5	35.5	20.0	30.0	30.0	11.5	20.0	20.0	11.5
Total Split (s)	31.0	82.0	28.0	79.0	20.0	30.0	30.0	28.0	20.0	20.0	31.0
Total Split (%)	19.4%	51.3%	17.5%	49.4%	12.5%	18.8%	18.8%	17.5%	12.5%	12.5%	19.4%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	16.3	85.8	28.6	98.2	112.1	13.1	13.1	41.3	7.4	7.4	23.2
Actuated g/C Ratio	0.10	0.54	0.18	0.61	0.70	0.08	0.08	0.26	0.05	0.05	0.14
v/c Ratio	0.76	1.04	0.60	0.51	0.18	0.67	0.46	0.94	0.34	0.34	0.11
Control Delay	96.0	49.5	68.4	15.6	1.5	82.8	79.4	71.1	84.9	85.0	1.0
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.0	49.5	68.4	15.8	1.5	82.8	79.4	71.1	84.9	85.0	1.0
LOS	F	D	E	B	A	F	E	E	F	F	A
Approach Delay		51.7		23.4			75.1			53.4	
Approach LOS		D		C			E			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 153 (96%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 44.1

Intersection LOS: D

Intersection Capacity Utilization 98.1%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 102: Jim Moran Boulevard & Hillsboro Boulevard



Queues

102: Jim Moran Boulevard & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	137	2807	368	1577	210	188	71	449	26	27	32
v/c Ratio	0.76	1.04	0.60	0.51	0.18	0.67	0.46	0.94	0.34	0.34	0.11
Control Delay	96.0	49.5	68.4	15.6	1.5	82.8	79.4	71.1	84.9	85.0	1.0
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.0	49.5	68.4	15.8	1.5	82.8	79.4	71.1	84.9	85.0	1.0
Queue Length 50th (ft)	150	~1154	185	256	11	100	72	351	28	29	0
Queue Length 95th (ft)	m167	#1353	243	365	26	141	125	#475	64	66	2
Internal Link Dist (ft)		2620		495			677			792	
Turn Bay Length (ft)	375		400		330	200		250	200		200
Base Capacity (vph)	271	2700	617	3120	1228	514	279	480	147	150	361
Starvation Cap Reductn	0	0	0	606	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	0.51	1.04	0.60	0.63	0.17	0.37	0.25	0.94	0.18	0.18	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.

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

HCM Signalized Intersection Capacity Analysis

102: Jim Moran Boulevard & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	2387	195	339	1451	193	173	65	413	37	12	29
Future Volume (vph)	126	2387	195	339	1451	193	173	65	413	37	12	29
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	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lane Util. Factor	1.00	0.91		0.97	0.91	1.00	0.97	1.00	1.00	0.95	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	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	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	0.97	1.00
Satd. Flow (prot)	1770	5023		3433	5085	1583	3433	1863	1571	1681	1725	1576
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5023		3433	5085	1583	3433	1863	1571	1681	1725	1576
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)	137	2595	212	368	1577	210	188	71	449	40	13	32
RTOR Reduction (vph)	0	5	0	0	0	71	0	0	73	0	0	27
Lane Group Flow (vph)	137	2802	0	368	1577	139	188	71	376	26	27	5
Confl. Peds. (#/hr)							2					2
Confl. Bikes (#/hr)			2						3			
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6		5	2	3	4	4	5	3	3	1
Permitted Phases						2			4			3
Actuated Green, G (s)	16.3	85.9		28.6	98.2	105.6	13.1	13.1	41.7	7.4	7.4	23.7
Effective Green, g (s)	16.3	85.9		28.6	98.2	105.6	13.1	13.1	41.7	7.4	7.4	23.7
Actuated g/C Ratio	0.10	0.54		0.18	0.61	0.66	0.08	0.08	0.26	0.05	0.05	0.15
Clearance Time (s)	6.5	6.5		6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Vehicle Extension (s)	1.5	3.0		1.5	3.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5
Lane Grp Cap (vph)	180	2696		613	3120	1044	281	152	409	77	79	233
v/s Ratio Prot	0.08	c0.56		0.11	0.31	0.01	0.05	0.04	c0.16	0.02	c0.02	0.00
v/s Ratio Perm						0.08			0.08			0.00
v/c Ratio	0.76	1.04		0.60	0.51	0.13	0.67	0.47	0.92	0.34	0.34	0.02
Uniform Delay, d1	70.0	37.0		60.4	17.3	10.1	71.3	70.1	57.5	73.9	73.9	58.2
Progression Factor	1.16	0.63		1.08	0.81	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.0	24.6		1.1	0.6	0.0	4.6	0.8	24.8	1.0	0.9	0.0
Delay (s)	90.5	48.1		66.1	14.6	10.1	76.0	70.9	82.4	74.9	74.9	58.2
Level of Service	F	D		E	B	B	E	E	F	E	E	E
Approach Delay (s)		50.1			23.0			79.5			68.6	
Approach LOS		D			C			E			E	
Intersection Summary												
HCM 2000 Control Delay		44.0										
HCM 2000 Volume to Capacity ratio		0.96										
Actuated Cycle Length (s)		160.0										
Intersection Capacity Utilization		98.1%										
Analysis Period (min)		15										
c Critical Lane Group												

Future AM Peak Hour

Synchro 10 Light Report

Timings

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Configurations	↑↑↑	↰	↱↱
Traffic Volume (vph)	1174	477	526
Future Volume (vph)	1174	477	526
Turn Type	NA	Prot	Prot
Protected Phases	2	3	8
Permitted Phases			
Detector Phase	2	3	8
Switch Phase			
Minimum Initial (s)	12.0	6.0	6.0
Minimum Split (s)	33.5	24.5	24.5
Total Split (s)	106.0	54.0	54.0
Total Split (%)	66.3%	33.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	None
Act Effect Green (s)	100.1	46.9	46.9
Actuated g/C Ratio	0.63	0.29	0.29
v/c Ratio	0.39	0.98	0.62
Control Delay	15.4	89.8	39.8
Queue Delay	0.0	0.0	0.0
Total Delay	15.4	89.8	39.8
LOS	B	F	D
Approach Delay	15.4	63.6	
Approach LOS	B	E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 14 (9%), Referenced to phase 2:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 37.6

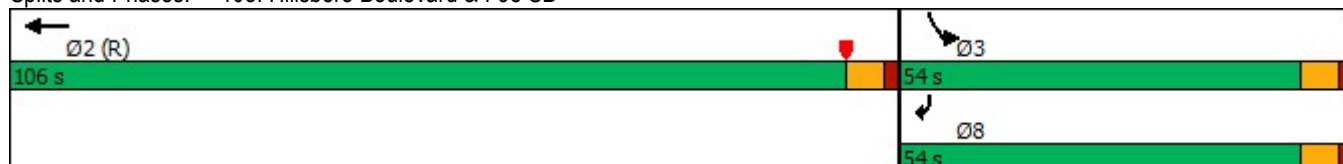
Intersection LOS: D

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 103: Hillsboro Boulevard & I-95 SB



Queues

103: Hillsboro Boulevard & I-95 SB



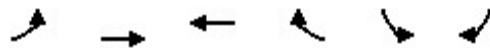
Lane Group	WBT	SBL	SBR
Lane Group Flow (vph)	1249	507	560
v/c Ratio	0.39	0.98	0.62
Control Delay	15.4	89.8	39.8
Queue Delay	0.0	0.0	0.0
Total Delay	15.4	89.8	39.8
Queue Length 50th (ft)	229	526	221
Queue Length 95th (ft)	260	#764	294
Internal Link Dist (ft)	1220	531	
Turn Bay Length (ft)			
Base Capacity (vph)	3182	525	920
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	56	0	1
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.40	0.97	0.61

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

103: Hillsboro Boulevard & I-95 SB



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↑		↑	↑↑
Traffic Volume (vph)	0	0	1174	0	477	526
Future Volume (vph)	0	0	1174	0	477	526
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.5		6.5	6.5
Lane Util. Factor			0.91		1.00	0.88
Frt			1.00		1.00	0.85
Flt Protected			1.00		0.95	1.00
Satd. Flow (prot)			5085		1770	2787
Flt Permitted			1.00		0.95	1.00
Satd. Flow (perm)			5085		1770	2787
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	1249	0	507	560
RTOR Reduction (vph)	0	0	0	0	0	93
Lane Group Flow (vph)	0	0	1249	0	507	467
Turn Type			NA		Prot	Prot
Protected Phases			2		3	8
Permitted Phases						
Actuated Green, G (s)			100.1		46.9	46.9
Effective Green, g (s)			100.1		46.9	46.9
Actuated g/C Ratio			0.63		0.29	0.29
Clearance Time (s)			6.5		6.5	6.5
Vehicle Extension (s)			3.0		2.5	2.5
Lane Grp Cap (vph)			3181		518	816
v/s Ratio Prot			c0.25		c0.29	0.17
v/s Ratio Perm						
v/c Ratio			0.39		0.98	0.57
Uniform Delay, d1			14.9		56.1	48.0
Progression Factor			1.00		1.00	1.00
Incremental Delay, d2			0.4		33.7	0.8
Delay (s)			15.2		89.7	48.8
Level of Service			B		F	D
Approach Delay (s)		0.0	15.2		68.3	
Approach LOS		A	B		E	
Intersection Summary						
HCM 2000 Control Delay			39.7		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.58			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			59.9%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Timings

104: I-95 NB & Hillsboro Boulevard

	→	↗
Lane Group	EBT	NBR
Lane Configurations	↑↑↑	↗↗
Traffic Volume (vph)	1605	484
Future Volume (vph)	1605	484
Turn Type	NA	Prot
Protected Phases	6	7
Permitted Phases		
Detector Phase	6	7
Switch Phase		
Minimum Initial (s)	12.0	6.0
Minimum Split (s)	24.5	24.5
Total Split (s)	106.0	54.0
Total Split (%)	66.3%	33.8%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)	117.0	30.0
Actuated g/C Ratio	0.73	0.19
v/c Ratio	0.44	0.86
Control Delay	11.6	70.4
Queue Delay	0.0	0.0
Total Delay	11.6	70.4
LOS	B	E
Approach Delay	11.6	
Approach LOS	B	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 14 (9%), Referenced to phase 2: and 6:EBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: I-95 NB & Hillsboro Boulevard



Queues

104: I-95 NB & Hillsboro Boulevard



Lane Group	EBT	NBR
Lane Group Flow (vph)	1621	489
v/c Ratio	0.44	0.86
Control Delay	11.6	70.4
Queue Delay	0.0	0.0
Total Delay	11.6	70.4
Queue Length 50th (ft)	357	254
Queue Length 95th (ft)	m462	312
Internal Link Dist (ft)	1220	
Turn Bay Length (ft)		
Base Capacity (vph)	3717	867
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.44	0.56

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

104: I-95 NB & Hillsboro Boulevard

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↗↗
Traffic Volume (vph)	1605	0	0	0	0	484
Future Volume (vph)	1605	0	0	0	0	484
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5					6.5
Lane Util. Factor	0.91					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	5085					2787
Flt Permitted	1.00					1.00
Satd. Flow (perm)	5085					2787
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	1621	0	0	0	0	489
RTOR Reduction (vph)	0	0	0	0	0	46
Lane Group Flow (vph)	1621	0	0	0	0	443
Turn Type	NA					Prot
Protected Phases	6					7
Permitted Phases						
Actuated Green, G (s)	117.0					30.0
Effective Green, g (s)	117.0					30.0
Actuated g/C Ratio	0.73					0.19
Clearance Time (s)	6.5					6.5
Vehicle Extension (s)	3.5					2.0
Lane Grp Cap (vph)	3718					522
v/s Ratio Prot	c0.32					c0.16
v/s Ratio Perm						
v/c Ratio	0.44					0.85
Uniform Delay, d1	8.5					62.8
Progression Factor	1.24					1.00
Incremental Delay, d2	0.4					11.7
Delay (s)	10.9					74.5
Level of Service	B					E
Approach Delay (s)	10.9			0.0	74.5	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay		25.6		HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio		0.52				
Actuated Cycle Length (s)		160.0		Sum of lost time (s)		13.0
Intersection Capacity Utilization		59.9%		ICU Level of Service		B
Analysis Period (min)		15				
c Critical Lane Group						

HCM 6th TWSC
202: Natura Blvd & Driveway 2

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	↗
Traffic Vol, veh/h	0	3	0	632	245	4
Future Vol, veh/h	0	3	0	632	245	4
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	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	687	266	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	133	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	940	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	940	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 940		-	-		
HCM Lane V/C Ratio	- 0.003		-	-		
HCM Control Delay (s)	- 8.8		-	-		
HCM Lane LOS	- A		-	-		
HCM 95th %tile Q(veh)	- 0		-	-		

HCM 6th TWSC
203: Driveway 3 & Natura Blvd

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	3	2	624	244	4
Future Vol, veh/h	8	3	2	624	244	4
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	-	100	-	-	160
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	3	2	678	265	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	608	133	269	0	-	0
Stage 1	265	-	-	-	-	-
Stage 2	343	-	-	-	-	-
Critical Hdwy	5.5	4.5	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	536	976	1292	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	535	976	1292	-	-	-
Mov Cap-2 Maneuver	535	-	-	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1292	-	610	-	-	
HCM Lane V/C Ratio	0.002	-	0.02	-	-	
HCM Control Delay (s)	7.8	-	11	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

HCM 6th TWSC
205: Driveway 5 & Natura Blvd

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	1	0	368	546	4
Future Vol, veh/h	0	1	0	368	546	4
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	400	593	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	299	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	786	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	786	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.6	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 786		-	-		
HCM Lane V/C Ratio	- 0.001		-	-		
HCM Control Delay (s)	- 9.6		-	-		
HCM Lane LOS	- A		-	-		
HCM 95th %tile Q(veh)	- 0		-	-		

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	175	1163	118	1167	108	264	85	151	131	92	323
Future Volume (vph)	175	1163	118	1167	108	264	85	151	131	92	323
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	84.0	20.0	84.0	84.0	24.0	32.0	32.0	24.0	32.0	32.0
Total Split (%)	12.5%	52.5%	12.5%	52.5%	52.5%	15.0%	20.0%	20.0%	15.0%	20.0%	20.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	95.8	84.9	92.1	83.1	83.1	43.7	26.3	26.3	35.8	22.0	22.0
Actuated g/C Ratio	0.60	0.53	0.58	0.52	0.52	0.27	0.16	0.16	0.22	0.14	0.14
v/c Ratio	0.71	0.56	0.61	0.49	0.14	0.82	0.16	0.42	0.44	0.39	0.95
Control Delay	29.8	26.5	26.2	26.4	4.9	68.2	57.7	11.0	47.9	66.3	68.7
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	29.8	26.5	26.2	26.4	4.9	68.2	57.7	11.0	47.9	66.3	68.7
LOS	C	C	C	C	A	E	E	B	D	E	E
Approach Delay		26.9		24.7			49.1			63.3	
Approach LOS		C		C			D			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 84 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 33.9

Intersection LOS: C

Intersection Capacity Utilization 73.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
20 s	84 s	24 s	32 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
20 s	84 s	24 s	32 s

Future + Imp AM Peak Hour

Synchro 10 Light Report

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	192	1487	130	1282	119	290	93	166	144	101	355
v/c Ratio	0.71	0.56	0.61	0.49	0.14	0.82	0.16	0.42	0.44	0.39	0.95
Control Delay	29.8	26.5	26.2	26.4	4.9	68.2	57.7	11.0	47.9	66.3	68.7
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	29.8	26.5	26.2	26.4	4.9	68.2	57.7	11.0	47.9	66.3	68.7
Queue Length 50th (ft)	85	382	55	327	5	252	43	0	114	95	192
Queue Length 95th (ft)	134	457	88	380	42	#382	73	70	176	157	#371
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	293	2655	257	2640	874	355	602	403	376	302	407
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.56	0.51	0.49	0.14	0.82	0.15	0.41	0.38	0.33	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	1163	190	118	1167	108	264	85	151	131	92	323
Future Volume (veh/h)	175	1163	190	118	1167	108	264	85	151	131	92	323
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1278	209	130	1282	119	290	93	166	144	101	355
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	2273	372	243	2537	788	353	695	309	368	304	257
Arrive On Green	0.07	0.51	0.51	0.05	0.50	0.50	0.11	0.20	0.20	0.08	0.16	0.16
Sat Flow, veh/h	1781	4421	723	1781	5106	1585	1781	3554	1580	1781	1870	1579
Grp Volume(v), veh/h	192	984	503	130	1282	119	290	93	166	144	101	355
Grp Sat Flow(s),veh/h/ln	1781	1702	1740	1781	1702	1585	1781	1777	1580	1781	1870	1579
Q Serve(g_s), s	8.5	31.6	31.6	5.7	27.0	6.5	18.0	3.5	15.1	10.7	7.6	26.0
Cycle Q Clear(g_c), s	8.5	31.6	31.6	5.7	27.0	6.5	18.0	3.5	15.1	10.7	7.6	26.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	1750	895	243	2537	788	353	695	309	368	304	257
V/C Ratio(X)	0.67	0.56	0.56	0.53	0.51	0.15	0.82	0.13	0.54	0.39	0.33	1.38
Avail Cap(c_a), veh/h	316	1750	895	302	2537	788	353	695	309	427	304	257
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	21.7	26.6	26.6	22.0	27.0	21.9	51.7	53.2	57.8	50.0	59.3	67.0
Incr Delay (d2), s/veh	3.4	1.3	2.6	0.7	0.7	0.4	13.6	0.0	1.0	0.3	0.2	194.9
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	3.8	13.3	13.9	2.5	11.3	2.6	3.8	1.6	6.2	4.8	3.7	24.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	27.9	29.1	22.6	27.8	22.3	65.3	53.2	58.8	50.3	59.6	261.9
LnGrp LOS	C	C	C	C	C	C	E	D	E	D	E	F
Approach Vol, veh/h	1679			1531			549			600		
Approach Delay, s/veh	27.9			26.9			61.3			177.1		
Approach LOS	C			C			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	86.5	18.7	37.3	14.7	89.3	24.0	32.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	77.0	18.0	26.0	13.0	77.0	18.0	26.0				
Max Q Clear Time (g_c+l1), s	10.5	29.0	12.7	17.1	7.7	33.6	20.0	28.0				
Green Ext Time (p_c), s	0.0	13.8	0.1	0.4	0.0	15.2	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.3											
HCM 6th LOS	D											
Notes												

Timings

101: Military Trail & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	253	1140	146	1521	277	296	670	306	572
Future Volume (vph)	253	1140	146	1521	277	296	670	306	572
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	1	6	5	2		7	4	3	8
Permitted Phases					2				
Detector Phase	1	6	5	2	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	4.0	8.0	4.0	8.0	8.0	4.0	6.0	4.0	8.0
Minimum Split (s)	20.0	43.5	10.5	43.5	43.5	10.5	46.0	10.5	46.0
Total Split (s)	20.0	68.0	20.0	68.0	68.0	26.0	46.0	26.0	46.0
Total Split (%)	12.5%	42.5%	12.5%	42.5%	42.5%	16.3%	28.8%	16.3%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	15.0	73.0	10.7	68.7	68.7	17.2	32.9	17.5	33.2
Actuated g/C Ratio	0.09	0.46	0.07	0.43	0.43	0.11	0.21	0.11	0.21
v/c Ratio	0.80	0.58	0.65	0.71	0.38	0.82	0.76	0.83	0.85
Control Delay	88.9	34.3	73.6	44.0	21.7	88.0	63.5	89.0	63.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.9	34.3	73.6	44.0	21.7	88.0	63.5	89.0	63.4
LOS	F	C	E	D	C	F	E	F	E
Approach Delay		43.2		43.0			70.3		70.0
Approach LOS		D		D			E		E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 53.7

Intersection LOS: D

Intersection Capacity Utilization 84.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 101: Military Trail & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	68 s	26 s	46 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	68 s	26 s	46 s

Queues

101: Military Trail & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	258	1332	149	1552	283	302	789	312	900
v/c Ratio	0.80	0.58	0.65	0.71	0.38	0.82	0.76	0.83	0.85
Control Delay	88.9	34.3	73.6	44.0	21.7	88.0	63.5	89.0	63.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.9	34.3	73.6	44.0	21.7	88.0	63.5	89.0	63.4
Queue Length 50th (ft)	136	371	73	596	182	161	283	166	308
Queue Length 95th (ft)	#223	476	110	659	288	214	316	221	345
Internal Link Dist (ft)		751		2620			541		790
Turn Bay Length (ft)	260		160		130	300		310	
Base Capacity (vph)	326	2286	289	2182	744	418	1240	418	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	0.79	0.58	0.52	0.71	0.38	0.72	0.64	0.75	0.72

Intersection Summary

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

HCM 6th Signalized Intersection Summary

101: Military Trail & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 		
Traffic Volume (veh/h)	253	1140	166	146	1521	277	296	670	103	306	572	310
Future Volume (veh/h)	253	1140	166	146	1521	277	296	670	103	306	572	310
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	258	1163	169	149	1552	283	302	684	105	312	584	316
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	2078	302	191	2207	685	344	974	148	354	753	350
Arrive On Green	0.08	0.46	0.46	0.07	0.57	0.57	0.10	0.22	0.22	0.10	0.22	0.22
Sat Flow, veh/h	3456	4503	654	3456	5106	1585	3456	4463	677	3456	3404	1581
Grp Volume(v), veh/h	258	879	453	149	1552	283	302	520	269	312	584	316
Grp Sat Flow(s),veh/h/ln	1728	1702	1753	1728	1702	1585	1728	1702	1736	1728	1702	1581
Q Serve(g_s), s	11.8	30.0	30.0	6.8	34.7	15.9	13.8	22.5	23.0	14.3	25.8	31.1
Cycle Q Clear(g_c), s	11.8	30.0	30.0	6.8	34.7	15.9	13.8	22.5	23.0	14.3	25.8	31.1
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	292	1571	809	191	2207	685	344	743	379	354	753	350
V/C Ratio(X)	0.88	0.56	0.56	0.78	0.70	0.41	0.88	0.70	0.71	0.88	0.78	0.90
Avail Cap(c_a), veh/h	292	1571	809	292	2207	685	421	840	429	421	840	390
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.5	31.3	31.3	73.2	26.7	22.7	71.1	57.7	57.8	70.8	58.6	60.7
Incr Delay (d2), s/veh	25.2	1.4	2.8	2.3	1.4	1.3	14.2	1.7	3.6	15.3	3.5	21.1
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	6.2	12.4	13.1	3.0	12.6	5.6	6.7	9.8	10.4	7.0	11.4	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.6	32.7	34.1	75.5	28.0	24.0	85.3	59.3	61.4	86.2	62.1	81.8
LnGrp LOS	F	C	C	E	C	C	F	E	E	F	E	F
Approach Vol, veh/h		1590			1984			1091			1212	
Approach Delay, s/veh		43.6			31.0			67.0			73.4	
Approach LOS		D			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	75.7	22.9	41.4	15.3	80.3	22.4	41.9				
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	13.5	61.5	19.5	39.5	13.5	61.5	19.5	39.5				
Max Q Clear Time (g_c+I1), s	13.8	36.7	16.3	25.0	8.8	32.0	15.8	33.1				
Green Ext Time (p_c), s	0.0	13.2	0.1	2.8	0.1	10.0	0.2	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			49.9									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
105: Project Driveway & Hillsboro Boulevard

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	1971	23	0	2412	0	22
Future Vol, veh/h	1971	23	0	2412	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2075	24	0	2539	0	23
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1050
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	415
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	415
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	14.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	415	-	-	-		
HCM Lane V/C Ratio	0.056	-	-	-		
HCM Control Delay (s)	14.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	-		

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	1590	235	129	1829	173	16	98	118	35	344
Future Volume (vph)	153	1590	235	129	1829	173	16	98	118	35	344
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	22.0	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	22.0	66.0	66.0	22.0	66.0	26.0	46.0	46.0	26.0	46.0	46.0
Total Split (%)	13.8%	41.3%	41.3%	13.8%	41.3%	16.3%	28.8%	28.8%	16.3%	28.8%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	12.2	82.5	82.5	17.6	88.0	38.8	20.8	20.8	30.9	16.9	16.9
Actuated g/C Ratio	0.08	0.52	0.52	0.11	0.55	0.24	0.13	0.13	0.19	0.11	0.11
v/c Ratio	0.64	0.67	0.30	0.73	0.74	0.56	0.07	0.36	0.43	0.19	0.92
Control Delay	69.1	40.5	23.2	100.9	25.8	54.0	56.6	12.1	50.2	63.1	46.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	40.5	23.2	100.9	25.8	54.0	56.6	12.1	50.2	63.1	46.8
LOS	E	D	C	F	C	D	E	B	D	E	D
Approach Delay		40.7			30.6		39.9			48.8	
Approach LOS		D			C		D			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 22 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 37.2

Intersection LOS: D

Intersection Capacity Utilization 82.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
22 s	66 s	26 s	46 s
			
Ø5	Ø6 (R)	Ø7	Ø8
22 s	66 s	26 s	46 s

Queues

106: SW Natura Blvd & Hillsboro Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	168	1747	258	142	2072	190	18	108	130	38	378
v/c Ratio	0.64	0.67	0.30	0.73	0.74	0.56	0.07	0.36	0.43	0.19	0.92
Control Delay	69.1	40.5	23.2	100.9	25.8	54.0	56.6	12.1	50.2	63.1	46.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	40.5	23.2	100.9	25.8	54.0	56.6	12.1	50.2	63.1	46.8
Queue Length 50th (ft)	92	539	122	148	708	166	17	0	109	37	116
Queue Length 95th (ft)	131	692	231	m204	m#867	214	40	54	150	69	233
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	333	2623	850	204	2785	356	465	472	365	465	601
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	0.50	0.67	0.30	0.70	0.74	0.53	0.04	0.23	0.36	0.08	0.63

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 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1590	235	129	1829	56	173	16	98	118	35	344
Future Volume (veh/h)	153	1590	235	129	1829	56	173	16	98	118	35	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	1747	258	142	2010	62	190	18	108	130	38	378
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	2111	640	161	2249	69	434	511	433	478	465	393
Arrive On Green	0.02	0.14	0.14	0.18	0.88	0.88	0.09	0.27	0.27	0.07	0.25	0.25
Sat Flow, veh/h	3456	5106	1549	1781	5089	157	1781	1870	1583	1781	1870	1583
Grp Volume(v), veh/h	168	1747	258	142	1343	729	190	18	108	130	38	378
Grp Sat Flow(s),veh/h/ln	1728	1702	1549	1781	1702	1842	1781	1870	1583	1781	1870	1583
Q Serve(g_s), s	7.7	53.3	24.4	12.4	34.8	35.3	12.6	1.1	8.5	8.6	2.5	37.7
Cycle Q Clear(g_c), s	7.7	53.3	24.4	12.4	34.8	35.3	12.6	1.1	8.5	8.6	2.5	37.7
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	2111	640	161	1504	814	434	511	433	478	465	393
V/C Ratio(X)	0.79	0.83	0.40	0.88	0.89	0.90	0.44	0.04	0.25	0.27	0.08	0.96
Avail Cap(c_a), veh/h	335	2111	640	173	1504	814	493	511	433	582	468	396
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.3	63.5	51.0	64.8	7.2	7.2	39.0	42.7	45.3	40.5	46.1	59.4
Incr Delay (d2), s/veh	2.6	3.9	1.9	25.9	6.0	10.4	0.3	0.0	0.1	0.1	0.0	34.7
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	3.6	25.2	10.6	6.2	4.5	5.9	5.6	0.5	3.4	3.9	1.2	18.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	67.4	52.9	90.6	13.2	17.6	39.3	42.7	45.4	40.6	46.2	94.1
LnGrp LOS	E	E	D	F	B	B	D	D	D	D	D	F
Approach Vol, veh/h	2173			2214			316			546		
Approach Delay, s/veh	66.7			19.6			41.6			78.0		
Approach LOS	E			B			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	77.2	16.7	49.7	20.9	72.6	20.7	45.8				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.5	59.5	20.0	40.0	15.5	59.5	20.0	40.0				
Max Q Clear Time (g_c+I1), s	9.7	37.3	10.6	10.5	14.4	55.3	14.6	39.7				
Green Ext Time (p_c), s	0.1	14.8	0.1	0.2	0.0	3.5	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	46.5											
HCM 6th LOS	D											

Timings

107: S. Dixie Highway & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  		 		 	
Traffic Volume (vph)	296	1007	59	1137	141	314	73	493	486
Future Volume (vph)	296	1007	59	1137	141	314	73	493	486
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	1	6	5	2	7	4	3	8	1
Permitted Phases			2		4		8		8
Detector Phase	1	6	5	2	7	4	3	8	1
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	4.0	6.0	4.0	6.0	5.0
Minimum Split (s)	11.5	36.5	11.5	36.5	10.5	39.5	10.5	41.5	11.5
Total Split (s)	22.0	69.0	22.0	69.0	24.0	45.0	24.0	45.0	22.0
Total Split (%)	13.8%	43.1%	13.8%	43.1%	15.0%	28.1%	15.0%	28.1%	13.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	19.4	86.4	78.5	71.6	48.2	33.5	37.7	28.2	47.6
Actuated g/C Ratio	0.12	0.54	0.49	0.45	0.30	0.21	0.24	0.18	0.30
v/c Ratio	0.74	0.47	0.26	0.58	0.65	0.58	0.33	0.82	0.97
Control Delay	56.7	37.3	18.6	35.3	54.2	56.4	42.1	74.8	74.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	37.3	18.6	35.3	54.2	56.4	42.1	74.8	74.4
LOS	E	D	B	D	D	E	D	E	E
Approach Delay		41.2		34.6		55.9		72.3	
Approach LOS		D		C		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 127 (79%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 48.4

Intersection LOS: D

Intersection Capacity Utilization 78.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 107: S. Dixie Highway & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
22 s	69 s	24 s	45 s
			
Ø5	Ø6 (R)	Ø7	Ø8
22 s	69 s	24 s	45 s

Existing PM Peak Hour

Synchro 10 Light Report

Queues

107: S. Dixie Highway & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	308	1255	61	1311	147	426	76	514	506
v/c Ratio	0.74	0.47	0.26	0.58	0.65	0.58	0.33	0.82	0.97
Control Delay	56.7	37.3	18.6	35.3	54.2	56.4	42.1	74.8	74.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	37.3	18.6	35.3	54.2	56.4	42.1	74.8	74.4
Queue Length 50th (ft)	169	463	25	376	116	201	57	276	424
Queue Length 95th (ft)	201	530	54	463	164	248	93	328	#618
Internal Link Dist (ft)		2890		691		540		364	
Turn Bay Length (ft)	170		180		225		270		120
Base Capacity (vph)	416	2692	332	2246	252	845	321	851	523
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	0.74	0.47	0.18	0.58	0.58	0.50	0.24	0.60	0.97

Intersection Summary

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

HCM 6th Signalized Intersection Summary 107: S. Dixie Highway & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	 
Traffic Volume (veh/h)	296	1007	198	59	1137	122	141	314	95	73	493	486
Future Volume (veh/h)	296	1007	198	59	1137	122	141	314	95	73	493	486
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	1049	206	61	1184	127	147	327	99	76	514	506
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2110	414	217	1990	213	239	733	218	285	855	534
Arrive On Green	0.03	0.16	0.16	0.03	0.43	0.43	0.07	0.27	0.27	0.04	0.24	0.24
Sat Flow, veh/h	3456	4283	840	1781	4675	501	1781	2698	804	1781	3554	1583
Grp Volume(v), veh/h	308	833	422	61	862	449	147	214	212	76	514	506
Grp Sat Flow(s),veh/h/ln	1728	1702	1719	1781	1702	1773	1781	1777	1725	1781	1777	1583
Q Serve(g_s), s	14.2	35.7	35.7	3.1	31.2	31.2	9.8	15.9	16.4	5.1	20.5	38.5
Cycle Q Clear(g_c), s	14.2	35.7	35.7	3.1	31.2	31.2	9.8	15.9	16.4	5.1	20.5	38.5
Prop In Lane	1.00		0.49	1.00		0.28	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	335	1677	847	217	1449	755	239	483	469	285	855	534
V/C Ratio(X)	0.92	0.50	0.50	0.28	0.59	0.60	0.61	0.44	0.45	0.27	0.60	0.95
Avail Cap(c_a), veh/h	335	1677	847	337	1449	755	302	483	469	403	855	534
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.8	48.9	49.0	26.8	35.3	35.3	42.5	48.2	48.4	43.3	53.9	51.6
Incr Delay (d2), s/veh	23.4	0.8	1.5	0.3	1.8	3.4	1.0	0.5	0.5	0.2	1.0	26.1
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	7.7	16.5	16.9	1.3	13.0	13.9	4.4	7.1	7.1	2.3	9.3	23.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.2	49.7	50.5	27.1	37.1	38.8	43.4	48.7	48.9	43.5	55.0	77.7
LnGrp LOS	F	D	D	C	D	D	D	D	D	D	D	E
Approach Vol, veh/h	1563			1372			573			1096		
Approach Delay, s/veh	59.9			37.2			47.4			64.7		
Approach LOS	E			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	74.6	13.4	50.0	11.3	85.3	18.4	45.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	15.5	62.5	17.5	38.5	15.5	62.5	17.5	38.5				
Max Q Clear Time (g_c+I1), s	16.2	33.2	7.1	18.4	5.1	37.7	11.8	40.5				
Green Ext Time (p_c), s	0.0	9.7	0.0	1.8	0.0	8.7	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.7											
HCM 6th LOS	D											

HCM 6th TWSC

108: SW Natura Avenue/SW Natura Blvd & SW Natura Boulevard

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	213	21	22	370	3	28	0	22	6	1	12
Future Vol, veh/h	2	213	21	22	370	3	28	0	22	6	1	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	120	-	-	60	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	224	22	23	389	3	29	0	23	6	1	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	392	0	0	246	0	0	480	677	123	553	687	196
Stage 1	-	-	-	-	-	-	239	239	-	437	437	-
Stage 2	-	-	-	-	-	-	241	438	-	116	250	-
Critical Hdwy	4.14	-	-	4.14	-	-	5.5	6.54	4.5	5.5	6.54	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.54	-	5.5	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1163	-	-	1317	-	-	615	373	984	569	368	928
Stage 1	-	-	-	-	-	-	796	706	-	645	578	-
Stage 2	-	-	-	-	-	-	741	577	-	876	699	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1163	-	-	1317	-	-	597	366	984	547	361	928
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	366	-	547	361	-
Stage 1	-	-	-	-	-	-	794	705	-	644	568	-
Stage 2	-	-	-	-	-	-	717	567	-	854	698	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			10.2			10.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	597	984	1163	-	-	1317	-	-	712			
HCM Lane V/C Ratio	0.049	0.024	0.002	-	-	0.018	-	-	0.028			
HCM Control Delay (s)	11.3	8.7	8.1	-	-	7.8	-	-	10.2			
HCM Lane LOS	B	A	A	-	-	A	-	-	B			
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0.1	-	-	0.1			

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	1223	174	969	157	161	135	126	141	126	199
Future Volume (vph)	247	1223	174	969	157	161	135	126	141	126	199
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	90.0	20.0	90.0	90.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	12.5%	56.3%	12.5%	56.3%	56.3%	12.5%	18.8%	18.8%	12.5%	18.8%	18.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	106.3	94.4	104.0	93.3	93.3	29.3	15.9	15.9	28.3	15.4	15.4
Actuated g/C Ratio	0.66	0.59	0.65	0.58	0.58	0.18	0.10	0.10	0.18	0.10	0.10
v/c Ratio	0.63	0.52	0.71	0.33	0.16	0.72	0.39	0.48	0.55	0.72	0.61
Control Delay	16.7	20.5	29.8	18.5	2.9	71.9	69.9	15.5	61.0	91.3	15.6
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	16.7	20.5	29.8	18.5	2.9	71.9	69.9	15.5	61.0	91.3	15.6
LOS	B	C	C	B	A	E	E	B	E	F	B
Approach Delay		20.0		18.2			54.4			49.9	
Approach LOS		B		B			D			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 57 (36%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 26.6

Intersection LOS: C

Intersection Capacity Utilization 76.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	90 s	20 s	30 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	90 s	20 s	30 s

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	252	1528	178	989	160	164	138	129	144	129	203
v/c Ratio	0.63	0.52	0.71	0.33	0.16	0.72	0.39	0.48	0.55	0.72	0.61
Control Delay	16.7	20.5	29.8	18.5	2.9	71.9	69.9	15.5	61.0	91.3	15.6
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	16.7	20.5	29.8	18.5	2.9	71.9	69.9	15.5	61.0	91.3	15.6
Queue Length 50th (ft)	87	322	58	191	0	149	72	0	129	133	0
Queue Length 95th (ft)	140	434	133	256	38	215	106	65	191	202	80
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	421	2925	281	2963	976	235	530	341	273	279	410
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	0.60	0.52	0.63	0.33	0.16	0.70	0.26	0.38	0.53	0.46	0.50
Intersection Summary											

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	247	1223	274	174	969	157	161	135	126	141	126	199
Future Volume (veh/h)	247	1223	274	174	969	157	161	135	126	141	126	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1248	280	178	989	160	164	138	129	144	129	203
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	2283	512	270	2712	841	283	527	229	315	265	223
Arrive On Green	0.08	0.55	0.55	0.06	0.53	0.53	0.09	0.15	0.15	0.08	0.14	0.14
Sat Flow, veh/h	1781	4151	931	1781	5106	1584	1781	3554	1545	1781	1870	1575
Grp Volume(v), veh/h	252	1023	505	178	989	160	164	138	129	144	129	203
Grp Sat Flow(s),veh/h/ln	1781	1702	1679	1781	1702	1584	1781	1777	1545	1781	1870	1575
Q Serve(g_s), s	10.3	31.0	31.0	7.3	18.0	8.4	12.5	5.5	12.4	10.9	10.2	20.3
Cycle Q Clear(g_c), s	10.3	31.0	31.0	7.3	18.0	8.4	12.5	5.5	12.4	10.9	10.2	20.3
Prop In Lane	1.00		0.55	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	1872	923	270	2712	841	283	527	229	315	265	223
V/C Ratio(X)	0.65	0.55	0.55	0.66	0.36	0.19	0.58	0.26	0.56	0.46	0.49	0.91
Avail Cap(c_a), veh/h	394	1872	923	311	2712	841	283	533	232	327	281	236
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	16.4	23.2	23.2	20.1	21.8	19.6	52.7	60.4	63.3	52.7	63.3	67.7
Incr Delay (d2), s/veh	2.9	1.2	2.3	2.7	0.4	0.5	2.0	0.1	1.8	0.4	0.5	33.1
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	12.8	13.0	3.2	7.4	3.3	5.8	2.5	5.0	5.0	4.9	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	24.3	25.5	22.8	22.2	20.1	54.7	60.5	65.2	53.1	63.8	100.8
LnGrp LOS	B	C	C	C	C	C	D	E	E	D	E	F
Approach Vol, veh/h	1780			1327			431			476		
Approach Delay, s/veh	23.9			22.0			59.7			76.3		
Approach LOS	C			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.3	92.0	18.9	29.7	16.3	95.0	20.0	28.7				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	83.0	14.0	24.0	13.0	83.0	14.0	24.0				
Max Q Clear Time (g_c+I1), s	12.3	20.0	12.9	14.4	9.3	33.0	14.5	22.3				
Green Ext Time (p_c), s	0.0	10.1	0.0	0.5	0.1	16.7	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay	33.4											
HCM 6th LOS	C											
Notes												

Timings

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	1653	234	1854	24	249	6	382	185	28	140
Future Volume (vph)	35	1653	234	1854	24	249	6	382	185	28	140
Turn Type	Prot	NA	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6	5	2	3	4	4	5	3	3	1
Permitted Phases					2			4			3
Detector Phase	1	6	5	2	3	4	4	5	3	3	1
Switch Phase											
Minimum Initial (s)	5.0	12.0	5.0	12.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0
Minimum Split (s)	11.5	35.5	11.5	35.5	40.0	26.0	26.0	11.5	40.0	40.0	11.5
Total Split (s)	24.0	70.0	24.0	70.0	40.0	26.0	26.0	24.0	40.0	40.0	24.0
Total Split (%)	15.0%	43.8%	15.0%	43.8%	25.0%	16.3%	16.3%	15.0%	25.0%	25.0%	15.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.5	83.8	19.3	95.6	111.3	16.7	16.7	35.5	15.2	15.2	22.2
Actuated g/C Ratio	0.05	0.52	0.12	0.60	0.70	0.10	0.10	0.22	0.10	0.10	0.14
v/c Ratio	0.45	0.72	0.60	0.65	0.02	0.74	0.03	0.93	0.70	0.71	0.55
Control Delay	83.8	35.7	80.2	19.3	0.2	82.1	62.3	69.1	92.4	92.6	29.9
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	35.7	80.2	19.4	0.2	82.1	62.3	69.1	92.4	92.6	29.9
LOS	F	D	F	B	A	F	E	E	F	F	C
Approach Delay		36.6		25.9			74.2			67.7	
Approach LOS		D		C			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 126 (79%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 39.1

Intersection LOS: D

Intersection Capacity Utilization 82.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 102: Jim Moran Boulevard & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
24 s	70 s	40 s	26 s
 Ø5	 Ø6 (R)		
24 s	70 s		

Queues

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	37	1900	249	1972	26	265	6	406	112	115	149
v/c Ratio	0.45	0.72	0.60	0.65	0.02	0.74	0.03	0.93	0.70	0.71	0.55
Control Delay	83.8	35.7	80.2	19.3	0.2	82.1	62.3	69.1	92.4	92.6	29.9
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	35.7	80.2	19.4	0.2	82.1	62.3	69.1	92.4	92.6	29.9
Queue Length 50th (ft)	34	695	121	508	0	141	6	299	122	125	63
Queue Length 95th (ft)	m59	798	138	669	m2	187	22	389	190	193	108
Internal Link Dist (ft)		2620		495			677			792	
Turn Bay Length (ft)	375		400		330	200		250	200		200
Base Capacity (vph)	193	2636	441	3039	1276	434	235	448	357	362	367
Starvation Cap Reductn	0	0	0	191	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	0.19	0.72	0.56	0.69	0.02	0.61	0.03	0.91	0.31	0.32	0.41
Intersection Summary											
m Volume for 95th percentile queue is metered by upstream signal.											

HCM Signalized Intersection Capacity Analysis

102: Jim Moran Boulevard & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1653	133	234	1854	24	249	6	382	185	28	140
Future Volume (vph)	35	1653	133	234	1854	24	249	6	382	185	28	140
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	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lane Util. Factor	1.00	0.91		0.97	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.99	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	0.96	1.00
Satd. Flow (prot)	1770	5023		3433	5085	1551	3433	1863	1563	1681	1707	1564
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5023		3433	5085	1551	3433	1863	1563	1681	1707	1564
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)	37	1759	141	249	1972	26	265	6	406	197	30	149
RTOR Reduction (vph)	0	4	0	0	0	8	0	0	90	0	0	56
Lane Group Flow (vph)	37	1896	0	249	1972	18	265	6	316	112	115	93
Confl. Peds. (#/hr)	1					1	4		2	2		4
Confl. Bikes (#/hr)			6			2			2			
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6		5	2	3	4	4	5	3	3	1
Permitted Phases						2			4			3
Actuated Green, G (s)	7.5	83.8		19.3	95.6	110.8	16.7	16.7	36.0	15.2	15.2	22.7
Effective Green, g (s)	7.5	83.8		19.3	95.6	110.8	16.7	16.7	36.0	15.2	15.2	22.7
Actuated g/C Ratio	0.05	0.52		0.12	0.60	0.69	0.10	0.10	0.22	0.09	0.09	0.14
Clearance Time (s)	6.5	6.5		6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Vehicle Extension (s)	1.5	3.0		1.5	3.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5
Lane Grp Cap (vph)	82	2630		414	3038	1074	358	194	351	159	162	221
v/s Ratio Prot	0.02	c0.38		0.07	0.39	0.00	0.08	0.00	c0.11	0.07	c0.07	0.02
v/s Ratio Perm						0.01			0.09			0.04
v/c Ratio	0.45	0.72		0.60	0.65	0.02	0.74	0.03	0.90	0.70	0.71	0.42
Uniform Delay, d1	74.2	29.1		66.7	21.2	7.7	69.5	64.4	60.3	70.2	70.3	62.7
Progression Factor	0.94	1.10		1.13	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	1.5		1.5	1.0	0.0	7.0	0.0	24.6	11.0	11.0	0.5
Delay (s)	70.8	33.6		77.1	18.0	7.7	76.6	64.4	84.8	81.2	81.3	63.1
Level of Service	E	C		E	B	A	E	E	F	F	F	E
Approach Delay (s)		34.3			24.5			81.4			74.1	
Approach LOS		C			C			F			E	
Intersection Summary												
HCM 2000 Control Delay			39.0			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			25.0			
Intersection Capacity Utilization			82.7%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

Timings

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Configurations	↑↑↑	↰	↱↱
Traffic Volume (vph)	1593	501	477
Future Volume (vph)	1593	501	477
Turn Type	NA	Prot	Prot
Protected Phases	2	3	8
Permitted Phases			
Detector Phase	2	3	8
Switch Phase			
Minimum Initial (s)	12.0	6.0	6.0
Minimum Split (s)	33.5	24.5	24.5
Total Split (s)	99.0	61.0	61.0
Total Split (%)	61.9%	38.1%	38.1%
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	None
Act Effct Green (s)	95.1	51.9	51.9
Actuated g/C Ratio	0.59	0.32	0.32
v/c Ratio	0.57	0.95	0.56
Control Delay	21.2	79.6	43.9
Queue Delay	0.0	0.0	0.0
Total Delay	21.3	79.6	43.9
LOS	C	E	D
Approach Delay	21.3	62.2	
Approach LOS	C	E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 139 (87%), Referenced to phase 2:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 36.8

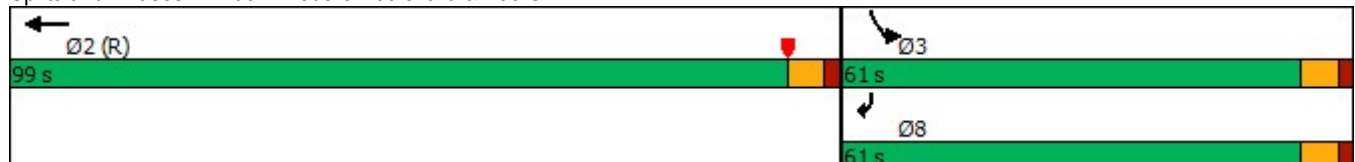
Intersection LOS: D

Intersection Capacity Utilization 66.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 103: Hillsboro Boulevard & I-95 SB



Queues

103: Hillsboro Boulevard & I-95 SB



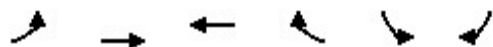
Lane Group	WBT	SBL	SBR
Lane Group Flow (vph)	1732	545	518
v/c Ratio	0.57	0.95	0.56
Control Delay	21.2	79.6	43.9
Queue Delay	0.0	0.0	0.0
Total Delay	21.3	79.6	43.9
Queue Length 50th (ft)	410	544	233
Queue Length 95th (ft)	455	#764	300
Internal Link Dist (ft)	1220	531	
Turn Bay Length (ft)			
Base Capacity (vph)	3023	602	970
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	102	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.59	0.91	0.53

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

103: Hillsboro Boulevard & I-95 SB



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↑		↑	↑↑
Traffic Volume (vph)	0	0	1593	0	501	477
Future Volume (vph)	0	0	1593	0	501	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.5		6.5	6.5
Lane Util. Factor			0.91		1.00	0.88
Frt			1.00		1.00	0.85
Flt Protected			1.00		0.95	1.00
Satd. Flow (prot)			5085		1770	2787
Flt Permitted			1.00		0.95	1.00
Satd. Flow (perm)			5085		1770	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1732	0	545	518
RTOR Reduction (vph)	0	0	0	0	0	22
Lane Group Flow (vph)	0	0	1732	0	545	496
Turn Type			NA		Prot	Prot
Protected Phases			2		3	8
Permitted Phases						
Actuated Green, G (s)			95.1		51.9	51.9
Effective Green, g (s)			95.1		51.9	51.9
Actuated g/C Ratio			0.59		0.32	0.32
Clearance Time (s)			6.5		6.5	6.5
Vehicle Extension (s)			3.0		2.5	2.5
Lane Grp Cap (vph)			3022		574	904
v/s Ratio Prot			c0.34		c0.31	0.18
v/s Ratio Perm						
v/c Ratio			0.57		0.95	0.55
Uniform Delay, d1			20.0		52.8	44.4
Progression Factor			1.00		1.00	1.00
Incremental Delay, d2			0.8		25.2	0.5
Delay (s)			20.8		78.0	45.0
Level of Service			C		E	D
Approach Delay (s)		0.0	20.8		61.9	
Approach LOS		A	C		E	
Intersection Summary						
HCM 2000 Control Delay			36.4		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.71			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			66.0%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Timings

104: I-95 NB & Hillsboro Boulevard

	→	↗
Lane Group	EBT	NBR
Lane Configurations	↑↑↑	↗↗
Traffic Volume (vph)	1528	488
Future Volume (vph)	1528	488
Turn Type	NA	Prot
Protected Phases	6	7
Permitted Phases		
Detector Phase	6	7
Switch Phase		
Minimum Initial (s)	12.0	6.0
Minimum Split (s)	24.5	24.5
Total Split (s)	99.0	61.0
Total Split (%)	61.9%	38.1%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)	113.7	33.3
Actuated g/C Ratio	0.71	0.21
v/c Ratio	0.45	0.86
Control Delay	13.4	70.2
Queue Delay	0.0	0.0
Total Delay	13.4	70.2
LOS	B	E
Approach Delay	13.4	
Approach LOS	B	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 139 (87%), Referenced to phase 2: and 6:EBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: I-95 NB & Hillsboro Boulevard



Queues

104: I-95 NB & Hillsboro Boulevard



Lane Group	EBT	NBR
Lane Group Flow (vph)	1643	525
v/c Ratio	0.45	0.86
Control Delay	13.4	70.2
Queue Delay	0.0	0.0
Total Delay	13.4	70.2
Queue Length 50th (ft)	320	282
Queue Length 95th (ft)	401	339
Internal Link Dist (ft)	1220	
Turn Bay Length (ft)		
Base Capacity (vph)	3612	975
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.45	0.54
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

104: I-95 NB & Hillsboro Boulevard

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↑↑
Traffic Volume (vph)	1528	0	0	0	0	488
Future Volume (vph)	1528	0	0	0	0	488
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5					6.5
Lane Util. Factor	0.91					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	5085					2787
Flt Permitted	1.00					1.00
Satd. Flow (perm)	5085					2787
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1643	0	0	0	0	525
RTOR Reduction (vph)	0	0	0	0	0	32
Lane Group Flow (vph)	1643	0	0	0	0	493
Turn Type	NA					Prot
Protected Phases	6					7
Permitted Phases						
Actuated Green, G (s)	113.7					33.3
Effective Green, g (s)	113.7					33.3
Actuated g/C Ratio	0.71					0.21
Clearance Time (s)	6.5					6.5
Vehicle Extension (s)	3.5					2.0
Lane Grp Cap (vph)	3613					580
v/s Ratio Prot	c0.32					c0.18
v/s Ratio Perm						
v/c Ratio	0.45					0.85
Uniform Delay, d1	9.9					61.0
Progression Factor	1.24					1.00
Incremental Delay, d2	0.4					11.1
Delay (s)	12.6					72.0
Level of Service	B					E
Approach Delay (s)	12.6			0.0	72.0	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay			27.0		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.54			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			57.4%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Timings

101: Military Trail & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	 	  	 	  		 	  	 	  
Traffic Volume (vph)	266	1200	153	1601	291	312	705	322	602
Future Volume (vph)	266	1200	153	1601	291	312	705	322	602
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	1	6	5	2		7	4	3	8
Permitted Phases					2				
Detector Phase	1	6	5	2	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	4.0	8.0	4.0	8.0	8.0	4.0	6.0	4.0	8.0
Minimum Split (s)	20.0	43.5	10.5	43.5	43.5	10.5	46.0	10.5	46.0
Total Split (s)	20.0	68.0	20.0	68.0	68.0	26.0	46.0	26.0	46.0
Total Split (%)	12.5%	42.5%	12.5%	42.5%	42.5%	16.3%	28.8%	16.3%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	15.5	70.9	10.9	66.4	66.4	17.6	34.1	18.0	34.5
Actuated g/C Ratio	0.10	0.44	0.07	0.42	0.42	0.11	0.21	0.11	0.22
v/c Ratio	0.82	0.63	0.67	0.78	0.41	0.84	0.77	0.85	0.86
Control Delay	89.4	36.7	75.3	46.0	22.2	89.3	63.0	90.0	63.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	36.7	75.3	46.0	22.2	89.3	63.0	90.0	63.5
LOS	F	D	E	D	C	F	E	F	E
Approach Delay		45.2		44.8			70.3		70.3
Approach LOS		D		D			E		E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 54.9

Intersection LOS: D

Intersection Capacity Utilization 88.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 101: Military Trail & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
20 s	68 s	26 s	46 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
20 s	68 s	26 s	46 s

Queues

101: Military Trail & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	271	1403	156	1634	297	318	829	329	947
v/c Ratio	0.82	0.63	0.67	0.78	0.41	0.84	0.77	0.85	0.86
Control Delay	89.4	36.7	75.3	46.0	22.2	89.3	63.0	90.0	63.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	36.7	75.3	46.0	22.2	89.3	63.0	90.0	63.5
Queue Length 50th (ft)	143	416	76	645	202	169	295	175	323
Queue Length 95th (ft)	#239	510	m113	693	275	224	335	#236	367
Internal Link Dist (ft)		751		2620			541		790
Turn Bay Length (ft)	260		160		130	300		310	
Base Capacity (vph)	332	2222	289	2108	722	418	1240	418	1250
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	0.82	0.63	0.54	0.78	0.41	0.76	0.67	0.79	0.76

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 101: Military Trail & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	1200	175	153	1601	291	312	705	108	322	602	326
Future Volume (veh/h)	266	1200	175	153	1601	291	312	705	108	322	602	326
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	271	1224	179	156	1634	297	318	719	110	329	614	333
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	2009	294	198	2142	665	360	1011	153	371	781	363
Arrive On Green	0.08	0.45	0.45	0.08	0.56	0.56	0.10	0.23	0.23	0.11	0.23	0.23
Sat Flow, veh/h	3456	4498	658	3456	5106	1585	3456	4464	676	3456	3404	1581
Grp Volume(v), veh/h	271	926	477	156	1634	297	318	547	282	329	614	333
Grp Sat Flow(s),veh/h/ln	1728	1702	1752	1728	1702	1585	1728	1702	1736	1728	1702	1581
Q Serve(g_s), s	12.5	33.1	33.1	7.1	39.4	17.7	14.5	23.7	24.1	15.0	27.1	32.9
Cycle Q Clear(g_c), s	12.5	33.1	33.1	7.1	39.4	17.7	14.5	23.7	24.1	15.0	27.1	32.9
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	292	1520	782	198	2142	665	360	771	393	371	781	363
V/C Ratio(X)	0.93	0.61	0.61	0.79	0.76	0.45	0.88	0.71	0.72	0.89	0.79	0.92
Avail Cap(c_a), veh/h	292	1520	782	292	2142	665	421	840	429	421	840	390
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.8	33.7	33.7	73.0	29.2	24.4	70.7	57.0	57.2	70.5	57.9	60.2
Incr Delay (d2), s/veh	34.1	1.8	3.5	3.1	1.8	1.4	16.0	2.0	4.2	17.2	4.1	24.4
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	6.8	13.8	14.5	3.2	14.5	6.3	7.2	10.3	10.9	7.5	12.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.9	35.5	37.2	76.1	31.0	25.9	86.7	59.0	61.4	87.6	62.0	84.5
LnGrp LOS	F	D	D	E	C	C	F	E	E	F	E	F
Approach Vol, veh/h		1674			2087			1147			1276	
Approach Delay, s/veh		47.5			33.6			67.3			74.5	
Approach LOS		D			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	73.6	23.7	42.7	15.7	78.0	23.2	43.2				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	13.5	61.5	19.5	39.5	13.5	61.5	19.5	39.5				
Max Q Clear Time (g_c+I1), s	14.5	41.4	17.0	26.1	9.1	35.1	16.5	34.9				
Green Ext Time (p_c), s	0.0	12.3	0.1	2.9	0.1	10.3	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			52.1									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
105: Project Driveway & Hillsboro Boulevard

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↑
Traffic Vol, veh/h	2075	24	0	2540	0	23
Future Vol, veh/h	2075	24	0	2540	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2184	25	0	2674	0	24

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1105
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 4.5
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 397
Stage 1	-	-	0 - 0 -
Stage 2	-	-	0 - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 397
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	397	-	-	-
HCM Lane V/C Ratio	0.061	-	-	-
HCM Control Delay (s)	14.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	161	1674	248	136	1925	182	16	103	124	37	363
Future Volume (vph)	161	1674	248	136	1925	182	16	103	124	37	363
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	22.0	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	22.0	66.0	66.0	22.0	66.0	26.0	46.0	46.0	26.0	46.0	46.0
Total Split (%)	13.8%	41.3%	41.3%	13.8%	41.3%	16.3%	28.8%	28.8%	16.3%	28.8%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	12.6	79.2	79.2	18.0	84.5	41.9	23.7	23.7	33.8	19.6	19.6
Actuated g/C Ratio	0.08	0.50	0.50	0.11	0.53	0.26	0.15	0.15	0.21	0.12	0.12
v/c Ratio	0.66	0.73	0.33	0.75	0.81	0.54	0.07	0.35	0.42	0.18	0.93
Control Delay	68.6	44.1	25.1	101.9	29.3	51.0	53.4	11.1	47.2	59.8	49.0
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	68.6	44.1	25.1	101.9	29.3	51.0	53.4	11.1	47.2	59.8	49.0
LOS	E	D	C	F	C	D	D	B	D	E	D
Approach Delay		43.7			33.9		37.5			49.4	
Approach LOS		D			C		D			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 22 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 39.8

Intersection LOS: D

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
22 s	66 s	26 s	46 s
			
Ø5	Ø6 (R)	Ø7	Ø8
22 s	66 s	26 s	46 s

Queues

106: SW Natura Blvd & Hillsboro Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	177	1840	273	149	2180	200	18	113	136	41	399
v/c Ratio	0.66	0.73	0.33	0.75	0.81	0.54	0.07	0.35	0.42	0.18	0.93
Control Delay	68.6	44.1	25.1	101.9	29.3	51.0	53.4	11.1	47.2	59.8	49.0
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	68.6	44.1	25.1	101.9	29.3	51.0	53.4	11.1	47.2	59.8	49.0
Queue Length 50th (ft)	96	604	140	157	786	170	16	0	111	39	145
Queue Length 95th (ft)	138	#805	253	m210	m#1009	215	38	53	149	71	261
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	335	2515	819	205	2676	379	465	475	390	465	599
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	0.53	0.73	0.33	0.73	0.81	0.53	0.04	0.24	0.35	0.09	0.67

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 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	1674	248	136	1925	59	182	16	103	124	37	363
Future Volume (veh/h)	161	1674	248	136	1925	59	182	16	103	124	37	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	1840	273	149	2115	65	200	18	113	136	41	399
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	2064	626	167	2208	68	436	517	437	483	468	396
Arrive On Green	0.02	0.13	0.13	0.19	0.87	0.87	0.10	0.28	0.28	0.07	0.25	0.25
Sat Flow, veh/h	3456	5106	1549	1781	5090	156	1781	1870	1583	1781	1870	1583
Grp Volume(v), veh/h	177	1840	273	149	1413	767	200	18	113	136	41	399
Grp Sat Flow(s),veh/h/ln	1728	1702	1549	1781	1702	1842	1781	1870	1583	1781	1870	1583
Q Serve(g_s), s	8.2	56.7	26.0	13.1	51.7	52.8	13.2	1.1	8.9	9.0	2.7	40.0
Cycle Q Clear(g_c), s	8.2	56.7	26.0	13.1	51.7	52.8	13.2	1.1	8.9	9.0	2.7	40.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	2064	626	167	1477	799	436	517	437	483	468	396
V/C Ratio(X)	0.80	0.89	0.44	0.89	0.96	0.96	0.46	0.03	0.26	0.28	0.09	1.01
Avail Cap(c_a), veh/h	335	2064	626	173	1477	799	489	517	437	582	468	396
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.3	65.9	52.6	64.2	9.4	9.5	38.5	42.3	45.1	40.1	46.0	60.0
Incr Delay (d2), s/veh	4.0	6.3	2.2	26.0	10.6	17.0	0.3	0.0	0.1	0.1	0.0	47.3
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	3.8	27.2	11.3	6.5	6.1	8.1	5.9	0.5	3.6	4.0	1.3	21.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.3	72.2	54.8	90.2	20.0	26.5	38.8	42.3	45.2	40.3	46.0	107.3
LnGrp LOS	F	E	D	F	C	C	D	D	D	D	D	F
Approach Vol, veh/h	2290			2329			331			576		
Approach Delay, s/veh	70.8			26.6			41.2			87.1		
Approach LOS	E			C			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.8	75.9	17.1	50.2	21.5	71.2	21.3	46.0				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.5	59.5	20.0	40.0	15.5	59.5	20.0	40.0				
Max Q Clear Time (g_c+I1), s	10.2	54.8	11.0	10.9	15.1	58.7	15.2	42.0				
Green Ext Time (p_c), s	0.1	4.1	0.1	0.2	0.0	0.7	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.1											
HCM 6th LOS	D											

Timings

107: S. Dixie Highway & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  		 		 	
Traffic Volume (vph)	312	1060	62	1197	149	331	77	519	511
Future Volume (vph)	312	1060	62	1197	149	331	77	519	511
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	1	6	5	2	7	4	3	8	1
Permitted Phases			2		4		8		8
Detector Phase	1	6	5	2	7	4	3	8	1
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	4.0	6.0	4.0	6.0	5.0
Minimum Split (s)	11.5	36.5	11.5	36.5	10.5	39.5	10.5	41.5	11.5
Total Split (s)	22.0	69.0	22.0	69.0	24.0	45.0	24.0	45.0	22.0
Total Split (%)	13.8%	43.1%	13.8%	43.1%	15.0%	28.1%	15.0%	28.1%	13.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	20.4	82.3	76.0	68.9	50.1	35.0	39.2	29.6	50.0
Actuated g/C Ratio	0.13	0.51	0.48	0.43	0.31	0.22	0.24	0.18	0.31
v/c Ratio	0.74	0.52	0.30	0.64	0.68	0.59	0.34	0.83	0.99
Control Delay	53.1	39.3	20.3	38.1	54.7	55.7	41.3	73.7	78.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	39.3	20.3	38.1	54.7	55.7	41.3	73.7	78.6
LOS	D	D	C	D	D	E	D	E	E
Approach Delay		42.0		37.3		55.5		73.7	
Approach LOS		D		D		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 127 (79%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 49.8

Intersection LOS: D

Intersection Capacity Utilization 82.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 107: S. Dixie Highway & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
22 s	69 s	24 s	45 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
22 s	69 s	24 s	45 s

Queues

107: S. Dixie Highway & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	325	1321	65	1380	155	449	80	541	532
v/c Ratio	0.74	0.52	0.30	0.64	0.68	0.59	0.34	0.83	0.99
Control Delay	53.1	39.3	20.3	38.1	54.7	55.7	41.3	73.7	78.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	39.3	20.3	38.1	54.7	55.7	41.3	73.7	78.6
Queue Length 50th (ft)	173	504	28	430	121	211	59	291	448
Queue Length 95th (ft)	#246	557	57	495	170	260	95	343	#717
Internal Link Dist (ft)		2890		691		540		364	
Turn Bay Length (ft)	170		180		225		270		120
Base Capacity (vph)	438	2563	308	2164	251	853	323	851	540
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	0.74	0.52	0.21	0.64	0.62	0.53	0.25	0.64	0.99

Intersection Summary

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

HCM 6th Signalized Intersection Summary 107: S. Dixie Highway & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	 
Traffic Volume (veh/h)	312	1060	208	62	1197	128	149	331	100	77	519	511
Future Volume (veh/h)	312	1060	208	62	1197	128	149	331	100	77	519	511
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	325	1104	217	65	1247	133	155	345	104	80	541	532
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2089	410	206	1976	211	238	737	219	280	855	534
Arrive On Green	0.03	0.16	0.16	0.03	0.42	0.42	0.08	0.27	0.27	0.05	0.24	0.24
Sat Flow, veh/h	3456	4282	841	1781	4678	499	1781	2700	802	1781	3554	1583
Grp Volume(v), veh/h	325	878	443	65	907	473	155	225	224	80	541	532
Grp Sat Flow(s),veh/h/ln	1728	1702	1719	1781	1702	1773	1781	1777	1725	1781	1777	1583
Q Serve(g_s), s	15.0	37.8	37.9	3.3	33.6	33.6	10.3	16.9	17.3	5.4	21.8	38.5
Cycle Q Clear(g_c), s	15.0	37.8	37.9	3.3	33.6	33.6	10.3	16.9	17.3	5.4	21.8	38.5
Prop In Lane	1.00		0.49	1.00		0.28	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	335	1661	839	206	1438	749	238	485	471	280	855	534
V/C Ratio(X)	0.97	0.53	0.53	0.32	0.63	0.63	0.65	0.46	0.47	0.29	0.63	1.00
Avail Cap(c_a), veh/h	335	1661	839	322	1438	749	295	485	471	395	855	534
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.2	50.2	50.3	27.5	36.4	36.4	42.5	48.4	48.6	43.2	54.4	52.9
Incr Delay (d2), s/veh	32.3	0.8	1.6	0.3	2.1	4.0	1.8	0.5	0.6	0.2	1.4	37.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	17.5	17.9	1.4	14.1	15.1	4.7	7.5	7.5	2.4	9.9	26.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.5	51.0	51.8	27.9	38.5	40.4	44.3	48.9	49.1	43.4	55.8	90.5
LnGrp LOS	F	D	D	C	D	D	D	D	D	D	E	F
Approach Vol, veh/h		1646			1445			604			1153	
Approach Delay, s/veh		62.8			38.6			47.8			71.0	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	74.1	13.7	50.2	11.5	84.5	18.9	45.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	15.5	62.5	17.5	38.5	15.5	62.5	17.5	38.5				
Max Q Clear Time (g_c+I1), s	17.0	35.6	7.4	19.3	5.3	39.9	12.3	40.5				
Green Ext Time (p_c), s	0.0	10.1	0.1	1.9	0.0	9.0	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			55.7									
HCM 6th LOS			E									

HCM 6th TWSC

108: SW Natura Avenue/SW Natura Blvd & SW Natura Boulevard

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	225	22	23	390	3	30	0	23	7	1	13
Future Vol, veh/h	2	225	22	23	390	3	30	0	23	7	1	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	120	-	-	60	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	237	23	24	411	3	32	0	24	7	1	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	414	0	0	260	0	0	507	715	130	584	725	207
Stage 1	-	-	-	-	-	-	253	253	-	461	461	-
Stage 2	-	-	-	-	-	-	254	462	-	123	264	-
Critical Hdwy	4.14	-	-	4.14	-	-	5.5	6.54	4.5	5.5	6.54	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.54	-	5.5	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1141	-	-	1302	-	-	598	355	978	550	350	920
Stage 1	-	-	-	-	-	-	784	696	-	628	564	-
Stage 2	-	-	-	-	-	-	728	563	-	868	689	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1141	-	-	1302	-	-	579	348	978	528	343	920
Mov Cap-2 Maneuver	-	-	-	-	-	-	579	348	-	528	343	-
Stage 1	-	-	-	-	-	-	782	695	-	627	554	-
Stage 2	-	-	-	-	-	-	703	553	-	845	688	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			10.4			10.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	579	978	1141	-	-	1302	-	-	693			
HCM Lane V/C Ratio	0.055	0.025	0.002	-	-	0.019	-	-	0.032			
HCM Control Delay (s)	11.6	8.8	8.2	-	-	7.8	-	-	10.4			
HCM Lane LOS	B	A	A	-	-	A	-	-	B			
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0.1	-	-	0.1			

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	260	1288	183	1020	165	170	142	133	149	133	209
Future Volume (vph)	260	1288	183	1020	165	170	142	133	149	133	209
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	90.0	20.0	90.0	90.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	12.5%	56.3%	12.5%	56.3%	56.3%	12.5%	18.8%	18.8%	12.5%	18.8%	18.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	104.8	92.4	104.2	92.1	92.1	30.0	16.5	16.5	29.1	16.0	16.0
Actuated g/C Ratio	0.66	0.58	0.65	0.58	0.58	0.19	0.10	0.10	0.18	0.10	0.10
v/c Ratio	0.69	0.56	0.76	0.36	0.17	0.76	0.40	0.49	0.57	0.73	0.61
Control Delay	19.7	22.4	39.3	19.4	2.9	74.5	69.5	15.2	61.2	91.3	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	22.4	39.3	19.4	2.9	74.5	69.5	15.2	61.2	91.3	15.2
LOS	B	C	D	B	A	E	E	B	E	F	B
Approach Delay		22.0		20.1			55.1			49.8	
Approach LOS		C		C			E			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 57 (36%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 28.2

Intersection LOS: C

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	90 s	20 s	30 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	90 s	20 s	30 s

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	265	1608	187	1041	168	173	145	136	152	136	213
v/c Ratio	0.69	0.56	0.76	0.36	0.17	0.76	0.40	0.49	0.57	0.73	0.61
Control Delay	19.7	22.4	39.3	19.4	2.9	74.5	69.5	15.2	61.2	91.3	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	22.4	39.3	19.4	2.9	74.5	69.5	15.2	61.2	91.3	15.2
Queue Length 50th (ft)	93	368	67	209	0	157	76	0	136	141	0
Queue Length 95th (ft)	150	467	169	272	38	224	110	65	199	210	80
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	399	2863	267	2925	969	235	530	347	277	279	418
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.56	0.70	0.36	0.17	0.74	0.27	0.39	0.55	0.49	0.51
Intersection Summary											

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1288	288	183	1020	165	170	142	133	149	133	209
Future Volume (veh/h)	260	1288	288	183	1020	165	170	142	133	149	133	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	265	1314	294	187	1041	168	173	145	136	152	136	213
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	2250	503	259	2665	827	283	534	232	320	275	231
Arrive On Green	0.08	0.54	0.54	0.06	0.52	0.52	0.09	0.15	0.15	0.08	0.15	0.15
Sat Flow, veh/h	1781	4154	929	1781	5106	1584	1781	3554	1545	1781	1870	1575
Grp Volume(v), veh/h	265	1076	532	187	1041	168	173	145	136	152	136	213
Grp Sat Flow(s),veh/h/ln	1781	1702	1679	1781	1702	1584	1781	1777	1545	1781	1870	1575
Q Serve(g_s), s	11.1	33.9	34.0	7.8	19.6	9.1	13.2	5.8	13.1	11.5	10.7	21.3
Cycle Q Clear(g_c), s	11.1	33.9	34.0	7.8	19.6	9.1	13.2	5.8	13.1	11.5	10.7	21.3
Prop In Lane	1.00		0.55	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	1843	909	259	2665	827	283	534	232	320	275	231
V/C Ratio(X)	0.71	0.58	0.58	0.72	0.39	0.20	0.61	0.27	0.59	0.48	0.50	0.92
Avail Cap(c_a), veh/h	374	1843	909	294	2665	827	283	534	232	326	281	236
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	17.6	24.6	24.6	22.8	23.0	20.5	52.4	60.2	63.4	51.8	62.8	67.3
Incr Delay (d2), s/veh	5.2	1.4	2.7	5.8	0.4	0.6	2.8	0.1	2.6	0.4	0.5	36.6
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	5.1	14.1	14.3	3.7	8.1	3.6	6.2	2.6	5.4	5.2	5.2	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	26.0	27.4	28.6	23.4	21.0	55.2	60.3	66.0	52.2	63.3	103.9
LnGrp LOS	C	C	C	C	C	C	E	E	E	D	E	F
Approach Vol, veh/h	1873		1396			454			501			
Approach Delay, s/veh	25.9		23.8			60.1			77.2			
Approach LOS	C		C			E			E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	90.5	19.5	30.0	16.9	93.6	20.0	29.5				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	83.0	14.0	24.0	13.0	83.0	14.0	24.0				
Max Q Clear Time (g_c+I1), s	13.1	21.6	13.5	15.1	9.8	36.0	15.2	23.3				
Green Ext Time (p_c), s	0.0	10.8	0.0	0.6	0.1	17.8	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay	35.0											
HCM 6th LOS	C											
Notes												

Timings

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	1740	246	1952	25	262	7	402	195	30	148
Future Volume (vph)	37	1740	246	1952	25	262	7	402	195	30	148
Turn Type	Prot	NA	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6	5	2	3	4	4	5	3	3	1
Permitted Phases					2			4			3
Detector Phase	1	6	5	2	3	4	4	5	3	3	1
Switch Phase											
Minimum Initial (s)	5.0	12.0	5.0	12.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0
Minimum Split (s)	11.5	35.5	11.5	35.5	40.0	26.0	26.0	11.5	40.0	40.0	11.5
Total Split (s)	24.0	70.0	24.0	70.0	40.0	26.0	26.0	24.0	40.0	40.0	24.0
Total Split (%)	15.0%	43.8%	15.0%	43.8%	25.0%	16.3%	16.3%	15.0%	25.0%	25.0%	15.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.6	78.4	23.5	94.3	110.6	17.3	17.3	40.3	15.8	15.8	22.9
Actuated g/C Ratio	0.05	0.49	0.15	0.59	0.69	0.11	0.11	0.25	0.10	0.10	0.14
v/c Ratio	0.46	0.81	0.52	0.69	0.02	0.75	0.03	0.90	0.72	0.72	0.56
Control Delay	86.9	41.2	71.7	20.8	0.2	82.0	61.9	63.3	92.3	92.6	30.7
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.9	41.2	71.7	21.0	0.2	82.0	61.9	63.3	92.3	92.6	30.7
LOS	F	D	E	C	A	F	E	E	F	F	C
Approach Delay		42.0		26.3			70.6			68.0	
Approach LOS		D		C			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 126 (79%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 40.9

Intersection LOS: D

Intersection Capacity Utilization 86.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 102: Jim Moran Boulevard & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
24 s	70 s	40 s	26 s
 Ø5	 Ø6 (R)		
24 s	70 s		

Queues

102: Jim Moran Boulevard & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	2000	262	2077	27	279	7	428	118	121	157
v/c Ratio	0.46	0.81	0.52	0.69	0.02	0.75	0.03	0.90	0.72	0.72	0.56
Control Delay	86.9	41.2	71.7	20.8	0.2	82.0	61.9	63.3	92.3	92.6	30.7
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.9	41.2	71.7	21.0	0.2	82.0	61.9	63.3	92.3	92.6	30.7
Queue Length 50th (ft)	36	746	116	564	0	148	7	319	128	131	69
Queue Length 95th (ft)	m59	#895	148	742	m1	194	23	427	197	201	114
Internal Link Dist (ft)		2620		495			677			792	
Turn Bay Length (ft)	375		400		330	200		250	200		200
Base Capacity (vph)	193	2466	505	2996	1264	438	237	475	357	362	373
Starvation Cap Reductn	0	0	0	185	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	0.20	0.81	0.52	0.74	0.02	0.64	0.03	0.90	0.33	0.33	0.42

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

102: Jim Moran Boulevard & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (vph)	37	1740	140	246	1952	25	262	7	402	195	30	148
Future Volume (vph)	37	1740	140	246	1952	25	262	7	402	195	30	148
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	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lane Util. Factor	1.00	0.91		0.97	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.99	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	0.96	1.00
Satd. Flow (prot)	1770	5023		3433	5085	1551	3433	1863	1565	1681	1707	1564
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5023		3433	5085	1551	3433	1863	1565	1681	1707	1564
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)	39	1851	149	262	2077	27	279	7	428	207	32	157
RTOR Reduction (vph)	0	5	0	0	0	8	0	0	80	0	0	55
Lane Group Flow (vph)	39	1995	0	262	2077	19	279	7	348	118	121	102
Confl. Peds. (#/hr)	1					1	4		2	2		4
Confl. Bikes (#/hr)			6			2			2			
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6		5	2	3	4	4	5	3	3	1
Permitted Phases						2			4			3
Actuated Green, G (s)	7.6	78.4		23.5	94.3	110.1	17.3	17.3	40.8	15.8	15.8	23.4
Effective Green, g (s)	7.6	78.4		23.5	94.3	110.1	17.3	17.3	40.8	15.8	15.8	23.4
Actuated g/C Ratio	0.05	0.49		0.15	0.59	0.69	0.11	0.11	0.25	0.10	0.10	0.15
Clearance Time (s)	6.5	6.5		6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Vehicle Extension (s)	1.5	3.0		1.5	3.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5
Lane Grp Cap (vph)	84	2461		504	2996	1067	371	201	399	165	168	228
v/s Ratio Prot	0.02	c0.40		0.08	0.41	0.00	0.08	0.00	c0.13	0.07	c0.07	0.02
v/s Ratio Perm						0.01			0.09			0.04
v/c Ratio	0.46	0.81		0.52	0.69	0.02	0.75	0.03	0.87	0.72	0.72	0.45
Uniform Delay, d1	74.2	34.5		63.0	22.8	7.9	69.3	63.9	57.1	69.9	70.0	62.4
Progression Factor	0.98	1.08		1.09	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	2.6		0.3	1.2	0.0	7.4	0.0	17.8	11.6	12.1	0.5
Delay (s)	74.0	39.8		69.2	19.4	7.9	76.7	63.9	74.9	81.5	82.0	62.9
Level of Service	E	D		E	B	A	E	E	E	F	F	E
Approach Delay (s)		40.5			24.8			75.5			74.3	
Approach LOS		D			C			E			E	
Intersection Summary												
HCM 2000 Control Delay		40.7										
HCM 2000 Volume to Capacity ratio		0.82										
Actuated Cycle Length (s)		160.0										
Intersection Capacity Utilization		86.1%										
Analysis Period (min)		15										
c Critical Lane Group												

Timings

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Configurations	↑↑↑	↑	↑↑
Traffic Volume (vph)	1677	528	503
Future Volume (vph)	1677	528	503
Turn Type	NA	Prot	Prot
Protected Phases	2	3	8
Permitted Phases			
Detector Phase	2	3	8
Switch Phase			
Minimum Initial (s)	12.0	6.0	6.0
Minimum Split (s)	33.5	24.5	24.5
Total Split (s)	99.0	61.0	61.0
Total Split (%)	61.9%	38.1%	38.1%
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	None
Act Effect Green (s)	93.6	53.4	53.4
Actuated g/C Ratio	0.58	0.33	0.33
v/c Ratio	0.61	0.97	0.58
Control Delay	22.8	82.7	44.4
Queue Delay	0.1	0.0	0.0
Total Delay	22.9	82.7	44.4
LOS	C	F	D
Approach Delay	22.9	64.0	
Approach LOS	C	E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 139 (87%), Referenced to phase 2:WBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 38.5

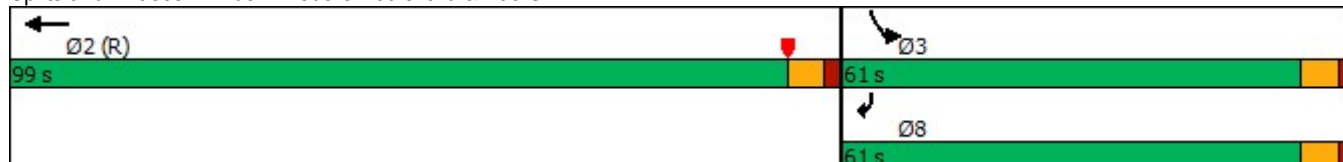
Intersection LOS: D

Intersection Capacity Utilization 67.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 103: Hillsboro Boulevard & I-95 SB



Queues

103: Hillsboro Boulevard & I-95 SB



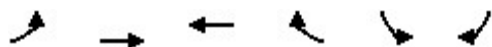
Lane Group	WBT	SBL	SBR
Lane Group Flow (vph)	1823	574	547
v/c Ratio	0.61	0.97	0.58
Control Delay	22.8	82.7	44.4
Queue Delay	0.1	0.0	0.0
Total Delay	22.9	82.7	44.4
Queue Length 50th (ft)	445	587	253
Queue Length 95th (ft)	490	#831	322
Internal Link Dist (ft)	1220	531	
Turn Bay Length (ft)			
Base Capacity (vph)	2973	602	966
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	136	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.95	0.57

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

103: Hillsboro Boulevard & I-95 SB



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↑		↑	↑↑
Traffic Volume (vph)	0	0	1677	0	528	503
Future Volume (vph)	0	0	1677	0	528	503
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.5		6.5	6.5
Lane Util. Factor			0.91		1.00	0.88
Frt			1.00		1.00	0.85
Flt Protected			1.00		0.95	1.00
Satd. Flow (prot)			5085		1770	2787
Flt Permitted			1.00		0.95	1.00
Satd. Flow (perm)			5085		1770	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1823	0	574	547
RTOR Reduction (vph)	0	0	0	0	0	17
Lane Group Flow (vph)	0	0	1823	0	574	530
Turn Type			NA		Prot	Prot
Protected Phases			2		3	8
Permitted Phases						
Actuated Green, G (s)			93.6		53.4	53.4
Effective Green, g (s)			93.6		53.4	53.4
Actuated g/C Ratio			0.58		0.33	0.33
Clearance Time (s)			6.5		6.5	6.5
Vehicle Extension (s)			3.0		2.5	2.5
Lane Grp Cap (vph)			2974		590	930
v/s Ratio Prot			c0.36		c0.32	0.19
v/s Ratio Perm						
v/c Ratio			0.61		0.97	0.57
Uniform Delay, d1			21.5		52.6	43.8
Progression Factor			1.00		1.00	1.00
Incremental Delay, d2			1.0		30.1	0.7
Delay (s)			22.4		82.7	44.5
Level of Service			C		F	D
Approach Delay (s)		0.0	22.4		64.0	
Approach LOS		A	C		E	
Intersection Summary						
HCM 2000 Control Delay			38.3		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.74			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			67.5%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Timings

104: I-95 NB & Hillsboro Boulevard

	→	↗
Lane Group	EBT	NBR
Lane Configurations	↑↑↑	↗↗
Traffic Volume (vph)	1609	514
Future Volume (vph)	1609	514
Turn Type	NA	Prot
Protected Phases	6	7
Permitted Phases		
Detector Phase	6	7
Switch Phase		
Minimum Initial (s)	12.0	6.0
Minimum Split (s)	24.5	24.5
Total Split (s)	99.0	61.0
Total Split (%)	61.9%	38.1%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)	111.6	35.4
Actuated g/C Ratio	0.70	0.22
v/c Ratio	0.49	0.86
Control Delay	14.9	70.2
Queue Delay	0.0	0.0
Total Delay	14.9	70.2
LOS	B	E
Approach Delay	14.9	
Approach LOS	B	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 139 (87%), Referenced to phase 2: and 6:EBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: I-95 NB & Hillsboro Boulevard



Queues

104: I-95 NB & Hillsboro Boulevard



Lane Group	EBT	NBR
Lane Group Flow (vph)	1730	553
v/c Ratio	0.49	0.86
Control Delay	14.9	70.2
Queue Delay	0.0	0.0
Total Delay	14.9	70.2
Queue Length 50th (ft)	357	303
Queue Length 95th (ft)	443	358
Internal Link Dist (ft)	1220	
Turn Bay Length (ft)		
Base Capacity (vph)	3547	970
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.49	0.57
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

104: I-95 NB & Hillsboro Boulevard

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↑↑
Traffic Volume (vph)	1609	0	0	0	0	514
Future Volume (vph)	1609	0	0	0	0	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5					6.5
Lane Util. Factor	0.91					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	5085					2787
Flt Permitted	1.00					1.00
Satd. Flow (perm)	5085					2787
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1730	0	0	0	0	553
RTOR Reduction (vph)	0	0	0	0	0	25
Lane Group Flow (vph)	1730	0	0	0	0	528
Turn Type	NA					Prot
Protected Phases	6					7
Permitted Phases						
Actuated Green, G (s)	111.6					35.4
Effective Green, g (s)	111.6					35.4
Actuated g/C Ratio	0.70					0.22
Clearance Time (s)	6.5					6.5
Vehicle Extension (s)	3.5					2.0
Lane Grp Cap (vph)	3546					616
v/s Ratio Prot	c0.34					c0.19
v/s Ratio Perm						
v/c Ratio	0.49					0.86
Uniform Delay, d1	11.1					59.9
Progression Factor	1.23					1.00
Incremental Delay, d2	0.5					10.9
Delay (s)	14.2					70.8
Level of Service	B					E
Approach Delay (s)	14.2			0.0	70.8	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay			27.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.58			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			59.9%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Timings

101: Military Trail & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	 	  	 	  		 	  	 	  
Traffic Volume (vph)	266	1218	154	1616	295	312	705	324	602
Future Volume (vph)	266	1218	154	1616	295	312	705	324	602
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	1	6	5	2		7	4	3	8
Permitted Phases					2				
Detector Phase	1	6	5	2	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	4.0	8.0	4.0	8.0	8.0	4.0	6.0	4.0	8.0
Minimum Split (s)	20.0	43.5	10.5	43.5	43.5	10.5	46.0	10.5	46.0
Total Split (s)	20.0	68.0	20.0	68.0	68.0	26.0	46.0	26.0	46.0
Total Split (%)	12.5%	42.5%	12.5%	42.5%	42.5%	16.3%	28.8%	16.3%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	15.5	70.9	11.0	66.4	66.4	17.6	34.1	18.1	34.5
Actuated g/C Ratio	0.10	0.44	0.07	0.42	0.42	0.11	0.21	0.11	0.22
v/c Ratio	0.82	0.64	0.67	0.78	0.42	0.84	0.77	0.86	0.86
Control Delay	89.4	37.0	75.8	46.1	22.2	89.3	63.2	90.1	63.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	37.0	75.8	46.1	22.2	89.3	63.2	90.1	63.5
LOS	F	D	E	D	C	F	E	F	E
Approach Delay		45.4		44.9			70.4		70.4
Approach LOS		D		D			E		E

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 55.0

Intersection LOS: D

Intersection Capacity Utilization 88.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 101: Military Trail & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
20 s	68 s	26 s	46 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
20 s	68 s	26 s	46 s

Queues

101: Military Trail & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	271	1422	157	1649	301	318	830	331	947
v/c Ratio	0.82	0.64	0.67	0.78	0.42	0.84	0.77	0.86	0.86
Control Delay	89.4	37.0	75.8	46.1	22.2	89.3	63.2	90.1	63.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	37.0	75.8	46.1	22.2	89.3	63.2	90.1	63.5
Queue Length 50th (ft)	143	424	77	650	205	169	296	176	323
Queue Length 95th (ft)	#239	519	m113	700	275	224	335	#242	367
Internal Link Dist (ft)		751		2620			541		790
Turn Bay Length (ft)	260		160		130	300		310	
Base Capacity (vph)	332	2221	289	2108	722	418	1240	418	1250
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	0.82	0.64	0.54	0.78	0.42	0.76	0.67	0.79	0.76

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

101: Military Trail & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Traffic Volume (veh/h)	266	1218	175	154	1616	295	312	705	109	324	602	326
Future Volume (veh/h)	266	1218	175	154	1616	295	312	705	109	324	602	326
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	271	1243	179	157	1649	301	318	719	111	331	614	333
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	2012	290	199	2142	665	360	1007	154	372	781	363
Arrive On Green	0.08	0.45	0.45	0.08	0.56	0.56	0.10	0.23	0.23	0.11	0.23	0.23
Sat Flow, veh/h	3456	4508	649	3456	5106	1585	3456	4458	681	3456	3404	1581
Grp Volume(v), veh/h	271	939	483	157	1649	301	318	547	283	331	614	333
Grp Sat Flow(s),veh/h/ln	1728	1702	1754	1728	1702	1585	1728	1702	1735	1728	1702	1581
Q Serve(g_s), s	12.5	33.7	33.7	7.1	40.0	18.0	14.5	23.7	24.1	15.1	27.1	32.9
Cycle Q Clear(g_c), s	12.5	33.7	33.7	7.1	40.0	18.0	14.5	23.7	24.1	15.1	27.1	32.9
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	292	1519	783	199	2142	665	360	769	392	372	781	363
V/C Ratio(X)	0.93	0.62	0.62	0.79	0.77	0.45	0.88	0.71	0.72	0.89	0.79	0.92
Avail Cap(c_a), veh/h	292	1519	783	292	2142	665	421	840	428	421	840	390
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.8	33.9	33.9	72.9	29.4	24.5	70.7	57.1	57.3	70.4	57.9	60.2
Incr Delay (d2), s/veh	34.1	1.9	3.6	3.2	1.8	1.4	16.0	2.0	4.3	17.4	4.1	24.4
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	6.8	14.0	14.8	3.2	14.7	6.4	7.2	10.3	11.0	7.5	12.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.9	35.8	37.5	76.2	31.2	26.0	86.7	59.2	61.6	87.8	62.0	84.5
LnGrp LOS	F	D	D	E	C	C	F	E	E	F	E	F
Approach Vol, veh/h		1693			2107			1148			1278	
Approach Delay, s/veh		47.6			33.8			67.4			74.6	
Approach LOS		D			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	73.6	23.7	42.6	15.7	77.9	23.2	43.2				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	13.5	61.5	19.5	39.5	13.5	61.5	19.5	39.5				
Max Q Clear Time (g_c+I1), s	14.5	42.0	17.1	26.1	9.1	35.7	16.5	34.9				
Green Ext Time (p_c), s	0.0	12.2	0.1	2.9	0.1	10.3	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			52.1									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	  	  			  						
Traffic Volume (vph)	190	1696	248	166	1925	195	16	105	124	37	363
Future Volume (vph)	190	1696	248	166	1925	195	16	105	124	37	363
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	22.0	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	22.0	66.0	66.0	22.0	66.0	26.0	46.0	46.0	26.0	46.0	46.0
Total Split (%)	13.8%	41.3%	41.3%	13.8%	41.3%	16.3%	28.8%	28.8%	16.3%	28.8%	28.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	14.1	72.6	72.6	23.6	82.1	43.4	24.7	24.7	34.2	20.1	20.1
Actuated g/C Ratio	0.09	0.45	0.45	0.15	0.51	0.27	0.15	0.15	0.21	0.13	0.13
v/c Ratio	0.69	0.81	0.36	0.70	0.84	0.57	0.06	0.34	0.41	0.18	0.93
Control Delay	68.8	49.8	27.0	92.5	31.2	51.2	52.8	10.8	46.5	59.1	50.9
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	68.8	49.8	27.0	92.5	31.2	51.2	52.8	10.8	46.5	59.1	50.9
LOS	E	D	C	F	C	D	D	B	D	E	D
Approach Delay		48.8			35.9		37.9			50.4	
Approach LOS		D			D		D			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 22 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 42.9

Intersection LOS: D

Intersection Capacity Utilization 87.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard

			
Ø1	Ø2 (R)	Ø3	Ø4
22 s	66 s	26 s	46 s
			
Ø5	Ø6 (R)	Ø7	Ø8
22 s	66 s	26 s	46 s

Queues

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	209	1864	273	182	2180	214	18	115	136	41	399
v/c Ratio	0.69	0.81	0.36	0.70	0.84	0.57	0.06	0.34	0.41	0.18	0.93
Control Delay	68.8	49.8	27.0	92.5	31.2	51.2	52.8	10.8	46.5	59.1	50.9
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	68.8	49.8	27.0	92.5	31.2	51.2	52.8	10.8	46.5	59.1	50.9
Queue Length 50th (ft)	113	644	144	192	801	183	16	0	111	39	153
Queue Length 95th (ft)	158	#824	252	m#272	m#1039	228	38	54	149	71	269
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	344	2306	760	260	2600	384	465	476	395	465	593
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	0.61	0.81	0.36	0.70	0.84	0.56	0.04	0.24	0.34	0.09	0.67
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 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1696	248	166	1925	59	195	16	105	124	37	363
Future Volume (veh/h)	190	1696	248	166	1925	59	195	16	105	124	37	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	1864	273	182	2115	65	214	18	115	136	41	399
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	2023	613	173	2135	65	446	526	446	482	468	396
Arrive On Green	0.02	0.13	0.13	0.19	0.84	0.84	0.10	0.28	0.28	0.07	0.25	0.25
Sat Flow, veh/h	3456	5106	1548	1781	5090	156	1781	1870	1583	1781	1870	1583
Grp Volume(v), veh/h	209	1864	273	182	1413	767	214	18	115	136	41	399
Grp Sat Flow(s),veh/h/ln	1728	1702	1548	1781	1702	1842	1781	1870	1583	1781	1870	1583
Q Serve(g_s), s	9.6	57.7	26.0	15.5	62.9	64.3	14.0	1.1	9.0	9.0	2.7	40.0
Cycle Q Clear(g_c), s	9.6	57.7	26.0	15.5	62.9	64.3	14.0	1.1	9.0	9.0	2.7	40.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	2023	613	173	1428	773	446	526	446	482	468	396
V/C Ratio(X)	0.82	0.92	0.45	1.05	0.99	0.99	0.48	0.03	0.26	0.28	0.09	1.01
Avail Cap(c_a), veh/h	335	2023	613	173	1428	773	489	526	446	582	468	396
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.59	0.59	0.59	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.0	67.1	53.3	64.5	12.5	12.7	37.6	41.7	44.5	40.1	46.0	60.0
Incr Delay (d2), s/veh	9.1	8.4	2.3	67.7	15.9	23.2	0.3	0.0	0.1	0.1	0.0	47.3
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	4.7	28.1	11.3	9.4	8.1	10.3	6.3	0.5	3.6	4.0	1.3	21.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	75.5	55.6	132.2	28.5	35.9	37.9	41.7	44.7	40.3	46.0	107.3
LnGrp LOS	F	E	E	F	C	D	D	D	D	D	D	F
Approach Vol, veh/h	2346			2362			347			576		
Approach Delay, s/veh	74.2			38.9			40.4			87.1		
Approach LOS	E			D			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.3	73.6	17.1	51.0	22.0	69.9	22.1	46.0				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.5	59.5	20.0	40.0	15.5	59.5	20.0	40.0				
Max Q Clear Time (g_c+I1), s	11.6	66.3	11.0	11.0	17.5	59.7	16.0	42.0				
Green Ext Time (p_c), s	0.1	0.0	0.1	0.2	0.0	0.0	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	58.6											
HCM 6th LOS	E											

Timings

107: S. Dixie Highway & Hillsboro Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	 	  		  		 		 	
Traffic Volume (vph)	319	1075	62	1215	152	331	77	519	520
Future Volume (vph)	319	1075	62	1215	152	331	77	519	520
Turn Type	Prot	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	1	6	5	2	7	4	3	8	1
Permitted Phases			2		4		8		8
Detector Phase	1	6	5	2	7	4	3	8	1
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	4.0	6.0	4.0	6.0	5.0
Minimum Split (s)	11.5	36.5	11.5	36.5	10.5	39.5	10.5	41.5	11.5
Total Split (s)	22.0	69.0	22.0	69.0	24.0	45.0	24.0	45.0	22.0
Total Split (%)	13.8%	43.1%	13.8%	43.1%	15.0%	28.1%	15.0%	28.1%	13.8%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	21.4	82.1	74.9	67.8	50.3	35.2	39.2	29.6	51.0
Actuated g/C Ratio	0.13	0.51	0.47	0.42	0.31	0.22	0.24	0.18	0.32
v/c Ratio	0.72	0.52	0.31	0.66	0.69	0.58	0.34	0.83	0.99
Control Delay	48.3	36.3	20.6	39.2	55.3	55.6	41.2	73.7	79.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	36.3	20.6	39.2	55.3	55.6	41.2	73.7	79.2
LOS	D	D	C	D	E	E	D	E	E
Approach Delay		38.7		38.4		55.5		74.1	
Approach LOS		D		D		E		E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 127 (79%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 49.1

Intersection LOS: D

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 107: S. Dixie Highway & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
22 s	69 s	24 s	45 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
22 s	69 s	24 s	45 s

Future PM Peak Hour

Synchro 10 Light Report

Queues

107: S. Dixie Highway & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	332	1339	65	1399	158	449	80	541	542
v/c Ratio	0.72	0.52	0.31	0.66	0.69	0.58	0.34	0.83	0.99
Control Delay	48.3	36.3	20.6	39.2	55.3	55.6	41.2	73.7	79.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	36.3	20.6	39.2	55.3	55.6	41.2	73.7	79.2
Queue Length 50th (ft)	153	514	28	447	123	211	59	291	456
Queue Length 95th (ft)	m#239	565	57	504	172	260	95	343	#744
Internal Link Dist (ft)		2890		691		540		364	
Turn Bay Length (ft)	170		180		225		270		120
Base Capacity (vph)	459	2559	304	2129	251	853	324	851	547
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.52	0.21	0.66	0.63	0.53	0.25	0.64	0.99

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

HCM 6th Signalized Intersection Summary 107: S. Dixie Highway & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	 
Traffic Volume (veh/h)	319	1075	210	62	1215	128	152	331	100	77	519	520
Future Volume (veh/h)	319	1075	210	62	1215	128	152	331	100	77	519	520
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	332	1120	219	65	1266	133	158	345	104	80	541	542
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2086	408	202	1974	207	239	740	220	282	855	534
Arrive On Green	0.03	0.16	0.16	0.03	0.42	0.42	0.08	0.27	0.27	0.05	0.24	0.24
Sat Flow, veh/h	3456	4286	838	1781	4686	492	1781	2700	802	1781	3554	1583
Grp Volume(v), veh/h	332	889	450	65	920	479	158	225	224	80	541	542
Grp Sat Flow(s),veh/h/ln	1728	1702	1720	1781	1702	1774	1781	1777	1725	1781	1777	1583
Q Serve(g_s), s	15.4	38.4	38.4	3.3	34.3	34.3	10.5	16.9	17.3	5.4	21.8	38.5
Cycle Q Clear(g_c), s	15.4	38.4	38.4	3.3	34.3	34.3	10.5	16.9	17.3	5.4	21.8	38.5
Prop In Lane	1.00		0.49	1.00		0.28	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	335	1656	837	202	1434	748	239	487	473	282	855	534
V/C Ratio(X)	0.99	0.54	0.54	0.32	0.64	0.64	0.66	0.46	0.47	0.28	0.63	1.01
Avail Cap(c_a), veh/h	335	1656	837	318	1434	748	294	487	473	396	855	534
HCM Platoon Ratio	0.33	0.33	0.33	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	77.4	50.6	50.6	27.8	36.7	36.7	42.3	48.3	48.4	43.2	54.4	53.0
Incr Delay (d2), s/veh	34.9	0.7	1.4	0.3	2.2	4.2	2.1	0.5	0.5	0.2	1.4	42.5
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	8.8	17.8	18.1	1.4	14.4	15.4	4.8	7.5	7.5	2.4	9.9	27.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.3	51.3	52.0	28.1	38.9	40.9	44.5	48.8	49.0	43.4	55.8	95.5
LnGrp LOS	F	D	D	C	D	D	D	D	D	D	E	F
Approach Vol, veh/h		1671			1464			607			1163	
Approach Delay, s/veh		63.6			39.1			47.7			73.4	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	73.9	13.7	50.4	11.6	84.4	19.1	45.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	15.5	62.5	17.5	38.5	15.5	62.5	17.5	38.5				
Max Q Clear Time (g_c+I1), s	17.4	36.3	7.4	19.3	5.3	40.4	12.5	40.5				
Green Ext Time (p_c), s	0.0	10.2	0.1	1.9	0.0	9.0	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			56.7									
HCM 6th LOS			E									

HCM 6th TWSC

108: SW Natura Avenue/SW Natura Blvd & SW Natura Boulevard

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	229	22	23	398	11	30	0	23	14	1	15
Future Vol, veh/h	6	229	22	23	398	11	30	0	23	14	1	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	120	-	-	60	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	241	23	24	419	12	32	0	24	15	1	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	431	0	0	264	0	0	523	744	132	606	749	216
Stage 1	-	-	-	-	-	-	265	265	-	473	473	-
Stage 2	-	-	-	-	-	-	258	479	-	133	276	-
Critical Hdwy	4.14	-	-	4.14	-	-	5.5	6.54	4.5	5.5	6.54	4.5
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.54	-	5.5	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1125	-	-	1297	-	-	588	341	976	537	339	913
Stage 1	-	-	-	-	-	-	774	688	-	620	557	-
Stage 2	-	-	-	-	-	-	724	553	-	857	680	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1125	-	-	1297	-	-	566	333	976	514	331	913
Mov Cap-2 Maneuver	-	-	-	-	-	-	566	333	-	514	331	-
Stage 1	-	-	-	-	-	-	770	685	-	617	546	-
Stage 2	-	-	-	-	-	-	697	542	-	831	677	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.4			10.4			10.9		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	566	976	1125	-	-	1297	-	-	643			
HCM Lane V/C Ratio	0.056	0.025	0.006	-	-	0.019	-	-	0.049			
HCM Control Delay (s)	11.7	8.8	8.2	-	-	7.8	-	-	10.9			
HCM Lane LOS	B	A	A	-	-	A	-	-	B			
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0.1	-	-	0.2			

Timings

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	1288	183	1020	166	170	144	133	150	135	213
Future Volume (vph)	265	1288	183	1020	166	170	144	133	150	135	213
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases	6		2		2	4		4	8		8
Detector Phase	1	6	5	2	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	11.0	32.0	11.0	32.0	32.0	10.0	30.0	30.0	10.0	30.0	30.0
Total Split (s)	20.0	90.0	20.0	90.0	90.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	12.5%	56.3%	12.5%	56.3%	56.3%	12.5%	18.8%	18.8%	12.5%	18.8%	18.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	104.9	92.2	103.7	91.6	91.6	30.1	16.6	16.6	29.3	16.2	16.2
Actuated g/C Ratio	0.66	0.58	0.65	0.57	0.57	0.19	0.10	0.10	0.18	0.10	0.10
v/c Ratio	0.70	0.56	0.76	0.36	0.17	0.76	0.40	0.48	0.57	0.73	0.61
Control Delay	20.3	22.5	39.7	19.6	2.9	74.7	69.5	15.1	61.1	91.3	15.1
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	20.3	22.5	39.7	19.6	2.9	74.7	69.5	15.1	61.1	91.3	15.1
LOS	C	C	D	B	A	E	E	B	E	F	B
Approach Delay		22.2		20.3			55.2			49.7	
Approach LOS		C		C			E			D	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 57 (36%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 28.4

Intersection LOS: C

Intersection Capacity Utilization 79.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 109: SW Natura Boulevard & SW 10 Street

			
Ø1	Ø2 (R)	Ø3	Ø4
20 s	90 s	20 s	30 s
			
Ø5	Ø6 (R)	Ø7	Ø8
20 s	90 s	20 s	30 s

Future PM Peak Hour

Synchro 10 Light Report

Queues

109: SW Natura Boulevard & SW 10 Street

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	270	1608	187	1041	169	173	147	136	153	138	217
v/c Ratio	0.70	0.56	0.76	0.36	0.17	0.76	0.40	0.48	0.57	0.73	0.61
Control Delay	20.3	22.5	39.7	19.6	2.9	74.7	69.5	15.1	61.1	91.3	15.1
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	20.3	22.5	39.7	19.6	2.9	74.7	69.5	15.1	61.1	91.3	15.1
Queue Length 50th (ft)	96	370	68	211	0	157	77	0	137	143	0
Queue Length 95th (ft)	153	467	#171	272	38	224	112	65	200	213	81
Internal Link Dist (ft)		904		940			575			629	
Turn Bay Length (ft)	120		200		200	200		200	100		200
Base Capacity (vph)	399	2858	266	2912	966	234	530	347	278	279	421
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	0.68	0.56	0.70	0.36	0.17	0.74	0.28	0.39	0.55	0.49	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 109: SW Natura Boulevard & SW 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	265	1288	288	183	1020	166	170	144	133	150	135	213
Future Volume (veh/h)	265	1288	288	183	1020	166	170	144	133	150	135	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	270	1314	294	187	1041	169	173	147	136	153	138	217
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	2241	501	258	2655	824	284	540	235	321	278	234
Arrive On Green	0.08	0.54	0.54	0.06	0.52	0.52	0.09	0.15	0.15	0.08	0.15	0.15
Sat Flow, veh/h	1781	4154	929	1781	5106	1584	1781	3554	1545	1781	1870	1575
Grp Volume(v), veh/h	270	1076	532	187	1041	169	173	147	136	153	138	217
Grp Sat Flow(s),veh/h/ln	1781	1702	1679	1781	1702	1584	1781	1777	1545	1781	1870	1575
Q Serve(g_s), s	11.4	34.1	34.1	7.8	19.7	9.2	13.1	5.9	13.1	11.5	10.8	21.8
Cycle Q Clear(g_c), s	11.4	34.1	34.1	7.8	19.7	9.2	13.1	5.9	13.1	11.5	10.8	21.8
Prop In Lane	1.00		0.55	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	1836	906	258	2655	824	284	540	235	321	278	234
V/C Ratio(X)	0.72	0.59	0.59	0.72	0.39	0.21	0.61	0.27	0.58	0.48	0.50	0.93
Avail Cap(c_a), veh/h	373	1836	906	293	2655	824	284	540	235	327	281	236
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	17.9	24.8	24.8	23.0	23.2	20.6	52.1	60.0	63.1	51.5	62.6	67.2
Incr Delay (d2), s/veh	5.9	1.4	2.8	5.9	0.4	0.6	2.7	0.1	2.4	0.4	0.5	38.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	14.2	14.4	3.7	8.2	3.6	6.2	2.7	5.3	5.2	5.2	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	26.2	27.6	28.9	23.6	21.2	54.9	60.1	65.5	52.0	63.1	105.2
LnGrp LOS	C	C	C	C	C	C	D	E	E	D	E	F
Approach Vol, veh/h	1878			1397			456			508		
Approach Delay, s/veh	26.3			24.0			59.7			77.7		
Approach LOS	C			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	90.2	19.5	30.3	16.9	93.3	20.0	29.8				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	13.0	83.0	14.0	24.0	13.0	83.0	14.0	24.0				
Max Q Clear Time (g_c+l1), s	13.4	21.7	13.5	15.1	9.8	36.1	15.1	23.8				
Green Ext Time (p_c), s	0.0	10.8	0.0	0.6	0.1	17.8	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	35.3											
HCM 6th LOS	D											
Notes												

Timings

102: Jim Moran Boulevard & Hillsboro Boulevard

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	1765	246	1972	25	262	7	402	195	30	148
Future Volume (vph)	37	1765	246	1972	25	262	7	402	195	30	148
Turn Type	Prot	NA	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6	5	2	3	4	4	5	3	3	1
Permitted Phases					2			4			3
Detector Phase	1	6	5	2	3	4	4	5	3	3	1
Switch Phase											
Minimum Initial (s)	5.0	12.0	5.0	12.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0
Minimum Split (s)	11.5	35.5	11.5	35.5	40.0	26.0	26.0	11.5	40.0	40.0	11.5
Total Split (s)	24.0	70.0	24.0	70.0	40.0	26.0	26.0	24.0	40.0	40.0	24.0
Total Split (%)	15.0%	43.8%	15.0%	43.8%	25.0%	16.3%	16.3%	15.0%	25.0%	25.0%	15.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.6	78.4	23.5	94.3	110.6	17.3	17.3	40.3	15.8	15.8	22.9
Actuated g/C Ratio	0.05	0.49	0.15	0.59	0.69	0.11	0.11	0.25	0.10	0.10	0.14
v/c Ratio	0.46	0.82	0.52	0.70	0.02	0.75	0.03	0.90	0.72	0.72	0.56
Control Delay	87.2	41.6	71.9	21.0	0.2	82.0	61.9	63.3	92.3	92.6	30.7
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.2	41.6	71.9	21.1	0.2	82.0	61.9	63.3	92.3	92.6	30.7
LOS	F	D	E	C	A	F	E	E	F	F	C
Approach Delay		42.5		26.5			70.6			68.0	
Approach LOS		D		C			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 126 (79%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 41.0

Intersection LOS: D

Intersection Capacity Utilization 86.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 102: Jim Moran Boulevard & Hillsboro Boulevard

 Ø1	 Ø2 (R)	 Ø3	 Ø4
24 s	70 s	40 s	26 s
 Ø5	 Ø6 (R)		
24 s	70 s		

Future PM Peak Hour

Synchro 10 Light Report

Queues

102: Jim Moran Boulevard & Hillsboro Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	2027	262	2098	27	279	7	428	118	121	157
v/c Ratio	0.46	0.82	0.52	0.70	0.02	0.75	0.03	0.90	0.72	0.72	0.56
Control Delay	87.2	41.6	71.9	21.0	0.2	82.0	61.9	63.3	92.3	92.6	30.7
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.2	41.6	71.9	21.1	0.2	82.0	61.9	63.3	92.3	92.6	30.7
Queue Length 50th (ft)	36	757	117	573	0	148	7	319	128	131	69
Queue Length 95th (ft)	m60	#918	148	753	m1	194	23	427	197	201	114
Internal Link Dist (ft)		2620		495			677			792	
Turn Bay Length (ft)	375		400		330	200		250	200		200
Base Capacity (vph)	193	2466	505	2996	1264	438	237	475	357	362	373
Starvation Cap Reductn	0	0	0	183	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	0.20	0.82	0.52	0.75	0.02	0.64	0.03	0.90	0.33	0.33	0.42

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

102: Jim Moran Boulevard & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1765	140	246	1972	25	262	7	402	195	30	148
Future Volume (vph)	37	1765	140	246	1972	25	262	7	402	195	30	148
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	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Lane Util. Factor	1.00	0.91		0.97	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.99	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	0.96	1.00
Satd. Flow (prot)	1770	5024		3433	5085	1551	3433	1863	1565	1681	1707	1564
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5024		3433	5085	1551	3433	1863	1565	1681	1707	1564
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)	39	1878	149	262	2098	27	279	7	428	207	32	157
RTOR Reduction (vph)	0	5	0	0	0	8	0	0	80	0	0	55
Lane Group Flow (vph)	39	2022	0	262	2098	19	279	7	348	118	121	102
Confl. Peds. (#/hr)	1					1	4		2	2		4
Confl. Bikes (#/hr)			6			2			2			
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	1	6		5	2	3	4	4	5	3	3	1
Permitted Phases						2			4			3
Actuated Green, G (s)	7.6	78.4		23.5	94.3	110.1	17.3	17.3	40.8	15.8	15.8	23.4
Effective Green, g (s)	7.6	78.4		23.5	94.3	110.1	17.3	17.3	40.8	15.8	15.8	23.4
Actuated g/C Ratio	0.05	0.49		0.15	0.59	0.69	0.11	0.11	0.25	0.10	0.10	0.15
Clearance Time (s)	6.5	6.5		6.5	6.5	6.0	6.0	6.0	6.5	6.0	6.0	6.5
Vehicle Extension (s)	1.5	3.0		1.5	3.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5
Lane Grp Cap (vph)	84	2461		504	2996	1067	371	201	399	165	168	228
v/s Ratio Prot	0.02	c0.40		0.08	0.41	0.00	0.08	0.00	c0.13	0.07	c0.07	0.02
v/s Ratio Perm						0.01			0.09			0.04
v/c Ratio	0.46	0.82		0.52	0.70	0.02	0.75	0.03	0.87	0.72	0.72	0.45
Uniform Delay, d1	74.2	34.8		63.0	23.0	7.9	69.3	63.9	57.1	69.9	70.0	62.4
Progression Factor	0.99	1.08		1.10	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	2.8		0.3	1.2	0.0	7.4	0.0	17.8	11.6	12.1	0.5
Delay (s)	74.4	40.4		69.5	19.6	7.9	76.7	63.9	74.9	81.5	82.0	62.9
Level of Service	E	D		E	B	A	E	E	E	F	F	E
Approach Delay (s)		41.0			24.9			75.5			74.3	
Approach LOS		D			C			E			E	
Intersection Summary												
HCM 2000 Control Delay		40.9			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.82										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			25.0				
Intersection Capacity Utilization		86.6%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

Timings

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Configurations	↑↑↑	↰	↱↱
Traffic Volume (vph)	1972	195	148
Future Volume (vph)	1972	195	148
Turn Type	NA	Prot	Prot
Protected Phases	2	3	8
Permitted Phases			
Detector Phase	2	3	8
Switch Phase			
Minimum Initial (s)	12.0	6.0	6.0
Minimum Split (s)	33.5	24.5	24.5
Total Split (s)	99.0	61.0	61.0
Total Split (%)	61.9%	38.1%	38.1%
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	None
Act Effect Green (s)	122.6	24.4	24.4
Actuated g/C Ratio	0.77	0.15	0.15
v/c Ratio	0.56	0.79	0.37
Control Delay	8.8	84.8	57.8
Queue Delay	0.1	0.0	0.0
Total Delay	8.9	84.8	57.8
LOS	A	F	E
Approach Delay	8.9	73.1	
Approach LOS	A	E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 139 (87%), Referenced to phase 2:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 18.4

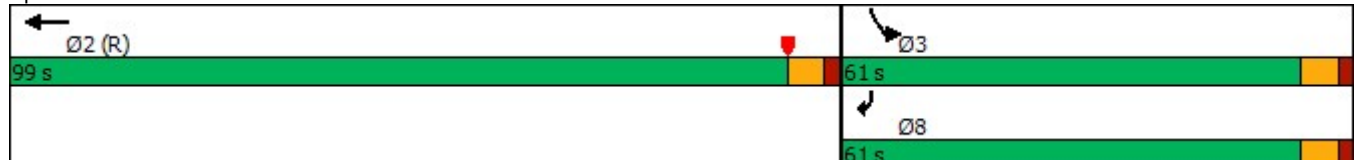
Intersection LOS: B

Intersection Capacity Utilization 60.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 103: Hillsboro Boulevard & I-95 SB



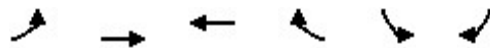
Queues

103: Hillsboro Boulevard & I-95 SB



Lane Group	WBT	SBL	SBR
Lane Group Flow (vph)	2170	212	161
v/c Ratio	0.56	0.79	0.37
Control Delay	8.8	84.8	57.8
Queue Delay	0.1	0.0	0.0
Total Delay	8.9	84.8	57.8
Queue Length 50th (ft)	302	217	81
Queue Length 95th (ft)	418	296	116
Internal Link Dist (ft)	1220	531	
Turn Bay Length (ft)			
Base Capacity (vph)	3889	602	956
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	515	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.35	0.17
Intersection Summary			

HCM Signalized Intersection Capacity Analysis 103: Hillsboro Boulevard & I-95 SB



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↑		↑	↑↑
Traffic Volume (vph)	0	0	1972	25	195	148
Future Volume (vph)	0	0	1972	25	195	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.5		6.5	6.5
Lane Util. Factor			0.91		1.00	0.88
Frt			1.00		1.00	0.85
Flt Protected			1.00		0.95	1.00
Satd. Flow (prot)			5076		1770	2787
Flt Permitted			1.00		0.95	1.00
Satd. Flow (perm)			5076		1770	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	2143	27	212	161
RTOR Reduction (vph)	0	0	0	0	0	9
Lane Group Flow (vph)	0	0	2170	0	212	152
Turn Type			NA		Prot	Prot
Protected Phases			2		3	8
Permitted Phases						
Actuated Green, G (s)			122.6		24.4	24.4
Effective Green, g (s)			122.6		24.4	24.4
Actuated g/C Ratio			0.77		0.15	0.15
Clearance Time (s)			6.5		6.5	6.5
Vehicle Extension (s)			3.0		2.5	2.5
Lane Grp Cap (vph)			3889		269	425
v/s Ratio Prot			c0.43		c0.12	0.05
v/s Ratio Perm						
v/c Ratio			0.56		0.79	0.36
Uniform Delay, d1			7.6		65.3	60.8
Progression Factor			1.00		1.00	1.00
Incremental Delay, d2			0.6		13.7	0.4
Delay (s)			8.2		79.0	61.1
Level of Service			A		E	E
Approach Delay (s)		0.0	8.2		71.3	
Approach LOS		A	A		E	
Intersection Summary						
HCM 2000 Control Delay			17.5		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.60			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	13.0
Intersection Capacity Utilization			60.3%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Timings

104: I-95 NB & Hillsboro Boulevard

	→	↗
Lane Group	EBT	NBR
Lane Configurations	↑↑↑	↗↗
Traffic Volume (vph)	1648	528
Future Volume (vph)	1648	528
Turn Type	NA	Prot
Protected Phases	6	7
Permitted Phases		
Detector Phase	6	7
Switch Phase		
Minimum Initial (s)	12.0	6.0
Minimum Split (s)	24.5	24.5
Total Split (s)	99.0	61.0
Total Split (%)	61.9%	38.1%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)	110.6	36.4
Actuated g/C Ratio	0.69	0.23
v/c Ratio	0.50	0.87
Control Delay	15.7	70.1
Queue Delay	0.0	0.0
Total Delay	15.7	70.1
LOS	B	E
Approach Delay	15.7	
Approach LOS	B	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 139 (87%), Referenced to phase 2: and 6:EBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 28.9	Intersection LOS: C
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: I-95 NB & Hillsboro Boulevard



Queues

104: I-95 NB & Hillsboro Boulevard



Lane Group	EBT	NBR
Lane Group Flow (vph)	1772	568
v/c Ratio	0.50	0.87
Control Delay	15.7	70.1
Queue Delay	0.0	0.0
Total Delay	15.7	70.1
Queue Length 50th (ft)	373	313
Queue Length 95th (ft)	462	369
Internal Link Dist (ft)	1220	
Turn Bay Length (ft)		
Base Capacity (vph)	3515	968
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.50	0.59
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

104: I-95 NB & Hillsboro Boulevard

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↑↑
Traffic Volume (vph)	1648	0	0	0	0	528
Future Volume (vph)	1648	0	0	0	0	528
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5					6.5
Lane Util. Factor	0.91					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	5085					2787
Flt Permitted	1.00					1.00
Satd. Flow (perm)	5085					2787
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1772	0	0	0	0	568
RTOR Reduction (vph)	0	0	0	0	0	22
Lane Group Flow (vph)	1772	0	0	0	0	546
Turn Type	NA					Prot
Protected Phases	6					7
Permitted Phases						
Actuated Green, G (s)	110.6					36.4
Effective Green, g (s)	110.6					36.4
Actuated g/C Ratio	0.69					0.23
Clearance Time (s)	6.5					6.5
Vehicle Extension (s)	3.5					2.0
Lane Grp Cap (vph)	3515					634
v/s Ratio Prot	c0.35					c0.20
v/s Ratio Perm						
v/c Ratio	0.50					0.86
Uniform Delay, d1	11.7					59.4
Progression Factor	1.23					1.00
Incremental Delay, d2	0.5					11.1
Delay (s)	14.9					70.5
Level of Service	B					E
Approach Delay (s)	14.9			0.0	70.5	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay		28.4		HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio		0.59				
Actuated Cycle Length (s)		160.0		Sum of lost time (s)		13.0
Intersection Capacity Utilization		61.1%		ICU Level of Service		B
Analysis Period (min)		15				
c Critical Lane Group						

HCM 6th TWSC
202: Natura Blvd & Driveway 2

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	↗
Traffic Vol, veh/h	0	1	0	323	443	8
Future Vol, veh/h	0	1	0	323	443	8
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	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	351	482	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	241	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	837	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	837	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 837		-	-		
HCM Lane V/C Ratio	- 0.001		-	-		
HCM Control Delay (s)	- 9.3		-	-		
HCM Lane LOS	- A		-	-		
HCM 95th %tile Q(veh)	- 0		-	-		

HCM 6th TWSC
203: Driveway 3 & Natura Blvd

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	1	4	315	436	8
Future Vol, veh/h	8	1	4	315	436	8
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	-	100	-	-	160
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	1	4	342	474	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	653	237	483	0	-	0
Stage 1	474	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	5.5	4.5	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	510	898	1076	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	508	898	1076	-	-	-
Mov Cap-2 Maneuver	508	-	-	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.9	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1076	-	534	-	-	
HCM Lane V/C Ratio	0.004	-	0.018	-	-	
HCM Control Delay (s)	8.4	-	11.9	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

HCM 6th TWSC
205: Driveway 5 & Natura Blvd

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	3	0	575	498	6
Future Vol, veh/h	0	3	0	575	498	6
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	625	541	7
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	274	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	807	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	807	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	9.5	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	807	-	-		
HCM Lane V/C Ratio	-	0.004	-	-		
HCM Control Delay (s)	-	9.5	-	-		
HCM Lane LOS	-	A	-	-		
HCM 95th %tile Q(veh)	-	0	-	-		

Timings

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  						
Traffic Volume (vph)	190	1696	248	166	1925	195	16	105	124	37	363
Future Volume (vph)	190	1696	248	166	1925	195	16	105	124	37	363
Turn Type	Prot	NA	Perm	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2	7	4		3	8	
Permitted Phases			6			4		4	8		8
Detector Phase	1	6	6	5	2	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	22.0	47.5	47.5	11.5	47.5	10.0	36.0	36.0	10.0	36.0	36.0
Total Split (s)	22.0	78.0	78.0	29.0	85.0	14.0	40.0	40.0	13.0	39.0	39.0
Total Split (%)	13.8%	48.8%	48.8%	18.1%	53.1%	8.8%	25.0%	25.0%	8.1%	24.4%	24.4%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effect Green (s)	13.5	81.6	81.6	19.3	87.4	35.1	27.1	27.1	33.1	26.1	26.1
Actuated g/C Ratio	0.08	0.51	0.51	0.12	0.55	0.22	0.17	0.17	0.21	0.16	0.16
v/c Ratio	0.72	0.72	0.32	0.85	0.79	0.69	0.06	0.29	0.45	0.13	0.93
Control Delay	85.8	34.1	12.4	101.5	33.1	65.2	52.2	4.3	54.2	55.0	61.3
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	85.8	34.1	12.4	101.5	33.1	65.2	52.2	4.3	54.2	55.0	61.3
LOS	F	C	B	F	C	E	D	A	D	D	E
Approach Delay		36.1			38.3		44.3			59.2	
Approach LOS		D			D		D			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 22 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 39.9

Intersection LOS: D

Intersection Capacity Utilization 87.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 106: SW Natura Blvd & Hillsboro Boulevard



Queues

106: SW Natura Blvd & Hillsboro Boulevard

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	209	1864	273	182	2180	214	18	115	136	41	399
v/c Ratio	0.72	0.72	0.32	0.85	0.79	0.69	0.06	0.29	0.45	0.13	0.93
Control Delay	85.8	34.1	12.4	101.5	33.1	65.2	52.2	4.3	54.2	55.0	61.3
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	85.8	34.1	12.4	101.5	33.1	65.2	52.2	4.3	54.2	55.0	61.3
Queue Length 50th (ft)	111	566	71	188	672	189	16	0	115	37	219
Queue Length 95th (ft)	157	680	151	#289	801	263	39	22	171	72	#378
Internal Link Dist (ft)		514			2890		770			363	
Turn Bay Length (ft)	150		130	100		100		160			
Base Capacity (vph)	332	2592	863	248	2766	310	395	452	304	384	486
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	0.63	0.72	0.32	0.73	0.79	0.69	0.05	0.25	0.45	0.11	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary 106: SW Natura Blvd & Hillsboro Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1696	248	166	1925	59	195	16	105	124	37	363
Future Volume (veh/h)	190	1696	248	166	1925	59	195	16	105	124	37	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	1864	273	182	2115	65	214	18	115	136	41	399
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	2419	734	203	2619	80	313	397	336	380	386	326
Arrive On Green	0.07	0.47	0.47	0.11	0.51	0.51	0.05	0.21	0.21	0.04	0.21	0.21
Sat Flow, veh/h	3456	5106	1549	1781	5090	156	1781	1870	1583	1781	1870	1583
Grp Volume(v), veh/h	209	1864	273	182	1413	767	214	18	115	136	41	399
Grp Sat Flow(s),veh/h/ln	1728	1702	1549	1781	1702	1842	1781	1870	1583	1781	1870	1583
Q Serve(g_s), s	9.5	48.4	18.0	16.1	55.1	55.5	8.0	1.2	9.9	7.0	2.8	33.0
Cycle Q Clear(g_c), s	9.5	48.4	18.0	16.1	55.1	55.5	8.0	1.2	9.9	7.0	2.8	33.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	2419	734	203	1751	948	313	397	336	380	386	326
V/C Ratio(X)	0.83	0.77	0.37	0.90	0.81	0.81	0.68	0.05	0.34	0.36	0.11	1.22
Avail Cap(c_a), veh/h	335	2419	734	250	1751	948	313	397	336	380	386	326
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	73.2	34.9	26.9	70.0	32.2	32.3	53.5	50.1	53.5	48.9	51.5	63.5
Incr Delay (d2), s/veh	9.5	2.4	1.4	25.2	4.1	7.4	5.0	0.0	0.2	0.2	0.0	124.4
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	4.5	19.9	7.1	8.7	22.8	25.7	4.5	0.6	4.0	4.5	1.4	24.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	37.3	28.3	95.2	36.3	39.7	58.5	50.1	53.7	49.1	51.6	187.9
LnGrp LOS	F	D	C	F	D	D	E	D	D	D	D	F
Approach Vol, veh/h	2346			2362			347			576		
Approach Delay, s/veh	40.3			42.0			56.5			145.4		
Approach LOS	D			D			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	88.8	13.0	40.0	24.7	82.3	14.0	39.0				
Change Period (Y+Rc), s	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.5	78.5	7.0	34.0	22.5	71.5	8.0	33.0				
Max Q Clear Time (g_c+l1), s	11.5	57.5	9.0	11.9	18.1	50.4	10.0	35.0				
Green Ext Time (p_c), s	0.1	15.0	0.0	0.2	0.1	14.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.8											
HCM 6th LOS	D											

APPENDIX G

West-to-North I-95 on Ramp Field Observations

**HILLSBORO BOULEVARD @ I-95 W/B
DEERFIELD BEACH, FL.
MAY 5th , 2021**

TIME	BACK UP W/B HILLSBORO BLVD TO N/B I-95 ON RAMP	BACK UP ON I-95 NORTH BOUND
7:00-7:15	0	0
7:15-7:30	0	0
7:30-7:45	0	0
7:45-8:00	0	0
8:00-8:15	0	0
8:15-8:30	0	0
8:30-8:45	0	0
8:45-9:00	0	0

TIME	BACK UP W/B HILLSBORO BLVD TO N/B I-95 ON RAMP	BACK UP ON I-95 NORTH BOUND
4:00-4:15	0	0
4:15-4:30	0	0
4:30-4:45	0	0
4:45-5:00	0	0
5:00-5:15	0	0
5:15-5:30	0	0
5:30-5:45	0	0
5:45-6:00	0	0

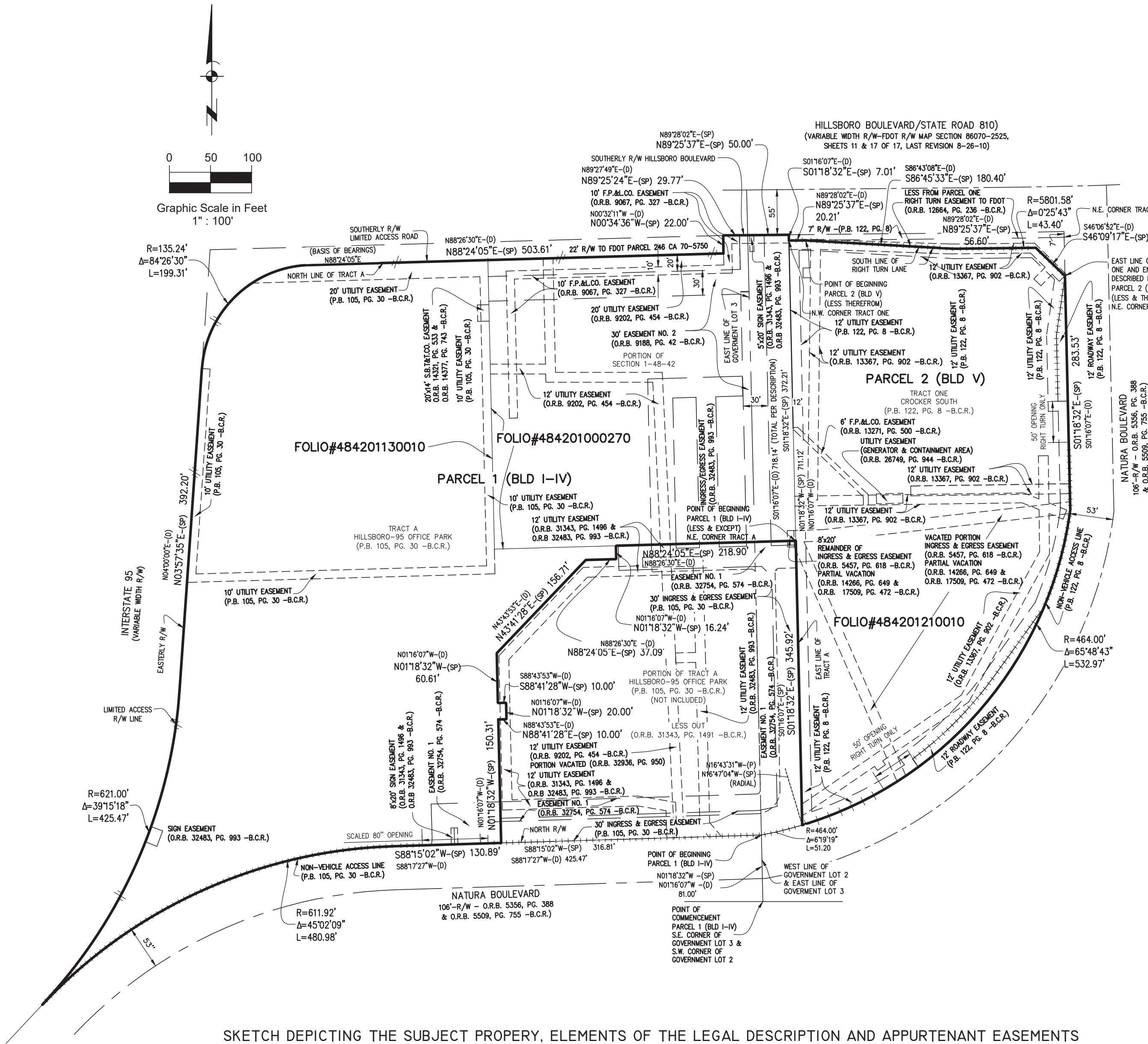
SURVEYOR'S NOTES

- Measurements shown hereon are expressed in U.S. survey feet and decimal parts thereof.
- Dimensions shown are taken at the exposed areas of improvements, underground footers, foundations, utilities or other subsurface features are not located for the purposes of this survey.
- Sun-Tech Engineering, Inc. & Radius Professional Surveyor & Mapper, LLC reserves the right to utilize any and all information obtained in the preparation of this survey, including this map of survey, for any other purposes.
- This drawing may not be reproduced in whole or in part without the permission of Sun-Tech Engineering, Inc. additions or deletions to the survey map by other than the signing party is prohibited without the written consent of the signing party.
- This drawing is not valid without the signature and original raised seal of a Florida licensed surveyor and Mapper.
- The certification contained herein is for the latest date of field survey or latest revision date, whichever applicable.
- Some features shown hereon may be drawn "out of scale" for the purposes of clarity. Written dimensions take precedence over scaled measurements.
- Sources of information used in the preparation of this map of survey are as follows:

A. Record Plat entitled HILLSBORO-95 OFFICE PARK, Plat Book 105, Page 30;

B. Record Plat entitled CROCKER SOUTH, Plat Book 122, Page 8;

C. Florida Department of Transportation Right-of-Way Map Section 86070-2525;
- The horizontal accuracy of field measured control meets the applicable requirements of Chapter 5J-17.052(15)(b)(ii). The accuracy obtained is 1.57,223 and is based on a closed geometric figure. The expected use of the property is Commercial/High Risk, mandating a maximum allowable error of closure of 1:10,000.
- Sun-Tech Engineering, Inc. & Radius Professional Surveyor & Mapper, LLC is authorized to provide Surveying and Mapping Services by the State of Florida Department of Agriculture and Consumer Services, License No. LB.7733, pursuant to the provisions of Chapter 472, Florida Statutes.
- This survey does not determine ownership of the subject property or its adjoiners. Ownership information, if shown, was obtained from a public record search of the Broward County Property Appraiser's Office.
- The undersigned surveyor has been provided a copy of Commitments for Title Insurance issued by Chicago Title Insurance Company, effective date 9/15/2020 at 11:00 p.m., Order No. 8812680. All plottable matters of a nature relating to the land survey of the subject property contained therein have been shown hereon. It is possible that there are additional recorded or unrecorded easements, deeds or encumbrances on the subject premises which are not shown and are unknown to the reviewing surveyor and are not shown hereon.
- The purpose of this Map of Survey is to depict the results of a Boundary Survey pursuant to Chapter 5J-17.052(2) Florida Administrative Code. Uses inconsistent with its intended purpose are prohibited.
- Contractual considerations and obligations between the surveyor and client may be addressed in the preparation of this survey. Underground utilities, if shown, were located based on markings provided by utilities location services and other sources of information. Underground footers, foundations or subterranean structures were not located for the purposes of this survey.
- The bearings shown hereon are based on the Southwest One-quarter (SW 1/4) of Section 31-48-43, as per Certified Corner Record 101362, Certified Corner Record 105132 and Certified Corner Record 105133 and are relative to the North line of East Atlantic Boulevard, bearing North 88°57'04" East, the same being an established and monumented line (see survey).
- The basis of this survey is a legal description as provided by the client, and as described in Commitments referenced in Surveyor's Note 11.
- The reviewing surveyor encountered no observable evidence of earth moving work, building construction or building additions within recent months on the subject premises.
- The reviewing surveyor encountered no observable evidence of wetlands, nor was informed of any historic wetlands on the subject premises.
- The vertical accuracy of field measured control meets the applicable Requirements of Chapter 5J-17.050(10)(k). The vertical accuracy of the closed level loop obtained is 0.01'. A maximum allowable error of accuracy for this survey is 0.05' times the square root of the distance of the level circuit in miles [(√0.2282) x 0.05 = 0.239'].



SKETCH DEPICTING THE SUBJECT PROPERTY, ELEMENTS OF THE LEGAL DESCRIPTION AND APPURTENANT EASEMENTS

SYMBOLS LEGEND

- Air Conditioner
- AT&T Box
- Cable Riser
- Catch Basin
- Check Valve
- Clean Out
- Concrete Light Pole
- Drainage Manhole
- Electric Box
- Electric Meter
- Existing Elevation
- Fiber Optic Box
- Fire Hydrant
- Guy Anchor
- Irrigation Valve
- Manhole
- Metal Light Pole
- Pedestrian Signal Pole
- Post
- Reducer
- Sanitary Sewer Manhole
- Sign
- Tactile Surface
- Telephone Box
- Telephone Manhole
- Traffic Signal Box
- Traffic Signal Pole
- Water Meter
- Water Valve
- Wood Utility Pole
- Wood Utility Pole w/Light
- Underground Drainage
- Underground Sanitary Sewer
- Underground Water
- State Plane Coordinates

KEY TO ABBREVIATIONS

- ALTA = American Land Title Association
- B.C.R. = Broward County Public Records
- C = Centerline
- CCR = Certified Corner Record
- CMP = Corrugated Metal Pipe
- (D) = Per Description and Plat
- I.D. = Identification
- INV. = Invert
- R = Radius
- Δ = Central Angle
- L = Arc Length
- FD. = Found
- FDOT = Florida Department of Transportation
- I.D. = Identification
- I.P. = Iron Pipe
- I.R. = Iron Rod
- LB = Licensed Business
- NSPS = National Society of Professional Surveyors
- (McL) = McLaughlin Engineering
- MP = Metal Pipe
- O.R.B. = Official Records Book
- (P) = Per Record Plat
- P.B. = Plat Book
- PG. = Page
- PVC = Polyvinyl Chloride
- PRM = Permanent Reference Monument
- PSM = Professional Surveyor & Mapper
- RCP = Reinforced Concrete Pipe
- R/W = Right-of-Way
- (SP) = Per State Plane
- TOB = Top of Baffle
- TYP. = Typical
- W/ = With

TREE LEGEND

- Australian Pine
- Black Olive
- Ficus
- Gumbo Limbo
- Mahogany
- Oak
- Palm
- Unknown

FLOOD INSURANCE RATE MAP INFORMATION

Map No. 12011C0178 H
Community Name: City of Deerfield Beach
Community No. 125101
Panel No. 0178
Suffix: H
Flood Zone: X / X / AH
Base Flood Elevation: Area of 0.2%annual chance
Flood / Area outside 0.2%annual chance Flood /
Elevation 11'
Effective Date of Map: August 18, 2014

AREA OF SUBJECT PROPERTY

Parcel 1 (BLD I-IV)
Folio 484201130010
7.2 Gross Acres
6.5 Net Acres

Folio 484201000270
3.1 Gross Acres
3.0 Net Acres

Parcel 2 (BLD V)
Folio 484201210010
6.2 Gross Acres
4.5 Net Acres

TOTAL ACRES 14.0 ACRES NET; 16.5 ACRES GROSS

LEGAL DESCRIPTION

PARCEL 1 (BLD I-IV)

A parcel of land in the South 1/2 of Government Lots 2 and 3, and in the Southeast 1/4 of NW 1/4 Section 1, Township 48 South, Range 42 East, of Broward County, Florida, said parcel being more particularly described as follows:

Commencing at the Southeast corner of said Government Lot 3; thence run North 1 degree 16 minutes 07 seconds West (on an assumed bearing) 81.00 feet along the East line of said Government Lot 3 to the point of beginning; thence run South 88 degrees 17 minutes 27 seconds West 447.70 feet to a point of curvature of a curve to the left; thence along the arc of said curve to the left, having a radius of 611.92 feet and a central angle of 45 degrees 02 minutes 09 seconds, run Southwesterly 480.98 feet to a point of intersection with the arc of a curve running Northwesterly to the left, a radial at said point bearing North 46 degrees 44 minutes 42 seconds West; thence along the arc of said curve to the left (also forming the Easterly right-of-way line of Interstate Highway 95) having a radius of 621.00 feet and a central angle of 39 degrees 15 minutes 18 seconds run Northwesterly 425.47 feet to a point of tangency; thence run North 4 degrees East 392.20 feet along said Easterly right-of-way line and being the tangent extended to a point of curvature of a curve to the right; thence along the arc of said curve to the right, having a radius of 135.24 feet and a central angle of 84 degrees 26 minutes 30 seconds run Northwesterly 199.31 feet to a point of tangency on the Southerly right-of-way line of the limited access road lying South of and adjacent to Hillsboro Blvd. (State Road 810); thence run North 88 degrees 26 minutes 30 seconds East 503.61 feet; thence run North 0 degrees 32 minutes 11 seconds West 22.00 feet to an intersection with the Southerly right-of-way line of Hillsboro Blvd.; thence run North 89 degrees 27 minutes 49 seconds East, 29.77 feet to an intersection with the East line of the Southeast 1/4 of Government Lot 3; thence run North 89 degrees 28 minutes 02 seconds East 50.00 feet to an intersection with a line 50.00 feet East of as measured at right angles and parallel to the West line of the Southwest 1/4 of Government Lot 2; thence run South 1 degree 16 minutes 07 seconds East, 718.14 feet along said parallel line to a point of intersection with the arc of a curve running Southwesterly to the right, a radial at said point bearing North 16 degrees 43 minutes 31 seconds West; thence along the arc of said curve to the right having a radius of 464.00 feet and a central angle of 6 degrees 19 minutes 19 seconds run Southwesterly 51.20 feet to the Point of Beginning. (Portions having been platted as Hillsboro-95 Office Park, Plat Book 105, Page 30, Public Records of Broward County, Florida)

LESS AND EXCEPT THE FOLLOWING:

All that portion of Tract A, HILLSBORO- 95 OFFICE PARK, according to the Plat thereof, as recorded in Plat Book 105, Page 30 of the Public Records of Broward County, Florida, more particularly described as follows:

Beginning at the Northeast corner of said Tract A; thence South 01 degree 16 minutes 07 seconds East, along the East line of said Tract A, 345.93 feet to a point on a curve, said point also being on the North Right-of-Way line of Natura Boulevard, the radius of said point bears North 16 degrees 43 minutes 31 seconds West; thence along the arc of a circular curve to the right having a radius of 464.00 feet an arc distance of 51.20 feet to a point of tangency; thence South 88 degrees 17 minutes 27 seconds West, along the north right-of-way line of Natura Boulevard 316.81 feet; thence North 01 degree 16 minutes 07 seconds West, along a line parallel with the East line of said Tract A 150.31 feet; thence North 88 degrees 43 minutes 53 seconds East 10.00 feet; thence North 01 degree 16 minutes 07 seconds West 20.00 feet; thence South 88 degrees 43 minutes 53 seconds West 10.00 feet; thence North 01 degree 16 minutes 07 seconds West 60.61 feet; thence North 43 degrees 43 minutes 53 seconds East 156.71 feet; thence North 88 degrees 26 minutes 30 seconds East 37 .09 feet; thence North 01 degree 16 minutes 07 seconds West 16.25 feet; thence North 88 degrees 26 minutes 30 seconds East 218.90 feet to the Point of Beginning.

TOGETHER WITH a non-exclusive easement for drainage and utilities set forth in that certain Declaration of Covenants, Easements, Conditions and Restrictions recorded in Official Records Book 31343, Page 1496, as re-recorded December 12, 2001 in Official Records Book 32483, Page 993 and affected by that certain Second Modification To Declaration Of Road And Utility Easement filed February 12, 2002 in Official Records Book 32754, Page 574, of the Public Records of Broward County, Florida.

TOGETHER WITH non-exclusive easements as set forth in and granted by Declaration of Road and Utility Easement filed March 23, 1979 in Official Records Book 8113, Page 39, as modified by instrument filed October 17, 1980 in Official Records Book 9188, Page 42; as further modified by instrument filed February 12, 2002 in Official Records Book 32754, Page 574, of the Public Records of Broward County, Florida.

PARCEL 2 (BLD V)

Tract One of CROCKER SOUTH, according to the Plat thereof, as recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida.

Less Therefrom:

All that portion of Tract One of CROCKER SOUTH, according to the Plat thereof, recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida, lying Northerly of the following described line:

Commence at the Southwest corner of said Tract One; thence run North 01 degrees 16 minutes 07 seconds West along the West line of said Tract One for a distance of 711.12 feet to the South right of way line of Hillsboro Boulevard as dedicated by said Plat of CROCKER SOUTH; thence run North 89 degrees 28 minutes 02 seconds East along the said South right-of-way line of Hillsboro Boulevard for a distance of 20.21 feet to the Point of Beginning of the herein described line; thence run South 88 degrees 43 minutes 08 seconds East along the South line of a Right Turn Lane Easement as shown on said Plat of CROCKER SOUTH for a distance of 180.40 feet; thence run North 89 degrees 28 minutes 02 seconds East along the South line of said Right Turn Lane Easement for a distance of 56.60 feet to the point of curvature of a circular curve to the left; thence run Easterly along the arc of said circular curve to the left, having a radius of 5801.58 feet, through a central angle of 00 degrees 25 minutes 43 seconds, for an arc distance of 43.40 feet, said arc of said circular curve being the South line of said Right Turn Lane Easement; thence run South 46 degrees 06 minutes 52 seconds East for a distance of 49.37 feet to the point of intersection with the East line of said Tract One, and the END of the herein described line.

CHICAGO TITLE INSURANCE COMPANY ORDER NO. 8812680, DATED 9/15/2020 AT 11:00 P.M. REVIEW OF ITEMS, SCHEDULE B SECTION II

- ITEMS 1-4.** Not addressed, not a survey related matter.
- ITEM 5** - Matters shown on Plat of Hillsboro - 95 Office Park, Plat Book 105, Page 30, affects the subject property and where applicable is shown hereon. (As to Parcel 1)
- ITEM 6** - Reservations reserved in Deed Book 547, Page 415, affects the subject property but contains no plottable matters. (As to Parcel 1)
- ITEM 7** - Ingress and Egress Easement, Official Records Book 5457, Page 618; as partially released by Official Records Book 14266, Page 649 and Official Records Book 17509, page 472, affects the subject property and is shown hereon. (As to Parcel 1)
- ITEM 8** - Utility Easement, Official Records Book 5202, Page 454, affects the subject property and is shown hereon. (As to Parcel 1)
- ITEM 9** - Southern Bell Telephone and Telegraph Company Easements, Official Records Book 14321, Pg 533, and re-recorded to include Exhibits A and B, Official Records Book 14377, Page 743, affects the subject property and is shown hereon. (As to Parcel 1)
- ITEM 10** - Florida Power & Light Company Easement, Official Records Book 9067, Page 327, affects the subject property and is shown hereon. (As to Parcel 1)
- ITEM 11** - Notice, Official Records Book 29208, Pg. 1510, affects the subject property but contains no plottable matters. (As to Parcel 1)
- ITEM 12** - Declaration of Covenants, Easements, Conditions and Restrictions, for Access, Use and Maintenance, Official Records Book 31343, Page 1496, as affected by Official Records Book 32754, Page 574, affect the subject property and where applicable are shown hereon. (As to Parcel 1)
- ITEM 13** - Declaration of Road and Utility Easement, Official Records Book 8113, Page 39, as modified and released by Official Records Book 9188, Page 42, as further modified and released by Official Records Book 32754, Page 574, affect the subject property and where applicable are shown hereon. (As to Parcel 1)
- ITEM 14** - Florida Power & Light Company Easement, Official Records Book 13271, Page 500, affects the subject property and is shown hereon. (As to Parcel 2)
- ITEM 15** - Matters shown on Plat of Crocker South, Plat Book 122, Page 8, affects the subject property and where applicable is shown hereon. (As to Parcel 2)
- ITEM 16** - Utility Easement, Official Records Book 13367, Page 902, affects the subject property and is shown hereon. (As to Parcel 2)
- ITEM 17** - Utility Easement, Official Records Book 26749, Page 944, affects the subject property and area is shown hereon. (As to Parcel 2)
- ITEM 18** - Notice, Official Records Book 29208, Page 1510, affects the subject property but contains no plottable matters. (As to Parcel 2)
- ITEM 19** - 20, Not addressed.

SURVEYOR'S CERTIFICATE

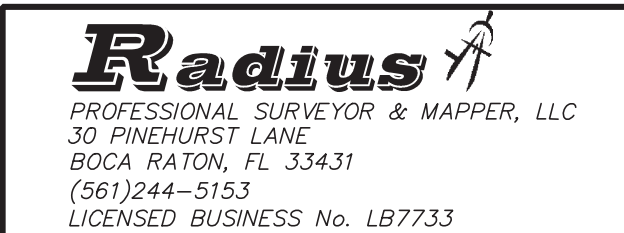
This map and the Survey on which it is based were made in accordance with the "Minimum Standard Detail Requirements For ALTA/NSPS Land Title Surveys" jointly established and adopted by American Land Title Association and National Society of Professional Surveyors in 2016, and includes items 1, 2, 3, 4, 5, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17 and 18 of Table A thereof. Pursuant to Accuracy Standards adopted by ALTA and NSPS and in effect on the date of this certification, the undersigned further certifies that in my professional opinion as a land surveyor registered in the State of Florida, the maximum Relative Positional Accuracy of this survey does not exceed that which is specified therein.

Latest date of Field Survey: January 7, 2021



MICHAEL D. KRAWIEC, P.S.M.
Professional Surveyor and Mapper
Florida Registration No. 6611

Date: 9-15-2022



ALTA/NSPS LAND TITLE SURVEY

G & C HILLBORO INVESTORS, LLC
A PORTION OF TRACT A, HILLSBORO-95 OFFICE PARK, (P.B. 105, PG. 30)
A PORTION OF TRACT ONE, CROCKER SOUTH, (P.B. 122, PG. 8) & A PORTION OF GOVERNMENT LOT 2 & 3, IN SECTION 1, TOWNSHIP 48 SOUTH, RANGE 42 EAST
CITY OF DEERFIELD BEACH, BROWARD COUNTY, FLORIDA

DRAWN BY:
VALENTINE

JOB NUMBER
20-4008

SCALE
AS SHOWN

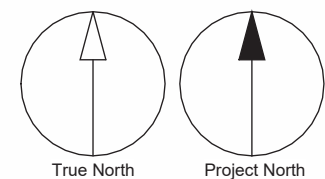
SHEET No.
SI OF S6

4577 Nob Hill Road, Suite 102
Sunrise, FL 33351
www.suntecheng.com

STE Sun-Tech Engineering, Inc.
Engineers - Planners - Surveyors

Certificate of Auth. #7087/LB 7019
Phone (954) 777-3123
Fax (954) 777-3114

NO.	DATE	REVISIONS		
		DESCRIPTION	ADD EASEMENTS	CHECK EASEMENTS
1	2-10-2021	Amended storage table		
2	2-23-2021			
3	3-15-2021			



MASTER SITE PLAN			
PARKING REQUIREMENTS MULTI FAMILY			
UNIT TYPE	PARKING SPACE REQUIRED PER DU	PROPOSED UNIT COUNT	PARKING SPACE REQUIRED
EFFICIENCY	1.5	18	27
1 BEDROOM	1.5	162	243
2 BEDROOM	2	159	318
3 BEDROOM	2.5	21	53
SUBTOTAL		360	641
0			
ONE SPACE FOR EACH 250SF OF GROSS AREA	BUILDING	GROSS AREA	PARKING REQUIRED
	PROPOSED OFFICE A	25,000 S.F.	100
	PROPOSED OFFICE B	45,000 S.F.	180
	EXISTING OFFICE C	53,422 S.F.	214
	EXISTING OFFICE D	116,250 S.F.	465
SUBTOTAL			959
TOTAL PARKING REQUIRED			1,600
PARKING PROVIDED			
EXISTING SURFACE PARKING SPACES	STANDARD	ACCESSIBLE	SUBTOTAL
	359	9	368
EXISTING PARKING GARAGE	STANDARD	ACCESSIBLE	SUBTOTAL
	307	3	310
PROPOSED SURFACE PARKING SPACES	STANDARD 10'x20'	ACCESSIBLE 12'x20'	SUBTOTAL
	26	0	26
PROPOSED RESIDENTIAL PARKING GARAGE	9'x18' SPACE	ACCESSIBLE 12'x18'	SUBTOTAL
	SUBTOTAL	655	16
TOTAL PARKING PROVIDED			671
TOTAL PARKING PROVIDED	STANDARD	ACCESSIBLE	TOTAL PARKING PROVIDED
	1,347	28	1,375 *
* PER ULI SHARE PARKING CALCULATION			

ULI SHARE PARKING - MIXED USE							
	AREA/ UNITS	BASIC	WEEKDAY			WEEKEND	
		PARKING REQUIRED	NIGHT 12AM - 6AM	DAY 9 AM - 4 PM	EVENING 6PM-12AM	DAY 9AM-4PM	EVENING 6PM-12AM
USE							
STUDIO -1B	180	270.00	270.00	162.00	243.00	216.00	243.00
RESIDENTIAL 2B	158	318.00	318.00	190.80	286.20	254.40	286.20
RESIDENTIAL 3B	21	52.50	52.50	31.50	47.25	42.00	47.25
TOTAL RESIDENTIAL	360	641.00	640.50	384.30	576.45	512.40	576.45
6 STORY OFFICE	116250	465.00	23.25	465.00	46.50	46.50	23.25
2 STORY OFFICE	53422	213.69	10.68	213.69	21.37	21.37	10.68
NEW OFFICES (A&B)	70000	280.00	14.00	280.00	28.00	28.00	14.00
TOTAL OFFICE	239672	959.00	47.93	959.00	95.87	95.87	47.93
TOTAL		1600.00	688.43	1344.00	672.32	608.27	624.38

		EXISTING	PROVIDED (PDD)			
SETBACKS	PROPOSED RESIDENTIAL BUILDING					
	FRONT -NORTH (W HILLSBORO BLVD.)	N/A	20'-0"			
	REAR - SOUTH (EXISTING HOTEL PL)	N/A	54'-5"			
	SIDE - EAST(NATURA BLVD)	N/A	428'-2"			
	SIDE -WEST (I-95)	N/A	21'-0"			
	PROPOSED RESIDENTIAL PARKING STRUCTURE					
	FRONT -NORTH (W HILLSBORO BLVD.)	N/A	59'-9"			
	REAR - SOUTH (EXISTING HOTEL PL)	N/A	57'-3"			
	SIDE - EAST(NATURA BLVD)	N/A	471'-11"			
	SIDE -WEST (I-95)	N/A	451'-11"			
	PROPOSED RETAIL / OFFICE BUILDING A					
	REAR -NORTH (W HILLSBORO BLVD.)	N/A	643'-11"			
	FRONT - SOUTH (NATURA BLVD)	N/A	15'-0"			
	SIDE - EAST(EXISTING HOTEL PL)	N/A	106'-3"			
	SIDE -WEST (I-95)	N/A	72'-11"			
	PROPOSED OFFICE BUILDING B					
	FRONT -NORTH (W HILLSBORO BLVD.)	N/A	311'-2"			
	REAR - SOUTH (NATURA BLVD)	N/A	86'-7"			
	SIDE -EAST (NATURA BLVD)	N/A	136'-8"			
	SIDE - WEST (EXISTING HOTEL PL)	N/A	87'-9"			
	EXISTING OFFICE BUILDING C					
	REAR - NORTH (W HILLSBORO BLVD.)	181'-11"	181'-11"			
	FRONT - SOUTH (NATURA BLVD)	146'-4"	146'-4"			
	SIDE -EAST(NATURA BLVD)	717'-11"	717'-11"			
	SIDE - WEST (I-95)	215'-2"	215'-2"			
	EXISTING OFFICE BUILDING D					
	FRONT - NORTH (W HILLSBORO BLVD.)	83'-3"	83'-3"			
	REAR - SOUTH (NATURA BLVD)	387'-1"	387'-1"			
	SIDE -EAST (NATURA BLVD)	126'-5"	126'-5"			
	SIDE -WEST(EXISTING HOTEL PL)	78'-8"	78'-6"			
EXISTING PARKING STRUCTURE						
FRONT - NORTH (W HILLSBORO BLVD.)	307'-8"	307'-8"				
REAR - SOUTH (NATURA BLVD)	52'-3"	52'-3"				
SIDE - EAST (NATURA BLVD)	52'-8"	52'-1"				
SIDE -WEST(EXISTING HOTEL PL)	9'-6"	9'-5"				
MAXIMUM HEIGHT			EXISTING	PROVIDED (PDD)		
	RESIDENTIAL		N/A	8 STORY	79'-0"	
	RESIDENTIAL PARKING STRUCTURE		N/A	8 STORY	79'-0"	
	RETAIL / OFFICE BUILDING A		N/A	2 STORY	35'-0"	
	OFFICE BUILDING B		N/A	3 STORY	75'-0"	
	EXISTING OFFICE BUILDING C		2 STORY	+/- 28'-0" *	2 STORY	+/- 28'-0" *
	EXISTING OFFICE BUILDING D		6 STORY	+/- 79'-0" *	6 STORY	+/- 79'-0" *
	EXISTING OFFICE PARKING STRUCTURE		2 STORY		2 STORY	
* MEASURED AT CENTER OF BUILDING TO ROOF						

PROJECT DATA - MASTER SITE PLAN					
PROJECT NAME	HILLSBORO CENTER				
ADDRESS OF PROPERTY	600 AND 700 W HILLSBORO BLVD. DEERFIELD BEACH, FL 33441				
EXISTING ZONING	B-2 HIGHWAY BUSINESS				
PROPOSED ZONING	PDD				
GROSS ACREAGE OF TOTAL SITE	16.5 ACRES (718,740 SF)				
NET ACREAGE OF TOTAL SITE	14 ACRES (609,840 SF)				
SITE DATA TABLE					
GROSS FLOOR AREA			EXISTING	PROVIDED (PDD)	
	PROPOSED RESIDENTIAL		N/A	429,943 S.F.	
	PROPOSED RESIDENTIAL PARKING GARAGE		N/A	N/A	
	PROPOSED RETAIL / OFFICE BUILDING A		N/A	25,000 S.F.	
	PROPOSED OFFICE BUILDING B		N/A	45,000 S.F.	
	EXISTING OFFICE BUILDING C		60,622 S.F.	53,422 S.F. *	
	EXISTING OFFICE BUILDING D		116,250 S.F.	116,250 S.F.	
	EXISTING OFFICE PARKING GARAGE		N/A	N/A	
	TOTAL		176,872 S.F.	669,615 S.F.	
	EXISTING OFFICE BUILDING TO BE DEMOLISHED		39,242 S.F.	N/A	
* SQUARE FOOTAGE AFTER PART OF BUILDING IS DEMOLISHED					
DENSITY & INTENSITY	PERMITTED - MEDIUM HIGH 25 MIXED USE				
	COMPREHENSIVE PLAN - 2.6.1 PERMITTED USES IN FUTURE LAND USE CATEGORIES	25 RESIDENTIAL DWELLING UNITS PER GROSS ACRE		FAR 2.0 FOR COMBINED DEVELOPMENT - RESIDENTIAL AND NON RESIDENTIAL ON NET AREA) (BASED	
		412.5 UNITS PERMITTED		1,219,680 S.F. ALLOWABLE	
	PROPOSED - MEDIUM HIGH 25 MIXED USE				
	USE	DWELLING UNITS	PERCENTAGE OF USE (EXISTING AND PROPOSED)	SQUARE FOOTAGE OF USE (EXISTING AND PROPOSED)	FAR (BASED ON NET AREA)
	RESIDENTIAL	360 UNITS	35.25%	429,943 S.F.	0.71
	NON RESIDENTIAL	N/A	19.65%	239,672 S.F.	0.39
	TOTAL	N/A	54.90%	669,615 S.F.	1.10

DSA STAMP

CLIENT

G&C HILLSBORO
INVESTORS, LLC

1499 W. PALMETTO PARK RD., SUITE 415
BOCA RATON, FL 33486
TEL: (954)516-7001

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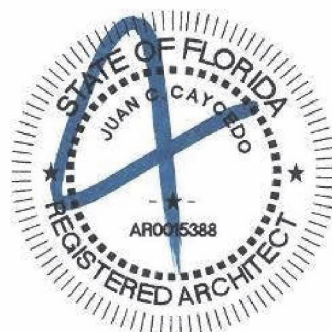
ISSUES

No.	DESCRIPTION	DATE
6	Revision 6	OCTOBER 12, 2023

DEVELOPMENT
REVIEW
COMMITTEE

CONSULTANTS

SEAL



IBI GROUP
7000 N. Federal Hwy - 2nd Floor,
Boca Raton, FL 33487, USA
Tel: 561 393 6555 fax 561 395 0007
ibigroup.com

PROJECT

HILLSBORO CENTER
600 and 700 W Hillsboro Blvd.
Deerfield Beach, Florida 33441

PROJECT NO:
20040

DRAWN BY:

ZP

CHECKED BY:

Checker

PROJECT MGR:

ZP

APPROVED BY:

Approver

SHEET TITLE

MASTER PLAN - TABULATIONS

SHEET NUMBER

AS1.11

ISSUE

6

Return to: (enclose self-addressed stamped envelope)

Name: Elizabeth Somerstein, Esq.

Address:

Greenspoon Marder LLP
200 E. Broward Boulevard, Suite 1800
Fort Lauderdale, FL 33301

This Instrument Prepared by:

Elizabeth Somerstein, Esq.
Greenspoon Marder LLP
200 E. Broward Boulevard, Suite 1800
Fort Lauderdale, FL 33301

SPACE ABOVE THIS LINE FOR PROCESSING DATA

SPACE ABOVE THIS LINE FOR PROCESSING DATA

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT (the “AGREEMENT”) is entered into as of this _____ day of _____, 2024 by and between the **CITY OF DEERFIELD BEACH, FLORIDA** (the “CITY”), a municipal corporation organized and existing under the laws of the State of Florida, and **G&C HILLSBORO INVESTORS, LLC** a Florida limited liability company (the “DEVELOPER”).

(Whenever used herein, the term “CITY” shall also include and collectively refer to CITY’s respective successors in interest. Whenever used herein, the term “DEVELOPER” shall also include and collectively refer to DEVELOPER’s respective heirs, legal representatives, assigns, and successors in title.)

W I T N E S S E T H:

WHEREAS, DEVELOPER is the owner of real property located in Broward County, Florida (the “COUNTY”), within the municipal boundaries of the CITY, as more particularly described in **Exhibit “A”** (the “PROPERTY”) attached hereto; and

WHEREAS, DEVELOPER proposes to redevelop the PROPERTY with office and residential uses (the “PROPOSED DEVELOPMENT”); and

WHEREAS, to facilitate the construction of the PROPOSED DEVELOPMENT on the PROPERTY, DEVELOPER submitted applications to the CITY to amend the land use designation and rezone the PROPERTY, and for approval of a site plan for Phase 1 and 2 of the PROPOSED DEVELOPMENT on the PROPERTY (collectively, the “APPLICATIONS”); and

WHEREAS, DEVELOPER submitted applications to amend the land use designations of the PROPERTY from Commercial (CITY designation)/Commerce (COUNTY designation) to Medium-High 25 Mixed Use-Residential (CITY designation) and Dashed Line Area with Irregular (21.82) Residential and Commerce (COUNTY designation) (the “City LUPA” and “County LUPA,” respectively; collectively, the City LUPA and County LUPA are referred to herein as the “LUPA”; and

WHEREAS, On June 3, 2021 the CITY’S Planning and Zoning Board (“P&Z”) recommended approval of the LUPA; on July 20, 2021, the CITY Commission (the “COMMISSION”) approved the LUPA on first reading; on December 2, 2021, the COUNTY Planning Council recommended approval of the LUPA; on February 8, 2022, the COUNTY Commission (the “COUNTY COMMISSION”) approved the LUPA; and, on April 23, 2023, the CITY COMMISSION approved the LUPA on second reading; and

WHEREAS, DEVELOPER submitted an application to the CITY requesting to rezone the PROPERTY from B-2 to PDD (Planned Development District), CITY project number 21-R-196 (the “REZONING”); and

WHEREAS, § 98-68(a) of the Deerfield Beach Land Development Code (the “CODE”) provides the purpose and intent of the Planned Development District ("PDD") is to enable quality development for properties that due to the size or characteristics of the property, other implements of zoning regulation provided in the CODE would result in under-utilized or under-developed property; and

WHEREAS, § 98-68(b) of the CODE provides qualifications that all applicants must meet to rezone property to PDD and requires that the applicant provide a statement detailing how the qualifications have been satisfied; and

WHEREAS, § 98-68(c) of the CODE provides that all applicants rezoning to the PDD district must submit a development agreement, including a statement of need, to be considered by the CITY COMMISSION in conjunction with the rezoning application; and

WHEREAS, § 98-68(d) of the CODE provides for creation of property development requirements through a PDD rezoning; and

WHEREAS, DEVELOPER and CITY are desirous of entering into this AGREEMENT in connection with the REZONING and site plan for Phase 1 and 2 (CITY project number 21-PDD-03) (the “SITE PLAN”) for the PROPOSED DEVELOPMENT as may be amended from time to time subject to an amendment to this AGREEMENT with terms acceptable to the CITY.

WHEREAS, this AGREEMENT is for the express purpose of defining the responsibility, conditions, terms, restrictions, or other requirements determined to be necessary by the CITY; and

NOW, THEREFORE, for and in consideration of the mutual terms and conditions contained in this AGREEMENT, the sufficiency and adequacy of which are hereby acknowledged by the parties hereto, the parties to this AGREEMENT do hereby agree as follow:

ARTICLE I.

RECITALS, EXHIBITS AND AGREEMENT

1.1 **RECITALS; EXHIBITS.** The foregoing recitals are true and correct and are incorporated, in their entirety, into and made a part of this AGREEMENT as if specifically set forth herein. All exhibits to this AGREEMENT are hereby deemed a part hereof as if set forth herein verbatim.

1.2 RECORDING; COVENANTS RUN WITH THE LAND. This AGREEMENT shall not become effective and shall not be recorded in the Public Records of Broward County, Florida, until after approvals by the CITY and COUNTY of the requested APPLICATIONS, including amendments to the CITY and COUNTY land use plan, and the expiration of all appeal periods or, if an appeal is filed, the conclusion of such appeal in a manner that does not affect the approval of the APPLICATIONS by the CITY. The rights, promises, covenants, restrictions, obligations, agreements, and other provisions herein contained which are enforceable by or against DEVELOPER (including their respective successors and assigns) in accordance with the terms of this AGREEMENT, are not personal and shall operate as a covenant running with the land, binding upon and inuring to the benefit of the owner(s) of the PROPERTY. The rights, promises, covenants, restrictions, obligations, agreements, and other provisions herein contained which are enforceable by or against CITY in accordance with the terms of this AGREEMENT, are personal, solely binding upon and inuring to the benefit of CITY (including its successors in interest).

1.3 DECLARATION OF RESTRICTIVE COVENANTS. In connection with approval of the LUPA, the DEVELOPER voluntarily agreed to place certain restrictions on the PROPERTY related to affordable housing. DEVELOPER agreed to pay Five Hundred and 00/100 Dollars (\$500.00) per dwelling unit for the maximum three hundred sixty (360) dwelling units allowed on the PROPERTY in the total amount of One Hundred Eighty Thousand and 00/100 Dollars (\$180,000.00) to be used by the CITY towards the CITY's affordable housing programs ("Affordable Housing Contribution"). The Affordable Housing Contribution shall be paid by the DEVELOPER to the CITY prior to the issuance of the first residential building permit for the PROPERTY. DEVELOPER agreed to record these restrictions in the Public Records of Broward County, Florida prior to the recertification of the CITY's land use plan as it relates to the LUPA.

1.4 UNIFIED CONTROL AND PERPETUAL MAINTENANCE. DEVELOPER agrees to abide by all conditions and provisions of the LUPA, REZONING, and SITE PLAN approvals granted by the CITY for the PROPERTY. The PROPERTY so planned shall not be developed in any other way except in substantial accord with the conditions, plans, specifications, and requirements approved as part of the LUPA, REZONING, and SITE PLAN for the PROPERTY. DEVELOPER acknowledges that the DEVELOPER or its designee(s) will maintain all common SITE PLAN elements to be constructed on the PROPERTY, such as access drives, entry features, easements, landscaping, irrigation, lighting, drainage facilities, utilities, sidewalks, signage, and any other elements necessary to ensure the proper upkeep and maintenance of such elements to be constructed on the PROPERTY.

1.5 STATEMENT OF NEED. Pursuant to CODE § 98-68(b), DEVELOPER submitted the statement of need, attached as **Exhibit "B"**, in connection with the REZONING APPLICATION.

1.6 COMPLIANCE WITH PDD ELEMENTS. CODE § 98-68(e) Property development requirements state that there are no set dimensional regulations in a PDD zoning district. In conjunction with the REZONING, DEVELOPER proposed the property development requirements to be approved by the CITY COMMISSION as part of the REZONING (the "DEVELOPMENT REQUIREMENTS"). The DEVELOPMENT

REQUIREMENTS, attached as **Exhibit “C”**, provide dimensional regulations and any deviations from CODE requirements that apply to the PROPOSED DEVELOPMENT. The PROPOSED DEVELOPMENT will also meet all applicable CODE requirements not modified by the DEVELOPMENT REQUIREMENTS.

1.7 MODIFICATION TO PDD, MASTER PLAN, AND SITE PLAN. From time to time, DEVELOPER may have a need to request that the CITY approve amendments to the SITE PLAN and exhibits attached hereto. Provided that said SITE PLAN amendments and/or amendments to exhibits attached hereto meet the criteria in the CODE for administrative site plan amendments as determined by CITY’s Planning and Development Services Director or her/his designee and do not conflict with the terms of this AGREEMENT, no amendments to this AGREEMENT shall be required for such amendments to the SITE PLAN and/or amendments to any exhibits attached hereto. Notwithstanding, in the event a change or modification to the SITE PLAN or exhibits to this AGREEMENT is required by applicable governmental or quasi-governmental authorities, such change or modification will not require an amendment to this AGREEMENT.

1.8 CONTRIBUTION TO PUBLIC PARK IMPROVEMENTS. As a part of the public benefit of this PROPOSED DEVELOPMENT, prior to the issuance of a residential building permit for Phase 1 of the PROPOSED DEVELOPMENT, DEVELOPER shall pay Two Hundred Thousand Dollars (\$200,000.00) to the CITY for improvements to Oveta McKeithen Recreation Complex.

ARTICLE II.

REQUIRED IMPROVEMENTS

2.1 As a part of the public benefit of this PROPOSED DEVELOPMENT, all improvements listed below shall be completed prior to the issuance of the final certificate of occupancy for the last floor of the residential building identified on the SITE PLAN, unless otherwise stated.

2.2 ROADWAY IMPROVEMENTS: DEVELOPER shall, at no cost to the CITY, construct the following improvements to SW Natura Boulevard (the “ROADWAY IMPROVEMENTS”) in accordance with the design submitted with the SITE PLAN. Construction of the ROADWAY IMPROVEMENTS is dependent upon available right-of-way and approval from the applicable permitting agencies. DEVELOPER shall not be required to obtain additional right of way to construct ROADWAY IMPROVEMENTS. Said ROADWAY IMPROVEMENTS are part of the public benefit of the PROPOSED DEVELOPMENT.

1. Install new drainage on east side of SW Natura Boulevard. To the extent any sidewalk is damaged during this installation process, said damaged sidewalk shall be replaced;

2. Install new 8-foot wide sidewalk on the east side of SW Natura Boulevard, with the sidewalk installation to end at the recreational complex entrance;

3. Regrade and improve the entire swale area on the west side of SW Natura Boulevard, which regrading and improvement will continue until the entrance to the existing parking garage on the PROPERTY;

4. Install new 5-foot wide sidewalk along PROPERTY line from the garage turn-in to the adjacent hotel property line;

5. Install new 5-foot wide sidewalk along the remaining portion of the PROPERTY which currently has no sidewalk;

6. If warranted in accordance with the FDOT Traffic Engineering Manual (TEM), 2021 and approved by the COUNTY, install a crosswalk along SW Natura Boulevard, at the location determined by the CITY, adjacent to the PROPERTY, and in accordance with the CITY's applicable engineering standards. The crosswalk location shall be included on the SITE PLAN, but it is subject to approval of the appropriate jurisdictional authorities.

7. Existing road median FDOT Type "D" concrete curbing shall be repaired and / or replaced as needed to provide the intended safety and protection to the landscaped areas. Construct new FDOT Type "D" concrete curbing along the edge of the balance of Natura Boulevard to the designated southernmost limits of affected roadway right-of-way.

8. Restore all pavement striping and markings within the limits of proposed improvements including reflective pavement markers.

9. Restore / repair all sections of pavement and sidewalks to meet all ADA and CITY requirements.

10. One year after the issuance of the final certificate of occupancy for the last floor of the residential building to be developed on the PROPERTY, the DEVELOPER shall conduct, at DEVELOPER's cost, a signal timing analysis at the intersection of Hillsboro Blvd. and SW Natura Boulevard to improve traffic flows at the intersection and provide a copy of the analysis to the CITY and the COUNTY. Further, the DEVELOPER shall coordinate with CITY and the COUNTY to implement recommended traffic signal timing changes acceptable to the COUNTY.

2.3 RESTORATION OF PUBLIC IMPROVEMENTS. Any public improvements damaged by the contractor during demolition and/or construction shall be replaced to the equal or better condition that existed prior to demolition and/or construction at the DEVELOPER'S expense, within 14 days of receipt of notice from CITY, unless further extension is granted by CITY Manager or his/her designee.

2.4 OPEN SPACE IMPROVEMENTS. DEVELOPER shall install open space nodes as part of Phase 1 construction at the following locations:

- (a) Southwest corner of Hillsboro Boulevard and Natura Boulevard;

- (b) Building D; and
- (c) Building C.

Collectively, Article 2.4 (a) – (c) shall be referred to herein as the “OPEN SPACE IMPROVEMENTS.” These OPEN SPACE IMPROVEMENTS are depicted on the CONCEPTUAL MASTER PLAN attached as **Exhibit “D”**. These OPEN SPACE IMPROVEMENTS will be constructed in substantial conformity as depicted and attached as **Exhibit “E.”** Said OPEN SPACE IMPROVEMENTS shall be constructed and maintained in compliance with all applicable laws and shall also comply with additional restrictions and requirements contained herein. These improvements shall be completed prior to the issuance of the final certificate of occupancy for the last floor of the residential building identified on the SITE PLAN.

2.5 PUBLIC ART. DEVELOPER shall, at no cost to the CITY, install at least three art pieces at each of the OPEN SPACE IMPROVEMENTS provided for in Article 2.4 above (the “Public Art”). Each work of Public Art shall be subject to review and approval in accordance with the City’s Public Art Program and related City Code requirements (Chapter 14, Article V of the City Code). Each piece of Art shall be valued at a minimum of ten thousand dollars, for a cumulative total value of at least thirty thousand dollars for the three works of Public Art. The Public Art required by this paragraph shall be completed and installed on the PROPERTY in accordance with this AGREEMENT prior to the issuance of the final certificate of occupancy for the last floor of the residential building identified on the SITE PLAN. The Public Art shall be maintained by the DEVELOPER, at the DEVELOPER’s sole cost.

ARTICLE III.

GREEN BUILDING ELEMENTS

The DEVELOPER will include all of the following Green Building elements in new construction of principal buildings in the PROPOSED DEVELOPMENT:

- Lockable bike racks/storage
- Electric vehicle “EV” charging stations
- SEER 16 AC equipment or better
- Energy Star rated appliances
- Energy Star rated exhaust fans
- CO2 detectors in each dwelling unit
- Non-HCFC refrigerants
- New exterior lighting to be Energy Star rated or LED bulbs
- Parking Garage light fixtures to be Energy Star rated or fitted with fluorescent bulbs with Energy Star label or LED bulbs
- Low-flow toilets, shower fixtures and faucets
- Low VOC paint, adhesives and sealants
- Native plant material included in the site plan design
- Recycling
- White TPO roof

- Programmable thermostats
- AAON rooftop equipment

ARTICLE IV. MISCELLANEOUS

4.1 AGREEMENT.

A. This AGREEMENT may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall, together, constitute the same instrument.

B. This AGREEMENT shall be construed in accordance with the laws of the State of Florida, without regard to its conflict of laws principles, and any proceeding arising between the parties in any manner pertaining to this AGREEMENT shall, to the extent permitted by law, be held in Broward County, Florida.

C. The parties agree to execute such documents and take such actions as are necessary to implement the spirit and intent of this AGREEMENT.

D. All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, and neuter, singular or plural, as the identity of the party or parties, personal representative(s), successor(s) or assign(s) may require. All captions or headings used in this AGREEMENT are for convenience only and do not define or limit the scope of this AGREEMENT. This AGREEMENT shall be construed without regard to any presumption or other rule that would require construction against the party causing this AGREEMENT to be drafted.

4.2 **SEVERABILITY.** If any court of competent jurisdiction shall declare any section, paragraph or part of this AGREEMENT invalid or unenforceable, then such judgment or decree shall have no effect on the enforcement or validity of any other section, paragraph or part hereof, and the same shall remain in full force and effect. The agreed upon venue shall be Broward County, Florida.

4.3 **DEFAULT.** In the event of DEVELOPER's default under this AGREEMENT, CITY shall be entitled to any and all remedies available under Florida law, and CITY shall be entitled to deny the issuance of development related permits for the construction of the PROPOSED DEVELOPMENT while DEVELOPER's default is then-continuing and ongoing, including, but not limited to, denial of building permits and certificates of occupancy. In the event CITY defaults under this AGREEMENT, DEVELOPER shall be entitled to the remedies available under Florida law, including (without limitation) injunctive relief specific performance. Except to the extent that CITY's acts or omissions constitute gross and/or criminal negligence, DEVELOPER shall not be entitled to recover monetary damages (excluding attorneys' fees and costs) from CITY in the event CITY defaults under this AGREEMENT. Nothing contained herein shall be construed as expanding, limiting, or otherwise altering the scope of the CITY's sovereign immunity, protection and the recovery limits as set forth in Fla. Stat. § 768.28, as such may be amended from time to time.

4.4 NOTICE. All notices, demands, correspondence and communication in connection with this AGREEMENT must be in writing and shall be deemed to have been delivered on the date post-marked by mailing the same by certified mail, or on the date sent by overnight or the express courier, addressed to the respective parties at the following addresses:

If to CITY:	CITY OF DEERFIELD BEACH City Manager 150 N. E. 2nd Avenue Deerfield Beach, FL 33441
With a copy:	Anthony Soroka, Esq. City Attorney 2255 Glades Road Suite 200-E Boca Raton, FL 33431
If to DEVELOPER:	G&C HILLSBORO INVESTORS, LLC Attn: Mark Corlew 1499 W. Palmetto Park Road Suite 415 Boca Raton, FL
With a copy:	Greenspoon Marder LLP. Attn: Dennis Mele, Esq. 200 E. Broward Boulevard Suite 1800 Fort Lauderdale, FL 33301

4.5 AMENDMENTS; MODIFICATIONS. Except as otherwise provided herein, this AGREEMENT shall not be modified, amended, or released as to any portion of the PROPERTY except by written instrument, executed by the parties hereto. Any amendment, modification, or release of this AGREEMENT shall be recorded in the Public Records of Broward County, Florida.

4.6 FORCE MAJEURE. No party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this AGREEMENT, for any failure or delay in fulfilling or performing any term of this AGREEMENT, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including, without limitation: (a) acts of God; (b) flood, fire, earthquake, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest; (d) government order or law; (e) embargoes or blockades in effect on or after the date of this AGREEMENT; (f) action by any governmental authority, excluding those actions which are taken as result of DEVELOPER's misconduct; (g) national or regional emergency; (h) a declared pandemic; (i) strikes, labor stoppages or slowdowns, or other industrial disturbances; and (j) shortage of adequate power or transportation facilities (individually and collectively, a "FORCE MAJEURE EVENT"). The party suffering a FORCE MAJEURE EVENT shall give notice to the

other party within five (5) business days after the commencement of the continuing FORCE MAJEURE EVENT, stating the period of time the occurrence is expected to continue and such party shall use all commercially reasonable efforts to end the failure or delay and ensure the effects of such FORCE MAJEURE EVENT are minimized.

4.7 WAIVER. Nothing in this AGREEMENT shall waive any other lawful development requirement for the PROPERTY raised by the applicable governmental authorities or any other requirements under the CODE, or any other development agreements in effect relating to the PROPERTY.

4.8 INCONSISTENCIES WITH SITE PLAN; CONTROLLING DOCUMENTS. In the event of a specific inconsistency in the terms set forth in this AGREEMENT and the approved SITE PLAN, this AGREEMENT shall control.

4.9 ENTIRE AGREEMENT. Notwithstanding anything contained herein to the contrary, this AGREEMENT, together with any conditions of approvals related to LUPA, REZONING, and SITE PLAN, including any related exhibits and schedules attached hereto, constitutes the sole and entire agreement of the parties hereto with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, promises, inducements, conditions, agreements, representations, and warranties between the parties hereto with respect to such subject matter, regardless of whether such is written, oral, express, or implied.

**[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK;
SIGNATURES APPEAR ON THE FOLLOWING PAGES.]**

IN WITNESS WHEREOF, the parties have made and executed this AGREEMENT on the respective dates under each signature.

CITY:

CITY OF DEERFIELD BEACH, FLORIDA,
a Florida municipal corporation

By: _____
Print name: _____
Title: _____
Dated: _____

ATTEST:

Print name: _____
Title: _____

(SEAL)

**Approved as to form and legal sufficiency
for the use of and reliance by the City of
Deerfield Beach only:**

CITY ATTORNEY

IN WITNESS WHEREOF, DEVELOPER has executed this AGREEMENT on the day written below.

DEVELOPER:

Signed, sealed and delivered

G&C HILLSBORO INVESTORS, LLC a
Florida limited liability company

Printed Name: _____

By: _____

Name: _____

Title: _____

Dated: _____

Printed Name: _____

STATE OF FLORIDA)
) SS
COUNTY OF BROWARD)

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this ____ day of _____, 202_, by _____, as _____ of **G&C HILLSBORO INVESTORS, LLC** a Florida limited liability company. She or he is:

[] personally known to me, or

[] produced identification. Type of identification produced _____.

(Seal)

NOTARY PUBLIC:

Print Name: _____

My commission expires:

EXHIBIT “A”

LEGAL DESCRIPTION OF THE PROPERTY

A parcel of land in the South 1/2 of Government Lots 2 and 3, and in the Southeast 1/4 of NW 1/4 Section 1, Township 48 South, Range 42 East, of Broward County, Florida, said parcel being more particularly described as follows:

Commencing at the Southeast corner of said Government Lot 3; thence run North 1 degree 16 minutes 07 seconds West (on an assumed bearing) 81.00 feet along the East line of said Government Lot 3 to the point of beginning; thence run South 88 degrees 17 minutes 27 seconds West 447.70 feet to a point of curvature of a curve to the left; thence along the arc of said curve to the left, having a radius of 611.92 feet and a central angle of 45 degrees 02 minutes 09 seconds, run Southwesterly 480.98 feet to a point of intersection with the arc of a curve running Northeasterly to the left, a radial at said point bearing North 46 degrees 44 minutes 42 seconds West; thence along the arc of said curve to the left (also forming the Easterly right-of-way line of Interstate Highway 95) having a radius of 621.00 feet and a central angle of 39 degrees 15 minutes 18 seconds run Northeasterly 425.47 feet to a point of tangency; thence run North 4 degrees East 392.20 feet along said Easterly right-of-way line and being the tangent extended to a point of curvature of a curve to the right; thence along the arc of said curve to the right, having a radius of 135.24 feet and a central angle of 84 degrees 26 minutes 30 seconds run Northeasterly 199.31 feet to a point of tangency on the Southerly right-of-way line of the limited access road lying South of and adjacent to Hillsboro Blvd. (State Road 810); thence run North 88 degrees 26 minutes 30 seconds East 503.61 feet; thence run North 0 degrees 32 minutes 11 seconds West 22.00 feet to an intersection with the Southerly right-of-way line of Hillsboro Blvd.; thence run North 89 degrees 27 minutes 49 seconds East, 29.77 feet to an intersection with the East line of the Southeast 1/4 of Government Lot 3; thence run North 89 degrees 28 minutes 02 seconds East 50.00 feet to an intersection with a line 50.00 feet East of as measured at right angles and parallel to the West line of the Southwest 1/4 of Government Lot 2; thence run South 1 degree 16 minutes 07 seconds East, 718.14 feet along said parallel line to a point of intersection with the arc of a curve running Southwesterly to the right, a radial at said point bearing North 16 degrees 43 minutes 31 seconds West; thence along the arc of said curve to the right having a radius of 464.00 feet and a central angle of 6 degrees 19 minutes 19 seconds run Southwesterly 51.20 feet to the Point of Beginning. (Portions having been platted as Hillsboro-95 Office Park, Plat Book 105, Page 30, Public Records of Broward County, Florida)

LESS AND EXCEPT THE FOLLOWING:

All that portion of Tract A, HILLSBORO- 95 OFFICE PARK, according to the Plat thereof, as recorded in Plat Book 105, Page 30 of the Public Records of Broward County, Florida, more particularly described as follows:

Beginning at the Northeast corner of said Tract A; thence South 01 degree 16 minutes 07 seconds East, along the East line of said Tract A, 345.93 feet to a point on a curve, said point also being on the North Right-of-Way line of Natura Boulevard, the radius of said point bears North 16 degrees 43 minutes 31 seconds West; thence along the arc of a circular curve to the right having a radius of 464.00 feet an arc distance of 51.20 feet to a point of tangency; thence South 88 degrees 17 minutes 27 seconds West, along the north right-of-way line of Natura Boulevard 316.81 feet; thence North 01 degree 16 minutes 07 seconds West, along a line parallel with the East line of said Tract A 150.31 feet; thence North 88 degrees 43 minutes 53 seconds East 10.00 feet; thence North 01 degree 16 minutes 07 seconds West 20.00 feet; thence South 88 degrees 43 minutes 53 seconds West 10.00 feet; thence North 01 degree 16 minutes 07 seconds West 60.61 feet; thence North 43 degrees 43 minutes 53 seconds East 156.71 feet; thence North 88 degrees 26 minutes 30 seconds East 37 .09 feet; thence North 01 degree 16 minutes 07 seconds West 16.25 feet; thence North 88 degrees 26 minutes 30 seconds East 218.90 feet to the Point of Beginning.

TOGETHER WITH a non-exclusive easement for drainage and utilities set forth in that certain Declaration of Covenants, Easements, Conditions and Restrictions recorded in Official Records Book 31343, Page 1496, as re-recorded December 12, 2001 in Official Records Book 32483, Page 993 and affected by that certain Second Modification To Declaration Of Road And Utility Easement filed February 12, 2002 in Official Records Book 32754, Page 574, of the Public Records of Broward County, Florida.

TOGETHER WITH non-exclusive easements as set forth in and granted by Declaration of Road and Utility Easement filed March 23, 1979 in Official Records Book 8113, Page 39, as modified by instrument filed October 17, 1980 in Official Records Book 9188, Page 42; as further modified by instrument filed February 12, 2002 in Official Records Book 32754, Page 574, of the Public Records of Broward County, Florida.

PARCEL 2 (BLD V)

Tract One of CROCKER SOUTH, according to the Plat thereof, as recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida.

Less Therefrom:

All that portion of Tract One of CROCKER SOUTH, according to the Plat thereof, recorded in Plat Book 122, Page 8, of the Public Records of Broward County, Florida, lying Northerly of the following described line:

Commence at the Southwest corner of said Tract One; thence run North 01 degrees 16 minutes 07 seconds West along the West line of said Tract One for a distance of 711.12 feet to the South right of way line of Hillsboro Boulevard as dedicated by said Plat of CROCKER SOUTH; thence run North 89 degrees 28 minutes 02 seconds East along the said South right-of-way line of Hillsboro Boulevard for a distance of 20.21 feet to the Point of Beginning of the herein described line; thence run South 86 degrees 43 minutes 08 seconds East along the South line of a Right Turn Lane Easement as shown on said Plat of CROCKER SOUTH for a distance of 180.40 feet; thence run North 89 degrees 28 minutes 02 seconds East along the South line of said Right Turn Lane Easement for a distance of 56.60 feet to the point of curvature of a circular curve to the left; thence run Easterly along the arc of said circular curve to the left, having a radius of 5801.58 feet, through a central angle of 00 degrees 25 minutes 43 seconds, for an arc distance of 43.40 feet, said arc of said circular curve being the South line of said Right Turn Lane Easement; thence run South 46 degrees 06 minutes 52 seconds East for a distance of 49.37 feet to the point of intersection with the East line of said Tract One, and the END of the herein described line.

EXHIBIT “B”

STATEMENT OF NEED

- (i) The development and redevelopment of properties is apparent.

The area around the Hillsboro Boulevard/I-95 interchange has experienced a variety of development and redevelopment activities. The Deerfield Country Club that was located north of the property was redeveloped as Hillsboro Technology Center and façade improvements were added to the commercial center immediately to the east. The Hillsboro Center property was developed in the 1980’s and due to its age and condition does not present a positive image for the City at this important gateway. This PDD rezoning will allow for additional development and redevelopment in the Hillsboro Boulevard corridor to support the City’s vision as a vibrant coastal city.

- (ii) The development and redevelopment of properties shall enhance the economic development strategies of the City of Deerfield Beach.

The Citywide Economic Development Strategy identifies the following weaknesses in the local economy that hinder business growth and development:

- Local Businesses in Need of Qualified Employees
- Underdeveloped Commercial Corridors and Plazas
- Undefined and Improved Gateways
- Relatively Older Housing Supply and Limited Choice

The Citywide Economic Development Strategy documents that there is a lack of “sense of place” in the City (page 8). The proposed PDD provides an opportunity for a mixed-use development that can elevate the image of the City to attract new businesses and residents. The current office complex has an outdated architectural style and due to the age and condition of the buildings it attracts Class C tenants. The PDD rezoning will update the architectural style of the existing buildings and provide for an iconic building to define and upgrade the Hillsboro Boulevard/I-95 gateway. These improvements will upgrade an underdeveloped property on a very important commercial corridor in the City. The Applicant has already commenced interior improvements to the existing office buildings. These interior improvements as well as the on-site improvements will help to attract a better quality of tenants.

The Citywide Economic Development Strategy documents that many higher paid professionals working in the City choose to live outside the City. This may be due to the fact that the City has a relatively older housing supply and limited choice. The proposed PDD will support the City’s economic development strategies by providing for a new 8-story residential complex with distinctive architectural design and on-site amenities in an area where this type of housing does not currently exist. This housing opportunity will be attractive to young higher paid professionals who work but don’t live in the City. The addition of a luxury residential component will provide new housing stock and expand housing choices in the City. This rezoning will provide an opportunity for residents to live, work, play, and shop all within walking distance.

- (iii) The development of properties with unique property characteristics, natural or man-made, that impede the development of these properties under the strict application of the regulations of the Land Development Code.

The primary purpose of the proposed PDD is to upgrade and add square footage to an aging office park to create a mixed-use residential, retail and office complex. The property is uniquely located at a gateway to the City for those traveling from I-95. If the property were developed under conventional zoning districts, the B-2 and RM-25 would be the ones that most closely relate to the

proposed redevelopment plan. If two different zoning districts were applied to the property, it would not be possible to fully integrate the mix of uses due to the different open space, lot coverage, setback and buffer requirements of the districts. In addition, the maximum height in these districts is lower than one of the existing office buildings and the proposed residential structure. A maximum building height of 80' is required for the existing and proposed structures to maximize the development potential of the property. Roof parapets and other architectural features may extend 20' above the surface of the flat roof. If the buildings were limited the height limits of the B-3 and RM-25 zoning districts, the parcel would be under-developed and would not have the superior design and amenities that are proposed.

The proposed PDD rezoning also includes significant public improvements to Natura Boulevard and the intersection of Hillsboro Boulevard and Natura Boulevard. Turn lanes at the intersection of Hillsboro Boulevard and Natura Boulevard will be modified to create more storage area for vehicles so that the approaches to the intersections can be cleared more quickly. These turn lanes are needed to mitigate the additional traffic generated by the development. However, there are several improvements proposed that are over and above what would be required if the property were developed in accordance with the B-2 and RM-25 districts. Natura Boulevard adjacent to the property will be improved to incorporate upgraded sidewalks, a crosswalk and drainage improvements that will enhance the neighborhood. This improvement is not needed to accommodate the drainage from the property. The Applicant is also committed to enhancing the City's affordable housing programs and will contribute \$500 per dwelling unit or a maximum of \$180,000.00 for those programs. The Applicant will contribute \$200,000.00 toward improvements at Oveta McKeithen Recreational Complex. This park contribution is over and above the park impact fees due for the development. The superior architectural design, the amenities included for residents and employees along with the significant public investments would not be possible if development on the property were limited by the land development standards of the B-2 and RM-25 zoning districts.

EXHIBIT “C”

PROPERTY DEVELOPMENT REQUIREMENTS

Property Development Requirements			
Overall Site	Required (Existing Zoning)	Provided (PDD) based on the entire property, unless otherwise noted	Justification
	B-2		
Lot Area, Minimum	10,000 sq. ft.	718,740 sq. ft.	
Lot Width, Minimum	100'	1,050' (adjacent to Hillsboro Boulevard)	
Setbacks, Minimum* *As measured from the adjacent roadway to the closest building façade. Along Hillsboro Blvd. Along Natura., East Along I-95, West Along Natura Blvd. South Adjacent to hotel parcel Corner	50' 10' 10' 25' 15' Not applicable.	20' 50' 20' 15' 9' Not applicable.	The Applicant is requested that the setback along Hillsboro Boulevard be modified from 50 feet as required by Code to 20 feet and the setback along Natura Boulevard (on the south side of the property be modified from 25 feet to 15 feet. A one (1)-foot modification is also required to reflect the existing condition adjacent to the hotel parcel. These modifications are necessary in order to create an urban style of development where buildings are as close to the street as possible. This orientation allows for the buildings to have the most visibility as possible along Hillsboro Boulevard and Natura Boulevard to showcase the distinct architecture and elevate the image of the City to attract new businesses and residents. The building placement also reduces the views of parking lots and garages.
Minimum Building Floor Area	1,000 sq. ft.	10,000 sq. ft.	
Maximum FAR	0.50	.71 for residential buildings .39 for nonresidential buildings 1.1 for all buildings	A FAR ratio typically only applies to nonresidential uses. Intensity of residential uses is typically determined by the residential density. In this case, the Medium-High 25 Mixed Use land use category allows for a maximum FAR of 2.0. The FAR of 1.1 is based on the entire

			gross acreage of the property and all existing and proposed buildings. The FAR for just the nonresidential square footage is .39 accounting for full build-out of the property which meets the typical definition of FAR and is consistent with the B-2 .5 maximum FAR.
Lot Coverage %, Maximum	35%	38%	The 38% maximum lot coverage is required to provide for a mixed-use development where the Applicant is making a substantial investment in improvements that are not needed to comply with the standard Code requirements but are provided as public benefits for the community as a whole. The proposed maximum lot coverage is necessary to provide for an economically viable development with a distinctive architectural design at an important gateway to the City.
Minimum Landscaped Area	20%	24%	
Building Height, Maximum	75'	80-0' + roof parapets and other architectural features may extend 20' above the surface of the flat roof.	One of the existing office buildings on the property is 79+/- feet. The building height is a nonconforming condition on the property. No modifications to this building are proposed at this time and it isn't feasible to modify the building to comply with the 75 foot height requirements. The 5 feet of additional building height for the residential building is justified due to its location adjacent to I-95 and Hillsboro Boulevard. This is an appropriate location for additional building height because it is not located adjacent to any lower density residential uses. The proposed building is located approximately 600 feet to the closest residential area. This additional height is needed to maximize the development potential of the property and provide a superior architectural design that will be visible from Hillsboro Boulevard.
Parking Space Dimensions	Required	Provided	
Standard	10'x20'	9'x18'	In order to minimize the mass of the

Compact	9'x18'	9'x18'	parking garage and land area devoted to impervious areas, 9'x18' parking spaces are proposed. This size is consistent with the existing parking spaces on the property. In addition, this parking space size is appropriate especially in areas that do not experience a high turnover of vehicles such as a multi-family residential and office uses.
Signage	Allowed – B-2	Provided	
<u>Monument Signs</u>	At main entrance on Hillsboro Boulevard: 5' high	6' high	The design standards for this development are compared to those of the current B-2 zoning district. The allowable height of a monument sign for B-2 uses is 5' if the sign is setback 2-9'. In the case of the main entrance sign on Hillsboro Boulevard, the Code allows a 5' sign. The proposed sign is slightly taller, just shy of 6'. This additional height is needed because additional right of way was requested by the County along Hillsboro Boulevard and even though the sign is setback approximately 2' from the new property line, it is approximately 14' from the eastbound travel lane on Hillsboro Boulevard.
Density, Maximum	N/A	25 DU/AC	
Minimum Floor Area for Multi-Family Units			
	Required	Provided	
Efficiency/Studio	400 sq. ft.	600 sq. ft.	
1 BR	700 sq. ft.	700 sq. ft.	
2 BR	900 sq. ft.	900 sq. ft.	
3 or More BR	1,150 sq. ft.	1,300 sq. ft.	
Parking Requirements			
Residential	Required Ratio	Number of Spaces Required Per Code	
Efficiency - 16 units	1.5 spaces/ unit	24	
1 BR – 164 units	1.5 spaces/ unit	246	
2 BR – 159 units	2.0 spaces/ unit	318	
3+BR – 21 units	2.5 spaces/ unit	53	

Total Residential		641	
Retail/Office Use	Required Ratio	Number of Spaces Required Per Code	
239,672 sq. ft.	1/250 sq. ft.	959	
Total Required Residential and Nonresidential Per Code		1,600	
Min. Total Residential and Nonresidential Provided		Min. Total Residential and Nonresidential Provided 1,344	The Applicant provided a shared parking analysis based on ULI peak parking demand. This study documents that there is sufficient parking provided based on the proposed uses and the hours of peak demand for the uses the parking study is provided as Exhibit I. The master plan shows 1,375 parking spaces provided which exceeds the minimum needed according to the parking study.

CONCEPTUAL MASTER PLAN

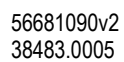
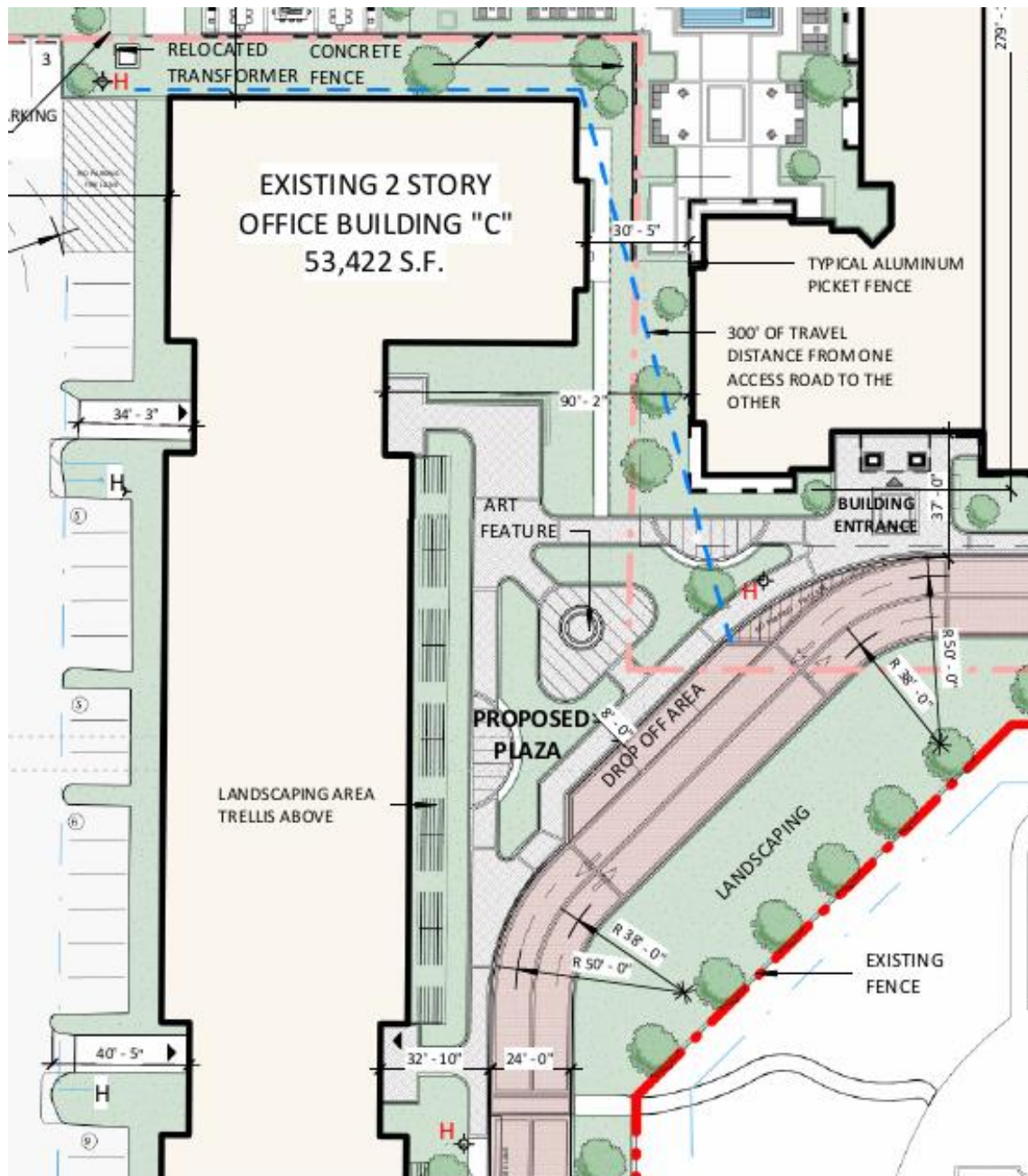
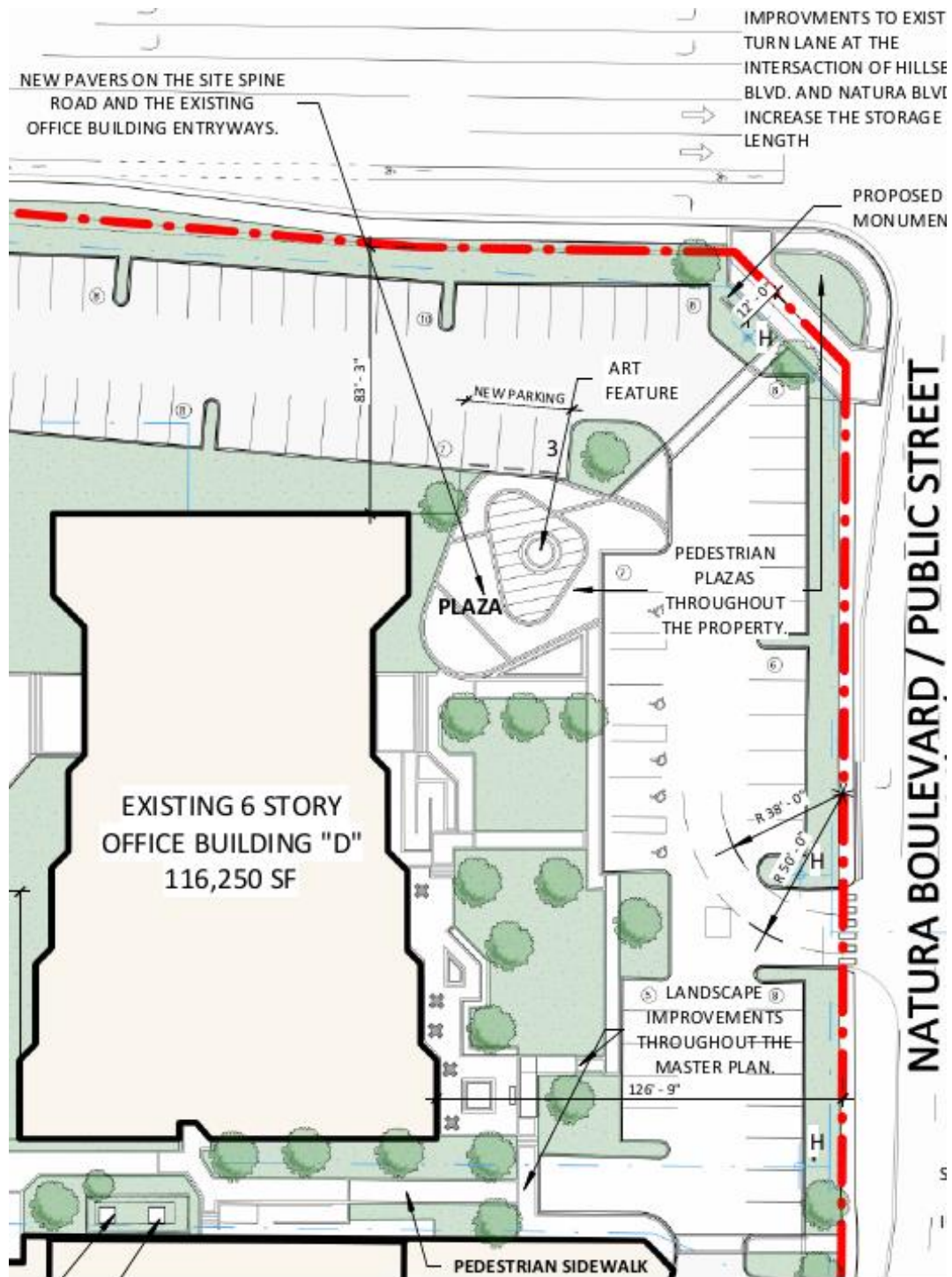


EXHIBIT "E"

OPEN SPACE IMPROVEMENTS



Proposed Central Plaza



Proposed Plazas at Corner and Building D Office



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-33

Agenda Date: 2/6/2024

Status: PUBLIC HEARINGS –
SECOND READING

In Control: City Commission

Title

P.H. 2024-041: ORDINANCE 2024/ - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AMENDING ARTICLE II "BOARDS, COMMITTEES, COMMISSIONS" OF CHAPTER 2 "ADMINISTRATION" OF THE CITY CODE OF ORDINANCES TO CREATE SECTION 2-26 "CRIMINAL HISTORY BACKGROUND CHECKS" FOR CERTAIN ADVISORY BOARDS AND COMMITTEES; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Recommended Action

Commission to vote on Ordinance

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Background/History

The City Commission appoints individuals/residents to various City boards and committees. Article II of Chapter 2 of the Code of Ordinances sets forth the regulations for boards, committees and commissions. Such appointments do not currently require background checks.

Current Activity

At a recent City Commission meeting, Commissioner Drosky raised the issue of background checks for board members, and the City Commission gave direction to prepare an Ordinance for the Commission's consideration. The attached Ordinance requires background checks for members of City boards/committees (i) whose official activities or duties are performed within or in close proximity to parks or facilities with minors, the elderly, or persons with special needs, or (ii) involve participating in City activities/events with minors, the elderly, or persons with special needs as part of their responsibilities or duties as a board or committee member. Such boards would currently include the Education Advisory Board, Cultural Committee and African American Heritage Committee.

Individuals will be prohibited from serving on such boards or committees if they have been convicted, plead guilty or no contest (nolo contendere) had adjudication withheld, prosecution deferred, been placed on probation, received a suspended sentence, or forfeited bail in connection with any of the criminal offenses set forth in Section 435.04(2), Florida Statutes. Chapter 435 provides for uniform background screening requirements and Section 435.04(2), Fla. Stat., sets forth a list of felony offenses and offenses involving moral turpitude, minors and the elderly.

This matter was considered at the January 9, 2024 Commission meeting and deferred for review of whether the exemption for the elected officials could be removed. The enclosed Ordinance no longer includes the exemption for elected officials. At first reading on January 23, 2024, the City Commission approved the Ordinance on First Reading with conditions that include adding the Planning and Zoning Board, including an appeal process, and adding the Police, Fire, and General

Employee Pension Boards if permitted by law. The enclosed latest draft Ordinance includes application to the Planning and Zoning Board and a draft appeal process. Legal review of application to the pension boards is underway.

Recommendation

For consideration by the City Commission.

ORDINANCE NO. 2024/

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AMENDING ARTICLE II “BOARDS, COMMITTEES, COMMISSIONS” OF CHAPTER 2 “ADMINISTRATION” OF THE CITY CODE OF ORDINANCES TO CREATE SECTION 2-26 “CRIMINAL HISTORY BACKGROUND CHECKS” FOR CERTAIN ADVISORY BOARDS AND COMMITTEES; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE

WHEREAS, the City Commission appoints residents to various City boards and committees; and

WHEREAS, Article II of Chapter 2 of the Code of Ordinances (the “City Code”) sets forth the regulations for boards, committees and commissions; and

WHEREAS, due to the nature of certain boards and their duties, functions, and interactions with the public, the City Commission finds that prior to appointing residents to serve on certain boards or committees, it is in the best interest of the residents of Deerfield Beach to require a criminal background check on all applicants to such boards or committees.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, AS FOLLOWS:

Section 1. The above “WHEREAS” clauses are true and correct and are made a part of this Ordinance.

Section 2. Chapter 2 “Administration”, Article II “Boards, Committees, Commissions” of the City Code of Ordinances is hereby amended to read as follows¹:

Chapter 2 ADMINISTRATION

* * *

ARTICLE II. – BOARDS, COMMITTEES, COMMISSIONS

DIVISION 1. – GENERALLY

~~Sec. 2-26 – 2-35. – RESERVED~~

Sec. 2-26 Criminal History Background Checks.

(a) Criminal history background checks are applicable to all individuals appointed to the City boards and committees (i) whose official activities or duties are performed within or in close proximity to parks or facilities with minors, the elderly, or persons with special needs, or (ii) involve participating in City activities/events with minors, the elderly, or persons with special needs as part

¹ Additions to existing City Code text are shown in underline. Deletions to existing City Code text are shown in ~~strikethrough~~.

of their responsibilities or duties as a board or committee member, or (iii) whose official activities or duties include making a recommendation to the City Commission on Land Use, Zoning, Plat, Site Plan or variance applications. Such boards include but are not limited to the African American Heritage Board, Cultural Committee, the Educational Advisory Board and the Planning and Zoning Board.

Within thirty (30) days of adoption of this Ordinance, each individual who is currently appointed to a board or committee that involves activities and/or duties as stated above shall complete, and provide to the City Clerk, an authorization form so that a Level II background check may be obtained from the Florida Department of Law Enforcement or equivalent criminal records database. Failure of a current member to submit such authorization form in a timely manner will, after written notice and a 10 calendar day opportunity to cure, result in the individual's automatic removal from the respective advisory board.

Any individual who is seeking appointment or reappointment to such boards or committees must also provide the authorization form prior to being consider for appointment or reappointment and shall not become qualified for the appointment until an acceptable criminal history background check is received by the City Clerk or designee. For reappointments, a new background check is only required if the reappointment is more than a year from the original appointment. Appointees/reappointees will not be considered by the City Commission until a successful background check has been completed.

(b) Individuals who have been convicted, plead guilty or no contest (*nolo contendere*) had adjudication withheld, prosecution deferred, been placed on probation, received a suspended sentence, or forfeited bail in connection with any of the criminal offenses set forth in Section 435.04(2), Florida Statutes, shall not be eligible to serve on such specified boards or committees. If a current member of such board or committee is found to have a criminal record as set forth herein, the City Manager or designee will inform the appointing City Commissioner and notify the board member of their automatic removal from the board.

(c) If, during a members term on such advisory boards or committees, the member is convicted, pleads guilty or no contest (*nolo contendere*) has adjudication withheld, prosecution deferred, been placed on probation, received a suspended sentence, or forfeited bail in connection with any of the criminal offenses set forth in Section 435.04(2), Florida Statutes, such member shall notify the City Clerk within 5 calendar days of such event. Such members will be disqualified from serving, the City Manager or designee will inform the appointing City Commissioner and notify the board member of their automatic removal from the board or committee.

(d) *Appeal from disqualification and exemption.* Where an individual who desires to be appointed or reappointed to a board or committee is disqualified from a board appointment based upon (b) or (c) above, the individual may appeal such disqualification by submitting an appeal application to the City Clerk in accordance with the requirements set forth below.

(1) *Appeal contents.* When submitting an appeal application to the City Clerk, the applicant shall provide the following:

(a) Documentation and/or reports detailing the circumstances surrounding the criminal incident that relates to the appeal from disqualification, including the arrest report if available;

(b) A description of the nature of the harm caused to the victim(s);

(c) Documentation of any mitigating circumstances with respect to the criminal incident

(d) History of the applicant since the incident, including any additional criminal charges;

(e) Any other evidence that the appellant will not present a danger to minors, the elderly or persons with special needs, and/or the public, and will not present an issue with respect to moral turpitude;

(f) Documentation of other volunteer work, special awards, recognition, community service, educational attainment or other documentation of rehabilitation efforts;

(g) Letters of personal reference from people who have known the applicant for more than two years (other than relatives).

(2) The appeal documentation shall be transmitted by the City Manager or designee to the Mayor or Commissioner who nominated the applicant. The Mayor or Commissioner who nominated the applicant shall advise the City Manager as to whether or not the Mayor or Commissioner desires to continue pursuing the appointment, subject to the appeal process in subsection (3) below. If the Mayor or Commissioner desires to continue pursuing the appointment, an appeal shall be scheduled for a hearing and the City Clerk shall forward the appeal documentation to the Special Magistrate.

(3) The appeal shall be heard by a special magistrate appointed by the City Commission. The special magistrate shall be an attorney licensed to practice law in Florida. The appeal shall be heard within ten business days of receipt of a completed application unless the special magistrate is unavailable, and in such case as soon thereafter as is feasible. The special magistrate shall be permitted to hear testimony and review evidence as the special magistrate deems, in the special magistrate's sole discretion, to be helpful to the appeal. Upon hearing the evidence, the special magistrate may grant an exemption from disqualification to be appointed or reappointed to a board or committee for:

(a) Felonies for which at least 3 years have elapsed since the appellant for the exemption has completed or been lawfully released from confinement, supervision, or nonmonetary condition imposed by the court for the disqualifying felony;

(b) Misdemeanors prohibited under any statutes cited in Chapter 435, F.S. or under similar statutes of other jurisdictions for which the appellant for the exemption has completed or been lawfully released from confinement, supervision, or nonmonetary condition imposed by the court;

(c) Offenses that were felonies when committed, but that are now misdemeanors and for which the appellant has completed or been lawfully released from confinement, supervision, or nonmonetary condition imposed by the court; or

(d) Findings of delinquency. For offenses that would be felonies if committed by an adult and the record has not been sealed or expunged, the exemption may not be granted until at least 3 years have elapsed since the appellant has completed or been lawfully

released from confinement, supervision, or nonmonetary condition imposed by the court for the disqualifying offense.

(4) In making a determination on an appeal under this Section, the Special Magistrate shall take in consideration, at a minimum, the following:

(a) Any factual errors in the criminal background history report;

(b) the severity or the offense and any mitigating circumstances;

(c) age of applicant when the offense was committed;

(d) the length of time since the offense and number of offenses; and

(e) such other mitigating circumstances as the special magistrate deems relevant to the special magistrate's determination, including the documentation submitted under subsection (d)(1).

(5) The burden in the appeal shall be on the appellant and the standard shall be clear and convincing evidence that the appellant should not be disqualified from serving as a member of the applicable City board or committee. The special magistrate shall issue a ruling on the application within ten business days of the hearing. Failure to issue a ruling within the ten-day period shall be deemed a denial of the application.

(6) Notwithstanding the appeal process set forth in this Section, no individual who is considered under applicable state law to be a sexual predator, sexual offender, or career offender shall be eligible for an appeal under this Section.

Sec. 2-27 -2.35. RESERVED

Section 3. All Sections or parts of Sections of the Code of Ordinances, all ordinances or parts of ordinances, and all Resolutions, or parts of Resolutions, in conflict with this Ordinance are repealed to the extent of such conflict.

Section 4. The provisions of this Ordinance are declared to be severable, and, if any section, sentence, clause and/or phrase of this Ordinance is, for any reason, held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this Ordinance, which shall remain in effect, it being the legislative intent that this Ordinance shall stand despite the invalidity of any part.

Section 5. It is the intention of the City Commission and it is hereby ordained that the provisions of this Ordinance shall become and be made a part of the City Code of the City of Deerfield Beach, and that the sections of this Ordinance may be renumbered to accomplish such intent.

Section 6. That this Ordinance shall take effect immediately upon adoption on second reading.

PASSED 1ST READING ON THIS ____ DAY OF _____, 2024.

PASSED 2ND READING ON THIS ____ DAY OF _____, 2024.

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK

BUSINESS IMPACT ESTIMATE¹

Meeting Date:

Agenda Item No. ____

Summary of Proposed Ordinance and Statement of Public Purpose to be Served

The proposed Ordinance amends Article II "Boards, Committees, Commissions of Chapter 2 "Administration" of the City Code of Ordinances to required criminal history background checks for individuals who are appointed to City boards and committees whose official activities or duties are performed within or in close proximity to parks or facilities with minors, the elderly, or persons with special needs, or involve participating in City activities/ events with minors, the elderly, or persons with special needs as part of their responsibilities or duties as a board or committee member. Such boards include but are not limited to the African American Heritage Board, Cultural Committee, and Education Advisory Board.

Estimate of Direct Economic Impact on Private/For Profit Businesses

- a. Estimate of Direct Business Compliance Costs: none.
- b. New Charges/Fees on Businesses Impacted: none
- c. Estimate of Regulatory Costs: There will be operational budgetary costs for the City to conduct the Level II Background Checks.

Good Faith Estimate of Number of Businesses Likely Impacted: none

Any Additional Information:

Level II Background Checks are based upon criminal offenses set forth in Section 435.04(2), Florida Statutes.

¹ Business Impact Estimate does not apply to the following:

- 1. Ordinances required for compliance with federal or state law or regulation;
- 2. Ordinances related to the issuance or refinancing of debt;
- 3. Ordinances relating to the adoption of budgets or budget amendments, including revenue sources necessary to fund the budget;
- 4. Ordinances required to implement a contract/agreement;
- 5. Emergency ordinances;
- 6. Ordinances relating to procurement;
- 7. Ordinances enacted to implement the following:
 - a. Part II of Chapter 163, F.S.;
 - b. Sec. 190.005, F.S. and Sec. 190.046, F.S.;
 - c. Sec. 553.73, F.S. (Fla. Building Code);
 - d. Sec. 633.202, F.S. (Fla. Fire Prevention Code).



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-22

Agenda Date: 2/6/2024

Status: CONSENT - AGREEMENTS &
EXPENDITURE REQUESTS

In Control: City Commission

Title

Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, designating the City Manager as the certified officer authorized to execute all documentation relating to environmental reviews associated with Community Development Block Grant Fund and Home Investment Partnership Program Projects; authorizing the City Manager to designate an environmental officer to oversee environmental review tasks to comply with 24 CFR Part 58 of the Code of Federal Regulations; providing for implementation and an effective date.

Recommended Action

Commission to vote on Resolution

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Background/History

The City of Deerfield is a Department of Housing and Urban Development (HUD) Entitlement Community and receives an annual allocation of Federal program funding from Community Development Block Grant (CDBG) and HOME Investment Partnership (HOME) programs for the distribution of federally funded projects including, but not limited to, housing assistance, community development, public services, and economic development activities.

HUD imposes upon the City an obligation to comply with certain signatory and reporting requirements for environmental reviews associated with projects funded by CDBG and HOME. As a Recipient of HUD CDBG funding assistance, the City is deemed to be a Responsible Entity (RE). As a RE, the City must complete the environmental review process for federal and pass-thru projects. The City is responsible for ensuring compliance with the National Environmental Policy Act (NEPA) and the applicable Federal laws, for issuing the public notification, for submitting the request for release of funds and certification, when required, and for ensuring the Environmental Review Record (ERR) is complete, and for execution of the Request for Release of Funds and Certification to release funding for use under federal programs.

In order to fulfill its obligations under 24 CFR Part 58, the City must designate two responsible parties as follows:

Certifying Officer: The City must designate a Certifying Officer - the "responsible Federal official" -- to ensure compliance with the NEPA and the Federal laws and authorities cited at 24 CFR section 58.5 has been achieved. This person is either the chief elected official, chief executive official, or other official designated by formal resolution of the governing body. The certifying officer must have the authority to assume legal responsibility for certifying that all environmental requirements have been followed. This function may not be assumed by administering agencies or consultants.

Environmental Officer: The funding recipient is also required to designate an Environmental Officer. The Environmental Officer is responsible for conducting the environmental review including such tasks as: writing the project narrative, obtaining maps of the project area, soliciting comments from appropriate local, state and federal agencies, and facilitating responses to comments received on the environmental findings.

Current Activity

The purpose of the environmental review process is to analyze the effect a proposed project will have on the people and the natural environment within a designated project area, and the effect the material and social environment may have on a project.

24 CFR Part 58, §570.604 and 40 CFR Part 1500-1508 ("Federal regulations") recommend Entitlement Communities formally designate a Certifying Officer by Resolution which cannot be an external party or agency, and an Environmental Officer who cannot be the same individual as the Certifying Officer.

In accordance with the provisions of law cited in [§ 58.1\(b\)](#), the City must assume the environmental responsibilities for its CDBG and HOME programs. In doing so, the City must comply with the provisions of NEPA and the CEQ regulations contained in [40 CFR Parts 1500](#) through [1508](#). By completing this action, the City officially identifies the official who is authorized to execute the Request for Release of Funds and Certification to release funding for use under federal programs.

Recommendation

It is recommended that the City Commission designate the City Manager as the City of Deerfield Beach Certifying Officer for the purpose of complying with 24 CFR Part 58, §570.604 and 40 CFR Part 1500-1508, and authorize the City Manager to designate a different qualified individual as the City of Deerfield Beach Environmental Officer, for the purpose of complying with 24 CFR Part 58, §570.604, 40 CFR 1500-1508, and any other applicable regulations.

RESOLUTION NO. 2024/

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, DESIGNATING THE CITY MANAGER AS THE CERTIFIED OFFICER AUTHORIZED TO EXECUTE ALL DOCUMENTATION RELATING TO ENVIRONMENTAL REVIEWS ASSOCIATED WITH COMMUNITY DEVELOPMENT BLOCK GRANT FUND AND HOME INVESTMENT PARTNERSHIP PROGRAM PROJECTS; AUTHORIZING THE CITY MANAGER TO DESIGNATE AN ENVIRONMENTAL OFFICER TO OVERSEE ENVIRONMENTAL REVIEW TASKS TO COMPLY WITH 24 CFR PART 58 OF THE CODE OF FEDERAL REGULATIONS; PROVIDING FOR IMPLEMENTATION AND AN EFFECTIVE DATE

WHEREAS, the City of Deerfield Beach (the “City”) is considered a Department of Housing and Urban Development Entitlement Community that receives annual allocations of funding from Community Development Block Grant and Home Investment Partnership programs (collectively, the “Programs”); and

WHEREAS, pursuant 24 CFR Part 58 of the Code of Federal Regulations, the City is deemed to be a responsible entity and is required to ensure compliance with the National Environmental Protection Act, and other applicable Federal Laws, for issuing the public notification, for submitting the request for release of funds and certification, when required, and for ensuring the Environmental Review Record is complete; and

WHEREAS, 24 CFR Part 58 of the Code of Federal Regulations requires that the City designate a Certifying Officer who will have the authority to assume responsibility for certifying that all environmental requirements have been followed, and such designee must be either the chief elected official, chief executive official, or other official designated by formal resolution of the governing body; and

WHEREAS, the City is also required to designate an Environmental Officer who is responsible for conducting the environmental review, including such tasks as writing the project narrative, obtaining maps of the project area, soliciting comment from appropriate local, state and federal agencies, and facilitating responses to comments received on the environmental findings; and

WHEREAS, in order to expedite the various projects and programs, it is necessary to designate the Certified Officer and approve the City Manager’s designation of an Environmental Officer so there is a cohesive process in place for the City to receive funding for the Programs.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above referenced “Whereas” clauses are true and correct and made a part of this Resolution.

Section 2. The City Commission hereby designates the City Manager as the Certifying Officer to assume responsibility for certifying that all environmental requirements have been followed and to execute all documents related to such certifications.

Section 3. The City Commission hereby authorizes the City Manager to designate an Environmental Officer to oversee environmental review tasks pursuant to 24 CFR Part 58 of the Code of Federal Regulations.

Section 4. The appropriate City officials are authorized to do all things necessary and expedient to carry out the aims of this Resolution.

Section 5. This Resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2024.

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK

CHAPTER 15: ENVIRONMENTAL REVIEW

CHAPTER PURPOSE & CONTENTS

This chapter provides grantees with general information on environmental review. The chapter will provide an overview of the applicable regulations, responsibilities, guidance on classifying the activity and the appropriate level of review. Grantees must consult the regulations (cited within this chapter) and their HUD Environmental Representative for more detailed guidance than this chapter can provide.

SECTION	TOPIC
15.1	Overview of Environmental Requirements

15.1 Overview of the Environmental Requirements

15.1.1 Background and Applicable Regulations

The purpose of the environmental review process is to analyze the effect a proposed project will have on the people and the natural environment within a designated project area and the effect the material and social environment may have on a project.

Grantees who receive CDBG funds are considered responsible entities and must complete an environmental review of all project activities prior to obligating CDBG funds. This requirement also applies to projects funded with CDBG generated program income.

The HUD rules and regulations that govern the environmental review process can be found at 24 CFR Part 58.

The provisions of the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations in 40 CFR Parts 1500 through 1508 also apply. In addition, a myriad of other Federal and state laws and regulations (some of which are enforced by State agencies) also apply depending upon the type of project and the level of review required.

The following is a summary of applicable statutory and regulatory cites and other reference materials available from HUD:

Key Topics in This Section: Applicable environmental rules, Legal responsibilities, Triggering actions, Classifying the activity

Regulatory/Statutory Citations: 24 CFR Part 58, §570.604, 40 CFR Part 1500-1508

Other Reference Materials on This Topic HUD's Office of Environment and Energy: <http://www.hud.gov/offices/cpd/environment/> , HUD's Environmental Review Requirements: <http://www.hud.gov/offices/cpd/environment/review/> HUD's Frequently Asked Environmental Questions and Answers: <http://www.hud.gov/offices/cpd/environment/library/>, CPD Notice 02-07

15.1.2 The Responsible Entity & Official Designations

Under 24 CFR Part 58, the term “responsible entity” (RE) means the grantee receiving CDBG assistance. The responsible entity must complete the environmental review process. The RE is responsible for ensuring compliance with NEPA and the Federal laws and authorities has been achieved, for issuing the public notification, for submitting the request for release of funds and certification, when required, and for ensuring the Environmental Review Record (ERR) is complete.

In order to fulfill its obligations under 24 CFR Part 58, the RE should designate two responsible parties:

Certifying Officer: The responsible entity must designate a Certifying Officer -- the “responsible Federal official” -- to ensure compliance with the National Environmental Policy Act (NEPA) and the Federal laws and authorities cited at section 58.5 has been achieved. This person is the chief elected official, chief executive official, or other official designated by formal resolution of the governing body. The certifying officer must have the authority to assume legal responsibility for certifying that all environmental requirements have been followed. This function may not be assumed by administering agencies or consultants.

Environmental Officer: The funding recipient should also designate an Environmental Officer. The Environmental Officer is responsible for conducting the environmental review including such tasks as: writing the project narrative, obtaining maps of the project area, soliciting comments from appropriate local, state and federal agencies, and facilitating responses to comments received on the environmental findings.

15.1.3 Environmental Review Record

Each responsible entity must prepare and maintain a written record of the environmental review undertaken for each project. This written record or file is called the Environmental Review Record (ERR), and it must be available for public review upon request.

The ERR shall contain all the environmental review documents, public notices (and proof of their publication), and written determinations or environmental findings required by 24 CFR Part 58 as evidence of review, decision making and actions pertaining to a particular project. The document shall:

- Describe the project and each of the activities comprising the project, regardless of individual activity funding source; and

- Evaluate the effects of the project or the activities on the human environment;

- Document compliance with applicable statutes and authorities; and

- Record the written determinations and other review findings required by 24 CFR Part 58.

The ERR will vary in length and content depending upon the level of review required for the categories of activities.

Public comments, concerns and appropriate resolution by the recipient are extremely important and must be fully documented in the ERR.

15.1.4 Actions Triggering Environmental Review and Limitations Pending Clearance

According to the NEPA (40 CFR 1500-1508) and Part 58, the responsible entity is required to ensure that environmental information is available before decisions are made and before actions are taken. In order to achieve this objective, Part 58 prohibits the commitment or expenditure of CDBG funds until the environmental review process has been completed and, if required, the grantee receives a release of funds.

Grantees may not spend either public or private funds (CDBG, other Federal or non-Federal funds), or execute a legally binding agreement for property acquisition, rehabilitation, conversion, repair or construction pertaining to a specific site until environmental clearance has been achieved.

Grantees must avoid any and all actions that would preclude the selection of alternative choices before a final decision is made – that decision being based upon an understanding of the environmental consequences and actions that can protect, restore and enhance the human environment (i.e., the natural, physical, social and economic environment).

Activities that have physical impacts or which limit the choice of alternatives cannot be undertaken, even with the grantee or other project participant's own funds, prior to obtaining environmental clearance.

For the purposes of the environmental review process, "commitment of funds" includes:

Execution of a legally binding agreement (such as a property purchase or construction contract);

Expenditure of CDBG funds;

Use of non-CDBG funds on actions that would have an adverse impact--- e.g., demolition, dredging, filling, excavating; and

Use of non-CDBG funds on actions that would be "choice limiting"--- e.g., acquisition of real property; leasing property; rehabilitation, demolition, construction of buildings or structures; relocating buildings or structures, conversion of land or buildings/structures.

It is acceptable for grantees to execute non-legally binding agreements prior to completion of the environmental review process. A non-legally binding agreement contains stipulations that ensure the project participant does not have a legal claim to any amount of CDBG funds to be used for the specific project or site until the environmental review process is satisfactorily completed.

15.1.5 Classifying the Activity and Conducting the Appropriate Level of Review

To begin the environmental review process, funding recipients must first determine the environmental classification of the project. The term "project" can be defined as an activity or group of activities geographically, functionally, or integrally related, regardless of funding source, to be undertaken by the CDBG recipient, subrecipient, or a public or private entity in whole or in part to accomplish a specific objective.

Chapter 15: Environmental Review

If various project activities have different classifications, the recipient must follow the review steps required for the most stringent classification.

The four environmental classifications are:

- Exempt Activities,
- Categorically Excluded Activities,
- Activities Requiring an Environment Assessment, or
- Activities Requiring an Environmental Impact Statement.

Regardless of the number of activities associated with a project, a single environmental review is required. Aggregating related activities ensures the recipient adequately addresses and analyzes the separate and combined impacts of a proposed project.

15.1.6 Exempt Activities

Certain activities are by their nature highly unlikely to have any direct impact on the environment. Accordingly, these activities are not subject to most of the procedural requirements of environmental review.

Listed below are examples which may be exempt from environmental review. For complete details refer to the environmental regulations.

- Environmental and other studies;
- Information and financial services;
- Administrative and management activities;
- Engineering and design costs;
- Interim assistance (emergency) activities if the assisted activities do not alter environmental conditions and are for temporary or permanent improvements limited to protection, repair or restoration actions necessary only to control or arrest the effects of disasters or imminent threats to public safety or those resulting from physical deterioration;
- Public service activities that will not have a physical impact or result in any physical changes;
- Inspections and testing of properties for hazards or defects;
- Purchase of tools or insurance;
- Technical assistance or training;
- Payment of principal and interest on loans made or guaranteed by HUD; and
- Any of the categorically excluded activities subject to Part 58.5 (as listed in 58.35(a)) provided there are no circumstances which require compliance with any other Federal laws and authorities listed at Part 58.5 of the regulations. Refer to the section below on categorically excluded activities subject to Part 58.5.

If a project is determined to be exempt the responsible entity is required to document in writing that the project is exempt and meets the conditions for exemption as spelled out in § 58.34.

In addition to making a written determination of exemption, the RE must also determine whether any of the requirements of 24 CFR Part § 58.6 are applicable and address as appropriate.

The requirements at 24 CFR § 58.6 include the Flood Disaster Protection Act; the Coastal Barriers Resources Act; and HUD's requirement for disclosure of properties located in airport runway clear zones.

15.1.7 Categorically Excluded Activities

Categorically Excluded Activities not Subject to 58.5

The following activities, listed at 24 CFR Part 58.35(b), have been determined to be categorically excluded from NEPA requirements and are not subject to Section 58.5 compliance determinations.

Tenant based rental assistance;

Supportive services including but not limited to health care, housing services, permanent housing placement, short term payments for rent/mortgage/utility costs, and assistance in gaining access to local State and Federal government services and services;

Operating costs including maintenance, security, operation, utilities, furnishings, equipment, supplies, staff training, recruitment, and other incidental costs;

Economic development activities including but not limited to equipment purchase, inventory financing, interest subsidy, operating expenses and similar costs not associated with construction or expansion of existing operations;

Activities to assist homebuyers to purchase existing dwelling units or dwelling units under construction such as closing costs, down payment assistance, interest buy downs and similar activities that result in the transfer of title to a property; and

Affordable housing predevelopment costs with NO physical impact such as legal, consulting, developer and other costs related to obtaining site options, project financing, administrative costs and fees for loan commitments, zoning approvals, and other related activities which do not have a physical impact.

To complete environmental requirements for Categorically Excluded projects not Subject to 24 CFR Part § 58.5, the responsible entity must take the following steps:

Make a finding of Categorical Exclusion not Subject to § 58.5 and put in the ERR.

The ERR must contain a written determination of the RE's finding that a given activity or program is categorically excluded not subject to § 58.5. When these kinds of activities are undertaken, the RE does not have to issue a public notice or submit a request for release of funds (RROF) to HUD.

In order to document the finding of categorical exclusion not subject to §58.5. The RE must cite the applicable subsection of § 58.35(b), identify and describe the specific activity or activities, and provide information about the estimated amount of CDBG or other funds to be used.

Carry out any applicable requirements of 24 CFR Part § 58.6 and document the ERR as appropriate.

The RE must determine whether the activity triggers any of the other requirements at 24 CFR 58.6, which are: the Flood Disaster Protection Act; the Coastal Barriers Resources Act; and HUD's requirement for disclosure of properties located in airport runway clear zones.

Categorically Excluded Activities Subject to 58.5

The list of categorically excluded activities is found at 24 CFR Part 58.35. While the activities listed in 58.35(a) are categorically excluded from NEPA requirements, the grantee must nevertheless demonstrate compliance with the laws, authorities and Executive Orders listed in 58.5.

The following are categorically excluded activities subject to 58.5:

Acquisition, repair, improvement, reconstruction, or rehabilitation of public facilities and improvements (other than buildings) when the facilities and improvements are in place and will be retained in the same use without change in size, or capacity of more than 20 percent.

Special projects directed toward the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and disabled persons.

Rehabilitation of buildings and improvements when the following conditions are met:

For residential properties with one to four units:

The density is not increased beyond four units;

The land use is not changed; and

If the building is located in a floodplain or in a wetland, the footprint of the building is not increased.

For multi-family residential buildings (with more than four units):

Unit density is not changed more than 20 percent;

The project does not involve changes in land use from residential to non-residential; and

The estimated cost of rehabilitation is less than 75 percent of the total estimated replacement cost after rehabilitation.

For non-residential structures including commercial, industrial and public buildings:

The facilities and improvements are in place and will not be changed in size or capacity by more than 20 percent; and

The activity does not involve a change in land use, e.g. from commercial to industrial, from non-residential to residential, or from one industrial use to another.

An individual action on up to four-family dwelling where there is a maximum of four units on any one site. "*Individual action*" refers to new construction, development, demolition, acquisition, disposition or refinancing (does not include rehabilitation which is covered previously). The units can be four one-unit buildings or one four-unit building or any combination in between;

Chapter 15: Environmental Review

An individual action on a project of five or more housing units developed on scattered sites when the sites are more than 2,000 feet apart and there are not more than four housing units on any one site;

Acquisition (including leasing) or disposition of or equity loans on an existing structure, or acquisition (including leasing) of vacant land provided that the structure or land acquired, financed, or disposed of will be retained for the same use.

Combinations of the above activities.

The ERR must contain a written determination of the RE's finding that a given activity or program is categorically excluded subject to § 58.5. This determination should:

Include a description of the project (including all the related activities, even though HOME funds may not be used for all of them);

Cite the applicable subsection of § 58.35(a);

Provide the total estimated project cost; and

Provide written documentation as to whether or not there were any circumstances which required compliance with any of the Federal laws and authorities cited in §58.5.

The RE must use the HUD recommended Statutory Checklist, or an equivalent format, to document its environmental findings. (Contact the HUD Environmental Representative for a copy of the most current version of the checklist and instructions for its completion.)

The RE's documentation must support its determinations related to compliance with the Federal laws and authorities cited in §58.5, including correspondence with the applicable agencies having jurisdiction over the various areas on the checklist.

Upon completion of the checklist, the RE will make one of three environmental findings:

The project converts to exempt [§ 58.34(a)(12)];

The project invokes compliance with one or more of the laws and/or authorities and, therefore, requires public notification and approval from HUD; or

The unusual circumstances of the project may result in a significant environmental impact and, therefore, compliance with NEPA is required.

If upon completing the Statutory Checklist, the RE determines compliance is required for one or more of the Federal laws and authorities listed in § 58.5, then the RE must publish or post a public notification known as the Notice of Intent to Request Release of Funds (NOI/RROF).

After the seven-day comment period has elapsed, the responsible entity must prepare the Request for Release of Funds (RROF) and Environmental Certification. The Environmental Certification certifies that the RE is in compliance with all the environmental review requirements. The RROF and Certification must be signed by the Certifying Officer and submitted to HUD. The RE must receive the release of funds from HUD before proceeding forward with the project.

15.1.8 Activities Requiring an Environmental Assessment

Activities which are neither exempt nor categorically excluded (under either category) will require an environmental assessment (EA) documenting compliance with NEPA, HUD and with the environmental requirements of other applicable Federal laws.

Chapter 15: Environmental Review

The responsible entity must take the following steps to complete environmental requirements for projects requiring an environmental assessment:

Complete the Modified Format II: Environmental Assessment form completely. The responsible entity must ensure that reliable documentation sources are cited for every item on this assessment checklist. The grantee's HUD Environmental Representative can provide detailed guidance on the Modified Format II, including appropriate documentation for each area of the checklists.

Once the Format II has been completed, including consultation with applicable agencies and persons, the grantee must make a determination as to whether the project will or will not have a significant impact on the environment. This can be done once the review has been completed and any comments have been addressed appropriately. The Responsible Entity must select one of the following two findings/determinations:

The project is not an action that significantly affects the quality of the human environment and, therefore, does not require the preparation of an environmental impact statement; or

The project is an action that significantly affects the quality of the human environment and, therefore, requires the preparation of an environmental impact statement. Both the finding and the environmental assessment must be signed by your environmental certifying officer and included in the ERR.

In most instances, the environmental assessment will result in a finding that the project is not an action that significantly affects the quality of the environment and, therefore, does not require an environmental impact statement. If this is the case, the responsible entity must complete the following:

Publish and distribute a public notice called a Combined/Concurrent Notice of Finding of No Significant Impact (FONSI) and Notice of Intent to Request Release of Funds (NOI/RROF).

The RROF and Environmental Certification must be submitted to HUD no sooner than 16 days after publishing the combined/concurrent notice. The Certification must be signed by the Certifying Officer of the jurisdiction.

HUD must hold the Release of Funds for a 15-day period to allow for public comment. If no comments are received during this time, HUD will send back a signed Release of Funds and the project may proceed.

If the environmental assessment will result in a finding that the project will significantly affect the environment and, therefore, requires an environmental impact statement, the grantee should contact its HUD Environmental Representative for guidance.

15.1.9 Environmental Impact Statement

An Environmental Impact Statement (EIS) details the recipient's final analyses and conclusions, according to NEPA, related to potential significant environmental impact of the project. Recipients must follow prescribed steps in the course of preparation, filing and review of an Environmental Impact Statement (See 24 CFR 58, Subpart G, and 40 CFR 1500-1508).

An EIS may be required when:

Chapter 15: Environmental Review

The project is so large that it triggers density thresholds, and common sense suggests it may have a substantial environmental impact.

A Finding of Significant Impact (FOSI) is found as a result of completing an environmental assessment for the project.

Preparation of an EIS is mandatory if the project meets any of these requirements below:

Any project to provide a site or sites for hospitals and nursing homes with a total of at least 2,500 beds.

Any project to remove, destroy, convert or substantially rehabilitate at least 2,500 existing housing units.

Any project to construct, install or provide sites for at least 2,500 housing units.

Any project to provide water and sewer capacity for at least 2,500 housing units.

Any project that exceeds the 2,500-unit threshold for nonresidential housing construction.

EISs are very rare under the CDBG program. Contact your HUD Environmental Officer if there is any indication an EIS may be necessary.



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-40

Agenda Date: 2/6/2024

Status: CONSENT - AGREEMENTS &
EXPENDITURE REQUESTS

In Control: City Commission

Title

Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the First Amendment to the Facility Use and Grant Agreement and Renewal Agreement with DPR Enrichment Association for Academics and Athletics, Inc. to include 7 on 7 football; ratifying execution of the First Amendment; providing for implementation and an effective date.

Recommended Action

Commission to vote on Resolution

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Fiscal Impact

Costs: No Additional Cost

Account Name: Athletic Program Supplement

Account Number: 001-7025-572-39-14

Background/History

DPR Youth Enrichment Association for Academics and Athletics, Inc., (the "Packer Rattlers") is a Florida not-for-profit corporation that provides youth football, cheerleading and academic support programs for youth ages 4 to 14 years old (the "Youth Programs"). The Packer Rattlers have become a member of the Florida Elite South Region and the South Region is launching a 7on7 football league. For the 2024 football/cheerleading season, the Packer Rattlers are requesting to add a 7on7 program, Florida Elite South Region, no contact off-season training and competition football program at no additional cost to the City to continue to grow and enhance the existing program offerings.

Current Activity

The existing facility use and grant agreement and renewal agreement, permits Packer Rattlers to administer tackle football and cheerleading athletic programs. The 7on7 program within the Packer Rattlers organization is an initiative that aims to enrich and expand the current program further, fostering growth and skill development among the participants.

To implement and facilitate this additional program, Packer Rattlers will be requiring a \$50 registration fee. This fee will play a crucial role in fundraising efforts, ensuring the sustainability and success of the 7on7 program.

In order to include the 7on7 program an amendment to the existing agreement and renewal agreement are required. Based on the current agreement approved by the Commission, the City is providing the DPR with \$46,451.16, for the existing program, with \$11,451.16 from that going towards past-due invoices. The proposed revision for the 7 on 7 program will not require any additional

contributions from the City.

Recommendation

City staff recommends approving the First Amendment to the Facility Use and Grant Agreement and Renewal Agreement, to incorporate the 7on7 Program.

RESOLUTION NO. 2024/

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, APPROVING THE FIRST AMENDMENT TO THE FACILITY USE AND GRANT AGREEMENT AND RENEWAL AGREEMENT WITH DPR ENRICHMENT ASSOCIATION FOR ACADEMICS AND ATHLETICS, INC. TO INCLUDE 7 ON 7 FOOTBALL; RATIFYING EXECUTION OF THE FIRST AMENDMENT; PROVIDING FOR IMPLEMENTATION AND AN EFFECTIVE DATE

WHEREAS, the City of Deerfield Beach (the “City”) and DPR Youth Enrichment Association for Academics and Athletics, Inc. (the “Packer Rattlers”) entered into a Facility Use and Grant Agreement dated April 25, 2023 (the “Grant Agreement”) for Packer Rattlers to provide youth football, cheerleading, and academic support programs for youth ages 4 to 14 years old (the “Youth Programs”); and

WHEREAS, pursuant to the Grant Agreement, the Packer Rattlers requested a renewal of the Grant Agreement, and the City Manager extended the term of the Agreement commencing on January 1, 2024 and expiring on December 31, 2025, and a renewal agreement (the “Renewal”) was executed on January 4, 2024 (collectively, the “Grant Agreement” and “Renewal” are the “Agreement”); and

WHEREAS, on December 12, 2023, the City Commission adopted Resolution No. 2023/202 approving an award of a Community Participation Grant to the Packer Rattlers in the amount of \$46,451.16, with \$11,451.16 of the funding allocated to the outstanding FY 2023 invoice expenses; and

WHEREAS, the Packer Rattlers recently notified the City that it has become a member of the Florida Elite South Region and the South Region is launching a 7on7 league, which the Packer Rattlers desires to participate in and include in its Football Program under the Agreement with games tentatively scheduled in February, 2024; and

WHEREAS, in order to ensure that Packers Rattlers could participate in the 7on7 Program, and to coordinate the use of facilities for this program, a First Amendment to the Agreement (the “Amendment”), attached as Exhibit “1”, to include the 7 on 7 football in the Agreement has been executed by the City Manager and the Packer Rattlers; and

WHEREAS, the City Commission finds it to be in the best interests of the City to approve and ratify execution of the Amendment with the Packer Rattlers, attached as Exhibit “1.”

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above referenced “Whereas” clauses are true and correct and made a part of this Resolution.

Section 2. The City Commission hereby approves the Amendment with Packer Rattlers, attached as Exhibit “1”.

Section 3. The City Commission hereby ratifies the City Manager’s execution of the Amendment, attached as Exhibit “1.”

Section 4. The appropriate City officials are authorized to do all things necessary and expedient to carry out the aims of this Resolution.

Section 5. This Resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2024.

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK

FIRST AMENDMENT TO THE FACILITY USE AND GRANT AGREEMENT AND RENEWAL AGREEMENT BETWEEN THE CITY OF DEERFIELD BEACH, FLORIDA AND DPR ENRICHMENT ASSOCIATION FOR ACADEMICS AND ATHLETICS, INC.

THIS FIRST AMENDMENT (the "Amendment") to the Facility Use And Grant Agreement dated April 25, 2023 (the "Agreement") and the Renewal Agreement dated January 4, 2024 (the "Renewal"), is made and entered into this 21st day of January, 2024, by and between the City of Deerfield Beach, a municipal corporation of the State of Florida (the "City") and DPR Youth Enrichment Association For Academics & Athletics, Inc., a Florida not-for-profit corporation ("Licensee").

RECITALS

WHEREAS, the City and Licensee entered into a Facility Use and Grant Agreement dated April 25, 2023, for Licensee to provide Youth Football, Cheerleading, and Academic Support Programs (the "Programs") within the City and receive a Community Participation Grant related to the Programs pursuant to Resolution No. 2023/069; and

WHEREAS, in accordance with the Agreement, a Renewal for the Agreement was executed by the parties for a one-year term; and

WHEREAS, on December 12, 2023, the City Commission adopted Resolution No. 2023/202 approving the award of a Community Participation Grant in the amount of \$46,451.16 for the Programs subject to the terms and conditions of the Agreement, with \$11,451.16 of the funding allocated to outstanding Fiscal Year 2023 invoice expenses; and

WHEREAS, Licensee has notified the City that it has become a member of the Florida Elite South Region and the South Region is launching a 7on7 league, which Licensee desires to include in its Football Program under the Agreement; and

WHEREAS, the parties have determined that Exhibit "A" to the Agreement needs to be revised to add the 7on7 program in accordance with the terms and conditions of the Agreement and Renewal.

NOW, THEREFORE, in consideration of the promises and mutual covenants hereinafter contained, the parties do hereby amend the Agreement and Renewal as follows:

1. The above recitals are true and correct and are hereby incorporated herein by reference.

2. Exhibit "A" entitled Scope of Services of the Agreement and Renewal is hereby replaced with the attached Exhibit "A-1" which is incorporated herein by reference for the remaining term of the Agreement, effective January 1, 2024 and expiring on December 31, 2024.
3. The parties hereby agree that there shall be no additional grant funding for the 7on7 Program and the expense for said program is included in the grant funding set forth in Section 2 of the Renewal Agreement. Licensee has acknowledged and stated that Licensee will be charging participants of this program a \$50 registration fee.
4. Licensee hereby agrees that the 7on7 program is subject to all of the requirements of the Agreement and the Renewal and use of the fields for such purposes is subject to availability of the fields in accordance with the Agreement.
5. Prior to or upon execution of this Amendment, Licensee shall provide City the required Certificate of Insurance and all background checks for the 7on7 program that are required in accordance with the terms and conditions of the Agreement.
6. That all terms, provisions and conditions of the Agreement and the Renewal shall remain unchanged and in full force and effect, except as expressly amended in this Amendment.

IN WITNESS WHEREOF, the parties hereto have made and executed this First Amendment on the date first written above under the following signatures:

CITY OF DEERFIELD BEACH,
a municipal corporation of the
State of Florida

ATTEST:

By: _____
David Santucci, City Manager

Date: _____

Heather Montemayor, CMC
City Clerk

Approved As To Form And Legal
Sufficiency for the use and reliance
of the City of Deerfield Beach, FL.,
only.

Anthony C. Soroka, City Attorney

Licensee

Tyrone Philpart
Tyrone Philpart, President

Date: 1-21-24

Witness: Tammy Smith

EXHIBIT "A-1"
SCOPE OF SERVICES

Licensee shall administer tackle football and cheerleading athletic programs at the Permitted Area in accordance with all applicable laws, policies, rules and regulations.

In addition, Licensee shall administer the 7on7 Florida Elite South Region no contact off season training and competition football program at the Permitted Area in accordance with all applicable laws, policies, rules and regulations.



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-19

Agenda Date: 2/6/2024

Status: CONSENT - AGREEMENTS &
EXPENDITURE REQUESTS

In Control: City Commission

Title

Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving a work authorization with McKim & Creed, Inc. to provide professional engineering services related to the Wastewater Collection System Radio Communication Replacement Project in an amount not to exceed \$45,221.00; providing for execution and an effective date. (Fund from Account #401-5030-53-63-099 - Other Professional Services)

Recommended Action

Commission to vote on Resolution

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Fiscal Impact

Costs: \$45,221.00

Account Name: Other Professional Services

Account Number: 401-5030-53-63-099

Background/History

The City of Deerfield Beach waste water collection system consists of seventy-eight (78) remote lift stations. In November 2023, the City experienced communication issues at one of the stations. Upon further investigation by instrumentation and control staff, it was determined that the radio was no longer sending or receiving information and would need replacement. After contacting our radio vendor for an in-kind replacement radio, we were informed that the current radios are obsolete and are no longer supported.

Pursuant to Request for Qualifications #2021-11-IG and Section 287.055, Florida Statutes, the City entered into multiple continuing service contracts with qualified firms for the provision of professional architectural and engineering consulting services on an as needed basis, including a contract with McKim and Creed, Inc. ("McKim") dated April 12, 2021. The Department of Environmental Services staff contacted McKim to submit a proposal to assist the City in transitioning between the old radio system and a new one consistent with the system being implemented for the water plant. Considering the number of radios within the overall collection system, staff has to be strategic in budgeting for replacements to maintain the current system and a new radio system working in parallel until all radios can be replaced. McKim will help design and commission a system that will run in parallel with the old system, allowing operations to use both at the same time. By running concurrent operations, this will permit financing for these replacements over multiple years. An added benefit to the new systems is they permit two modes of communication, radio and cellular, which provides for greater sustainability during emergencies like severe weather events.

Current Activity

The Department of Environmental Services staff requested and received a proposal from McKim to migrate from the existing radio communication system between the wastewater collections systems master radio and remote lift stations. McKim services will include design, programming, commissioning, training, and operation & maintenance manuals for a single master/remote radio system. The City will then migrate all existing lift station radios to this new system, on an as-needed basis as the older radios fail. Concurrently, the City is in the process of replacing the radio communication system at the West water treatment plant due to recent radio failures and obsolescence. To ensure consistency and continuity in operations, it is in the City's interest to replace the failed radio at the lift station and future sites with a similar radio system to that being specified for the water treatment plant.

Recommendation

It is recommended that the City Commission approve the work authorization for professional engineering services with McKim and Creed for the waste water collection system radio replacement project, in an amount not to exceed \$45,221.00 in accordance with the master CCNA continuing services contract, dated April 12, 2021 and the Work Authorization.

RESOLUTION NO. 2024/

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, APPROVING A WORK AUTHORIZATION WITH MCKIM & CREED, INC. TO PROVIDE PROFESSIONAL ENGINEERING SERVICES RELATED TO THE WASTEWATER COLLECTION SYSTEM RADIO COMMUNICATION REPLACEMENT PROJECT IN AN AMOUNT NOT TO EXCEED \$45,221.00; PROVIDING FOR EXECUTION AND AN EFFECTIVE DATE

WHEREAS, the City's wastewater collection system consists of 78 remote lift stations that operate through a radio communication system, and the City's current radio vendor advised that the existing radios are obsolete and no longer supportable; and

WHEREAS, the City is in the process of replacing the radio communication system at the West Water Treatment Plant; and

WHEREAS, to ensure consistency and continuity in operation, City staff has determined that it is in the City's best interest to replace the failed radios at the lift station and future sites with a similar radio system to the system being implemented at the West Water Treatment Plant; and

WHEREAS, pursuant to Request for Qualifications #2021-11-IG (the "RFQ") and Section 287.055, Florida Statutes, the City entered into multiple continuing service contracts with qualified firms for the provision of professional architectural and engineering consulting services on an as needed basis, including a continuing contract with McKim & Creed, Inc. ("McKim") dated April 12, 2021 (the "Continuing Contract"); and

WHEREAS, the Department of Environmental Services (the "Department") requested a proposal from McKim to provide professional engineering services (the "Services") for the design, programming, commissioning, training, and operation and maintenance manuals for a single master/remote radio system, which will enable the City to migrate all existing lift station radios to the new system, on an as-needed basis as the older radios become inoperable; and

WHEREAS, McKim submitted its proposal to the Department and the Department negotiated the project scope and fee for the Services in the amount of \$45,221.00 with McKim, which staff has determined to be fair and reasonable and in accordance with industry standards; and

WHEREAS, the City desires to issue a Work Authorization to McKim under the terms and conditions of the Continuing Contract and the proposal attached as Exhibit "1" to the Work Authorization, in an amount not to exceed \$45,221.00; and

WHEREAS, staff recommends the City Commission approve and authorize execution of the Work Authorization with McKim, attached as Exhibit "1", in an amount not to exceed

\$45,221.00.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above referenced “Whereas” clauses are true and correct and made a part of this Resolution.

Section 2. The City Commission hereby approves the Work Authorization with McKim, attached as Exhibit “1”, for the Services in an amount not to exceed \$45,221.00.

Section 3. The City Manager is hereby authorized to execute the Work Authorization with McKim, attached as Exhibit “1”, consistent with the terms of the Continuing Contract, together with such additional terms as are acceptable to the City Manager and approved as to form and legal sufficiency by the City Attorney.

Section 4. The appropriate City officials are authorized to take all necessary steps to implement the aims of this Resolution.

Section 5. This Resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2024.

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK

WORK AUTHORIZATION BETWEEN THE CITY OF DEERFIELD BEACH AND MCKIM AND CREED, INC. FOR ENGINEERING SERVICES RELATED TO THE WASTEWATER RADIO COMMUNICATION SYSTEM REPLACEMENT PROJECT

This Work Authorization is entered into this ____ day of _____, 2024, by and between City of Deerfield Beach, Florida, a municipal corporation of the State of Florida, (the “City”) and McKim & Creed, Inc., a Florida corporation authorized to do business in the State of Florida, (the “Consultant”).

RECITALS

WHEREAS, the City and the Consultant entered into a master CCNA continuing services contract dated April 12, 2021 pursuant to RFQ #21-11-IG, (the “Continuing Contract”) and Consultant has been approved to provide the services contemplated herein; and,

WHEREAS, the City and the Consultant desire to enter into this Work Authorization for the Consultant to perform professional engineering services as more specifically set forth in Exhibit “A” of this Work Authorization .

NOW, THEREFORE, in consideration of the mutual terms and conditions, promises, and covenants, hereinafter set forth, City and Consultant agree as follows:

SECTION 1
RECITALS

The above recitals are acknowledged and incorporated herein to this Work Authorization.

SECTION 2
SCOPE OF SERVICES

Consultant agrees to perform certain professional engineering services for the City, as more specifically described in the Scope of Services attached as Exhibit “A” to this Work Authorization (the “Services”), and in accordance with the terms and conditions set forth herein and in the Continuing Contract, of which by this reference are incorporated into this Work Authorization in its entirety during the Term and within the timeline provided for in this Work Authorization.

SECTION 3
COMPENSATION

In consideration for the Services to be performed by Consultant, the City agrees to pay Consultant an amount not-to-exceed \$45,221.00 as further detailed in Exhibit “A”. Compensation due to the Consultant shall be payable within 30 calendar days

Work Authorization (Template April 2023)

following submission of a proper invoice by the Consultant to the City. In the event of City's termination of this Work Authorization prior to the end of the Work Authorization Term pursuant to Section 5, City shall pay Consultant on a pro-rata basis for the Services performed by Consultant prior to the City's termination of this Work Authorization.

SECTION 4

TERM OF WORK AUTHORIZATION

The term of this Work Authorization shall commence upon the date of execution hereof and shall remain in effect until the Services are completed to the City's satisfaction (the "Term"), unless terminated earlier pursuant to Section 5 of this Work Authorization.

SECTION 5

TERMINATION OF WORK AUTHORIZATION

City may terminate this Work Authorization for convenience by giving the Consultant 30 days' advance written notice. The termination of this Work Authorization shall not relieve either party of any liability that accrued prior to such termination and any such accrued liability shall survive the termination of this Work Authorization.

SECTION 6

CONTINUING CONTRACT

The Services to be provided by Consultant pursuant to this Work Authorization shall comply with all of the terms and conditions set forth in the Continuing Contract between City and Consultant, which by this reference is incorporated into this Work Authorization in its entirety. In the event there is a conflict between the terms of this Work Authorization and the Continuing Contract, the terms of the Continuing Contract shall prevail.

SECTION 7

INDEPENDENT CONSULTANT

Consultant is an independent Consultant under this Work Authorization. Services provided by Consultant shall be by employees or sub-consultants of Consultant and subject to supervision by Consultant, and not as officers, employees or agents of the City. Personnel policies, tax responsibilities, social security, health insurance, employee benefits, travel, per diem policy, and purchasing policies under the Work Authorization shall be the sole responsibility of Consultant. Consultant shall have no rights under the City's worker's compensation, employment, insurance benefits or similar laws or benefits.

SECTION 8
INDEMNIFICATION / HOLD HARMLESS CLAUSE

Consultant shall indemnify and hold harmless City, its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness or intentionally wrongful conduct of Consultant, and other persons employed or utilized by Consultant in the performance of this Work Authorization. The provisions of this section shall survive the expiration or earlier termination of this Work Authorization. To the extent considered necessary by Contract Administrator and City Manager, any sums due Consultant under this Work Authorization may be retained by City until all of City's claims for indemnification pursuant to this Work Authorization and the Services provided have been settled or otherwise resolved, and any amount withheld shall not be subject to payment of interest by City. Nothing in this Work Authorization or the Continuing Contract shall be deemed or treated as a waiver by the City of any immunity which it is entitled by law, including but not limited to the City's sovereign immunity as set forth in Section 768.28, Florida Statutes.

SECTION 9
INSURANCE

9.1 The CONSULTANT shall satisfy the insurance requirements stated herein. The CONSULTANT shall not commence the work or otherwise perform the work as required by the applicable Work Authorization and/or Notice to Proceed until the requirements stated herein are met and the Certificate(s) of Insurance is approved by the CITY. The CONSULTANT shall assume full responsibility and expense to obtain all necessary insurance.

9.2 General

9.2.1 The CONSULTANT shall furnish to the Contract Administrator a Certificate of Insurance or endorsements evidencing the insurance coverage specified herein within fifteen (15) calendar days after the effective date of this Agreement. The required Certificates of Insurance shall name the types of policies provided, refer specifically to the Agreement, and state that such insurance is as required by this Contract. CONSULTANT's failure to provide to CITY the Certificates of Insurance or endorsements evidencing the insurance coverage within fifteen (15) calendar days shall provide the basis for the termination of the Agreement.

9.2.2 Such policy or policies shall be without any deductible amount unless otherwise noted in this Agreement and shall be issued by approved companies authorized to do business in the State of Florida, and having agents upon whom service of process may be made in

Broward County, Florida. CONSULTANT shall pay all deductible amounts, if any. CONSULTANT shall specifically protect CITY and the Deerfield Beach City Commission by naming CITY and the Deerfield Beach City Commission as additional insured under the Commercial Liability Policy, Business Automobile Liability policy as well as on any Excess Liability Policy coverage.

9.2.3 Coverage is not to cease and is to remain in force (subject to cancellation notice) until all performance required of CONSULTANT is complete including all renewal terms. All policies must be endorsed to provide CITY with at least thirty (30) days' notice of expiration, cancellation and/or restriction. If any of the insurance coverages will expire prior to the completion of any Project, copies of renewal policies shall be furnished at least thirty (30) days prior to the date of their expiration.

9.2.4 CITY reserves the right to review and revise any insurance requirements at the time of renewal or amendment of this Contract, including, but not limited to, deductibles, limits, coverage, and endorsements based on insurance market conditions affecting the availability or affordability of coverage, or changes in the scope of work or specifications that affect the applicability of coverage. If CONSULTANT uses a Subconsultant, CONSULTANT shall ensure that Subconsultant names CITY and the Deerfield Beach City Commission as additional insured under the Commercial Liability Policy as well as on any Excess Liability Policy coverage.

9.3 CONSULTANT shall, at a minimum, provide, pay for, and maintain in force at all times during the term of this Agreement the following insurance:

Commercial Liability Insurance - A Commercial Liability Insurance Policy shall be provided which shall contain limits of no less than One Million Dollars (\$1,000,000.00) per occurrence for bodily injury liability, personal injury liability and property damage liability on a per project basis, and shall contain limits of no less than a Two Million Dollars(\$2,000,000.00) aggregate. Coverage must be afforded on a form no more restrictive than CG 20 10 10 01 and CG 20 37 10 01 Commercial Liability Policy, without restrictive endorsements, as filed by the Insurance Services Office and must include: premises and operations, independent contractors, products and/or completed operations for contracts, broad form contractual coverage applicable to this specific Contract including any hold harmless and/or indemnification Contract, personal injury coverage with employee and contractual exclusions removed and policy limits shall be applied on a primary and non-contributory basis.

Professional Liability (Errors & Omissions) Insurance - Professional Liability Insurance with the limits of liability provided by such policy for each claim and on a claim made basis or on an occurrence basis to be no less than one million Dollars (\$1,000,000) per occurrence with a limit of no less than two million dollars (\$2,000,000) aggregate with a deductible per claim not to exceed ten percent (10%) of the limit of liability. CONSULTANT shall notify the CITY in writing within thirty (30) days of any claim filed or made against its Professional Liability Insurance Policy. CONSULTANT acknowledges that the CITY is relying on the competence of the CONSULTANT to design a project to meet its functional intent. If it is determined during construction of a project that changes must be made due to CONSULTANT's negligent errors and omissions, CONSULTANT shall promptly rectify them at no cost to CITY and shall be responsible for additional costs, if any, of a project to the proportional extent caused by such negligent errors or omissions.

Business Automobile Liability - Business Automobile Liability shall be provided with minimum limits of One Million Dollars (\$1,000,000.00) per occurrence or combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must at a minimum include liability coverage symbols: 2 (owned vehicles), 8 (hired vehicles) and 9 (non-owned vehicles).

Workers Compensation Insurance - Workers' Compensation insurance to apply for all employees in compliance with Chapter 440, Florida Statutes, as may be amended from time to time, the "Workers' Compensation Law" of the State of Florida, and all applicable Federal laws. In addition, the policy(ies) must include employers' liability with a limit of One Million Dollars (\$1,000,000.00) each accident, One Million Dollars (\$1,000,000.00) aggregate limit by disease and One Million Dollars (\$1,000,000.00) each employee by disease. Additionally, if there will be operations undertaken on, about or over navigable waterways, evidence of a coverage endorsement for U.S. Longshoremen and Harbor Workers Act (USL&H), and/or Jones Act, for maritime laws coverage shall be included. The Policy shall include a waiver of subrogation for all liability arising out of this contract. If exempt for Worker's Compensation, proper documentation shall be provided.

SECTION 10

NON-APPROPRIATION OF FUNDS

In the event no funds or insufficient funds are appropriated and budgeted or are otherwise unavailable in any fiscal year for payments due under this Work Authorization, then the City, upon written notice to Consultant of such occurrence, shall have the unqualified right to terminate this Work Authorization without any penalty or expense to the City.

SECTION 11
MISCELLANEOUS

Consultant shall, without additional expense to the City, be responsible for paying any taxes, obtaining any necessary licenses and for complying with all applicable federal, state, county, and municipal laws, ordinances and regulations in connection with the performance of the Services specified herein.

SECTION 12
AUDIT AND INSPECTION RIGHTS

- 12.1 The City may, at reasonable times, and for a period of up to three (3) years following the date of final performance of Services by Consultant under this Work Authorization, audit, or cause to be audited, those books and records of Consultant that are related to Consultant's performance under this Work Authorization. Consultant agrees to maintain all such books and records at its principal place of business for a period of three (3) years after final payment is made under this Work Authorization.
- 12.2 The City may, at reasonable times during the term hereof, perform such inspections, as the City deems reasonably necessary, to determine whether the services required to be provided by Consultant under this Work Authorization conform to the terms of this Work Authorization. Consultant shall make available to the City all reasonable assistance to facilitate the performance of inspections by the City's representatives.

SECTION 13
AMENDMENTS AND ASSIGNMENT

- 13.1 This Work Authorization together with Exhibit "A" and all negotiations and oral understandings between the parties are merged herein. The terms and conditions set forth in this Work Authorization supersede any and all previous agreements, promises, negotiations or representations, except as otherwise provided in Section 5. Any other agreements, promises, negotiations or representations not expressly set forth in this Work Authorization are of no force and effect.
- 13.2 No modification, amendment or alteration of the terms and conditions contained herein shall be effective unless contained in a written document executed with the same formality as this Work Authorization.
- 13.3 Consultant shall not transfer or assign the performance of Services called for in the Work Authorization without the prior written consent of the City, which may be withheld or conditioned in the City's sole discretion.

SECTION 14 **NOTICES**

Whenever either party desires to give notice to the other, it must be given by written notice in accordance with the requirements of Notices section of the Continuing Contract.

SECTION 15 **GOVERNING LAW AND VENUE**

This Work Authorization shall be construed in accordance with, and governed by, the laws of the State of Florida. Venue for any action arising out of, or relating to this Work Authorization shall be in Broward County, Florida.

SECTION 16 **HEADINGS, CONFLICT OF PROVISIONS,** **WAIVER OR BREACH OF PROVISIONS**

Headings are for convenience of reference only and shall not be considered in any interpretation of this Work Authorization. In the event of conflict between the terms of this Work Authorization and any terms or conditions contained in any attached documents, the terms in this Work Authorization shall prevail. No waiver or breach of any provision of this Work Authorization shall constitute a waiver of any subsequent breach of the same or any other provision, and no waiver shall be effective unless made in writing.

SECTION 17 **NON-DISCRIMINATION**

Consultant represents and warrants to the City that Consultant does not and will not engage in discriminatory practices and that there shall be no discrimination in connection with Consultant's performance under this Work Authorization on account of race, age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation or any other factor which cannot be lawfully used as a basis for delivery of services. Consultant further covenants that no otherwise qualified individual shall, solely by reason of his/her race, age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation or any other factor which cannot be lawfully used as a basis for delivery of services, be excluded from participation in, be denied services, or be subject to discrimination under any provision of this Work Authorization.

SECTION 18 **PUBLIC RECORDS**

Consultant understands that the public shall have access, at all reasonable times, to all documents and information pertaining to City contracts, subject to the provisions of

Chapter 119, Florida Statutes, and agrees to allow access by the City and the public to all documents subject to disclosure under applicable law. Consultant's failure or refusal to comply with the provisions of this section shall result in the immediate termination of this Work Authorization by the City.

SECTION 19 **SEVERABILITY**

If any provision of this Work Authorization or the application thereof to any person or situation shall to any extent, be held invalid or unenforceable, the remainder of this Work Authorization, and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable shall not be affected thereby, and shall continue in full force and effect, and be enforced to the fullest extent permitted by law.

SECTION 20 **SURVIVAL**

All representations and other relevant provisions herein shall survive and thereby continue in full force and effect, upon termination of this Work Authorization.

SECTION 21 **JOINT PREPARATION**

The parties hereto acknowledge that they have sought and received whatever competent advice and counsel as was necessary for them to form a full and complete understanding of all rights and obligations herein, including the Continuing Contract, and that the preparation of this Work Authorization has been a joint effort of the parties, the language has been agreed to by parties to express their mutual intent and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

[THIS SPACE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the parties hereto have made and executed this Work Authorization on the respective dates under each signature.

CITY

CITY OF DEERFIELD BEACH, a
municipal
corporation of the State of Florida

ATTEST:

Heather Montemayor, City Clerk

Approved as to form and legal sufficiency
for the use of and reliance by the City of
Deerfield Beach only:

Anthony C. Soroka, City Attorney

By: _____
David Santucci, City Manager

This ____ day of _____, 2024.

CONSULTANT

Witness:

By: _____
Signature

Name: _____

Title: _____

This ____ day of _____, 2024.

EXHIBIT “A” SCOPE OF SERVICES

BACKGROUND

The City of Deerfield Beach is seeking a proposal to migrate a portion of the existing radio communication system between the wastewater treatment plant and remote lift stations. Upon a recent communications failure at a remote lift station, it was determined the radio has been identified as obsolete by the manufacturer and thus no replacement hardware options are available. Concurrently, the City is in the process of replacing the radio communication system at the West water treatment plant due to the same reasons. Thus, it is desired to replace the failed radio at the lift station and future sites with a similar like and kind radio system as the water treatment plant. This proposal includes the design, programming, commissioning, training, and operation & maintenance manuals for a single master/remote radio system. It is anticipated the City will migrate all existing lift station radios to this new system in the future on an as needed basis.

SCOPE OF SERVICES

A. Project management:

1. Kickoff meeting (QTY 1)
2. Coordination meeting (QTY 1)
3. Status update meeting (QTY 1)
4. QA/QC and Monthly invoicing

B. Preliminary Engineering:

1. An initial site visit will be conducted to collect information and determine hardware and installation requirements.
2. Equipment Specification: Develop a detailed specification for the hardware to be procured by the City including radios, antennas, cabling, surge protection, adapters, and power supplies.

C. Programming:

1. Remote Radio: The proposed GE MDS Orbit MCR radio has dual licensed and cellular communication functionality. The remote radio will be programmed to operate with the City's licensed frequency for the primary communications. Backup communications via cellular will be configured to automatically fail-over in the event the licensed frequency channel becomes inoperable. Future radio installations will utilize this configuration requiring only a name and IP address change.

2. Remote pump controller: The existing Multi-Smart pump controller will require reconfiguration from serial to ethernet communications. Existing tag mappings via the DNP3 protocol will remain in place.
3. Plant Radio: The plant will utilize the same GE MDS Orbit MCR radio configured to function as an access point. This will be installed independently from the existing base station radio. Thus, a new omni directional antenna, cabling, and surge protection will be required. Upon completion of the preliminary engineering task above, the material and installation requirements will be defined. The installation of the new antenna and cabling will require installation by others, it is not included within the scope of this proposal.
4. Plant VTSCADA: The access point radio will communicate directly to VTSCADA via ethernet, similar to the existing base station connection. A separate polling routine will be developed for the new radio installation. Existing tag IO structures, tag mappings, and screen graphics will be preserved.

D. Installation – start up and commissioning:

1. Remote site
 - a. Installation of the remote radio utilizing the existing antenna and cabling. The existing 24vdc power supply for the failed radio will be reused.
 - b. Cellular antenna and cabling will be installed onto the existing RTU enclosure.
2. Plant
 - a. Installation of the access point radio at a location to be determined.
 - b. An indoor cellular antenna will be installed within the vicinity of the new radio, assuming adequate cellular coverage.
 - c. Tie in new antenna cabling and surge protection.
3. Commissioning & acceptance testing
 - a. Commission the operation of the access point and remote radio communications.
 - b. Verify tags in VTSCADA
 - c. Implement acceptance testing with City staff.

E. O&M Manual and Training:

1. Deliver the final O&M manual in both digital and printed formats.
2. Develop a written procedure to add future radios onto the network
3. Conduct on-site training, providing ample opportunities for questions and clarifications. Training will be informal using the new system. Development of training materials is not included.

ASSUMPTIONS

1. Hardware to be provided by the City.
2. No PLC programming is required.
3. Radio path studies are not included. It is assumed that the location, position and height of the existing antennas is sufficient for acceptable communications.
4. Existing plant omni antenna and cabling to be re-used and not replaced.
5. The new master radio will be in a dedicated enclosure at the plant in a location to be determined. 120 VAC Power, ethernet cabling from VTSCADA, and new antenna coaxial cable by others.

SCHEDULING

1. Preliminary engineering: 2 weeks
2. Programming: 2 weeks
3. Installation – start up and commissioning: 1 week
4. O&M Manual and training: 1 week
5. Project Completion: 2 months from kick off meeting

The proposed time frame is subject to adjustment based on the final installation schedule and any unforeseen circumstances that may arise during the project.

By presenting this comprehensive proposal, we aim to provide Deerfield Beach with a cost-effective solution for the radio replacement project, ensuring successful integration.

BUDGET

We propose a lump sum budget of \$45,221.00 to cover all scope of services detailed in this proposal for the radio replacement project with the City of Deerfield Beach.



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-32

Agenda Date: 2/6/2024

Status: CONSENT - AGREEMENTS &
EXPENDITURE REQUESTS

In Control: City Commission

Title

Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving a work authorization with McKim & Creed, Inc. to provide professional engineering services related to SCADA programming and support at the West Water Treatment Plant in an amount not to exceed \$75,000.00; providing for execution and an effective date. (Fund from Account #401-5020-53-33-099 Other Professional Services)

Recommended Action

Commission to vote on Resolution

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Fiscal Impact

Costs: \$75,000.00

Account Name: Other Professional Services

Account Number: 401-5020-53-33-099

Background/History

In fiscal year 2023, the City of Deerfield Beach, West Water treatment plant began using McKim and Creed to provide engineering and programming services for our programmable logic controllers and VTSCADA systems. McKim and Creed completed several projects, which included programming for the east water treatment plants, high service pump automation, the west wellfield groundwater levels, and blending clearwell mixing unit automation. The West Water Plant has additional programming and automation needs that must be completed, in addition to emergency items that city staff are not able to fix in-house.

Current Activity

The West Water Treatment Plant currently uses programmable logic controllers (PLC) and VTSCADA software to operate the water plant. Both of these systems require continuous updates and system changes to stay up to date with current software patches and remedies. In February 2023, water plant staff began asking several subject-matter experts to come in and visit the water plant to evaluate our needs. In accordance with the City's continuing services contract (CCNA), we contacted multiple vendors. McKim and Creed was the most qualified and responsive to the various needs at the plant.

McKim and Creed will provide programming services for our reverse osmosis, nanofiltration, and lime softening plants in the form of control system designs, control system field investigation and troubleshooting, control system documentation, control system programming to include SCADA systems, human machine interfaces applications and PLC's, control systems check-out and commissioning, control systems additions, and control systems networking support. Additionally, the water plant is undergoing several large capital projects, all of which require subtle changes to

programming and logic and allow for continuous, uninterrupted water treatment.

Recommendation

It is recommended that the City Commission approve the work authorization for professional engineering and programming services with McKim and Creed for the West Water Treatment Plant PLC's and SCADA system, in an amount not to exceed \$75,000.00 in accordance with the master CCNA continuing services contract, dated April 12, 2021.

RESOLUTION NO. 2024/

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, APPROVING A WORK AUTHORIZATION WITH MCKIM & CREED, INC. TO PROVIDE PROFESSIONAL ENGINEERING SERVICES RELATED TO SCADA PROGRAMMING AND SUPPORT AT THE WEST WATER TREATMENT PLANT IN AN AMOUNT NOT TO EXCEED \$75,000.00; PROVIDING FOR EXECUTION AND AN EFFECTIVE DATE

WHEREAS, the West Water Treatment Plan currently utilizes Siemens programmable logic controllers (“PLC”) and VTSCADA software to operate the plant; and

WHEREAS, pursuant to Request for Qualifications #2021-11-IG (the “RFQ”) and Section 287.055, Florida Statutes, the City entered into multiple continuing contracts with qualified firms for the provision of professional architectural and engineering consulting services on an as needed basis, including a continuing contract with McKim & Creed, Inc. (“McKim”) dated April 12, 2021 (the “Continuing Contract”); and

WHEREAS, on June 20, 2023, the City executed a Work Authorization with McKim to provided professional engineering services related to the control system support project, which included services for the City’s programmable logic controllers (“PLC”) and the VTSCADA system, in an amount not to exceed \$10,000.00; and

WHEREAS, the West Water Treatment Plant (the “Plant”) currently has additional programming and automation needs that have to be completed as well as other emergency items that cannot be fixed in-house (collectively, the “Project”); and

WHEREAS, in February, 2023, City staff determined that due to continuous updates and system changes with current software patches and remedies, it was necessary to have several subject matter experts visit the West Water Treatment Plant and evaluate the Plant’s needs; and

WHEREAS, as McKim is familiar with the Plant, the PLC and VTSCADA system, City staff determined that McKim was the most qualified and responsive firm to address the various needs at the Plant; and

WHEREAS, the Department of Environmental Services (the “Department”) requested a proposal from McKim for the Project, which will consist of McKim providing programming services for the City’s reverse osmosis, nano filtration, and lime softening plants in the form of control system designs, control system field investigation and troubleshooting, control system documentation, control system programming to include SCADA systems, human machine interface applications and PLCs, control systems check-out and commission, control systems additions, and control systems networking support (the “Services”); and

WHEREAS, McKim submitted its proposal to the Department and the Department negotiated the project scope and fee in the amount of \$75,000.00 with McKim, which staff has determined to be fair and reasonable and in accordance with industry standards; and

WHEREAS, the City desires to issue a Work Authorization to McKim for the Services under the terms and conditions of the Continuing Contract, in an amount not to exceed \$75,000.00; and

WHEREAS, staff recommends the City Commission approve and authorize execution of the Work Authorization with McKim, attached as Exhibit "1", in an amount not to exceed \$75,000.00.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above referenced "Whereas" clauses are true and correct and made a part of this Resolution.

Section 2. The City Commission hereby approves the Work Authorization with McKim, attached as Exhibit "1", for the Services for the Project in an amount not to exceed \$75,000.00.

Section 3. The City Manager is hereby authorized to execute the Work Authorization with McKim, attached as Exhibit "1," consistent with the terms of the Continuing Contract, together with such additional terms as are acceptable to the City Manager and approved as to form and legal sufficiency by the City Attorney.

Section 4. The appropriate City officials are authorized to take all necessary steps to implement the aims of this Resolution.

Section 5. This Resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2024.

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK

WORK AUTHORIZATION BETWEEN THE CITY OF DEERFIELD BEACH AND MCKIM AND CREED, INC. FOR ENGINEERING SERVICES RELATED TO SCADA PROGRAMMING AND SUPPORT AT THE WEST WATER TREATMENT PLANT

This Work Authorization is entered into this ____ day of _____, 2024, by and between City of Deerfield Beach, Florida, a municipal corporation of the State of Florida, (the “City”) and McKim & Creed, Inc., a Florida corporation authorized to do business in the State of Florida, (the “Consultant”).

RECITALS

WHEREAS, the City and the Consultant entered into a master CCNA continuing services contract dated April 12, 2021 pursuant to RFQ #21-11-IG, (the “Continuing Contract”) and Consultant has been approved to provide the services contemplated herein; and,

WHEREAS, the City and the Consultant desire to enter into this Work Authorization for the Consultant to perform professional engineering services as more specifically set forth in Exhibit “A” of this Work Authorization .

NOW, THEREFORE, in consideration of the mutual terms and conditions, promises, and covenants, hereinafter set forth, City and Consultant agree as follows:

SECTION 1
RECITALS

The above recitals are acknowledged and incorporated herein to this Work Authorization.

SECTION 2
SCOPE OF SERVICES

Consultant agrees to perform certain professional engineering services for the City, as more specifically described in the Scope of Services attached as Exhibit “A” to this Work Authorization (the “Services”), and in accordance with the terms and conditions set forth herein and in the Continuing Contract, of which by this reference are incorporated into this Work Authorization in its entirety during the Term and within the timeline provided for in this Work Authorization.

SECTION 3
COMPENSATION

In consideration for the Services to be performed by Consultant, the City agrees to pay Consultant an amount not-to-exceed \$75,000.00 as further detailed in Exhibit “A”. Compensation due to the Consultant shall be payable within 30 calendar days

Work Authorization (Template April 2023)

following submission of a proper invoice by the Consultant to the City. In the event of City's termination of this Work Authorization prior to the end of the Work Authorization Term pursuant to Section 5, City shall pay Consultant on a pro-rata basis for the Services performed by Consultant prior to the City's termination of this Work Authorization.

SECTION 4

TERM OF WORK AUTHORIZATION

The term of this Work Authorization shall commence upon the date of execution hereof and shall remain in effect until the Services are completed to the City's satisfaction (the "Term"), unless terminated earlier pursuant to Section 5 of this Work Authorization.

SECTION 5

TERMINATION OF WORK AUTHORIZATION

City may terminate this Work Authorization for convenience by giving the Consultant 30 days' advance written notice. The termination of this Work Authorization shall not relieve either party of any liability that accrued prior to such termination and any such accrued liability shall survive the termination of this Work Authorization.

SECTION 6

CONTINUING CONTRACT

The Services to be provided by Consultant pursuant to this Work Authorization shall comply with all of the terms and conditions set forth in the Continuing Contract between City and Consultant, which by this reference is incorporated into this Work Authorization in its entirety. In the event there is a conflict between the terms of this Work Authorization and the Continuing Contract, the terms of the Continuing Contract shall prevail.

SECTION 7

INDEPENDENT CONSULTANT

Consultant is an independent Consultant under this Work Authorization. Services provided by Consultant shall be by employees or sub-consultants of Consultant and subject to supervision by Consultant, and not as officers, employees or agents of the City. Personnel policies, tax responsibilities, social security, health insurance, employee benefits, travel, per diem policy, and purchasing policies under the Work Authorization shall be the sole responsibility of Consultant. Consultant shall have no rights under the City's worker's compensation, employment, insurance benefits or similar laws or benefits.

SECTION 8
INDEMNIFICATION / HOLD HARMLESS CLAUSE

Consultant shall indemnify and hold harmless City, its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness or intentionally wrongful conduct of Consultant, and other persons employed or utilized by Consultant in the performance of this Work Authorization. The provisions of this section shall survive the expiration or earlier termination of this Work Authorization. To the extent considered necessary by Contract Administrator and City Manager, any sums due Consultant under this Work Authorization may be retained by City until all of City's claims for indemnification pursuant to this Work Authorization and the Services provided have been settled or otherwise resolved, and any amount withheld shall not be subject to payment of interest by City. Nothing in this Work Authorization or the Continuing Contract shall be deemed or treated as a waiver by the City of any immunity which it is entitled by law, including but not limited to the City's sovereign immunity as set forth in Section 768.28, Florida Statutes.

SECTION 9
INSURANCE

9.1 The CONSULTANT shall satisfy the insurance requirements stated herein. The CONSULTANT shall not commence the work or otherwise perform the work as required by the applicable Work Authorization and/or Notice to Proceed until the requirements stated herein are met and the Certificate(s) of Insurance is approved by the CITY. The CONSULTANT shall assume full responsibility and expense to obtain all necessary insurance.

9.2 General

9.2.1 The CONSULTANT shall furnish to the Contract Administrator a Certificate of Insurance or endorsements evidencing the insurance coverage specified herein within fifteen (15) calendar days after the effective date of this Agreement. The required Certificates of Insurance shall name the types of policies provided, refer specifically to the Agreement, and state that such insurance is as required by this Contract. CONSULTANT's failure to provide to CITY the Certificates of Insurance or endorsements evidencing the insurance coverage within fifteen (15) calendar days shall provide the basis for the termination of the Agreement.

9.2.2 Such policy or policies shall be without any deductible amount unless otherwise noted in this Agreement and shall be issued by approved companies authorized to do business in the State of Florida, and having agents upon whom service of process may be made in

Broward County, Florida. CONSULTANT shall pay all deductible amounts, if any. CONSULTANT shall specifically protect CITY and the Deerfield Beach City Commission by naming CITY and the Deerfield Beach City Commission as additional insured under the Commercial Liability Policy, Business Automobile Liability policy as well as on any Excess Liability Policy coverage.

9.2.3 Coverage is not to cease and is to remain in force (subject to cancellation notice) until all performance required of CONSULTANT is complete including all renewal terms. All policies must be endorsed to provide CITY with at least thirty (30) days' notice of expiration, cancellation and/or restriction. If any of the insurance coverages will expire prior to the completion of any Project, copies of renewal policies shall be furnished at least thirty (30) days prior to the date of their expiration.

9.2.4 CITY reserves the right to review and revise any insurance requirements at the time of renewal or amendment of this Contract, including, but not limited to, deductibles, limits, coverage, and endorsements based on insurance market conditions affecting the availability or affordability of coverage, or changes in the scope of work or specifications that affect the applicability of coverage. If CONSULTANT uses a Subconsultant, CONSULTANT shall ensure that Subconsultant names CITY and the Deerfield Beach City Commission as additional insured under the Commercial Liability Policy as well as on any Excess Liability Policy coverage.

9.3 CONSULTANT shall, at a minimum, provide, pay for, and maintain in force at all times during the term of this Agreement the following insurance:

Commercial Liability Insurance - A Commercial Liability Insurance Policy shall be provided which shall contain limits of no less than One Million Dollars (\$1,000,000.00) per occurrence for bodily injury liability, personal injury liability and property damage liability on a per project basis, and shall contain limits of no less than a Two Million Dollars(\$2,000,000.00) aggregate. Coverage must be afforded on a form no more restrictive than CG 20 10 10 01 and CG 20 37 10 01 Commercial Liability Policy, without restrictive endorsements, as filed by the Insurance Services Office and must include: premises and operations, independent contractors, products and/or completed operations for contracts, broad form contractual coverage applicable to this specific Contract including any hold harmless and/or indemnification Contract, personal injury coverage with employee and contractual exclusions removed and policy limits shall be applied on a primary and non-contributory basis.

Professional Liability (Errors & Omissions) Insurance - Professional Liability Insurance with the limits of liability provided by such policy for each claim and on a claim made basis or on an occurrence basis to be no less than one million Dollars (\$1,000,000) per occurrence with a limit of no less than two million dollars (\$2,000,000) aggregate with a deductible per claim not to exceed ten percent (10%) of the limit of liability. CONSULTANT shall notify the CITY in writing within thirty (30) days of any claim filed or made against its Professional Liability Insurance Policy. CONSULTANT acknowledges that the CITY is relying on the competence of the CONSULTANT to design a project to meet its functional intent. If it is determined during construction of a project that changes must be made due to CONSULTANT's negligent errors and omissions, CONSULTANT shall promptly rectify them at no cost to CITY and shall be responsible for additional costs, if any, of a project to the proportional extent caused by such negligent errors or omissions.

Business Automobile Liability - Business Automobile Liability shall be provided with minimum limits of One Million Dollars (\$1,000,000.00) per occurrence or combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must at a minimum include liability coverage symbols: 2 (owned vehicles), 8 (hired vehicles) and 9 (non-owned vehicles).

Workers Compensation Insurance - Workers' Compensation insurance to apply for all employees in compliance with Chapter 440, Florida Statutes, as may be amended from time to time, the "Workers' Compensation Law" of the State of Florida, and all applicable Federal laws. In addition, the policy(ies) must include employers' liability with a limit of One Million Dollars (\$1,000,000.00) each accident, One Million Dollars (\$1,000,000.00) aggregate limit by disease and One Million Dollars (\$1,000,000.00) each employee by disease. Additionally, if there will be operations undertaken on, about or over navigable waterways, evidence of a coverage endorsement for U.S. Longshoremen and Harbor Workers Act (USL&H), and/or Jones Act, for maritime laws coverage shall be included. The Policy shall include a waiver of subrogation for all liability arising out of this contract. If exempt for Worker's Compensation, proper documentation shall be provided.

SECTION 10

NON-APPROPRIATION OF FUNDS

In the event no funds or insufficient funds are appropriated and budgeted or are otherwise unavailable in any fiscal year for payments due under this Work Authorization, then the City, upon written notice to Consultant of such occurrence, shall have the unqualified right to terminate this Work Authorization without any penalty or expense to the City.

SECTION 11
MISCELLANEOUS

Consultant shall, without additional expense to the City, be responsible for paying any taxes, obtaining any necessary licenses and for complying with all applicable federal, state, county, and municipal laws, ordinances and regulations in connection with the performance of the Services specified herein.

SECTION 12
AUDIT AND INSPECTION RIGHTS

- 12.1 The City may, at reasonable times, and for a period of up to three (3) years following the date of final performance of Services by Consultant under this Work Authorization, audit, or cause to be audited, those books and records of Consultant that are related to Consultant's performance under this Work Authorization. Consultant agrees to maintain all such books and records at its principal place of business for a period of three (3) years after final payment is made under this Work Authorization.
- 12.2 The City may, at reasonable times during the term hereof, perform such inspections, as the City deems reasonably necessary, to determine whether the services required to be provided by Consultant under this Work Authorization conform to the terms of this Work Authorization. Consultant shall make available to the City all reasonable assistance to facilitate the performance of inspections by the City's representatives.

SECTION 13
AMENDMENTS AND ASSIGNMENT

- 13.1 This Work Authorization together with Exhibit "A" and all negotiations and oral understandings between the parties are merged herein. The terms and conditions set forth in this Work Authorization supersede any and all previous agreements, promises, negotiations or representations, except as otherwise provided in Section 5. Any other agreements, promises, negotiations or representations not expressly set forth in this Work Authorization are of no force and effect.
- 13.2 No modification, amendment or alteration of the terms and conditions contained herein shall be effective unless contained in a written document executed with the same formality as this Work Authorization.
- 13.3 Consultant shall not transfer or assign the performance of Services called for in the Work Authorization without the prior written consent of the City, which may be withheld or conditioned in the City's sole discretion.

SECTION 14

NOTICES

Whenever either party desires to give notice to the other, it must be given by written notice in accordance with the requirements of Notices section of the Continuing Contract.

SECTION 15

GOVERNING LAW AND VENUE

This Work Authorization shall be construed in accordance with, and governed by, the laws of the State of Florida. Venue for any action arising out of, or relating to this Work Authorization shall be in Broward County, Florida.

SECTION 16

HEADINGS, CONFLICT OF PROVISIONS, WAIVER OR BREACH OF PROVISIONS

Headings are for convenience of reference only and shall not be considered in any interpretation of this Work Authorization. In the event of conflict between the terms of this Work Authorization and any terms or conditions contained in any attached documents, the terms in this Work Authorization shall prevail. No waiver or breach of any provision of this Work Authorization shall constitute a waiver of any subsequent breach of the same or any other provision, and no waiver shall be effective unless made in writing.

SECTION 17

NON-DISCRIMINATION

Consultant represents and warrants to the City that Consultant does not and will not engage in discriminatory practices and that there shall be no discrimination in connection with Consultant's performance under this Work Authorization on account of race, age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation or any other factor which cannot be lawfully used as a basis for delivery of services. Consultant further covenants that no otherwise qualified individual shall, solely by reason of his/her race, age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation or any other factor which cannot be lawfully used as a basis for delivery of services, be excluded from participation in, be denied services, or be subject to discrimination under any provision of this Work Authorization.

SECTION 18

PUBLIC RECORDS

Consultant understands that the public shall have access, at all reasonable times, to all documents and information pertaining to City contracts, subject to the provisions of

Chapter 119, Florida Statutes, and agrees to allow access by the City and the public to all documents subject to disclosure under applicable law. Consultant's failure or refusal to comply with the provisions of this section shall result in the immediate termination of this Work Authorization by the City.

SECTION 19 **SEVERABILITY**

If any provision of this Work Authorization or the application thereof to any person or situation shall to any extent, be held invalid or unenforceable, the remainder of this Work Authorization, and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable shall not be affected thereby, and shall continue in full force and effect, and be enforced to the fullest extent permitted by law.

SECTION 20 **SURVIVAL**

All representations and other relevant provisions herein shall survive and thereby continue in full force and effect, upon termination of this Work Authorization.

SECTION 21 **JOINT PREPARATION**

The parties hereto acknowledge that they have sought and received whatever competent advice and counsel as was necessary for them to form a full and complete understanding of all rights and obligations herein, including the Continuing Contract, and that the preparation of this Work Authorization has been a joint effort of the parties, the language has been agreed to by parties to express their mutual intent and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

[THIS SPACE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the parties hereto have made and executed this Work Authorization on the respective dates under each signature.

CITY

CITY OF DEERFIELD BEACH, a
municipal
corporation of the State of Florida

ATTEST:

Heather Montemayor, City Clerk

Approved as to form and legal sufficiency
for the use of and reliance by the City of
Deerfield Beach only:

Anthony C. Soroka, City Attorney

By: _____
David Santucci, City Manager

This ____ day of _____, 2024.

CONSULTANT

Witness:

By: _____
Signature

Name: _____

Title: _____

This ____ day of _____, 2024.

EXHIBIT “A” SCOPE OF SERVICES

McKim & Creed (M&C) will work in a collaborative manner with the City of Deerfield Beach (City) to provide as-needed SCADA programming and support. Support will be provided with prior authorization for the use of funds from City staff. Support items are expected to include those listed below:

- Control system design
- Control system field investigation and troubleshooting
- Control system documentation
- Control system programming to include SCADA system’s HMI applications and programmable logic controllers (PLCs)
- Control system check-out and commissioning
- Control system additions as directed by the City
- Control system networking support

QUALIFICATIONS AND EXCLUSIONS

- All work shall be performed on a scheduled, non-emergency, basis. Work requests shall be directed to Dana Musumeci with an expected response within 24 hours.

RATES AND PAYMENT FOR SERVICES

In accordance with Section 3 of this Work Authorization and Consultant’s proposal, which is incorporated by reference, compensation for the Scope of Services shall not exceed \$75,00.00. This Work Authorization will be on a T&M basis using current contract rates and invoiced on a monthly schedule. All on-site work will be performed by the Senior Programmer at the \$185 hour rate plus materials and project management.

Proposal #233724

January 26, 2024

Joshua Niemann
290 Goolsby Blvd.
Deerfield Beach, FL 33442
P: 954.480.4369

RE: The City of Deerfield Beach Controls system support

Dear Mr. Niemann:

We are pleased to offer the following proposal for the City of Deerfield Beach, Controls system support.

If you have any questions, or require additional information, please feel free to give me a call.

Sincerely,

Dana Musumeci
Project Manager of E&I Group

**CITY OF DEERFIELD BEACH
CONTROL SYSTEM SUPPORT
SCOPE OF SERVICES**

January 26, 2024

SCOPE OF SERVICES

The City of Deerfield Beach is interested in contracting McKim & Creed (M&C) to address the current issues with their control systems.

M&C will provide support, as needed, with prior authorization for the use of funds, from City staff. Support items are expected to include those listed below:

1. Control system design
2. Control system field investigation and troubleshooting
3. Control system documentation
4. Control system programming to include SCADA system's HMI applications, programmable logic controllers (PLCs) and Radios
5. Control system check-out and commissioning
6. Control system additions as directed by the City
7. Control system networking support

We recommend starting with an initial \$75,000 work order that can be renewed as the funds are exhausted. This contract will be on a T&M basis using our current contract rates and invoiced on a monthly schedule. All on site work will be performed by the Senior Programmer at the \$185 hour rate plus materials and project management.

All work shall be performed on a scheduled, non-emergency, basis. Work requests shall be directed to Dana Musumeci (561.305.6222; dmusumeci@mckimcreed.com) with an expected response within 24 hours.

ASSUMPTIONS AND CLARIFICATIONS

1. Instrumentation installation and/or field calibration is specifically excluded.



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-27

Agenda Date: 2/6/2024

Status: DEPARTMENTAL BUSINESS

In Control: City Commission

Title

Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, approving the award of ITB #2024-06-PC for the City Hall Building Hardening Project to Sleiman Construction, LLC; authorizing the execution of a contract with Sleiman Construction, LLC, the lowest priced responsive and responsible bidder, in an amount not to exceed \$1,567,865.80; and providing an effective date. (*Funds from Account #358-5060-519-61-12 - City Hall Renovations Construction*)

Recommended Action

Commission to vote on Resolution

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Fiscal Impact

Costs: \$1,567,865.80

Account Name: City Hall Renovations Construction

Account Number: 358-5060-519-61-12

Background/History

In 2018, the City applied for a grant under the Hazard Mitigation Grant Program (HMGP) to rehabilitate and harden City Hall, to include drainage improvements to surface streets in and around City Hall. In April 2023, the City received grant funding for Phase II, Construction, in the amount of \$1,399,795.50 with a local match requirement of 25%. Project costs in excess of available grant funds are programmed from the 2018 Bond Fund for City Hall.

Previously, the City Hall Building Hardening project was solicited and bids were required to be received by September 29, 2023 at 2 pm. The proposals received were deemed unresponsive to the original terms of the Request for Proposals, and it was determined to rebid the project. Concurrently, bids were received for the Drainage Improvements and an award recommendation for that work was made to the Commission at the Regular City Commission meeting held November 14, 2023.

On December 4, 2023, the Purchasing and Contract Administration Division solicited an Invitation to Bid for the Deerfield Beach City Hall Building Hardening. On December 4, 2023, the ITB was advertised in the legal notices section of the Sun-Sentinel. The notice was sent to four hundred eleven (411) prospective Offerors via the e- Procurement Marketplace. Thirteen (13) vendors viewed the documents of the ITB. On December 12, 2023, at 9:30 a.m., a Non-Mandatory Site Visit and Examination was held followed at 11:00 a.m. by a Non-Mandatory Pre-Bid Conference held in person and via Zoom. Three (3) Addendums were issued to make additions, deletions and changes to the ITB documents. Bids were opened on the bid due date and time, January 5, 2024, at 2:00 p.m.

Current Activity

The Purchasing and Contract Administration received four (4) responses. The responses were reviewed by the Purchasing and Contract Administration Division to ensure the responses met the ITB requirements. The apparent low bidder based on the responses timely received was Sleiman Construction, LLC. The Purchasing and Contract Administration Division discussed the response with the Environmental Services staff and concluded that Sleiman Construction, LLC meets all the requirements of the ITB. Reference checks were conducted on Sleiman Construction, LLC and revealed positive ratings.

Recommendation

It is recommended the City Commission of the City of Deerfield Beach approve the award recommendation and execution of a contract for ITB #24-06-PC, Deerfield Beach City Hall Hardening with Sleiman Construction, LLC, in an amount not to exceed \$1,567,865.80.

RESOLUTION NO. 2024/

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, APPROVING THE AWARD OF ITB #2024-06-PC FOR THE CITY HALL BUILDING HARDENING PROJECT TO SLEIMAN CONSTRUCTION, LLC; AUTHORIZING EXECUTION OF A CONTRACT WITH SLEIMAN CONSTRUCTION, LLC, THE LOWEST PRICED RESPONSIVE AND RESPONSIBLE BIDDER, IN AN AMOUNT NOT TO EXCEED \$1,567,865.80; AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the City issued Invitation to Bid #2024-06-PC seeking a qualified contractor for the City Hall Building Hardening Project (the “ITB”); and

WHEREAS, the ITB was advertised in the legal notices section of the Sun-Sentinel on December 4, 2023, and the notice was sent to 411 prospective firms via the e-Procurement Marketplace with 13 vendors viewing the ITB documents; and

WHEREAS, on December 12, 2023 both a non-mandatory site visit and examination and non-mandatory pre-bid conference were held; and

WHEREAS, on January 5, 2024, at 2:00 p.m., the ITB due date and time, the Purchasing and Contract Division (the “Division”) opened the four (4) bids that were timely received, and reviewed the bids to ensure that they met the ITB requirements; and

WHEREAS, the Division reviewed the bid submitted by Sleiman Construction, LLC (“Sleiman”), the apparent lowest priced responsive and responsible bidder, discussed it with the Department of Environmental Services and concluded that Sleiman met all the requirements of the ITB; and

WHEREAS, the Division recommends that the City Commission approve the award of the ITB to Sleiman, the lowest priced responsive and responsible bidder to the ITB, and authorize the execution of a contract with Sleiman for the City Hall Building Hardening Project in an amount not to exceed \$1,567,865.80 (the “Contract”).

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above referenced “Whereas” clauses are true and correct and made a part of this Resolution.

Section 2. The City Commission hereby approves the award of ITB #2024-06-PC to Sleiman for the City Hall Building Hardening Project in an amount not to exceed \$1,567,865.80.

Section 3. The City Manager is hereby authorized to execute a Contract with Sleiman for the City Hall Building Hardening Project in an amount not to exceed \$1,567,865.80, based upon the terms and conditions of the ITB, together with such additional terms as are acceptable to the City Manager and approved as to form and legal sufficiency by the City Attorney.

Section 4. The appropriate City officials are authorized to do all things necessary to carry out the aims of this Resolution.

Section 5. This Resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2024.

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK



Memorandum

TO: Priscilla Cygielnik, Director of Environmental Services

FROM: Paul Collette, Senior Buyer

THRU: Bogdan Avasiloe, Purchasing Manager

DATE: January 16, 2024

RE: **Deerfield Beach City Hall Building Hardening, ITB #24-06-PC**

The Purchasing and Contract Administration Division issued an Invitation to Bid for the Deerfield Beach City Hall Building Hardening, ITB #24-06-PC. This formal competitive solicitation process complies with the City of Deerfield Beach procurement requirements. Details of the competitive solicitation process are as follows:

- On December 4, 2023, the ITB was advertised in the legal notices section of the Sun-Sentinel. The notice was sent to four hundred eleven (411) prospective Offerors via the e- Procurement Marketplace.
- Thirteen (13) vendors viewed the documents of the ITB.
- On December 12, 2023 at 9:30 a.m., a Non-Mandatory Site Visit and Examination was held.
- On December 12, 2023 at 11:00 a.m., a Non-Mandatory Pre-Bid Conference was held in person and via Zoom.
- Three (3) Addendums were issued to make additions, deletions and changes to the ITB documents.
- On January 5, 2024 at 2:00 p.m. EST, the Purchasing and Contract Administration Division closed and unsealed four (4) responses. The responses were reviewed by the Purchasing and Contract Administration Division to ensure the response met the ITB requirements.
- The apparent low bidder, Sleiman Construction, LLC met all the requirements of the ITB.
- The Purchasing and Contract Administration Division discussed the response with the Environmental Services staff and concluded that Sleiman Construction, LLC meets all the requirements of the ITB.
- Reference checks were conducted on Sleiman Construction, LLC and revealed positive ratings.
- Documentation related to this solicitation may be obtained by e-mailing sfrancis@deerfield-beach.com. You may contact the Purchasing and Contract Administration Division at 954-480-4381 with any questions.

In summary, Sleiman Construction, LLC is the responsive and responsible Offeror able to meet the ITB requirements; therefore, the award recommendation of this ITB is to Sleiman Construction, LLC.

Please use this memorandum and all attachments as your backup for the next available City Commission meeting.

Att. Tabulation Sheets, Tabulation Summary, Scope of Work

1	Demolition as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	shiff construction	1	Lump Sum		\$26,485.14	\$26,485.14	
	Sleiman Construction LLC	1	Lump Sum		\$42,251.51	\$42,251.51	
	West Construction Inc.	1	Lump Sum		\$95,500.00	\$95,500.00	
	Emerald Construction Corp	1	Lump Sum		\$97,000.00	\$97,000.00	
2	New Overflow Roof Drainage System as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	shiff construction	1	Lump Sum		\$25,685.00	\$25,685.00	
	Sleiman Construction LLC	1	Lump Sum		\$34,768.31	\$34,768.31	
	Emerald Construction Corp	1	Lump Sum		\$35,420.00	\$35,420.00	
	West Construction Inc.	1	Lump Sum		\$99,500.00	\$99,500.00	
3	New Metal Roofing as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	West Construction Inc.	1	Lump Sum		\$53,055.00	\$53,055.00	
	Sleiman Construction LLC	1	Lump Sum		\$77,804.92	\$77,804.92	
	Emerald Construction Corp	1	Lump Sum		\$78,445.31	\$78,445.31	
	shiff construction	1	Lump Sum		\$192,830.00	\$192,830.00	
4	New Slight Sloped Roof - Entire Facility as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Emerald Construction Corp	1	Lump Sum		\$341,590.00	\$341,590.00	
	West Construction Inc.	1	Lump Sum		\$367,605.00	\$367,605.00	
	shiff construction	1	Lump Sum		\$368,757.40	\$368,757.40	
	Sleiman Construction LLC	1	Lump Sum		\$401,978.42	\$401,978.42	
5	Supply and Install Impact Windows and Doors, various sizes as per plans and schedules in ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$228,741.11	\$228,741.11	
	Emerald Construction Corp	1	Lump Sum		\$257,593.51	\$257,593.51	
	West Construction Inc.	1	Lump Sum		\$260,096.00	\$260,096.00	
	shiff construction	1	Lump Sum		\$279,682.26	\$279,682.26	
6	Supply and Install all structural upgrades as per plans, not listed in separate line items, such as framing specified for new storefront						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$73,697.00	\$73,697.00	

Emerald Construction Corp	1	Lump Sum	\$101,709.55	\$101,709.55
West Construction Inc.	1	Lump Sum	\$118,658.00	\$118,658.00
shiff construction	1	Lump Sum	\$124,802.70	\$124,802.70

7	Mechanical as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	shiff construction	1	Lump Sum		\$11,143.00	\$11,143.00	
	Sleiman Construction LLC	1	Lump Sum		\$13,091.77	\$13,091.77	
	Emerald Construction Corp	1	Lump Sum		\$37,950.00	\$37,950.00	
	West Construction Inc.	1	Lump Sum		\$90,036.00	\$90,036.00	

8	Paint: Touch-up painting over all repaired interior and exterior wall surfaces as required to match existing finishes as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$27,900.49	\$27,900.49	
	West Construction Inc.	1	Lump Sum		\$74,700.00	\$74,700.00	
	Emerald Construction Corp	1	Lump Sum		\$93,908.93	\$93,908.93	
	shiff construction	1	Lump Sum		\$127,160.00	\$127,160.00	

9	Clean up and landscape replace damage by equipment as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Emerald Construction Corp	1	Lump Sum		\$10,000.00	\$10,000.00	
	Sleiman Construction LLC	1	Lump Sum		\$21,708.73	\$21,708.73	
	shiff construction	1	Lump Sum		\$27,500.00	\$27,500.00	
	West Construction Inc.	1	Lump Sum		\$33,000.00	\$33,000.00	

10	Owner Contingency.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$66,000.00	\$66,000.00	
	West Construction Inc.	1	Lump Sum		\$66,000.00	\$66,000.00	
	shiff construction	1	Lump Sum		\$66,000.00	\$66,000.00	
	Emerald Construction Corp	1	Lump Sum		\$66,000.00	\$66,000.00	

11	Contractors Overhead & Profit as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Emerald Construction Corp	1	Lump Sum		\$101,045.87	\$101,045.87	
	shiff construction	1	Lump Sum		\$128,393.00	\$128,393.00	
	Sleiman Construction LLC	1	Lump Sum		\$141,000.00	\$141,000.00	
	West Construction Inc.	1	Lump Sum		\$169,000.00	\$169,000.00	

12	Contractors General Conditions as per ITB documents.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$153,806.83	\$153,806.83	
	shiff construction	1	Lump Sum		\$244,277.50	\$244,277.50	
	Emerald Construction Corp	1	Lump Sum		\$325,658.89	\$325,658.89	
	West Construction Inc.	1	Lump Sum		\$350,663.00	\$350,663.00	

13	Permit Fees Allowance.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$160,000.00	\$160,000.00	
	West Construction Inc.	1	Lump Sum		\$160,000.00	\$160,000.00	
	shiff construction	1	Lump Sum		\$160,000.00	\$160,000.00	
	Emerald Construction Corp	1	Lump Sum		\$160,000.00	\$160,000.00	

14	Temporary Facilities Allowance.						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	Sleiman Construction LLC	1	Lump Sum		\$50,000.00	\$50,000.00	
	West Construction Inc.	1	Lump Sum		\$50,000.00	\$50,000.00	
	shiff construction	1	Lump Sum		\$50,000.00	\$50,000.00	
	Emerald Construction Corp	1	Lump Sum		\$50,000.00	\$50,000.00	

15	Alternate 1: Painting of Exterior of Building: Touch-up painting over all repaired interior wall surfaces, and Exterior paint work of the entire building						
	Supplier	QTY	UOM	Estimated	Price	Extended	Supplier Notes
	shiff construction	1	Lump Sum		\$42,880.05	\$42,880.05	
	Sleiman Construction LLC	1	Lump Sum		\$75,116.71	\$75,116.71	
	Emerald Construction Corp	1	Lump Sum		\$79,131.66	\$79,131.66	
	West Construction Inc.	1	Lump Sum		\$115,000.00	\$115,000.00	

Event Number	24-06-PC Addendum 3	Organization	City of Deerfield Beach
Event Title	Deerfield Beach City Hall Building Hardening	Workgroup	Purchasing Dept.
Event Description	The City of Deerfield Beach is soliciting seal	Event Owner	Paul Collette
Event Type	ITB (Commodity)	Email	pcollette@deerfield-beach.com
Issue Date	12/4/2023 11:05:08 PM (ET)	Phone	(954) 480-4418
Close Date	1/5/2024 02:00:00 PM (ET)	Fax	(954) 480-4388

Responding Supplier	City	State	Response Submitted	Lines Responded	Response Total
Sleiman Construction LLC	Miami	FL	1/5/2024 01:12:51 PM (ET)	15	\$1,567,865.80
Emerald Construction Corp	Hallandale Beach	FL	1/5/2024 01:54:53 PM (ET)	15	\$1,835,453.72
shiff construction	Pompano Beach	FL	1/5/2024 10:42:08 AM (ET)	15	\$1,875,596.05
West Construction Inc.	Lantana	FL	1/5/2024 01:50:00 PM (ET)	15	\$2,102,813.00

SECTION VI - SCOPE OF WORK

1. WORK COVERED BY THE CONTRACT DOCUMENTS

- a. The Work generally includes Permitting, and Construction of the following hardening or strengthening of the existing building as per the proposed remodeling and alteration (scope of work as contained on Sheet A1.0 of the architectural plans listed below):
 - 1. Removal and Disposal of all existing windows and doors, hurricane shutters, typical.
 - 2. Removal and replacement of all existing exterior windows and doors with new code compliant impact resistant storefront windows and doors as specified on plans, typical.
 - 3. Patching and repair of all damaged interior and exterior wall finishes as required to match existing conditions, typical.
 - 4. Touch up painting over all repaired interior and exterior wall surfaces as required to match existing fin. Bid pricing to include a separate Alternate Item to cover the *exterior* paint work of the entire facility as "optional" for the City's evaluation and/or approval (Reference under Attachments Tab: Exhibit VI, Exhibit VII, Exhibit VIII, Exhibit IX for the square footage of the exterior area (approximately 24,858 square feet).
 - 5. Removal and replacement of a portion of the existing low slope wood framed roof structure and all associated components with new insulated metal deck over steel joists roof framing system and a new single-ply 60 mil (white)TPO roofing system as specified on plans.
 - 6. Wire anchoring of all existing rooftop mechanical equipment inclusive of all roof mounted ductwork and exhaust fans as per structural plans and manufacture's Florida product approval and/or delegate engineer signed and sealed shop drawings, typical.
 - 7. Construction of new metal studs and drywall plaster exterior framing wall at lobby entrances. (see plans for location and details).
 - 8. Moisture survey inspection, and core drills on the existing low slope roof areas to access the conditions of the existing roofing system and determine the viability of a roof recovery option.
 - 9. Recovery and/or replacement of the existing low slope roofing system with a new single-ply 60 mil (white) TPO roofing system as per Florida product approval specified on plans (Typical).

2. TYPE OF CONTRACT

- a. Project will be constructed under a single contract.
- b. Contractor will be required to perform all demolition and construction work stipulated in the construction documents. In addition, Contractor shall repair any damaged adjacent elements, buildings, utilities, etc. as a result of demolition or construction work. Contractor shall coordinate work with occupants of adjacent properties and the City of Deerfield Beach's representative.

3. WORK RESTRICTIONS

- a. Work hours shall comply with the Project Schedule requirements. Work may proceed from 7:00 a.m. to 9:00 p.m. on weekdays and non-holidays, and from 9:00 a.m. to 7:00 p.m. on Saturdays, unless otherwise indicated. No work allowed on Sundays without prior written permission from the City Manager, or their duly authorized representative.

- b. In the event an emergency exists and conditions with reference to the operation of any contractor are such that it would be unjust and inequitable for the same not to be operated during the prohibited hours, upon application made to the City Manager, or their duly authorized representative, may authorize any contractor to operate for a limited period of time during the prohibited hours set forth above.
- c. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes any time during the construction phase.

4. LIMITS OF CONSTRUCTION

- a. The work set forth in the Design Criteria Narrative package will be performed within the limits established. Contractor shall not work outside of the limits without requesting authorization in writing, and receiving written approval.

5. COORDINATION OF WORK

- a. The Contractor shall be responsible for the planning and scheduling, and coordination of all Work performed under the contract, so that materials will arrive on schedule and installation will proceed without delay.
- b. Coordinate scheduling, construction documents, submittals, and Work of the various Sections of specifications to assure efficient and orderly sequence and installation of interdependent construction elements.
- c. Verify that the utility requirement characteristics of operating equipment are compatible with available utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- d. Coordinate space requirements and installation of Work, which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable. Utilize spaces efficiently to maximize for other installations, for maintenance, and for repairs.
- e. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- f. Coordinate completion and clean-up of work of separate Sections in preparation for Substantial Completion.
- g. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with the Contract Documents, to minimize disruption of Owner's activities.
- h. Coordinate Utility installation with each utility provider. Contractor shall include costs for service design and connections to each utility company in the Base Bid.

6. COOPERATION BETWEEN CONTRACTORS

- a. One or more contracts may be required to construct the project. When separate contracts are awarded for different portions of the project, the Contractor in each case shall be the person other than the Owner who signs each separate contract.
- b. The Owner reserves the right to contract for and perform other or additional construction on or near the Work covered by this Contract.
- c. When separate contracts are let within or near the limits of the Project, the Contractor shall conduct its Work so as not to interfere with or hinder the progress of completion of the construction performed by other Contractors. Contractors working on the same Project shall cooperate with each other as directed by the Owner.
- d. The Contractor shall assume all liability, financial or otherwise, in connection with this Contract and shall protect and save harmless the Owner from any and all damages or claims.
- e. The Contractor shall arrange its Work and shall place or dispose of the materials being used as not to interfere with the operations of the other Contractors within or near the limits of the Project. The Contractor shall join its Work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

7. TIME FOR PERFORMANCE

- a. The work to be performed under this Contract shall be commenced upon issuance of the Notice to Proceed.
- b. The time limits stated in the Contract Documents are the essence of the Contract. By executing the Agreement, the Contractor confirms that the Time for Completion is a reasonable period for performing the work. The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the time for completion.
- c. The Contractor, having vast experience in the construction of improvements in South Florida, recognizes that unforeseen conditions occur and that as a normal course of construction there may be rain days, difficulties in obtaining materials and labor, requests for information from the Contractor to the Owner, Design / Build Criteria Professional, or Architect, submittals, shortages and inefficiencies in operations. These will not be considered excusable delays.
- d. Time is of the essence for this Contract. Contractor shall strictly adhere to the following project schedule:
 - Permits must be obtained and Construction shall be substantially complete within three hundred and eighty-five (385) calendar days and final completions within four hundred and fifteen (415) calendar days from issuance of the Notice to Proceed.
- e. Owner will impose Liquidated Damages, per the contract terms and conditions, for any delays, beyond excusable extensions, to the project schedule specified above.

- f. In addition to the Liquidated Damages, Contractor shall be responsible for paying all Design / Build Criteria Professional, Architect and Engineering additional service fees required to administer the project beyond the schedule specified.

8. DISCREPANCIES, INTERPRETATION AND OMISSIONS

- a. Contractor shall bring any apparent discrepancies to the attention of the Owner and Design / Build Criteria Professional for resolution prior to commencing with the Work. Contractor shall use a Request for Information (RFI) form to communicate discrepancies and receive direction.
- b. Should conflict occur between the Code requirements and the Design / Build Criteria Package or the Construction Documents, the Contractor is deemed to have based the bid upon the more expensive method of performing the Work.

9. PERMITS AND FEES

- a. Contractor shall obtain all permits.
- b. All permit fees to non-City agencies will be paid by the Contractor from allowance item included within the bid. City will pay for all permit fees to City Agencies. Contractor is responsible for all failed inspection fees. See Specification Section 01020.
- c. Contractor is required to maintain all permits in an active status. Any permit that expires shall be reactivated by the contractor at no additional cost to the Owner.

10. UTILITY LOCATION

- a. All underground utilities lines must be located by the Contractor prior to any excavation or earthwork. Contractor must hand dig and confirm location of existing lines marked by utility locate company.
- b. Any existing underground utility lines damaged by the Contractor during the course of construction must be promptly repaired or replaced at the Contractor's expense and at no additional cost to the Owner. At the sole discretion of the Owner, such repairs shall be performed by the Contractor's forces or by another Contractor retained by the prime Contractor. Any delays ensuing from this damage will be considered inexcusable and the Owner will have the right, at the Owner's sole discretion, to hire a Contractor and to back charge the Contractor if the work is not done in a timely manner.
- c. It shall be the Contractor's responsibility to verify all existing utility locations. The Architect and the Owner take no responsibility or liability for any existing conditions.

11. PRE-CONSTRUCTION MEETING

- a. After issuance of the Notice to Proceed and prior to the start of construction, the Owner will schedule and administer a conference to be attended by the Contractor and the Owner's Project Manager to discuss coordination, schedules, submittals and related matters.

12. REGULATORY REQUIREMENTS

- a. The following codes are to be considered an integral part of the Project Manual:
 - Florida Building Code – 6th Edition (2017), with latest revisions.

- Florida Fire Prevention Code – 6th Edition (2017), with latest revisions.
- Florida Accessibility Code – 6th Edition (2017), with latest revisions.
- Florida Mechanical Code – 6th Edition (2017), with latest revisions.
- Florida Energy Conservation Code – 6th Edition (2017), with latest revisions.
- National Electric Code – 2014 edition.
- ASCE 7-10

- b. All work for this project shall conform to the above codes and to the requirements of any regulatory authority having jurisdiction.

13. CONFLICTING REQUIREMENTS

- a. In the event of a conflict between the drawings, referenced standards, technical specifications, and codes the more rigid requirements shall apply provided they are not in conflict with the Florida Building Code.

14. SPECIFICATION FORMATS AND CONVENTIONS

- a. Specification Format: The Specifications are organized into Divisions and Sections using the 17-division format and CSI/CSC's "Master Format" numbering system.
- b. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
- c. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- d. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
- e. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
- f. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
- g. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

15. PUBLIC SAFETY AND CONVENIENCE

- a. The Contractor shall, at all times, conduct his work in a manner that would ensure the least possible obstruction to traffic, or inconvenience to the general public and residents in the vicinity of the work. No road or street shall be closed to the public, except with the permission of the City, Engineer, and other jurisdictional governmental authority, if any. Fire hydrants on or adjacent to the work shall be kept accessible. Provisions shall be made by the Contractor to ensure public access to sidewalks, public telephones, and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches. No open excavation shall be left overnight except during road closing. All open excavation within the roadway shall be backfilled and a temporary asphalt patch applied prior to darkness each day. A cold asphalt patch is acceptable.

16. SAFETY AND OSHA COMPLIANCE

- a. The Contractor shall comply in all respects with all Federal, State and Local safety and health regulations. Copies of the Federal regulations may be obtained from the U.S. Department of Labor, Occupation Safety and Health Administration (OSHA), Washington, DC 20210 or their regional offices.
- b. The Contractor shall comply in all respects with the applicable Workman's Compensation Law.

17. CONTRACTOR'S USE OF PREMISES

- a. Coordinate use of premises under direction of Engineer. Assume full responsibility for the protection and safekeeping of equipment and materials stored on the site.
- b. Move any stored Products, under Contractor's control, which interfere with operations of the Owner or separate Contractor.

18. PLANS AND SCOPE OF WORK

- a. Refer to: Exhibit II – Architectural Plans, Exhibit III – Project Scope, and Exhibit IV – Scope of Work - Divisions under the Attachments Tab.

19. PROTECTION OF PROPERTY

- a. The Contractor shall at all times guard against damage or loss to the City property and any other persons in or around the work site, and shall be responsible for replacing or repairing any such damage or loss. The Contractor will be required to report any such damages immediately to the City's Project Manager or designee. Replacement or repairs shall begin within five (5) days of the incident that caused the damage.
- b. The Contractor and its subcontractor(s) shall clean, repair, or replace any item damaged during the performance of the service to the satisfaction of City at no additional cost.
- c. The City reserves the right at its sole and absolute discretion, to repair any damages created by the Contractor and deduct the actual cost of repairs from their payment.

20. CLEAN UP

- a. The Contractor shall keep the construction site free of rubbish and other materials and restore to their original conditions those portions of the site not designated for the alteration by the Contract Documents. Clean up and restoration shall be accomplished on a continuing basis throughout the contract period and in such a manner as to maintain a minimum of nuisance and interference to the general public and residents in the vicinity of the work.
- b. The Contractor shall also remove, when no longer needed, all temporary structures and equipment used in his operation. It is the intent of this specification that the construction areas and those other areas not designated for alteration by the Contract Documents shall be immediately restored to original condition as upon completion of the project.

21. QUALITY ASSURANCE

- a. All employees shall be competent and highly skilled in their particular job in order to properly perform the work assigned to them. The Contractor shall be responsible for maintaining the quality of the materials and workmanship on the job throughout the duration of his/her responsibility.

22. PERSONNEL

- a. The City may require the Contractor to remove any employee it deems careless, incompetent, insubordinate or otherwise objectionable and whose presence on City property is not in the best interests of the City. The City shall not have any duty to implement or enforce such requirements and such obligation shall be the sole responsibility of the Contractor to immediately address upon the City's notification to the Contractor's supervisory staff on-site or the managerial point of contact designated to the contract.
- b. The Contractor's employees performing work on City property shall be in uniforms with the company's name, clean, courteous, sober and competent. The Contractor agrees to be responsible for such personnel. All Contractor's personnel dealing with the public under this contract, shall be identified by name through the use of a nametag or embroidered name on his/her uniform. The Contractor agrees that the owners of the company, or officers if a corporation, shall be held fully responsible, except as otherwise prohibited by law, for acts of their personnel while on duty.
- c. At least one (1) employee in a supervisory role at the worksite must be able to communicate clearly and fluently in the English language.
- d. Contractor's personnel shall be competent and highly skilled in their particular job in order to properly perform the work assigned to them.

23. CONTRACTOR'S VEHICLES

- a. Contractor's vehicles used on City projects shall be clean and presentable, in working condition, and identified with the name of the company and proper licensing.



City of Deerfield Beach

150 NE 2nd Ave
Deerfield Beach, FL
33441
954-480-4200

Face Sheet File Number: I.D. 2024-54

Agenda Date: 2/6/2024

Status: CITY COMMISSION
BUSINESS

In Control: City Commission

Title

Resolution 2024/ - A Resolution of the City Commission of the City of Deerfield Beach, Florida, authorizing participation in a lawsuit seeking a declaration that the provisions of Section 112.144(1)(d), Florida Statutes, that require Municipal Elected Officials to file Form 6 Financial Disclosure Forms is unconstitutional and invalid; providing for an effective date.

Recommended Action

Commission to vote on Resolution

Voting Requirement

Adoption requires a 3/5 vote of the City Commission

Background/History

Since 1976, Article II, Section 8 of the Florida Constitution has required that all elected State constitutional officers file a full and public disclosure of their financial interests, which is done through a state-adopted form ("Form 6") that requires, among other things, the disclosure of the specific amounts of an official's net worth, income and asset values. Historically, municipal elected officials have been required to make a more limited financial disclosure that is done through a different state-adopted form ("Form 1") that requires, among other things, the disclosure of information related to sources of income, real property, intangible personal property liabilities and interests in specified businesses, but does not include the specific amounts of an official's net worth, income and asset values.

The Mayor and all current elected members of the City Commission (the "City Elected Officials") were elected by the voters of the City subject to and in reliance upon Florida law that required the Mayor and City Commission members to annually file Form 1 (not Form 6) financial disclosures forms. Although the State Legislature has the power in the Florida Constitution to require that additional public officers file a full and public disclosure of their financial interests, it must do so consistent with other constitutional limitations. In 1980, the voters of Florida amended the Florida Constitution by adopting Article 1, Section 23, the "Right to Privacy," which states that "[e]very natural person has the right to be let alone and free from governmental intrusion into the person's private life except as otherwise provided herein". Because the right of privacy is a fundamental right within Florida's constitution, the Florida Supreme Court has consistently required that any law intruding on the right is presumptively unconstitutional and must be justified by a "compelling state interest" which the law serves or protects through the "least restrictive means". The First Amendment to the United States Constitution, and Article 1, Section 4 of the Florida Constitution, protects the freedom of speech, which includes the right to choose what to say and what not to say, any impairment of which must be justified by a "compelling state interest" which the law serves or protects through the "least restrictive means".

Current Activity

During the 2023 legislative session, Senate Bill 774 was passed and codified at Law of Florida 2023-09, amending Section 112.3144, Florida Statutes, to change the financial disclosure requirements and now require that all elected municipal mayors and elected members of the governing board file a Form 6 financial disclosure, which is substantially more burdensome and personally intrusive than the Form 1. The enclosed Resolution states that imposition of the Form 6 disclosure requirements at the municipal level: (a) represents an unwarranted intrusion into the privacy rights of municipal elected officials, most of which receive little or no compensation for their service, (b) unnecessarily risks the safety of such officials (making them targets of, among other things, burglary, identity theft and extortion), and (c) will deter many otherwise qualified and interested citizens from running for office. Requiring that unpaid or low paid municipal elected officials disclose their precise net worth, income and assets does not serve (let alone constitute the least restrictive means of serving) any compelling interest – Form 1 disclosures constitutes sufficient transparency to inform the public of potential conflicts. The imposition of new financial disclosure requirements upon municipal elected officials who were elected without such requirements violates due process, is fundamentally unfair and violates fundamental constitutional rights.

The enclosed Resolution authorizes the participation of the City, and any of the individual members of the City Commission who choose to participate as plaintiffs, in a lawsuit seeking declaratory, injunctive and other appropriate relief challenging the provisions of Section 112.3144(1)(d), Florida Statutes, that require municipal elected officials to file Form 6 financial disclosure forms, based upon any appropriate legal theories, including those set forth above, subject to the participation of at least ten municipalities. The enclosed Resolution provides for retaining Weiss Serota Helfman Cole + Bierman, PL, which will charge the City a flat fee, inclusive of attorneys' fees and costs, of \$10,000 to represent the City and the individual elected officials who choose to participate as plaintiffs, for the litigation in the trial court. The enclosed Resolution also invites and urges other local governments and elected officials to join the City as plaintiffs in the Lawsuit and to coordinate their efforts with the City.

RESOLUTION NO. 2024/

**A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF
DEERFIELD BEACH, FLORIDA, AUTHORIZING PARTICIPATION IN
A LAWSUIT SEEKING A DECLARATION THAT THE PROVISIONS OF
SECTION 112.144(1)(d), FLORIDA STATUTES, THAT REQUIRE
MUNICIPAL ELECTED OFFICIALS TO FILE FORM 6 FINANCIAL
DISCLOSURE FORMS IS UNCONSTITUTIONAL AND INVALID;
PROVIDING FOR AN EFFECTIVE DATE**

WHEREAS, since 1976, Article II, Section 8 of the Florida Constitution has required that all elected State constitutional officers file a full and public disclosure of their financial interests, which is done through a state-adopted form (“Form 6”) that requires, among other things, the disclosure of the specific amounts of an official’s net worth, income and asset values; and

WHEREAS, historically, municipal elected officials have been required to make a more limited financial disclosure that is done through a different state-adopted form (“Form 1”) that requires, among other things, the disclosure of information related to sources of income, real property, intangible personal property liabilities and interests in specified businesses, but does not include the specific amounts of an official’s net worth, income and asset values; and

WHEREAS, the Mayor and all current elected members of the City Commission (the “City Elected Officials”) were elected by the voters of the City subject to and in reliance upon Florida law that required the Mayor and City Commission Members to annually file Form 1 (not Form 6) financial disclosures forms; and

WHEREAS, although the State Legislature has the power in the Florida Constitution to require that additional public officers file a full and public disclosure of their financial interests, it must do so consistent with other constitutional limitations; and

WHEREAS, in 1980, the voters of Florida amended the Florida Constitution by adopting Article 1, Section 23, the “Right to Privacy,” which states that “[e]very natural person has the right to be let alone and free from governmental intrusion into the person’s private life except as otherwise provided herein”; and

WHEREAS, because the right of privacy is a fundamental right within Florida’s constitution, the Florida Supreme Court has consistently required that any law intruding on the right is presumptively unconstitutional and must be justified by a “compelling state interest” which the law serves or protects through the “least restrictive means;” and

WHEREAS, the First Amendment to the United States Constitution, and Article 1, Section 4 of the Florida Constitution, protects the freedom of speech, which includes the right to choose what to say and what not to say, any impairment of which must be justified by a “compelling state interest” which the law serves or protects through the “least restrictive means;” and

WHEREAS, during the 2023 legislative session, Senate Bill 774 was passed and codified at Law of Florida 2023-09, amending Section 112.3144, Florida Statutes, to change the financial disclosure requirements and now require that all elected municipal mayors and elected members of the governing board file a Form 6 financial disclosure, which is substantially more burdensome and personally intrusive than the Form 1; and

WHEREAS, the imposition of the Form 6 disclosure requirements at the municipal level (a) represents an unwarranted intrusion into the privacy rights of municipal elected officials, most of which receive little or no compensation for their service, (b) unnecessarily risks the safety of such officials (making them targets of, among other things, burglary, identity theft and extortion), and (c) will deter many otherwise qualified and interested citizens from running for office; and

WHEREAS, requiring that unpaid or low paid municipal elected officials disclose their precise net worth, income and assets does not serve (let alone constitute the least restrictive means of serving) any compelling interest – Form 1 disclosures constitutes sufficient transparency to inform the public of potential conflicts; and

WHEREAS, the imposition of new financial disclosure requirements upon municipal elected officials who were elected without such requirements violates due process, is fundamentally unfair and violates fundamental constitutional rights; and

WHEREAS, the City desires to participate in a lawsuit seeking a declaration that the provisions of Section 112.3144(1)(d), Florida Statutes, that require municipal elected officials to file Form 6 financial disclosure forms are unconstitutional and invalid and should be enjoined (the “Lawsuit”); and

WHEREAS, the City of Deerfield Beach believes it is in the best interest of the citizens and residents of the City to participate in the Lawsuit and urges other municipalities and their elected officials to also participate as plaintiffs.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, AS FOLLOWS:

Section 1. The above referenced “Whereas” clauses are true and correct and made a part of this Resolution.

Section 2. The City of Deerfield Beach hereby authorizes the participation of the City, and any of the individual Members of the City Commission who choose to participate as plaintiffs, in a lawsuit seeking declaratory, injunctive and other appropriate relief challenging the provisions of Section 112.3144(1)(d), Florida Statutes, that require municipal elected officials to file Form 6 financial disclosure forms, based upon any appropriate legal theories, including those set forth above, subject to the participation of at least ten municipalities.

Section 3. Weiss Serota Helfman Cole + Bierman, PL (the “Firm”) is hereby retained to represent the City in this litigation. The Firm will charge the City a flat fee, inclusive of attorneys’ fees and costs, of \$10,000 to represent the City and the individual elected officials who choose to participate as plaintiffs, for the litigation in the trial court. The City and elected officials recognize that such flat fee may be less than the actual attorneys’ fees and costs incurred, and that if the City and elected officials prevail in the Lawsuit, the Firm may apply with the Court for its actual reasonable attorneys’ and costs from the defendants. The filing of any appeals will be authorized by separate resolution under the terms thereof. The City and its elected officials also acknowledge that the Firm will be representing other local governments and officials in this lawsuit and waives any conflicts related to such representation.

Section 4. The City of Deerfield Beach invites and urges other local governments and elected officials to join the City as plaintiffs in the Lawsuit and to coordinate their efforts with the City.

Section 5. The City Clerk is directed to distribute this Resolution to all local governments in Broward County.

Section 6. That the appropriate City Officials are hereby authorized to do all things necessary and expedient to carry out the aims of this Resolution.

Section 7. This Resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2024.

CITY OF DEERFIELD BEACH

BILL GANZ, MAYOR

ATTEST:

HEATHER MONTEMAYOR, CITY CLERK