Non-Motorized Network

Connectivity Plan

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

WORK ORDER # V-21

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Kimley»Horn

Miami-Dade Metropolitan Planning Organization

presents

Non-Motorized Network Connectivity Plan

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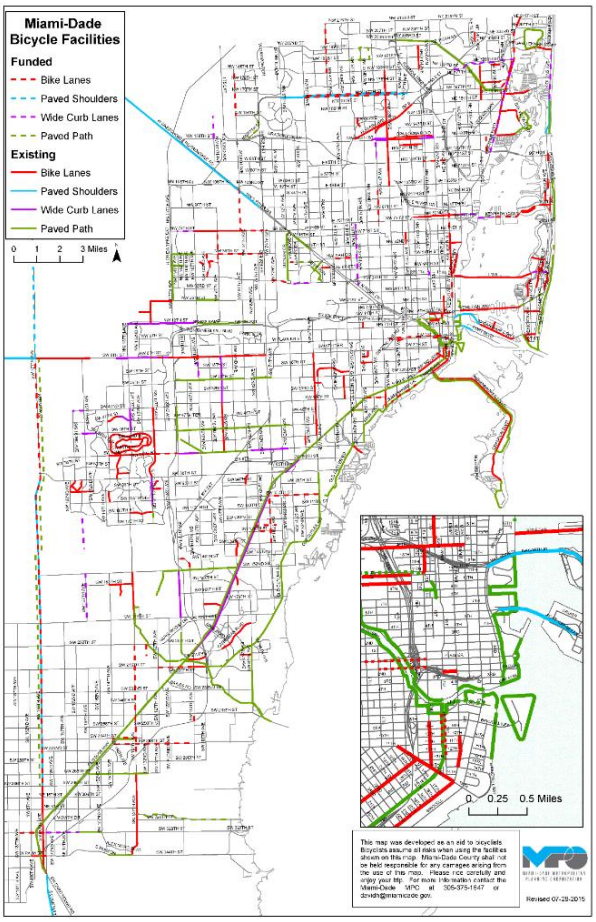
EXECUTIVE SUMMARY

Overview

The Miami-Dade Non-Motorized Network Connectivity Plan aims to identify and fill critical gaps in the County's non-motorized transportation network. Non-motorized transportation primarily focuses on walking, wheelchair travel, and bicycling. The benefits of a connected non-motorized network include, but are not limited to, environmental sustainability, healthier communities, and increased mobility options for Miami-Dade's young, elder, and lower income residents.

Miami-Dade County currently provides over 250 miles of bicycle facilities including on-road bicycle lanes, shared use paths, paved shoulders, and wide curb lanes. However, these facilities are often implemented through projects of opportunity – such as roadway resurfacing projects. Through this implementation method, existing facilities are often limited to the limits of the roadway projects. As a result, the existing non-motorized network is often fragmented and does not allow seamless trip-making to common destinations.

The Miami-Dade Non-Motorized Network Connectivity Plan identifies key gaps in the existing network that, if filled, will provide a safe, convenient, and accessible connection to key destinations including schools, parks, and transit.



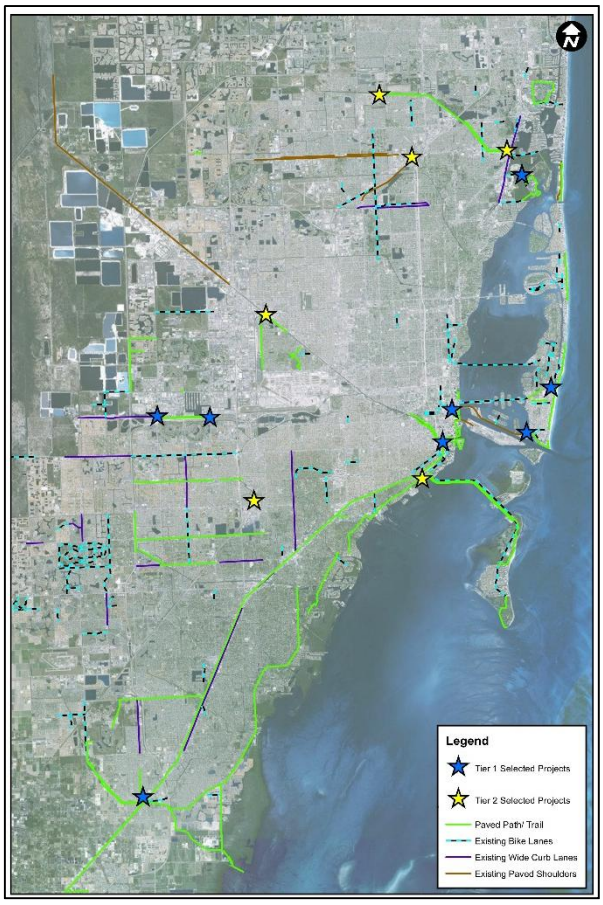
Existing and funded bicycle facilities in Miami-Dade County

Project Selection

Based on the review of existing facilities in Miami-Dade County, a preliminary list of fourteen potential projects was developed. The projects were presented to a Study Advisory Committee that included Miami-Dade County, Florida Department of Transportation (FDOT), and Miami-Dade Metropolitan Planning Organization (MPO) employees, as well as local advocates for non-motorized transportation. Of the fourteen "Tier 1" projects that were identified, six were selected for further study based on: potential use; connectivity to existing

non-motorized infrastructure, transit, schools, and parks; length of the existing alternative to the connection (if available); engineering feasibility; and potential for project consideration under alternative plans.

The six "Tier 2" projects that were selected for



Tier 1 and Tier 2 Selected Projects

further study, identified in yellow in the figure above, include:

- Miami Gardens connection to the Golden Glades Tri-Rail Station;
- Snake Creek Trail extension to Unity Station (NW 27th Avenue) and NW 199th Street Bus Rapid Transit (BRT) Stations;
- Snake Creek Trail extension to Greynolds Park and Sunny Isles Causeway;
- Coral Way shared use path connection to A.D. "Doug" Barnes Park and Tropical Park;
- Commodore Trail connection to the Rickenbacker Causeway; and
- Miami Springs and Medley connection to Okeechobee Metrorail Station.

Data Analysis

Field reviews were conducted to understand the existing conditions, operations, and opportunities for improvements at key locations associated with the six "Tier 2" projects. Data collection efforts included traffic volume counts, intersection turning movement counts, and pedestrian/bicyclist counts. Additionally, data collected in field reviews were supplemented through the use of aerial photography to determine existing lane width, geometry, and right-of-way boundaries where appropriate.

Recommendations

A project sheet was developed for each of the "Tier 2" projects. The project sheet includes a description of the project's goal, recommendations, stakeholder agencies, relative cost (on a scale from 1 – 4), and a potential timeframe for project implementation (whether it be immediate, short-term, or long-term). A brief description of the projects is provided below.

Miami Gardens connection to the Golden Glades Tri-Rail Station

Goal: Connect the residential and employment areas of Miami Gardens to the Golden Glades Park-and-Ride and the Golden Glades Tri-Rail Station.

Improvements: Provide pedestrian crossing improvements along NW 12th Avenue and NW 167th Street; pedestrian bridge adjacent to Florida's Turnpike to provide a crossing over the South Florida Rail Corridor (SFRC) and over State Road 9.

Implementation: Long term (5+ years).

Example of pedestrian bridge to be placed over SFRC and SR 9

Snake Creek Trail extension to Unity Station and NW 199th Street BRT Station

Goal: Connect the existing Snake Creek Trail (Bike Route 2) through Miami Gardens to the proposed Miami-Dade Transit (MDT) Unity Station and Park-and-Ride, located on the southwest corner of NW 215th Street and NW 27th Avenue, and to the proposed NW 199th Street BRT Station.

Improvements: Construct an underpass to provide users of the Snake Creek Trail with a connection under Florida's Turnpike; extend existing Snake Creek Trail west to NW 27th Avenue; provide paved path connection from Snake Creek Trail to Sun Life (Dolphin) Stadium; wayfinding signs to/from Snake Creek Trail, Unity Station, NW 199th Street BRT Station, and Sun Life Stadium.

Implementation: Long term (5+ years).

Example of underpass to allow shared use path to continue under Florida's Turnpike

Snake Creek Trail extension to Greynolds Park and Sunny Isles Causeway

Goal: Connect the existing Snake Creek Trail (Bike Route 2) to a large county park (Greynolds Park) and a State park (Oleta River State Park).

Improvements: Designate S Glades Drive (NE 165th Street) as a one-way, westbound roadway from NE 19th Avenue to NE 21st Avenue; widen bicycle lane on north side of S Glades Drive from Miami Drive to NE 21st Avenue to 10 feet to provide bidirectional shared use path; designate NW 164th Street as a neighborhood greenway from West Dixie Highway to NE 23rd Avenue; designate NE 23rd Avenue as a neighborhood greenway from NE 164th Street to NE 163rd Street; pedestrian crossing improvements at various locations; wayfinding to key destinations.

Implementation: Now (1-2 years).

Westchester to A.D. "Doug" Barnes Park and Tropical Park

Goal: Connect the Coral Way Green-and-White shared use path to key destinations, schools, and residential neighborhoods. Provide a tri-park connection between Tamiami Park, Tropical Park, and A.D. "Doug" Barnes Park.

Improvements: Provide pedestrian crossing and safety improvements at various locations; provide shared lane (Sharrow) markings along SW 79th Avenue, SW 36th Street, SW 75th Avenue, and SW 39th Avenue; provide pedestrian wayfinding signs for A.D. "Doug" Barnes Park, Tropical Parks, and Tamiami Park.

Implementation: Now (1-2 years).

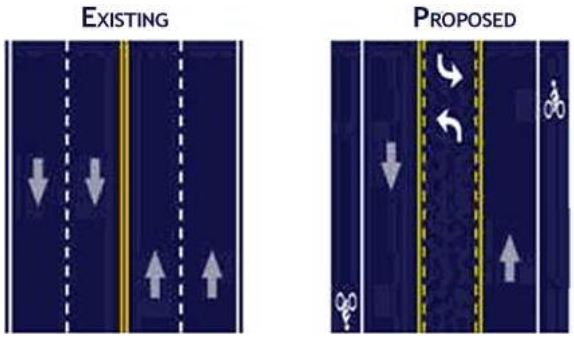
Commodore Trail to the Rickenbacker Causeway

Goal: Connect Commodore Trail (Bike Route 1) in Coconut Grove with the Rickenbacker Causeway (Bike Route 11), two of the County's highest volume bicycle facilities. Create a more pedestrian- and bicycle-friendly Bayshore Drive.

Improvements: Implement a road diet/lane reduction on S Bayshore Drive/S Miami Avenue from Halissee Street to S 32nd Road to allow for the provision of bicycle facilities; provide bicycle lane on S Miami Avenue between S 32nd Road and Federal Highway (US Hwy. 1); provide pedestrian crossing improvements at S Bayshore Drive and SW 17th Avenue.

Implementation: Short term (3-5 years).

Miami Springs and Medley connection to Okeechobee Metrorail Station



Proposed road diet/lane reduction along S Bayshore Drive

Goal: Provide an improved bicycle- and pedestrian-friendly connection from Miami Springs and Medley to the Okeechobee Metrorail Station.

Improvements: Construct a pedestrian bridge spanning the Miami Canal approximately 100 feet south of the existing Florida East Coast (FEC) railroad bridge; construct a pedestrian bridge spanning Okeechobee Road (US Hwy. 27) adjacent (southeast) of the existing FEC railroad bridge; provide paved path from the pedestrian railroad crossing to the Okeechobee Metrorail Station and from the pedestrian railroad crossing to the intersection of W 21st Place and W 11th Avenue; extend shared use path along N Royal Poinciana Boulevard north to the newly proposed pedestrian bridge; pedestrian crossing and safety improvements at various locations.

Implementation: Long term (5+ years).

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I. INTRODUCTION

The Miami-Dade Non-Motorized Network Connectivity Plan analyzes and develops new capital improvement projects to fill critical gaps in the non-motorized transportation network. The Miami-Dade Metropolitan Planning Organization (MPO) commissioned this Plan through the MPO's Unified Planning Work Program (UPWP). Identifying and solving gaps in the non-motorized transportation network is key to providing effective transportation options.

Non-motorized transportation includes modes of transportation that do not rely on combustion engines and fossil fuels for power. The primary forms of non-motorized transportation are walking, wheelchair travel, and bicycling, but the term may also be used to refer to small-wheeled transportation variants. In addition to providing mobility benefits, these modes tend to be the "cleanest and greenest" forms of transportation due to the reduction in fuel consumption and harmful emissions into the atmosphere. In addition, many users consider the health and well-being benefits of these "active transportation" modes as primary factors in the decision to walk or bike for transportation, even if it increases travel time when compared to other modes.

Facilities such as the M-Path improve non-motorized transportation options and integration with public transit

For these and many other reasons, facilities for non-motorized mobility are increasingly becoming a focus in urban transportation planning, but many network gaps still exist as planners and engineers struggle to retrofit the urban environment that has primarily been designed around the automobile for the last approximately 75 years.

It is critical to enhance non-motorized transportation mobility and accessibility in Miami-Dade County to connect the county's cities, neighborhoods, key destinations, and existing infrastructure investments. Pedestrian and bicycle-friendly environments invite residents to patronize local businesses, walk or bike to work and school, and access public transportation for longer trips. Furthermore, promoting walking and bicycling in Miami-Dade County achieves important sustainability, health, and recreation goals as well. The Miami-Dade MPO is continually seeking ways to enhance its non-motorized transportation network connectivity.

Miami-Dade County has made considerable progress in the development of the non-motorized transportation network. Currently there are over 250 miles of existing bicycle facilities including on-road bicycle lanes, shared use paths, paved shoulders, and wide curb lanes. Although bicycle facilities exist throughout the County, they are often implemented through projects of opportunity – such as incorporating bicycle facilities into a roadway resurfacing project. The project limits of roadway resurfacing projects often have more to do with pavement segmentation than connecting logical destinations that people may want to walk or bicycle to and from. Therefore, existing bicycle facilities are often fragmented and do not allow seamless trip making to useful destinations.

The Bayshore Drive section of Commodore Trail is popular with pedestrians and bicyclists despite the deficiency of its existing facilities.

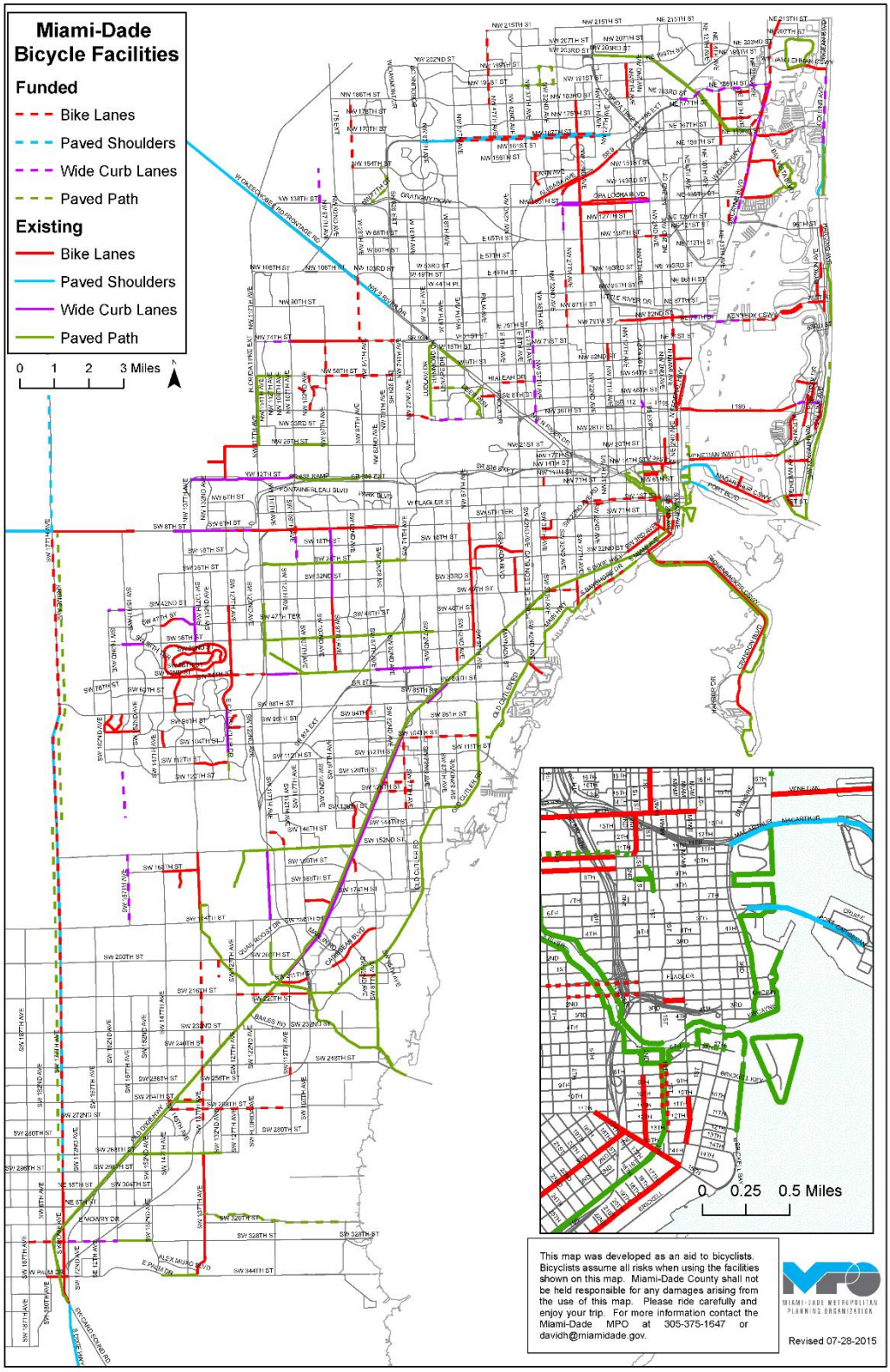


Figure 1: Existing and Funded Bicycle Facilities in Miami-Dade County

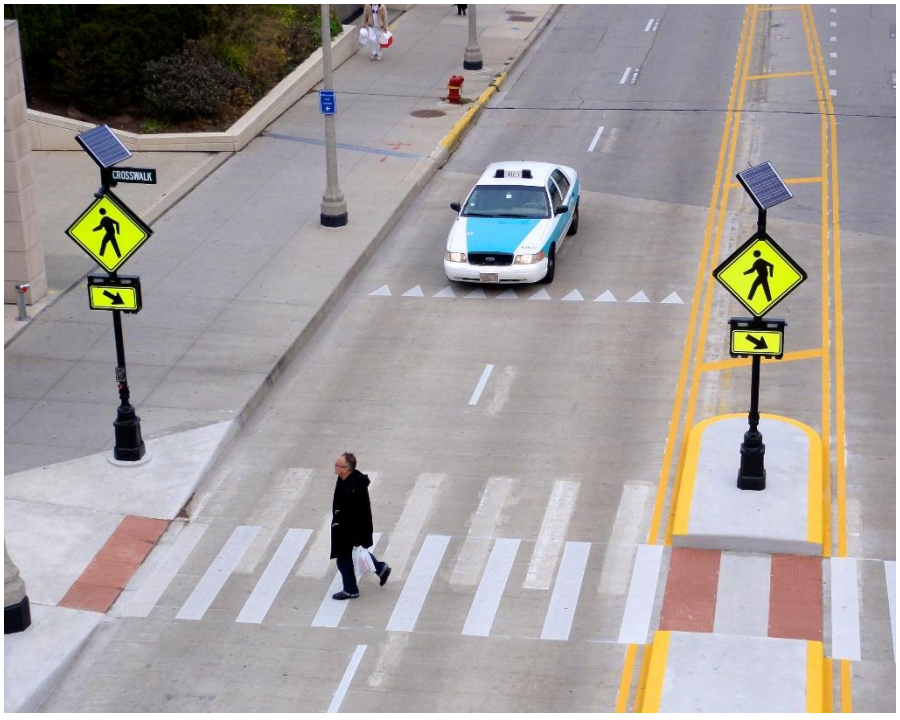
Non-motorized transportation improvements should be implemented as a coordinated set of inter-disciplinary methods, including implementing sidewalks, crosswalks, bicycle lanes, shared use paths, non-motorized shortcut paths, traffic calming, street furniture, safety education programs, law enforcement programs, encouragement activities, end-of-trip facilities (such as bicycle parking and showers/changing rooms at employment centers), automated bicycle rental systems (to improve access to bicycles for trip-making), and developing pedestrian-oriented land use and building design. Although all of these strategies and others should be implemented to address non-motorized transportation mobility, this Plan focuses on identifying facility gaps and recommending specific capital improvements for infrastructure such as sidewalks, crosswalks, bridges, bicycle lanes, and shared use paths. Other MPO plans and programs address different integrated strategies for enhancing non-motorized transportation in Miami-Dade.

This non-motorized transportation shortcut path through a fence allows pedestrians and bicyclists on Bike Route 1 to utilize a low-volume, low-speed section of Brickell Avenue as an alternate to a busy section of U.S. 1.

II. STUDY OBJECTIVE

The overall goal of this project is to improve bicycle and pedestrian connectivity in Miami-Dade County. This is accomplished by studying the existing non-motorized transportation network and addressing areas that local officials should concentrate on to provide greater mobility to non-motorized transportation users, with the end goal of increasing safety and overall use of these bicycle and pedestrian corridors.

This study will identify key gaps between existing and planned bicycle and pedestrian facilities, as well as gaps between facilities and significant trip destinations. Leveraging existing investments by studying ways to connect projects together is one of the primary analysis drivers. Once a short-list of key projects has been identified, the base conditions for each site will be recorded, and short-term and long-term improvements will be recommended that will help the network better serve the communities affected. Through this effort, a plan will be developed of safe, convenient, and accessible pedestrian and bicycle facilities that connect local communities, utilizing cooperative efforts of stakeholder entities including the public, governmental agencies, and the private sector.



Pedestrian crossing with median refuge and flashing beacon warning signs.

III. LITERATURE RESEARCH

An examination of international, national, state, and local literature was conducted to identify existing and future non-motorized transportation facilities in order to identify significant gaps in the network that should be addressed. The following data sources, studies, and plans were reviewed as part of this effort. A brief summary of the review of each item is included.

- Miami-Dade MPO 2040 Bicycle/Pedestrian Plan, 2014
- Miami-Dade MPO 2040 Long Range Transportation Plan (LRTP)
- Miami-Dade MPO Transportation Improvement Program (TIP)
- Application of Innovative Strategies to Bicycle Safety and Mobility, 2013
- DDA Bicycle/Pedestrian Mobility Plan, 2011
- Bicycle Boulevard Plan for Brownsville and Model City, 2009
- Bicycle Action Plan for the City of Miami, 2008
- Miami Bicycle Master Plan, 2010
- Snapper Creek Trail Segment A Planning Study, 2008
- Miami-Dade Parks and Open Space System Master Plan, 2007
- Miami River Corridor Multimodal Transportation Plan
- NACTO "Urban Bikeway Design Guide"
- Dutch "Design Manual for Bicycle Traffic"
- FHWA's International Technology Scan of Pedestrian and Bicyclist Safety and Mobility in Europe
- Report to the U.S. Congress on Outcomes of Nonmotorized Transportation Pilot Program

Miami-Dade 2040 Bicycle/Pedestrian Plan

The Miami-Dade 2040 Bicycle/Pedestrian Plan presents a vision and improvement strategies developed through public engagement activities and technical analysis to enhance the non-motorized transportation network of the Miami-Dade County, and serves as an important element of the County's 2040 Long Range Transportation Plan (LRTP). The vision of the Miami-Dade 2040 Bicycle and Pedestrian Plan is to enhance the accessibility, safety, public health, social equity, environment, and overall quality of life within Miami-Dade County by creating interconnected bicycle and pedestrian friendly communities throughout the county.

The evaluation criteria used in the 2040 Bicycle/Pedestrian Plan are summarized in Table 1. Based on these criteria, a Cost Feasible Plan (shown in Figure 2) was established by comparing the facility needs plan to the minimum revenue anticipated to be available during the planning horizon of the 2040 LRTP. It was found that approximately 56 miles (roughly 44%) of the on-road network improvements were classified as Priority 1, while around 48 miles (approximately 34%) of the off-road network improvement projects fell under this category.

Table 1: Evaluation Criteria for On-road and Off-road facilities

	ON-ROAD FACILITIES	OFF-ROAD FACILITIES
Existing Conditions	Pedestrian & Bicyclist Crash Data	Unpaved Path
	Pedestrian and Bicycle LOS	
Connectivity	Schools, Employment Centers, Residential, Public Transit, Parks and Recreation Areas	Schools, Employment Centers, Residential, Public Transit, Parks and Recreation Areas
	Existing Pedestrian and Bicyclist Facilities	Existing Pedestrian and Bicyclist Facilities
Local Support	Funding	Funding
Cost Feasibility	ROW (Right-of-Way) Availability	ROW (Right-of-Way) Availability
	Component of an LRTP Project	

Additionally, the 2040 Bicycle/Pedestrian Plan, through public engagement and coordination efforts, identified several showcase projects as priorities for implementation.

- Atlantic Trail
- Rickenbacker Causeway
- Biscayne Boulevard
- Snake Creek Trail
- M-Path
- Miami Avenue/NE 1st Avenue
- School Safety Enhancement Program
- Flagler Trail
- Ludlam Trail
- Neighborhood Greenways
- Bicycle Commuter Stations
- More and Safer Crosswalks

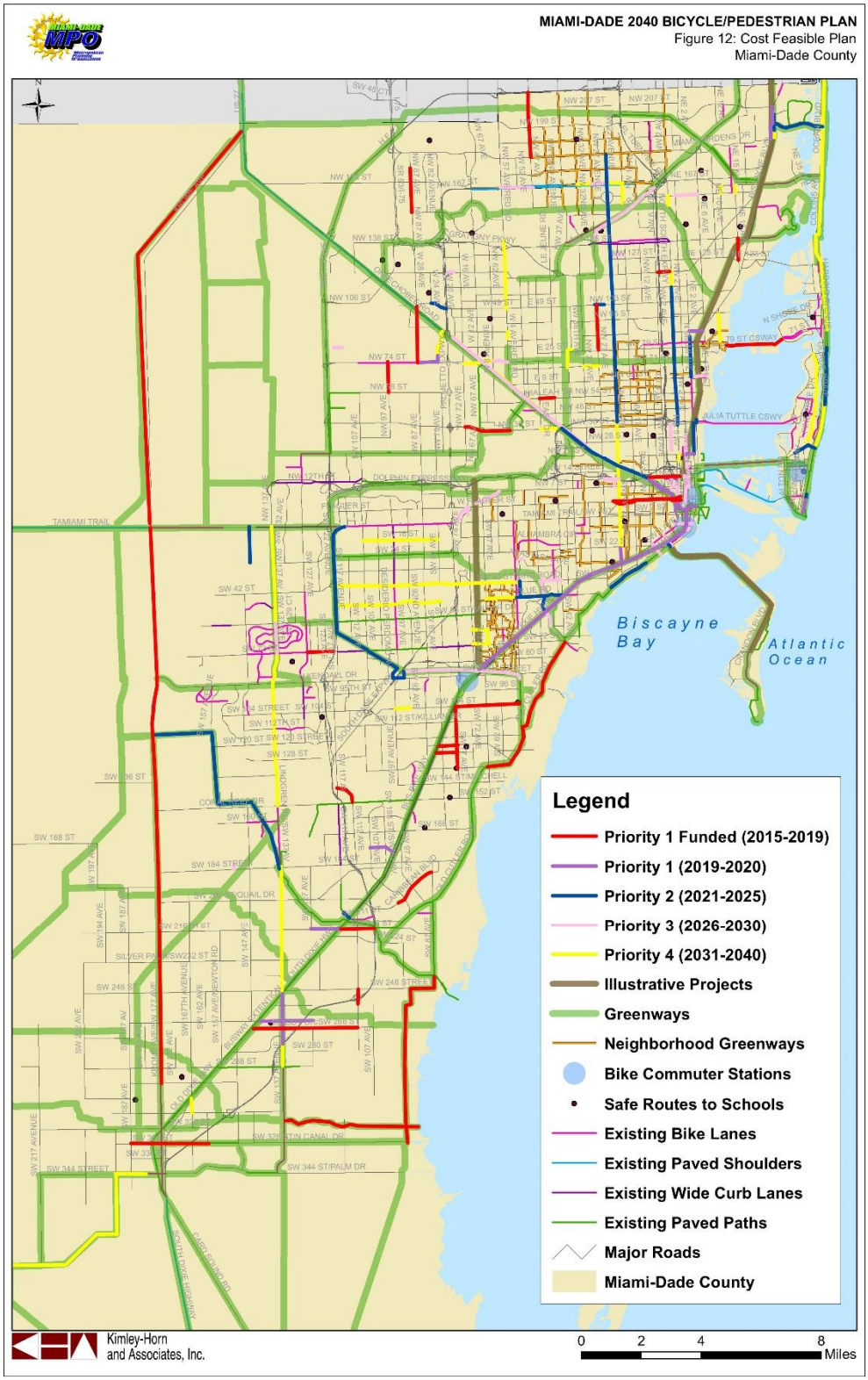


Figure 2: 2040 Bicycle/Pedestrian Plan Cost Feasible Plan

Miami-Dade MPO 2040 Long Range Transportation Plan (LRTP)

The Miami-Dade Metropolitan Planning Organization (MPO) updates their LRTP every five years per federal legislation requirements. The LRTP outlines expenditures for surface transportation programs including highways, transit, safety, research and freight. The current LRTP is for long term planning horizon 2040. The 2040 LRTP was adopted by the MPO Governing Board late 2014. The plan addresses several transportation improvements, including mobility, safety, security, economic vitality, environment, connectivity, and system preservation. LRTP projects are prioritized on a scale of 1 to 4, where Priority 1 projects are to be implemented between 2015-2020, Priority 2 projects are to be implemented between 2021-2025, Priority 3 projects are to be implemented between 2026-2030, and Priority 4 projects between 2031-2040. Furthermore, the LRTP identifies projects that have partial or no funding. Assurance is made that specific programs are provided a minimum level of investment in the plan. The 2040 LRTP includes financial set-asides for Bicycle and Pedestrian Facilities, Congestion Management, and Freight. A summary of set-aside funds is provided in Table 2.

Table 2: 2040 LRTP Set-Aside Funds (Millions YOE $)

	PRIORITY I	PRIORITY II	PRIORITY III	PRIORITY IV	TOTAL
Bicycle/Pedestrian	$ 5	$ 24	$ 24	$ 47	$ 99
Congestion Management	$ 9	$ 46	$ 45	$ 70	$ 171
Freight	$ 6	$ 30	$ 29	$ 62	$ 127
TOTAL SET-ASIDES	**$ 20**	**$ 100**	**$ 98**	**$ 179**	**$ 397**

Bicycle and Pedestrian projects are generally categorized into four improvement types: bicycle facilities, pedestrian facilities, safe routes to school (SRTS), and trails. Of the 202 bicycle/pedestrian projects identified in the 2040 LRTP, approximately one third are bicycle facility projects, one third are pedestrian facility improvements, and the remaining third are SRTS and trail facility projects.

Miami-Dade MPO Transportation Improvement Program (TIP)

The Miami-Dade MPO prepares the annual Transportation Improvement Program (TIP) consistent with federal guidelines. The TIP in effect at the time of this Plan is the FY 2014/15 to FY 2018/19 TIP approved by the Miami-Dade MPO Governing Board on June 19th, 2014. The TIP specifies proposed transportation improvements to be implemented in Miami-Dade County over the coming five years. The TIP was reviewed to determine programmed projects where innovative bicycle solutions could be applied. A total of $14.4 million are allocated through the federally funded Transportation Alternative program (TAP), while $5.5 million will be allocated through Safe Routes to School (SRTS) projects. Programmed projects are depicted in Table 3.

Table 3: Bicycle/Pedestrian Corridor Improvements

PROJECT SEGMENT	PROJECT TYPE	PROJECT AREA
Village of Pinecrest	Bike path/trail	Various Citywide Bicycling Improvements
Downtown Development Authority	Bike path/trail	Various downtown locations
City of Miami Springs	Bike path/trail	Providing access to the Curtis Mansion as trailhead
Town of Miami Lakes	Bike path/trail	Various locations citywide
City of Miami Gardens	Pedestrian Safety Improvements	NW 179th Street along canal from NW 42nd Avenue to NW 39th Avenue & NW 39th Avenue along canal from NW 179th Street to NW 191st Street
Overtown Greenway	Bike path/trail	Along NW 11th Street between NW 7th Avenue and NW 12th Avenue
Safe Routes to School Infrastructure Projects	Pedestrian Safety Improvements	Biscayne, Perrine, and Coral Reef Elementary Schools.

Application of Innovative Strategies to Bicycle Safety and Mobility

This study, conducted for the Miami-Dade County MPO, identified transportation corridors and intersections that were not served by existing or planned bicycle facilities at the time as well as planned or existing facilities that could benefit from improved innovative design. The goal of the study was to increase bicycle mode share and reduce bicycle crash rate through the provision of strategies that emulate the Dutch bicycling experience and the facilities provided in the NACTO "Urban Bikeway Design Guide," also reviewed below.

The study developed a toolbox of various innovative bicycle strategies that could be used to help design future facilities, and modify existing ones, to better serve the needs and address the issues at

specific requirements. A summary of the toolbox is presented in Table 4. These strategies are flexible, and can be implemented independently or cooperatively.

Table 4: Innovative Strategies Toolbox Summary

ENGINEERING	
1.	Zig-Zag Lane Lines at Trail Crossings
2.	Right-Turn Only Except Bicycles
3.	Bike Boxes
4.	Two-Stage Turn Queue Boxes
5.	Traffic Signal with Bike Detection Loops
6.	Bicycle Wayfinding Signs
7.	Bicycle Surface Treatment on Open Grate Bridges
8.	Shared Space
9.	Shared Lane Markings (Sharrows)
10.	Bicycle Boulevard
11.	Pedestrian Streets
12.	Advisory Bike Lanes
13.	Green Bike Lanes
14.	Buffered Bike Lanes
15.	Cycle Tracks
16.	Low Speed Zone
17.	14-Foot Lane Treatments
18.	Contraflow Bike Lanes
19.	Grade Separation
20.	Road Diet
21.	Shared Bus and Bike Lane
ENCOURAGEMENT	
22.	Integration of Bikes and Transit
23.	Inclusion of Cycling Options in Non-Cycling Events
24.	Open Streets or Ciclovia Events
25.	Promotion Campaign Based on Fun and Joy of Cycling
26.	Online Bike Route Planner
27.	Bike Barometer
EDUCATION	
28.	Traffic Garden
29.	Anti-Dooring Campaign
30.	Courtesy Counts Campaign
ENFORCEMENT	
31.	Online Bicycle Registration
32.	Speed Enforcement on Bicycle Corridors
EVALUATION	
32.	Data Collection Plan
33.	Bike Program Progress Report

The report reviewed the operations and needs at 26 sites, and compared them to the toolbox of improvements. Based on this comparison, the study provided recommendations at each site. Lastly, the study provided several innovative strategies that would encourage bicycle ridership through increased visibility such as online bicycle registration, a bicycle program progress report, and the installation of bike barometers to provide real-time information regarding bike ridership counts at key locations.

Miami DDA Bicycle/Pedestrian Mobility Plan

The primary objective of this Bicycle/Pedestrian Mobility Plan is to recommend projects and help implement the Miami Downtown Development Authority's (DDA) goals to provide greater bicycle and pedestrian mobility in the downtown area. The plan also focuses on improving multimodal access to public transportation. The first step in the study was to provide an analysis of existing transportation mobility. The plan then identified 37 improvement projects that were split into four categories: Area Wide Improvements, Metromover Improvements, Segment Improvements, and Non-Engineering Improvements. Heavy focus was placed on developing projects that would enhance the bicycle and pedestrian experience in the downtown Miami area, but regional connectivity was also addressed through improved access to public transportation. Implementation tasks and strategies were also identified to guide and lead agencies in realizing the vision and implementing the DDA's mobility goals.

Miami-Dade County Bicycle Boulevard Planning Study: Model City/Brownsville

This study was initiated by the Miami-Dade County Park and Recreation Department (MDPR) in partnership with Miami-Dade Public Works Department (MDPWD) and the Miami-Dade Metropolitan Planning Organization (MPO). Some of the key objectives of the bicycle boulevard study include the incorporation of bicycle safety features, the establishing design and development criteria that is consistent with the Florida Department of Transportation (FDOT) and MDPWD, and to develop cost effective bicycle boulevard and traffic calming strategies, to name a few. Based on the field review conducted in the study, selection criteria were developed to identify what corridors would be best suited for a bicycle boulevard and a toolbox was developed to provide guidance in the planning and design process. This toolbox consists of two major categories: basic tools that are applicable to all boulevards, and site specific tools that address issues to a particular site. The toolbox that was developed can be seen in Table 5, below. Two approaches were identified for

implementation: a corridor-based approach, and a neighborhood-based approach. Based on the public meetings and input from the Study Advisory Committee, it was suggested that for this study it would be best to use elements from both types of approaches.

Table 5: Bicycle Boulevard Toolbox Summary

BASIC TOOLS	
A.	Signage
	1. Bicycle Boulevard Designation Signs
	2. Street Name Sign
	3. Advance Warning Sign
	4. Wayfinding Sign with Distances
	5. Other signs to be used as needed for site-specific applications
B.	Pavement Markings
	1. Bicycle Boulevard Pavement Markings
	2. Bike Lane Striping and Marking
C.	Landscaping / Aesthetics
	1. Planter Strip Landscaping
	2. Street Trees
SITE SPECIFIC TOOLS	
D.	Neighborhood Traffic Management Tools
	1. Traffic Circles
	2. Landscape Curb Extensions Bulb-Out
	3. High Emphasis Crosswalks
	4. Chicane
	5. Partial Street Closure
	6. Speed Cushions
E.	Crossing Major Streets
	1. Traffic Signal
	2. Traffic Signal with Bike Detection Loops
	3. Bike Boxes
	4. Traffic Signal (Bicycles Only) with Turn Restrictions for Motor Vehicles
	5. All-Way Stop Sign
	6. Crosswalk with Median Refuge (with Optional Turn Restrictions)

Based on the study, and the toolbox, several priority recommendations were made. Installing signing and pavement markings and legends on all bicycle boulevards was one of the key items on this list. It was also recommended that all unwarranted stop signs be removed and replaced with alternative traffic calming devices that limited impact on emergency vehicles, and devices be installed to provide help crossing major intersections. Furthermore, it was recommended that intersection traffic studies should be conducted, and that school areas safety improvements be provided. Lastly, the study identified several funding sources for future bicycle boulevard implementation.

Miami Bicycle Master Plan

In continuation of the pursuit to become a Bicycle Friendly City, the City of Miami developed a Bicycle Master Plan. This document, which aligns with the development criteria identified in the Miami 21 Zoning Ordinance and the Complete Streets Ordinance, is intended to be used as a guide for the development of the City's bicycle network and infrastructure over a period of 20 years.

The first part of the study was to review existing conditions of the bicycle network, which revealed lack and geographical imbalance in the facilities available to bicyclists. Furthermore, this part of the study acknowledges that the high-volume corridors passing through the City, in conjunction with the high speed service they provide to motorists, inhibit bicycle use and may do more to isolate neighborhoods than they do to connect them.

Public input played a large role in the development of the Miami Bicycle Master Plan. A survey of existing bicycles confirmed that the largest barriers to bicycling in Miami were the lack of bicycle facilities, a concern for personal safety, and a lack of bicycle parking. Public involvement was identified as a key component of the Miami Bicycle Master Plan, and it is was stressed that future improvement plans and the implementation of the study should be as open to local bicyclists as possible.

In addition to facility development, the Miami Bicycle Master Plan also provides a Safety and Awareness Plan, which includes education, encouragement, and enforcement strategies. Each of these sections of the Safety and Awareness Plan is divided into several action items that are required to ensure its success. Lastly, a 21-step Evaluation Plan is provided for ensuring the continued improvement, maintenance, and success of the City's strive to become a Bicycle Friendly City and to continue to increase and improve bicycle use throughout Miami.

The final plan, provided in Figure 3, increases the bicycle network from 17.2 miles (at the time of the study) to over 280 miles of bikeways by 2030. This would make up roughly one third of the City street network. Seven types of bikeway types were identified in the study including: Bicycle Routes, Shared Use Lane Markings (Sharrows), Bicycle Lanes, Shared Use Paths/Greenways, Bicycle Boulevards, Neighborhood Connections, and Scenic View Routes. A map of the Miami Downtown Development Authority (DDA) 2030 Bicycle Network Plan is displayed in Figure 4.

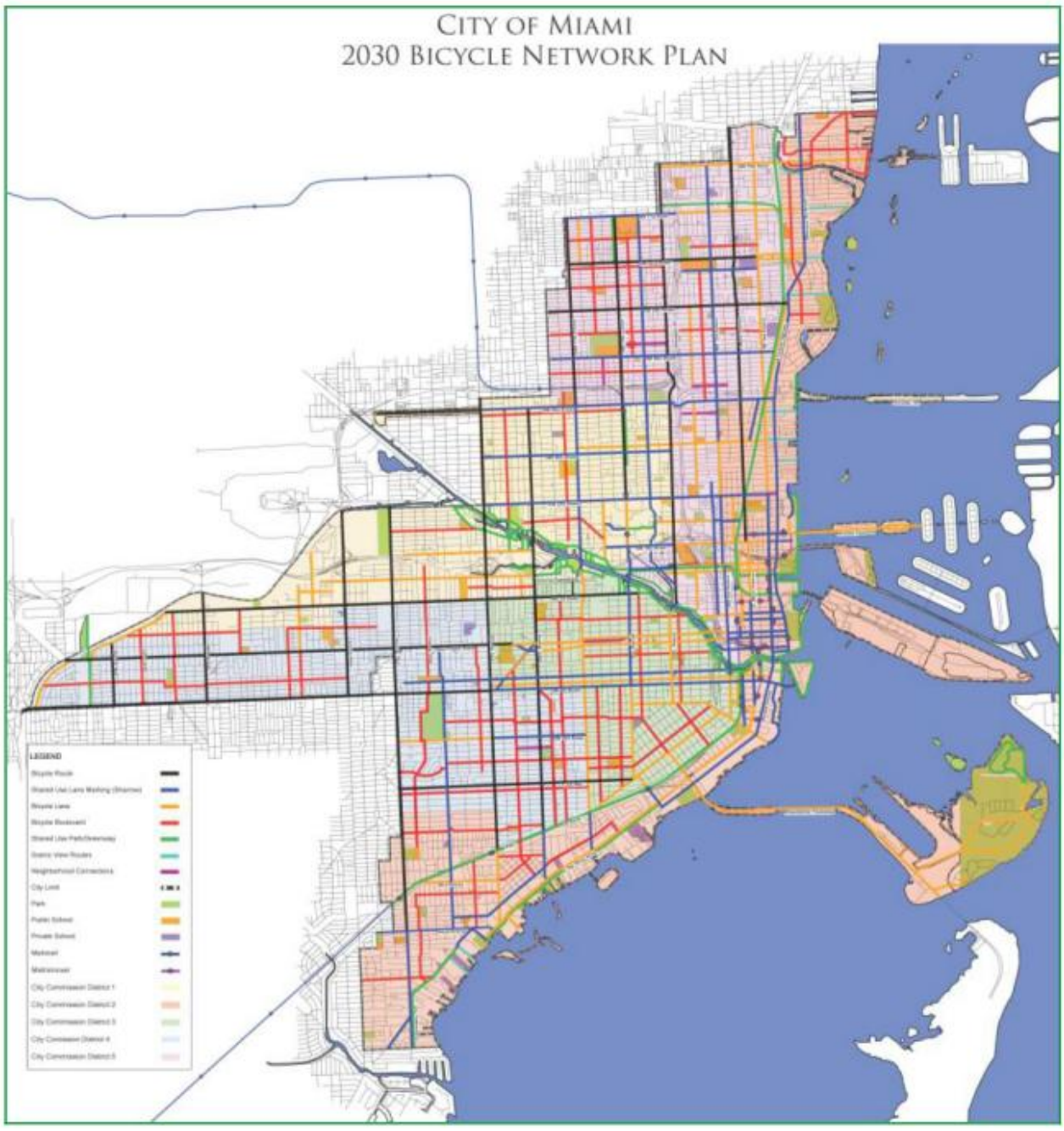


Figure 3: City of Miami 2030 Bicycle Network Plan

Figure 4: Miami DDA 2030 Bicycle Network Plan

The Miami Bicycle Master Plan identifies and recommends improvement projects to be completed after 1, 5, 10, and 20 years (2010, 2015, 2020, and 2030).

Snapper Creek Trail Segment 'A' Planning Study

The study was on a proposed 5.6 mile multi-use trail mostly running along the Snapper Creek (C-2) Canal, in suburban west central Miami-Dade County. The proposed trail begins near FIU and ends near Kendall Drive. The study proposed a route alignment for the trail, as well as planning program for implementation. The proposed route was expected to cost approximately $4.7 million and includes about 5 miles of paved trailed and 1 mile of shared road facilities. The route selected in the study is intended to connect several parks including Tamiami Park (just south of FIU), Concord Park, The boys and Girls Club of Miami, Inc/ S.W. Langer/Kendall-Unit, and Kendall Indian Hammocks Park. Furthermore, the Snapper Creek Trail would connect to several existing trails and future bicycle facility connections. Lastly, connections to the Dr. Carlos J Finlay Elementary School and Sunset Park Elementary school were taken into consideration. Figure 5 depicts the proposed four-phase implementation plan for the trail (shown in orange). Two alternatives for the section South of SW 72nd Street/Sunset Drive were also taken into consideration, and those are identified by the dashed green and purple lines.

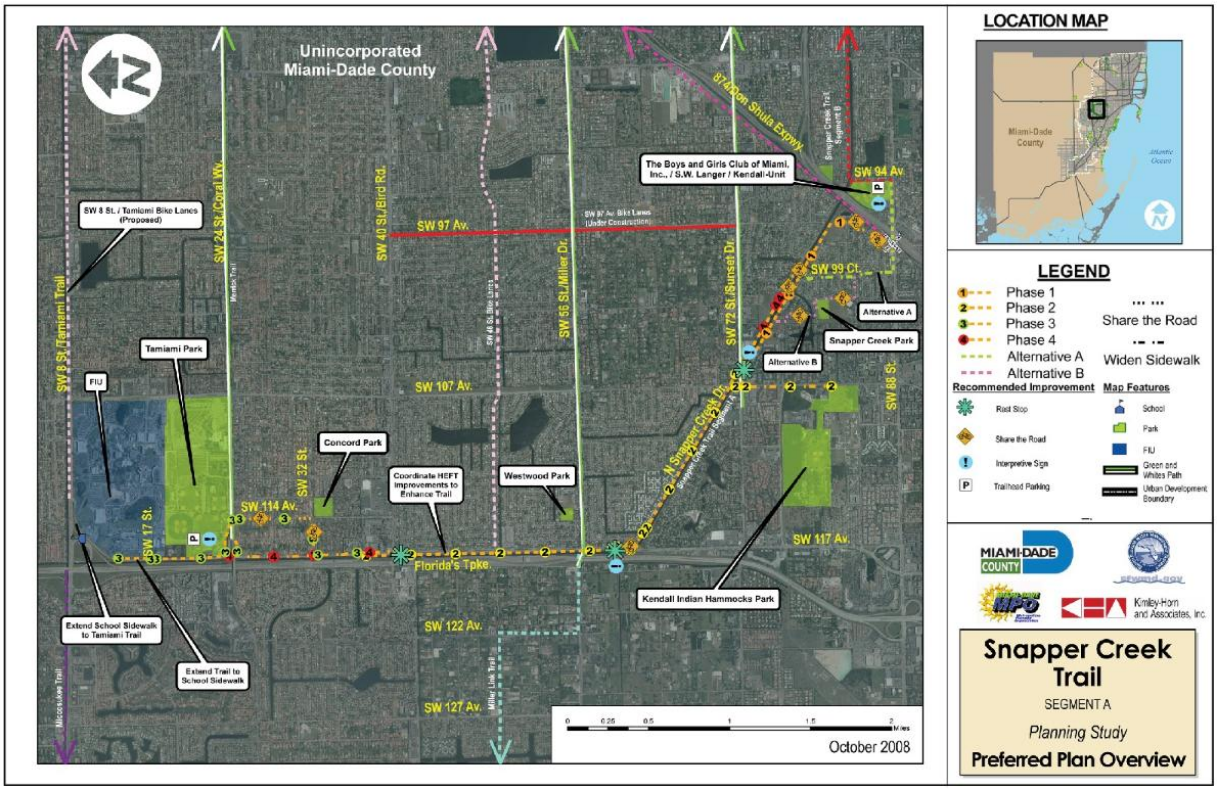


Figure 5: Snapper Creek Trail Plan Overview

Miami Dade County Park and Open Space System Master Plan (OSMP)

The Miami Dade County Park and Recreation Department developed the most recent OSMP in 2007, and it was approved in early 2008. This plan provides a 50-year vision to guide the development in the county in order to build more sustainable, livable communities in the county. The OSMP identifies six major goals: Sustainability, Seamlessness, Beauty, Equity, Access and Multiple Benefits. Within each goal, the OSMP provides a number of strategies to guide the implementation. The key goals that impact the Non-Motorized Network Connectivity Plan are: Seamlessness, Beauty, Access and Multiple Benefits. Relevant actions for each of these goals are as follow:

Goal 2: Seamlessness

- Strategy #1: develop, implement greenways, trails and bicycle facilities. This strategy identifies initiated Greenway Master Plans as well as greenway and bicycle trail projects that required immediate attention. Furthermore, greenway/trail wayfinding signage should be completed.

Goal 3: Beauty

- Strategy #1: Design parks, public spaces, natural and cultural areas, greenways and streets to create a sense of place for neighborhood stabilization and/or redevelopment
- Strategy #2: Design streets to create a sense of place. This is done through a Great Streets Program that was initiated. Furthermore, Connectivity requirements for new developments are identified and include greenways and trails to connect people to parks, schools and work.
- Strategy #3: Manage and operate greenways and bicycle facilities to promote beauty and sustainability.

Goal 5: Access

- Strategy #1: Create Parks and Open Space Activity Access Criteria. This includes identifying access measures for neighborhoods and regional activities as well as connectivity gaps for recreation opportunities.
- Strategy #2: Secure safe route to parks

Goal 6: Multiple Benefits

- Strategy #1: Improve health, wellness, and social well-being through greenway and bicycle trails implementation and future development.

Miami River Corridor Multi-modal Transportation Plan

The 2007 Miami River Corridor Multi-modal Transportation Plan is a document aimed to guide future development along the corridor, which is considered to extend ¼ mile on each side of the river. The first part of the study was to review existing and planned transportation facilities along the corridor and identify areas that need further development. This review was split by mode to include transit, pedestrian, bicycle, and traffic conditions. Following the evaluation of existing conditions, the document identifies needs and provides strategies to better serve each mode of transportation. For the purpose of the Non-Motorized Network Connectivity Plan, this review will concentrate strictly on greenway, pedestrian, and bicyclist improvements.

Figure 6(a-c) provide the existing (in 2007) and proposed bicycle, pedestrian, and greenway improvements for the lower, middle, and upper sections of the river, respectively. With the implementation of the proposed improvements, the Miami River Greenway will provide a continuous connection along both sides of the corridor. Pedestrian improvements included: the removal of parking meters from sidewalks (to be replaced by "Pay and Display" machines), the removal of fencing throughout the corridor which blocked pedestrian passage to key connections, the installation of ADA ramps and high emphasis crosswalks where missing, the installation of pedestrian lighting and pedestrian signalized crossings at key locations, and streetscaping and sidewalk construction along specific areas of the corridor. Identified bicycle improvements include: installation of bike racks at major bust stops, improving connectivity with M-Path, improving connectivity between the Miami Intermodal Center and the Miami River Greenway, and installing bicycle wheel gutters at pedestrian stairs for bridges crossing the Miami River.

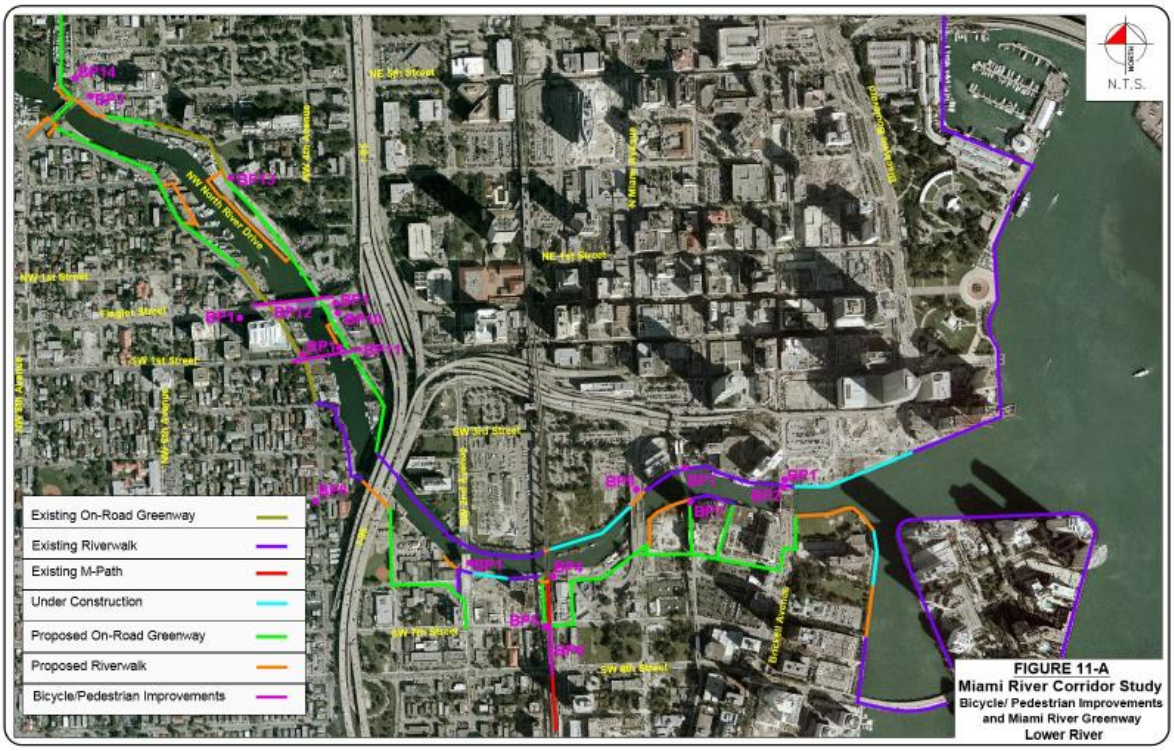


Figure 6(a): Bicycle/Pedestrian Improvements and Miami River Greenway - Lower River

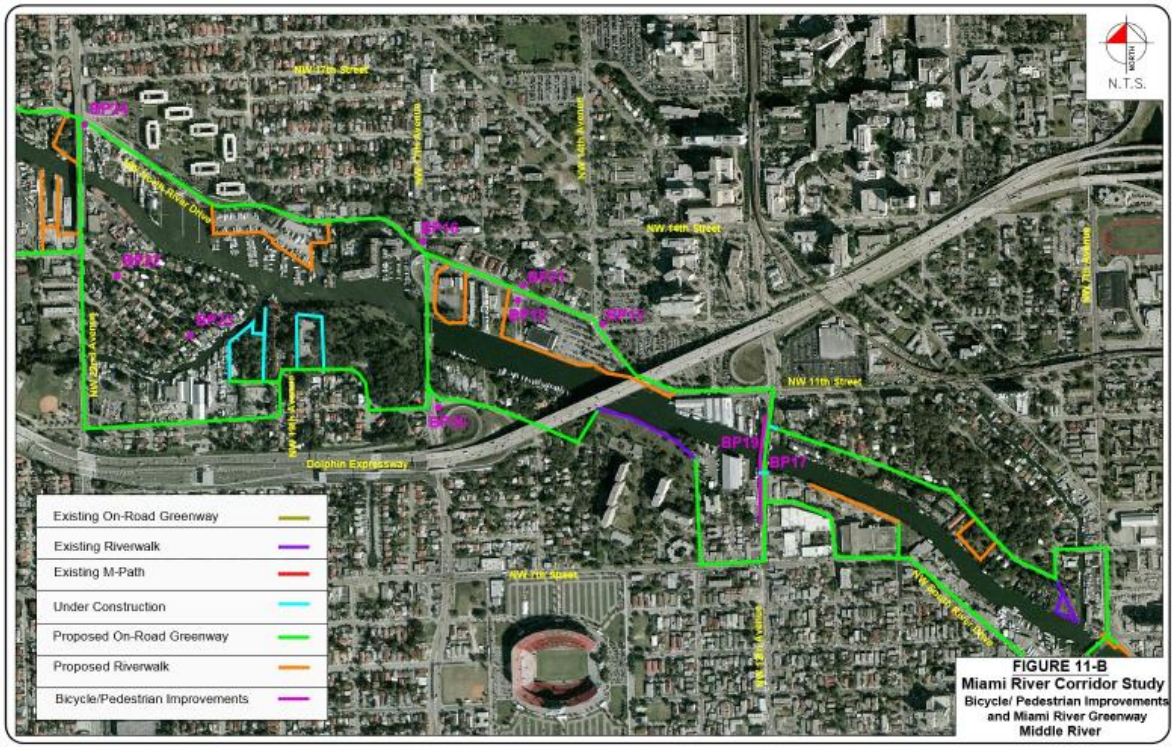


Figure 6(b): Bicycle/Pedestrian Improvements and Miami River Greenway - Middle River

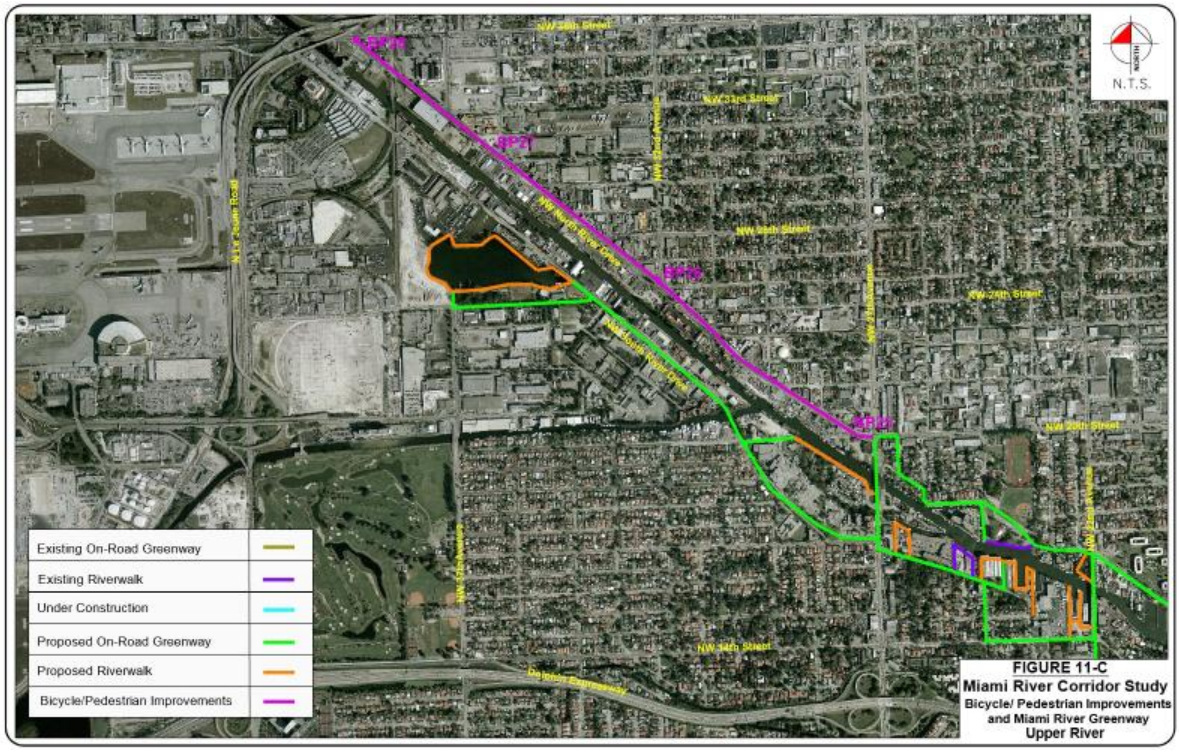
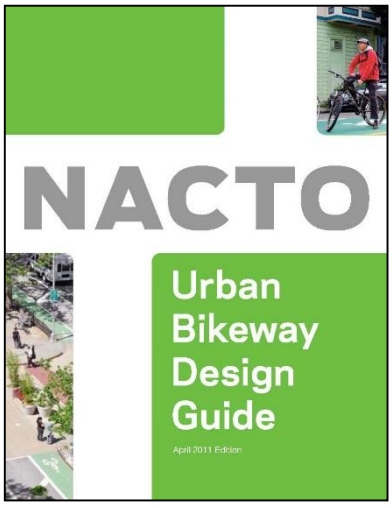


Figure 6(c): Bicycle/Pedestrian Improvements and Miami River Greenway - Upper River

NACTO "Urban Bikeway Design Guide"



The National Association of City Transportation Officials (NACTO) published the "Urban Bikeway Design Guide", which illustrates state-of-the-practice bicycle transportation facility design solutions from the best cycling cities in the world. The designs are based on the concept that unique urban streets require innovative solutions that go beyond a more minimal approach found in many national and state standards and guidelines. The NACTO Guide illustrates through renderings, photos, case studies, and descriptive text, how the bicycle facilities in the "Urban Bikeway Design Guide" are based on the principles found in national street/highway design guidelines and the Manual on Uniform Traffic Control Devices (MUTCD), but also how they are tailored to meet unique design challenges in urban environments.

The NACTO Guide was developed based on an extensive national and international literature search from design guidelines and real-world experiences. A panel of urban bikeway planning professionals worked with traffic engineers, planners, and academics with deep experience in urban bikeway applications to develop the NACTO Guide and to ensure that it is based on sound engineering principles.

The intent of the NACTO Guide is to offer substantive guidance for cities seeking to improve bicycle transportation in places where competing demands for the use of the right-of-way present unique challenges. The Guide details state-of-the-practice design treatments that are used in the world's most bicycle friendly cities including:

- Bike Lanes
  - Conventional Bike Lanes
  - Buffered Bike Lanes
  - Contra-Flow Bike Lanes
  - Left-Side Bike Lanes
- Cycle Tracks
  - One-Way Protected Cycle Tracks
  - Raised Cycle Tracks
  - Two-Way Cycle Tracks

- Intersections
    - Bike Boxes
    - Intersection Crossing Markings
    - Two-Stage Turn Queue Boxes
    - Median Refuge Island
    - Through Bike Lanes
    - Combined Bike Lane/Turn Lane
    - Cycle Track Intersection Approach
- Bicycle Signals
    - Bicycle Signal Heads
    - Signal Detection and Actuation
    - Active Warning Beacon for Bike Route at Unsignalized Intersection
    - Hybrid Signal for Bike Route Crossing of Major Street
- Bikeway Signing and Marking
    - Bike Route Wayfinding Signage and Markings System
    - Colored Bike Facilities
    - Shared Lane Markings

Each treatment addressed in the NACTO Guide offers three levels of guidance:

- Required – Elements for which there is a strong consensus that the treatments cannot be implemented without.
- Recommended – Elements for which there is a strong consensus of added value.
- Optional – Elements that vary across cities and may add value depending on the unique situation.

In all cases, the solutions require engineering judgment to ensure that the application makes sense for the context of each treatment given the many complexities of urban streets.

Dutch "Design Manual for Bicycle Traffic"

The Dutch "Design Manual for Bicycle Traffic" was produced by CROW, the national information and technology platform for infrastructure, traffic, transport and public space in the Netherlands. The design manual details the needed steps to create a bicycle-friendly infrastructure and begins with a description of the role of the bicycle in the Netherlands. The national government requires that all

municipal authorities encourage the bicycle as the principal means of transportation. With a mode share of approximately 25 percent of all trips, the bicycle is the most popular means of transportation after the car. For shorter trips, up to 5.0 km, this mode share increases to 35 percent. The manual states that a bicycle-friendly infrastructure enables cyclists to make direct, comfortable bicycle trips in attractive, safe traffic surroundings, which is necessary for the bicycle to compete with the car in the modal split. To achieve this, planners and designers need to study the cyclist as the future user of the design, define the goals, and balance function, form and use. This results in a creative challenge requiring more than the use of template designs and in turn thinking of the consequences of a design. The design manual lists the five main requirements needed for a bicycle-friendly infrastructure as cohesion, directness, attractiveness, safety, and comfort. These requirements are based upon the following characteristics:

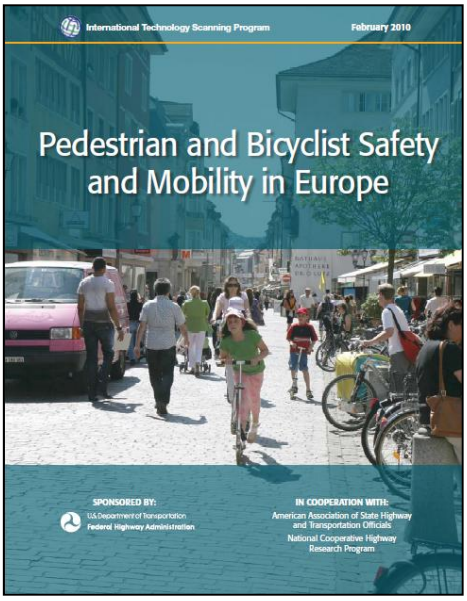
- Perception and the ability to ride side by side
- Minimization of resistance
- Optimization of mental capacity
- Vulnerability of the cyclists
- Need for a complete, comprehensible bicycle infrastructure

In general, if the minimum level for one of the main requirements is not met, the infrastructure should be modified. The manual goes on to address other considerations and the main requirements in detail for each type of bicycle facility.

FHWA's International Technology Scan of Pedestrian and Bicyclist Safety and Mobility in Europe

The Miami-Dade MPO participated in the Federal Highway Administration's (FHWA's) International Technology Scan of Pedestrian and Bicyclist Safety and Mobility in Europe. In May 2009, a team of twelve transportation professionals from around the United States with expertise in bicycling and walking visited five countries in Europe to identify and assess effective approaches to improve pedestrian and bicyclist safety and mobility. The team focused on innovative approaches to non-motorized transportation and the potential transferability of policies and practices. Key findings were developed based on the "Five E" approach – engineering, education, enforcement,

encouragement, and evaluation. Many of the innovative design practices observed could be used to improve bicycle safety and mobility including:

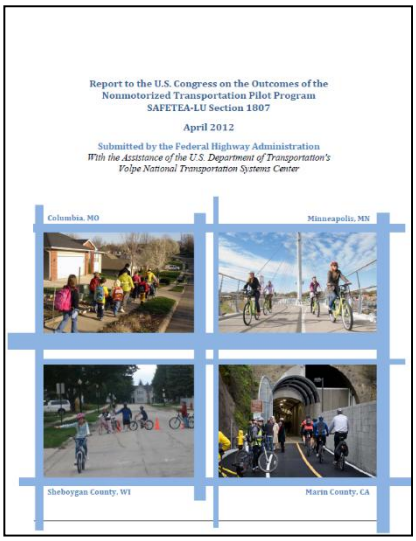


- Engineering:
  - Cycle tracks
  - Cycle paths
  - Cycle paths on independent alignments
  - Advance stop lines for bikeways
  - Leading green phase for bicyclists
  - Bike boxes
  - Bicycle traffic signals
  - Colored bike lanes
  - Advisory bike lanes
  - Signal timing for bicyclists
  - Low-speed street designs
  - Integration of biking with public transit
- Education:
  - Traffic safety education programs for children
  - Traffic safety education programs for adults
  - Education and awareness programs for motorists
- Enforcement:
  - Photo enforcement at traffic signals
  - Photo enforcement of speed limits
- Encouragement:
  - Route and wayfinding signs
  - Web-based route and destination planning tools
  - Marketing campaigns
  - Shared and rental bike programs
  - Free public-use bikes (city bikes)
  - Free hotel guest use bikes
  - Bicycle service facilities
  - Improved bicycle parking
  - Bike barometers

- Evaluation:
    - Regular performance reports on bicyclist safety and mobility

Report to the U.S. Congress on the Outcomes of the Nonmotorized Transportation Pilot Program

The FHWA's Report to the U.S. Congress on the Outcomes of the Nonmotorized Transportation Pilot Program (NTPP) *details and evaluates the effect of the infrastructure, educational, and promotional strategies implemented as part of the demonstration program to encourage a shift in travel behavior towards nonmotorized modes of transportation in the four pilot communities of Columbia,* Missouri; Marin County, California; Minneapolis, Minnesota; and Sheboygan County, Wisconsin. The project investments related to bicycle infrastructure included:



- Off-road shared-use paths
- On-street bicycle lanes
- On-street shared-lane markings (sharrows)
- Bicycle parking
- Colored bicycle lanes in conflict areas
- Low-traffic roads designed to give priority to bicyclists
- Wayfinding pavement markings for bicyclists
- Bicycle rack cost-sharing program
- Bicycle parking corrals
- Rail-with-trail
- Bicycle detection at traffic signals
- Bicycle boulevards
- Road diets with bike lanes
- Bike-sharing/bicycle library
- Radio frequency identification bicycle validation system
- Cycle tracks
- Bike boxes with advance stop lines
- "Bicycles May Use Full Lane" signs

The program was evaluated on both a project-level and community-wide basis. A few of the bicycle facility-related infrastructure projects that were chosen to be evaluated and the identified impacts are:

(1) Windsor/Ash Bicycle Boulevard (Columbia, Missouri)– 124 percent increase in bicycle traffic, 4 percent decrease in motor vehicle traffic, and 7 percent decrease in average vehicle speeds from April 2009 to April 2011

(2) Cal Park Hill Tunnel - rail with trail project (Marin County, California) – Reduced bicycle trip time by 15 minutes, and increased weekday bicyclists four-fold from September 2010 to May 2011

(3) Alameda del Prado bicycle lanes (Marin County, California) – Increased weekday peak hour bicycle traffic by 366 percent and weekend peak hour bicycle traffic by 540 percent from 2007 to 2010

(4) Medway Road Improvements - shared lane markings (Marin County, California) – Increased weekday peak hour bicycle traffic by 7 percent and weekend peak hour bicycle traffic by 203 percent from 2007 to 2010

(5) Marshall Avenue, Saint Paul - network gap closure added a bicycle lane on one side and "Bicycle May Use Full Lane Signs" to the other side (Minneapolis, Minnesota) – Increased April to July monthly average two hour counts of bicyclists by 42 percent from 2009 to 2011

(6) Nice Ride Bicycle Sharing - public bicycle sharing program (Minneapolis, Minnesota) – Over 100,000 rides in the first season, 23 percent of which would have otherwise been made by car

The community-wide evaluations were based on several types of counts, surveys, and modeling techniques. The results of the counts show that the four pilot communities saw a 49 percent increase in the number of bicyclists from 2007 to 2010. On average, people in the pilot communities made 4.7 more utilitarian bicycle trips, for an average total of 10.7 miles, in 2010 than in 2007. For the four pilot communities in sum, the bicycling mode share increased 0.4, the walking mode share increased 1.8, and the driving mode share decreased 2.2 from 2007 to 2010, which outpaced the national average from 2001 to 2008. In 2010, an estimated 16 million miles were walked or bicycle that would have otherwise been driven in the four pilot communities.

IV. PROBLEM IDENTIFICATION

Based on the literature review and the goals set forth in the previous sections, a preliminary list of potential projects was identified. This section provides an overview of the different non-motorized network connectivity improvement projects that were presented to the Study Advisory Committee (SAC). These projects take into account the goals and information discussed in the literature review.

The preliminary project locations include:

1. NW 167th Street to Golden Glades Park & Ride
2. Snake Creek Trail Extensions:
    2.1. To Sunny Isles Causeway, at Greynolds Park
    2.2. To NW 215th Street Park & Ride
3. Westchester to A.D. "Doug" Barnes Park
4. Commodore Trail to SE 26th Road
5. Okeechobee Road crossing (Metrorail connection to Miami Springs)
6. Alonzo and Tracy Mourning Senior High School to FIU Biscayne Bay Campus
7. Kitty Roedel Trail Connection to:
    7.1. Doral Turnpike Trail
    7.2. Ludlam Trail
8. South Dade Trail to Roberta Hunter Park
9. MacArthur Causeway connections to:
    9.1. Biscayne Boulevard
    9.2. 5th Street
10. M-Path Bridge over Miami River
11. 23rd Street Connection between Dade Boulevard and Atlantic Trail

V. PROJECT SELECTION

Of the 14 sites initially identified as potential projects for the Non-Motorized Network Connectivity Plan, six were selected for further study based on the following criteria:

(1) Volume and potential usage of connection
(2) Proximity/connectivity to existing non-motorized infrastructure
(3) Proximity/connectivity to transit/transportation services
(4) Proximity/connectivity to schools
(5) Proximity/connectivity to park/ green/open spaces
(6) Length of existing alternative to the connection
(7) Engineering feasibility
(8) Potential for project to be considered under alternative plans

Selected Projects

The following six projects were chosen for data collection and further analysis.

Miami Gardens to Golden Glades Tri-Rail Station

This project would provide a connection from Miami Gardens at NW 167th Street and NW 17th Avenue (where there is a funded project for non-motorized facility improvements) south east to the Golden Glades Park-and-Ride and the Golden Glades Tri-Rail Station. Currently, the South Florida Rail Corridor acts as a barrier that has no crossing in the proximity of the Tri-Rail Station. This project was selected because it would bridge a significant gap between the residential neighborhood north of the Palmetto Expressway and the Golden Glades Tri-Rail Station and Park-and-Ride. A map depicting the project area is provided in Figure 9: Miami Gardens to Golden Glades Tri-Rail Station.

Snake Creek Trail Extension to Unity Station and NW 199th Street BRT Station

This project would extend the existing Snake Creek Trail located on the south side of the Snake Creek Canal westward to the MDT Bus Rapid Transit (BRT) terminal station (Unity Station) and park-and-ride on the southwest corner of NW 215th Street and NW 27th Avenue, and to the BRT station located approximately 400 feet south of the intersection between NW 199th Street and NW 27th Avenue. This project was selected because it would connect an existing trail to a key transportation location. In doing so this project has potential to increase bicycle/pedestrian mode-share among users of the

park-and-ride as well as increase the number of users on the existing trail. Currently, the Snake Creek Trail does not offer connectivity to 27th Avenue or to the north of the Snake Creek Canal east of NW 2nd Avenue, and therefore there is no alternative connection to the proposed BRT route. A map depicting the project area is provided in Figure 10: Snake Creek Trail Extension to Unity Station and NW 199th Street BRT Station.

Snake Creek Trail Extension to Greynolds Park and Sunny Isles Causeway

This project would extend Snake Creek Trail east towards Biscayne Boulevard and add a connection north toward Greynolds Park and a connection south to the intersection between Biscayne Boulevard and Sunny Isles Causeway. This project was selected because it extends an existing non-motorized transportation facility and connects it to a county park (Greynolds Park) and a state park (Oleta River State Park). Connecting the Snake Creek Trail to these two places has potential to increase use of the trail. The connection to Greynolds Park would also provide a bicycle facility east of NE 15th Avenue to better serve the residents of North Miami Beach. A map depicting the project area is provided in Figure 11: Snake Creek Trail Extension to Greynolds Park and Sunny Isles Causeway.

Coral Way Shared Use Path to A.D. "Doug" Barnes Park and Tropical Park

The Coral Way shared use path extends along the north side of SW 24th Street (Coral Way) from Tamiami Park to the driveway east of SW 79th Avenue. This project was selected because it can provide a connection between Tamiami Park, A.D. "Doug" Barnes Park, and Tropical Park. Through this project, the Coral Way shared use path would be connected to destinations such as parks and residential areas that would attract more bicycle and pedestrians to use the path. The proposed neighborhood trail has potential for high usage, and could better connect the residential neighborhoods of Coral Terrace and Westchester. A map depicting the project area is provided in Figure 12: Coral Way Shared Use Path to A.D. "Doug" Barnes Park and Tropical Park.

Commodore Trail Connection to the Rickenbacker Causeway

This project would extend the Commodore Trail (Bike Route 1) northeast of Mercy Way to SE 32nd Road, where it would connect with Brickell Avenue and onto the Rickenbacker Causeway. A connection from the Vizcaya Metrorail overpass along SE 32nd Road would also provide connectivity between the Commodore Trail and the M-Path. This project was selected both the Commodore Trail and the M-Path currently have high usage, and could benefit from a connection between. Furthermore, this project would provide connectivity from Bike Route 1 to the Vizcaya Metrorail

transit station, and connectivity to Alice Wainwright Park southeast of the Rickenbacker Causeway. A map depicting the project area is provided in Figure 13: Commodore Trail Connection to the Rickenbacker Causeway.

Miami Springs and Medley Connection to Okeechobee Metrorail Station

This project would connect the City of Miami Springs and the City of Medley over the canal and Okeechobee Road to the Okeechobee Metrorail station to the north. Both cities are separated from the Okeechobee Metrorail station by two major barriers: the Miami Canal and the Hialeah Expressway (depicted in red in Figure 7). Currently there are two bridges that allow pedestrians to cross: at Red Road (W 4th Avenue) and at NW 75th Street (W 12th Avenue). Both crossings result in a route that is over a mile from the northernmost residential neighborhood of Miami Springs, which is located across the canal from the Metrorail station. The walking route that uses the existing pedestrian bridge at W 4th Avenue is depicted in Figure 8, and is approximately 2.7 miles long. In addition to connecting to the transit network, the project has the potential to provide greater connectivity to the Miami Springs Senior High School as well as to Springview Elementary School. A map depicting the project area is provided in Figure 14: Miami Springs and Medley to Okeechobee Metrorail Station.

Figure 7: Barriers to Okeechobee Metrorail Station

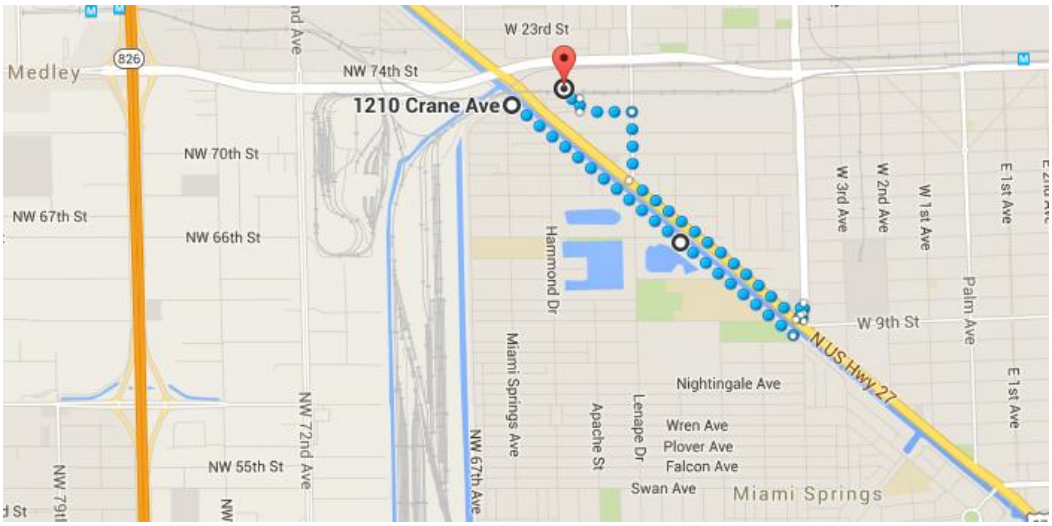


Figure 8: Walking Route Using Existing Pedestrian Bridge

Additional Projects

The following projects were identified as key gaps in the non-motorized network, but were not selected for further study.

Alonzo and Tracy Mourning Senior High School Connection to FIU – Biscayne Bay Campus

Alonzo and Tracy Mourning Senior High School is located just north of FIU's Biscayne Bay campus but there is a lack of pedestrian connectivity between the university and the high school less than half a mile away. Bay Vista Boulevard, on which both campuses are located, has a bicycle lane but does not provide any sidewalks. This project would be relatively simple to implement, as the primary requirement is the construction of a sidewalk along Bay Vista Boulevard. This project was not selected because the use of the sidewalk would likely be limited to students. Furthermore, this gap in connectivity can be addressed with minimal engineering study. A map depicting the project area is provided in Figure 15: Alonzo and Tracy Mourning Senior High School Connection to FIU – Biscayne Bay Campus.

Kitty Roedel Trail Connection to Doral Turnpike Trail

This project would close the gap between the Kitty Roedel Trail on NW 12th Street, and the Doral Turnpike Trail on the east side of the Homestead Extension of Florida's Turnpike (H.E.F.T.). Additionally, the project would provide a connection to the proposed Dolphin Station park-and-ride, which will be located on the north side of NW 12th Street, west of the H.E.F.T. Though this project

meets the criteria of connecting existing non-motorized infrastructure (criterion 2), it is expected that the demand for this connection is lower than some of the other projects previously listed. Therefore, this project was not selected for further study. A map depicting the project area is provided in Figure 16: Kitty Roedel Trail Connection to Doral Turnpike Trail.

Kitty Roedel Trail Connection to Ludlam Trail

This project would connect the Kitty Roedel Trail to the Ludlam Trail, which is in the early stages of planning. In the short term, this extension of the Kitty Roedel Trail would not provide improved connectivity because the Ludlam Trail does not currently exist. Therefore, the project was not selected as a priority at this time. A map depicting the project area is provided in Figure 17: Kitty Roedel Trail Connection to Ludlam Trail.

South Dade Trail Connection to Roberta Hunter Park

This project was not selected as one of the six for further study because this project is identified and a proposed connection is provided in Miami-Dade MPO's *Application of Innovative Strategies to Improve Bicycle Safety and Mobility,* 2013. A map depicting the project area is provided in Figure 18: South Dade Trail Connection to Roberta Hunter Park.

MacArthur Causeway Connection to Downtown Miami

This link is not selected as one of the six projects to pursue in the Non-Motorized Network Connectivity Plan as it is discussed in FDOT's *A1A Bicycle Master Plan* and is actively being pursued by FDOT District 6. A map depicting the project area is provided in Figure 19: MacArthur Causeway Connection to Downtown Miami.

MacArthur Causeway Connection to Miami Beach

This project is identified in FDOT's *A1A Bicycle Master Plan* as well as in Miami-Dade MPO's *Application of Innovative Strategies to Improve Bicycle Safety and Mobility.* As discussed in these reports, the bridge connecting MacArthur Causeway to Miami Beach does not currently have the capability of accommodating bicycle infrastructure. Therefore, this project would require a large capital investment through the widening or replacing of the bridge. As a result, this project was not selected for further study in this report. A map depicting the project area is provided in Figure 20: MacArthur Causeway Connection to Miami Beach.

M-Path Bridge over the Miami River

This project requires substantial capital investment. Furthermore, a crossing of the Miami River at this location would require either a fixed bridge that meets minimum height clearance, or a movable bridge structure. Neither alternative is preferable for bicycle-pedestrian facilities. Improving connectivity to the Miami Avenue Bridge via the Miami River Greenway is a preferred strategy and therefore, this project was not selected for further analysis. A map depicting the project area is provided in Figure 21: M-Path Bridge over the Miami River.

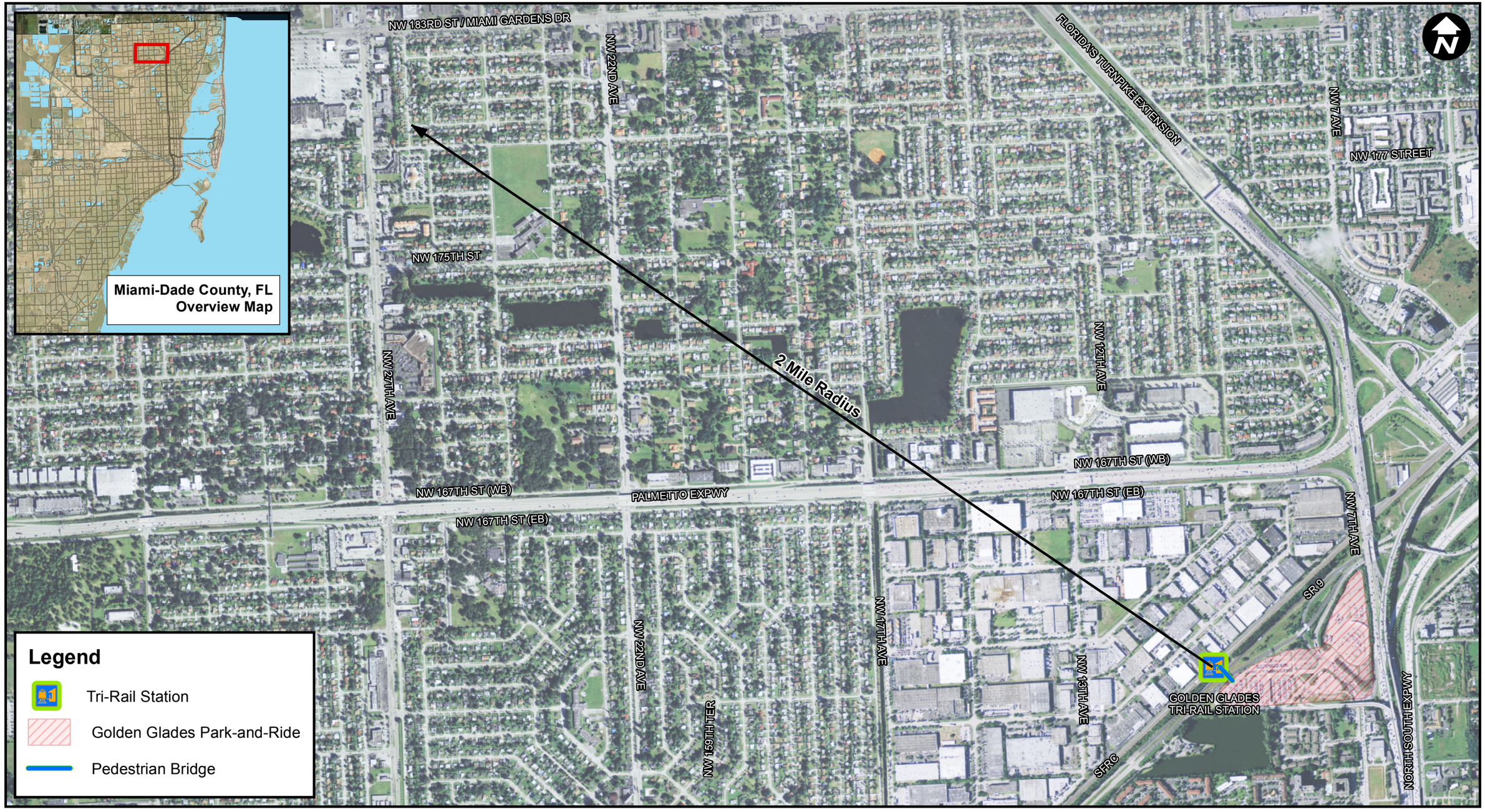
23rd Street Connection between Dade Boulevard and Atlantic Trail

This connection is currently proposed as part of US Bike Route #1 connecting Collins Avenue (SR A1A) to the Venetian Causeway. This project is also discussed in the 2040 Bicycle/Pedestrian Plan. This project was not selected as one of the six for further study. A map depicting the project area is provided in Figure 22: 23rd Street Connection between Dade Boulevard and Atlantic Trail.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 9: Miami Gardens to Golden Glades Tri-Rail Station
Miami-Dade MPO



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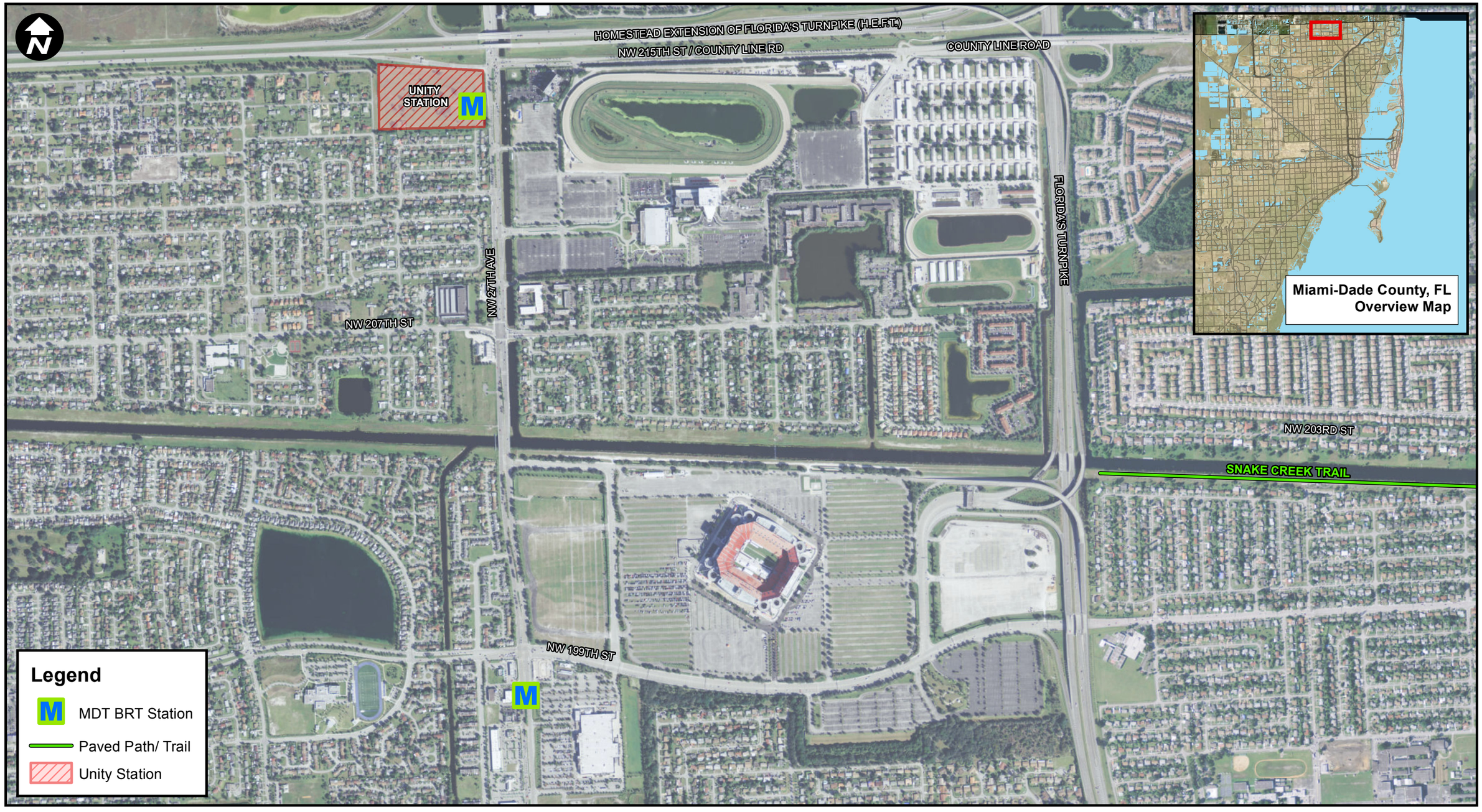
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 10: Snake Creek Trail to Unity Station and NW 199th Street BRT Station
Miami-Dade MPO



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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 11: Snake Creek Trail to Greynolds Park and Sunny Isles Causeway
Miami-Dade MPO

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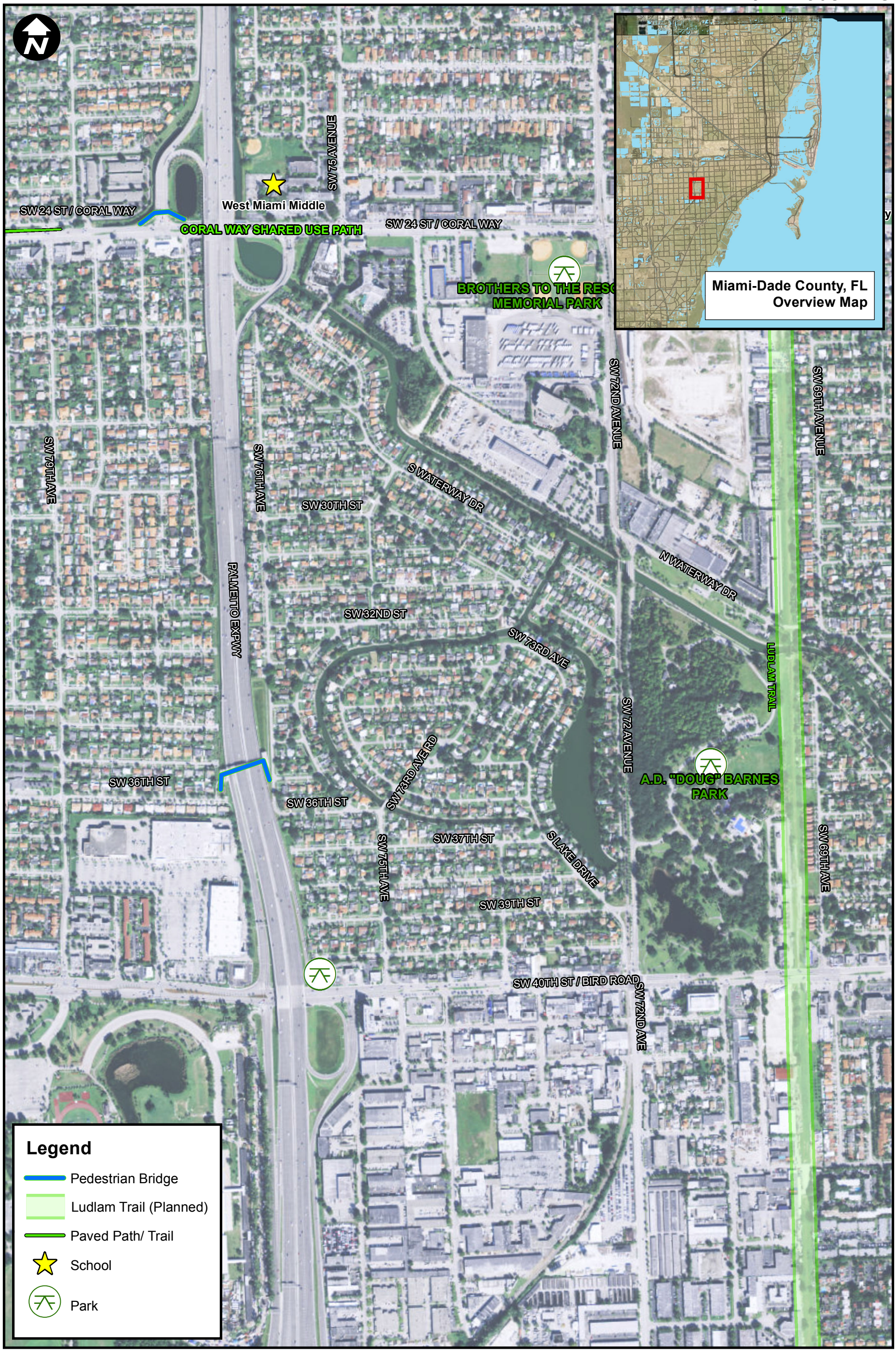
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 12: Coral Way Shared Use Path to A.D. "Doug" Barnes Park and Tropical Park
Miami-Dade MPO



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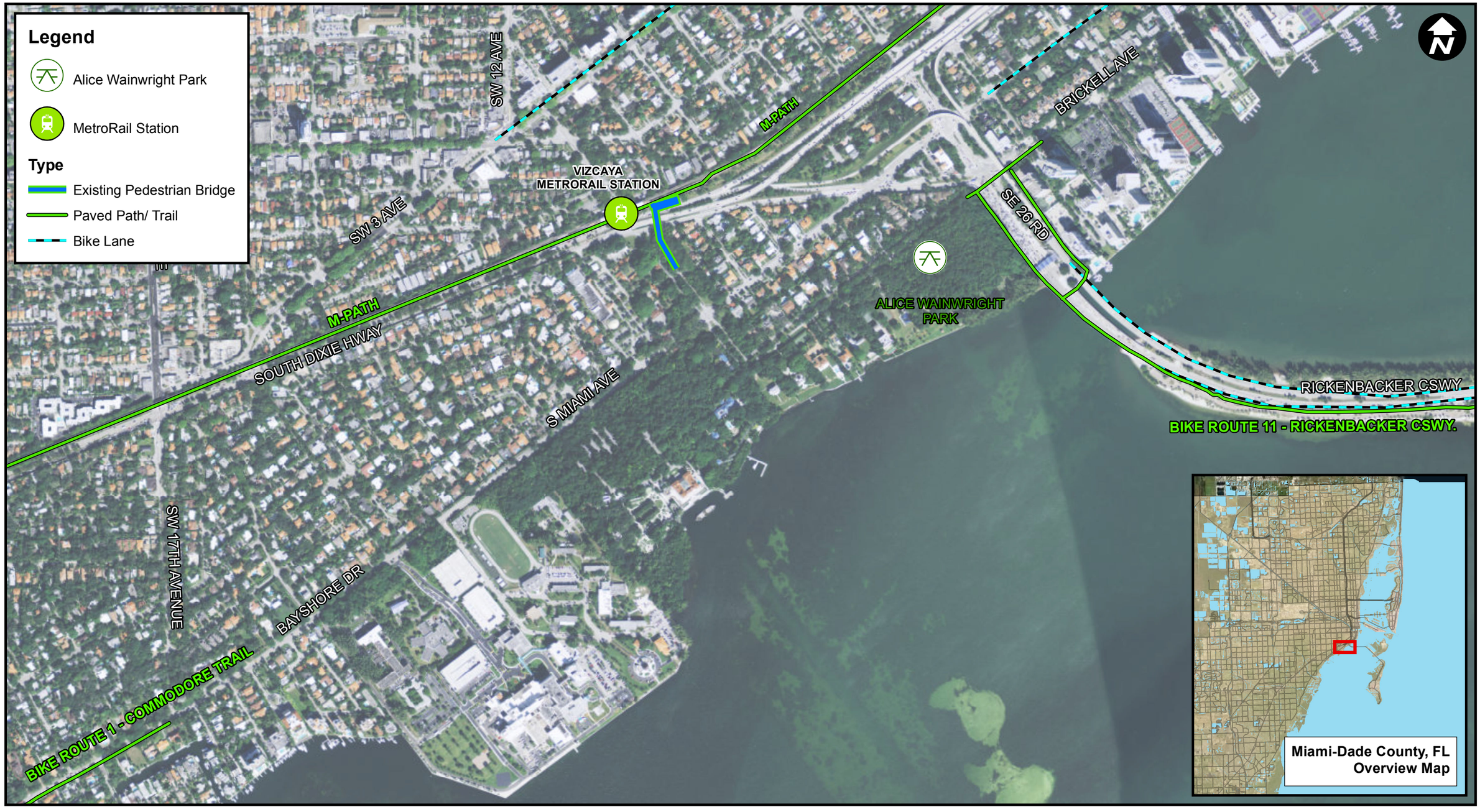
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 13: Commodore Trail Connection to Rickenbacker Causeway
Miami-Dade MPO



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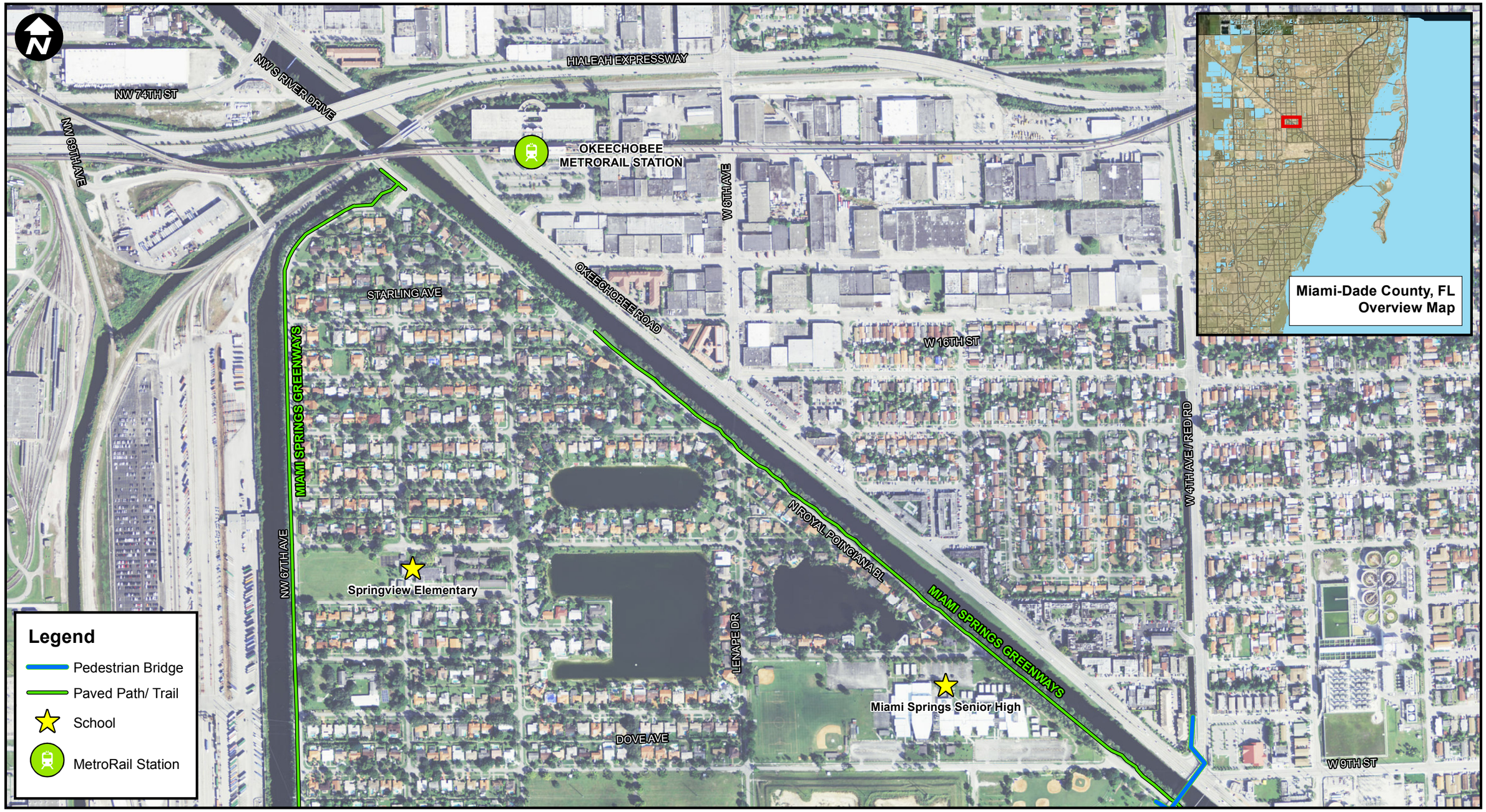
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 14: Miami Springs and Medley to Okeechobee Metrorail Station
Miami-Dade MPO



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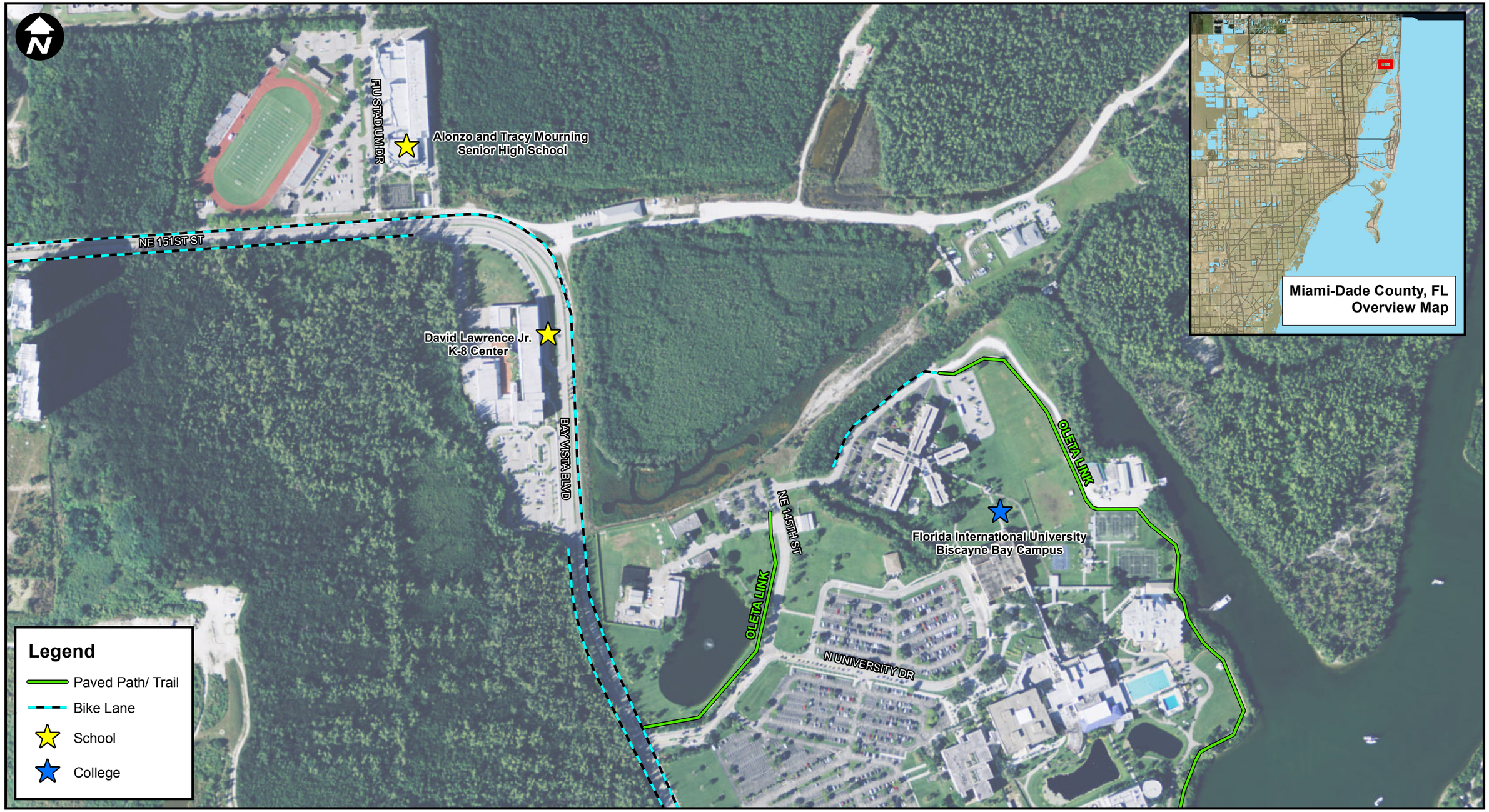
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 15: Alonzo and Tracy Mourning Senior High School to FIU - Biscayne Bay Campus
Miami-Dade MPO



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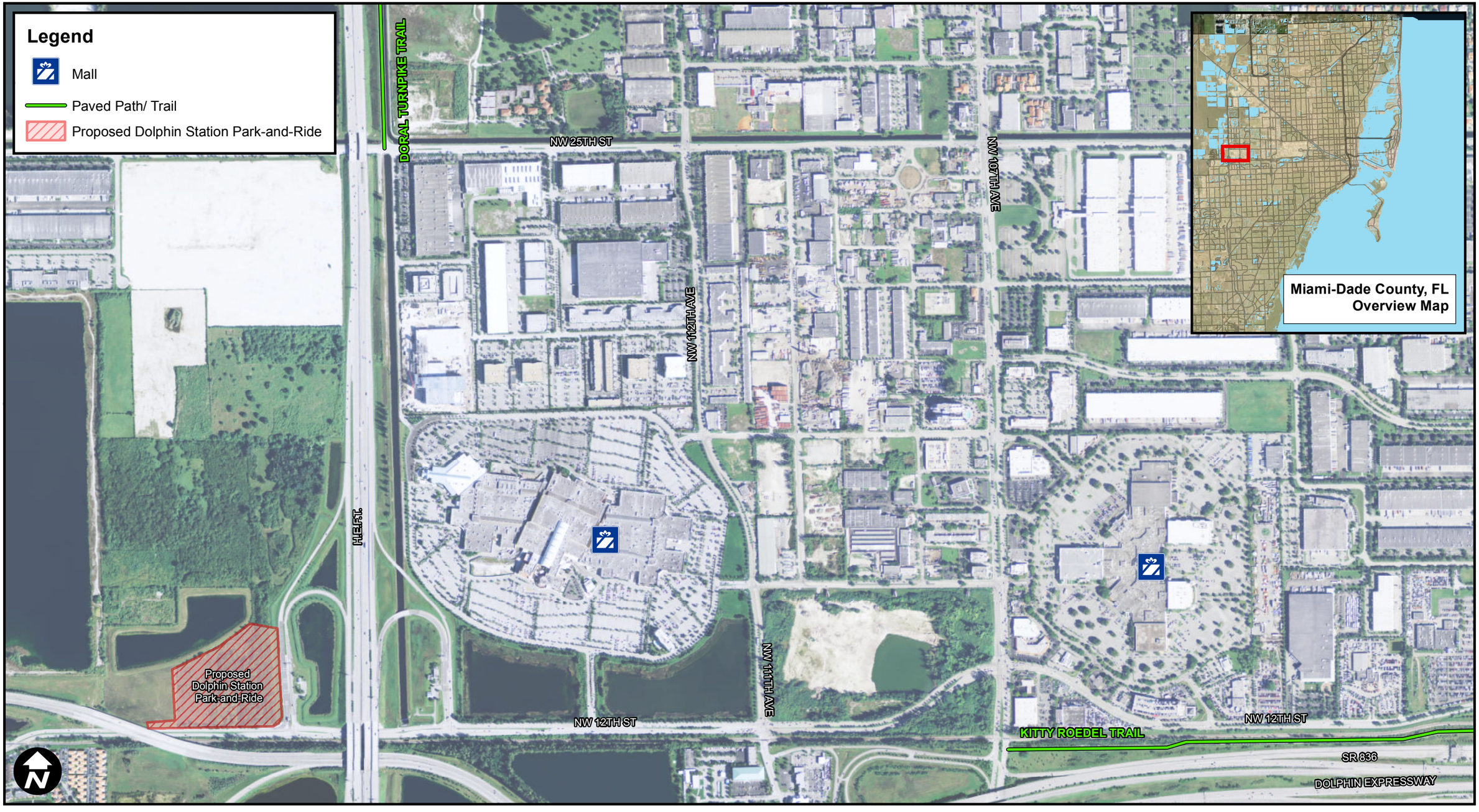
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 16: Kitty Roedel Trail Connection to Doral Turnpike Trail
Miami-Dade MPO



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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 17: Kitty Roedel Trail Connection to Ludlam Trail
Miami-Dade MPO

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 18: South Dade Trail Connection to Roberta Hunter Park
Miami-Dade MPO

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 19: MacArthur Causeway Connection to Downtown Miami
Miami-Dade MPO

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 20: MacArthur Causeway Connection to Miami Beach
Miami-Dade MPO

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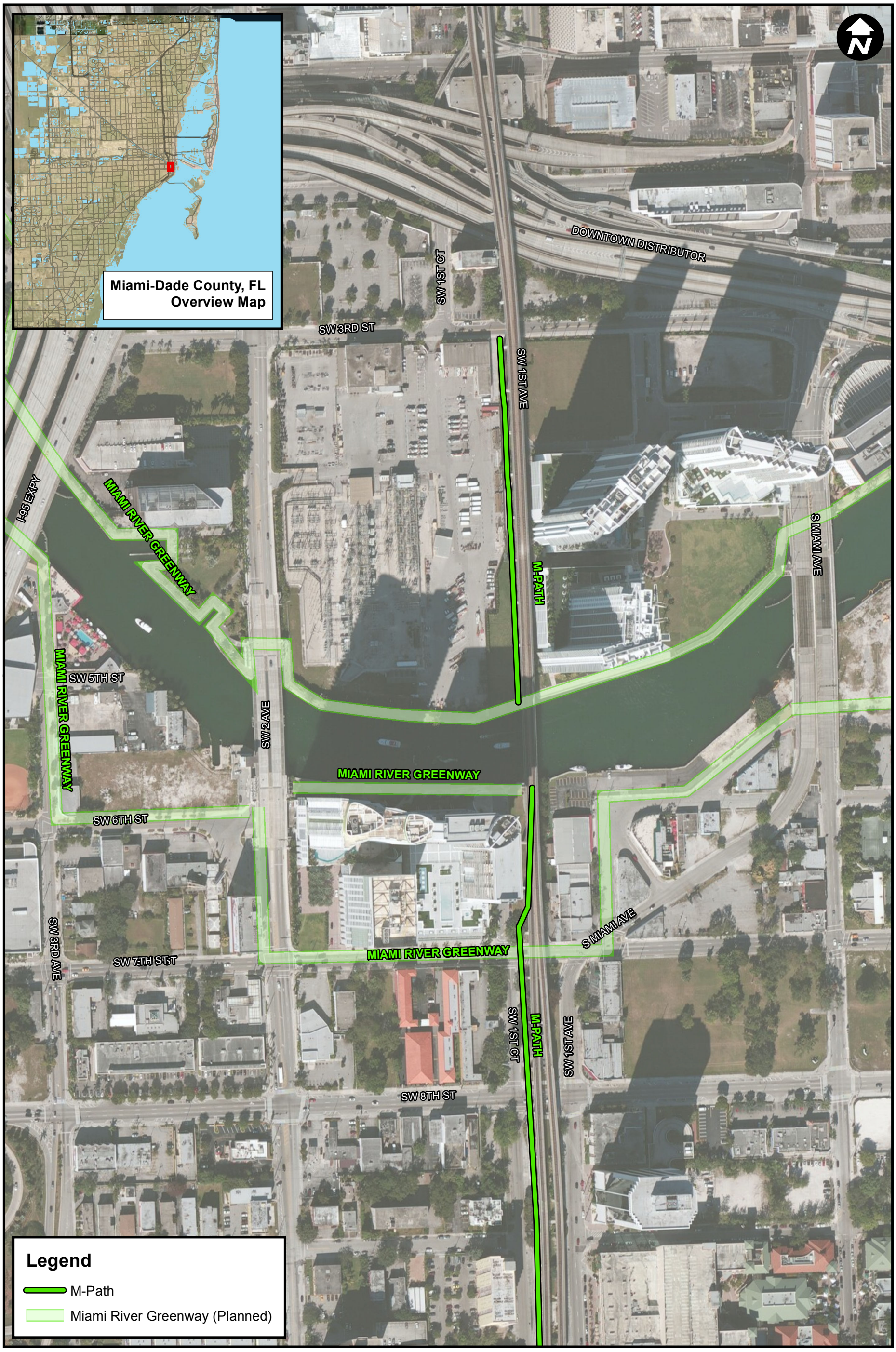
MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 21: M-Path Bridge over the Miami River
Miami-Dade MPO



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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 22: 23rd Street Connection Between Dade Bouleavrd and Atlantic Trail
Miami-Dade MPO

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VI. DATA COLLECTION AND ANALYSIS

Field reviews were conducted to understand the existing conditions, operations, and opportunities for improvement at key locations involving some of the selected projects listed in the previous section.

Data Collection

Two-hour turning movement counts were taken during typical weekday morning and afternoon. Turning movement counts were taken at the following locations listed in Table 6.

Table 6: Turning Movement Count Locations

STREET	LOCATION
Bayshore Drive	at SW 17th Avenue
Bayshore Drive	at E Fairview Street
Bayshore Drive/S Miami Ave	at Mercy Way
Bayshore Drive/S Miami Ave	at S 3601 Block
Bayshore Drive/S Miami Ave	at Samana Drive
Bayshore Drive/S Miami Ave	at S 32nd Road
SW 72nd Avenue	at SW 39th Street

In addition to the turning movement counts, 24-hour traffic volume counts were taken at the following five locations listed in Table 7.

Table 7: 24-Hour Traffic Volume Count Locations

STREET	LOCATION
Bayshore Drive	Between Hiawatha Avenue and Glencoe Street
Bayshore Drive/S Miami Ave	Between Samana Drive and South 32nd Road
Royal Poinciana Boulevard / NW S River Drive	South of Hialeah Expressway overpass
NE 165th Street / South Glades Drive	Between NE 19th Avenue and NE 20th Avenue
NW 167th Street	East of NW 10th Avenue

A 24-hour pedestrian/bicyclist video count was also conducted at the pedestrian crossing of the Florida East Coast (FEC) Railroad, west of the Okeechobee Metrorail Station.

Lastly, existing conditions field reviews were supplemented through the use of aerial photography to determine existing lane width and lane geometry where appropriate. The following sections provide detailed discussion of the analysis that was conducted at the key locations identified above.

The raw data from the 24-hour traffic volume counts, the turning movement counts, and the pedestrian and bicyclist counts are provided in Appendix A.

Data Analysis

Miami Gardens to Golden Glades Tri-Rail Station

The 24-hour traffic volume counts were taken on NW 167th Street, east of NW 10th Avenue to determine vehicle traffic accessing the commercial land uses south of the Palmetto Expressway and west of the Golden Glades Interchange. Table 8 provides a summary of the findings.

Table 8: Traffic Volumes on NW 167th Street

TOTAL DAILY TRAFFIC	TOTAL EASTBOUND TRAFFIC	TOTAL WESTBOUND TRAFFIC	DAILY PEAK HOUR TRAFFIC (COMBINED)	DAILY PEAK HOUR TRAFFIC (EASTBOUND)	DAILY PEAK HOUR TRAFFIC (WESTBOUND)
533	227	306	58	28	34

West of NW 10th Avenue, NW 167th Street is a two-lane eastbound roadway. East of NW 10th Avenue, NW 167th varies from approximately 24-foot to 26-foot pavement that serves both eastbound and westbound traffic accessing and leaving commercial land use to the south. The FDOT right-of-way reserved for the Palmetto Expressway extends approximately 15 feet north of the edge of pavement of NW 167th Street.

In addition to using NW 167th Street, two alternate routes were also considered. One alternative is to utilize right-of-way acquisition or an easement process to select a location for a pedestrian bridge across the South Florida Rail Corridor (SFRC) and provide a connection to NW 159th Drive. This alternate route may still require the construction of a connection to the existing pedestrian bridge at the Tri-Rail Station.

The second alternate considered is to connect NW 13th Avenue by providing an underpass to cross the SFRC, and then providing a sidewalk on the north side of SR 9 that would connect with the existing pedestrian bridge to access the Tri-Rail platform. Both of these alternate routes are able to serve the nearby warehouse land uses more directly, but were considered to be less favorable for connecting

to the Miami Gardens residential neighborhoods. Table 9 below lists advantages and disadvantages for each alternative discussed.

Table 9: Route Evaluation

ALTERNATIVE	ADVANTAGES	DISADVANTAGES
Bridge from NW 167th Street to Golden Glades Park-and-Ride	• Requires no acquisition of private right-of-way. • Avoids warehouse area, providing more pleasant connection to residential neighborhoods in Miami Gardens. • Utilizes existing embankment to create elevation gain for new path and pedestrian bridge. • Provides connection to future joint development on east side of Golden Glades Park-and-Ride.	• Less convenient for employees working in warehouse area
Direct connection to warehouse area	• Provides a centralized connection to the industrial area, which reduces the distance traveled for most of the employees working in the warehouse area.	• Requires acquisition of private property that has already been developed for warehouse use. • Limited public road right-of-way provides engineering challenges for pedestrian bridge connection. • Does not provide direct access to future joint development on east side of Golden Glades Park-and-Ride. • Less pleasant connection to residential neighborhoods in Miami Gardens.
NW 13th Avenue underpass	• Requires no acquisition of private right-of-way. • Underpass provides favorable conditions for bicyclists as compared to a pedestrian bridge. • Better serves employees working in buildings in the southwest corner of the industrial area.	• Engineering challenges associated with tunneling to cross SFRC right-of-way. • Existing spur north-west of SFRC provides additional engineering challenges. • Does not provide direct access to future joint development on east side of Golden Glades Park-and-Ride. • Less pleasant connection to residential neighborhoods in Miami Gardens.

The primary purpose of the project is to provide a connection to serve Miami Gardens. All three routes provide a comparable travel distance to the intersection of NW 13th Avenue and NW 167th Street, the main connection to residential neighborhoods. The MPO Transportation Outreach Planner was used to identify Miami Garden's population residing within a 2-mile radius of the Golden Glades Tri-Rail Station. The analysis revealed that approximately 16,000 residents could potentially benefit

from this project by improved connection to the Golden Glades Tri-Rail Station and Golden Glades Park-and-Ride.

Snake Creek Trail Extension to Greynolds Park and Sunny Isles Causeway

The Snake Creek Trail runs along the north and south sides of the Snake Creek Canal southeast of Miami Gardens Drive. Along the south side, the trail is located on the north side of South Glades Drive. At approximately NE 17th Avenue, Snake Creek Trail changes from a trail/shared use path to a 4-foot shoulder. Between Miami Drive and NE 19th Avenue, South Glades Drive (NE 165th Street) is a one-lane eastbound roadway with a travel lane that varies from approximately 12 to 14 feet in width. East of NE 19th Avenue, South Glades Drive (NE 165th Street) becomes a two-lane, bi-directional roadway that varies from approximately 18 to 23 feet in width. 24-hour traffic volume counts were conducted between NE 19th Avenue and NE 20th Avenue to evaluate traffic conditions along this portion of the roadway. Table 10 provides a summary of the findings.

Table 10: Traffic Volumes on South Glades Drive East of NE 19th Avenue

TOTAL DAILY TRAFFIC	TOTAL EASTBOUND TRAFFIC	TOTAL WESTBOUND TRAFFIC	DAILY PEAK HOUR TRAFFIC (COMBINED)	DAILY PEAK HOUR TRAFFIC (EASTBOUND)	DAILY PEAK HOUR TRAFFIC (WESTBOUND)
1405	298	1,107	140	30	112

The data collection efforts revealed that a majority of the traffic along South Glades Drive (NE 165th Street) east of NE 19th Avenue is traveling westbound.

The Snake Creek Trail terminates at W Dixie Highway. However, there is a continuous 6-foot sidewalk along the west side of West Dixie Highway from the bridge crossing the Snake Cree Canal north past the entrance to Greynolds Park. South of the Snake Creek Canal, W Dixie Highway has 4 to 6-foot wide sidewalks on both sides of the roadway, providing a non-motorized transportation connection to NE 163rd Street (Sunny Isles Causeway), which is also equipped with sidewalks to provide pedestrian access east to Biscayne Boulevard. East of Biscayne Boulevard, NE 163rd Street provides 4-foot bicycle lanes that extend to NE 34th Avenue and serve as a connection to Oleta River State Park.

Coral Way Shared Use Path to A.D. "Doug" Barnes Park and Tropical Park

The Coral Way shared use path runs along the north side of Coral Way (SW 24th Street) from Tamiami Park (SW 117th Avenue) and terminates at the driveway east of SW 79th Avenue. This project aims to

use SW 79th Avenue to provide a connection from Coral Way south to Tropical Park, located just south of Bird Road (SW 40th Street). SW 79th Avenue is a two-lane roadway with approximately 9- to 10-foot lanes and a 30 mile per hour (mph) posted speed limit. SW 79th Avenue also has sidewalks on both sides, both of which provide eight or more feet of landscaped separation from the roadway. This project will also use SW 36th Street to connect non-motorists to the pedestrian bridge over the Palmetto Expressway, and continue east towards A.D. "Doug" Barnes Park, located east of SW 72nd Avenue. SW 39th Street has sidewalks on both sides that terminate at S Lake Drive, approximately 200 feet west of the intersection with SW 72nd Avenue. SW 72nd Avenue does not have any sidewalks. Currently, pedestrians are able to access A.D. "Doug" Barnes Park from SW 40th Street. A paved path runs along the west side of the park, varying between approximately 30 and 100 feet from SW 72nd Avenue. This project would provide a direct connection to A.D. "Doug" Barnes Park from SW 39th Street, which would require pedestrian crossing improvements to facilitate the connection.

Turning movement counts were taken at the intersection of SW 39th Street and SW 72nd Avenue to evaluate the impact of adding a pedestrian phase at the intersection. SW 72nd Avenue has a freeflow northbound through lane that is separated from the intersection. A green through arrow signal head is currently being used for the northbound through lane.

AADT volumes and 24-hour counts were also obtained through the Florida Department of Transportation (FDOT) *Florida Traffic Online* database. The AADT for 2014 was 7600.

It should be noted that there is a spur of the CSX Railroad to the west of SW 72nd Avenue.

Commodore Trail Connection to the Rickenbacker Causeway

The Commodore Trail (Bike Route 1) runs along S Bayshore Drive. South of SW 17th Avenue, Bike Route 1 uses a mix of wide sidewalks, trails, and a shoulder on the south side of S Bayshore Drive. North of SW 17th Avenue, Commodore Trail users must either ride in-road or use a conventional sidewalk to connect to S 32nd Road, which provides access to the Rickenbacker Causeway. Furthermore, the City of Miami is currently considering a project on South Bayshore Drive to improve multimodal conditions between Mercy Way and Darwin Street.

This project concentrates on providing an improved bicyclist and pedestrian connection from SW 17th Avenue to S 32nd Road, where users can then use Brickell Avenue to access the Rickenbacker Causeway. Between Halissee Street and S 32nd Road, S Bayshore Drive (S Miami Avenue) is a four

lane undivided roadway with a total travel-lane width that varies between 48 feet and 50 feet. South of Halissee Street, S Bayshore Drive (S Miami Avenue) becomes a three lane roadway with one through lane in each direction and a southbound right-turn lane that terminates at SW 17th Avenue.

24-hour traffic volume counts were taken at the two extremes of the road section of interest: the three-lane section north of SW 17th Avenue (between Hiawatha Avenue and Glencoe Street), and the four-lane section south of S 32nd Road (between Samana Drive and S 32nd Road). A summary of the 24-hour counts is provided in Table 11.

Table 11: Traffic Volumes on S Bayshore Drive and S Miami Avenue

LOCATION	TOTAL DAILY TRAFFIC	TOTAL NORTHBOUND TRAFFIC	TOTAL SOUTHBOUND TRAFFIC	DAILY PEAK HOUR TRAFFIC (COMBINED)	DAILY PEAK HOUR TRAFFIC (NORTHBOUND)	DAILY PEAK HOUR TRAFFIC (SOUTHBOUND)
Between Hiawatha Ave. and Glencoe St.	29,314	13,454	15,860	2,572	1,193	1,763
Between Samana Dr. and S 32nd Rd.	28,063	13,512	14,551	2,449	1,118	1,488

Turning movement counts (TMCs) were also taken at all signalized intersections between SW 17th Avenue and S 32nd Road. Results from the data collection were adjusted for peak-season conditions and then analyzed using Trafficware's *SYNCRHO 9.0* software, which applies methodologies outlined in the *Highway Capacity Manual, 2000 and 2010 Editions*. Intersection Level of Service (LOS) and queueing analysis were conducted for existing conditions and for a future condition in which a road diet/lane reduction is implemented along this section of road. The road diet would provide one through lane in each direction and a two-way left-turn lane median from approximately Halissee Street to S 32nd Road. The existing three-lane section of S Bayshore Drive between SW 17th Avenue and Halissee Street (which provides a northbound through, a southbound through, and a southbound right-turn lane) would retain its current configuration, and lane narrowing would be implemented to allow for a wider northbound shoulder. Both AM and PM peak-hours were analyzed. For the purpose of this analysis, only lane configuration was adjusted (signal timings and traffic volumes were not adjusted). A summary of the Intersection LOS analysis for each intersection is provided in Table 12.

Table 12: Preliminary Intersection LOS Analysis

INTERSECTION	OVERALL LOS/DELAY	APPROACH LOS			
		SB	NB	NEB	SWB
Existing Conditions (Road Diet Conditions)					
A.M. Peak Hour					
SW 17th Avenue and S Bayshore Drive	C / 30.3 sec (C / 30.3 sec)	E (E)	N/A[1]	C (C)	B (B)
E Fairview Street and S Bayshore Drive	B / 17.2 sec (B / 17.2 sec)	N/A[1]	E (E)	C (C)	B (B)
Mercy Way/Alatka Street and S Bayshore Drive	B / 11.3 sec (B / 17.1 sec)	F (F)	N/A[1]	A (B)	A (B)
3601 Block and S Bayshore Drive	B / 14.2 sec (C / 22.9 sec)	N/A[1]	E (E)	A (C)	A (B)
Samana Drive and S Bayshore Drive	A / 5.8 sec (A / 8.5 sec)	E (E)	N/A[1]	A (A)	A (A)
S 32nd Road and S Bayshore Drive	A / 4.2 sec (A . 8.5 sec)	D (D)	D (D)	A (A)	A (A)
P.M. Peak Hour					
SW 17th Avenue and S Bayshore Drive	C / 26.5 sec (C / 26.5 sec)	E (E)	N/A[1]	B (B)	C (C)
E Fairview Street and S Bayshore Drive	B / 19.8 sec (B / 18.8 sec)	N/A[1]	E (E)	C (C)	B (B)
Mercy Way/Alatka Street and S Bayshore Drive	C / 23.9 sec (D / 40.1 sec)	D (D)	N/A[1]	B (B)	A (C)
3601 Block and S Bayshore Drive	A / 8.0 sec (C / 32.8 sec)	N/A[1]	E (E)	A (B)	A (D)
Samana Drive and S Bayshore Drive	A / 3.2 sec (A / 8.4 sec)	E (E)	N/A[1]	A (A)	A (B)
S 32nd Road and S Bayshore Drive	A / 5.2 sec (B / 18.1 sec)	D (D)	D (D)	A (A)	A (C)

Note: (1) Approach does not exist.

As displayed in Table 12, the intersection LOS at the two southernmost intersections is unaffected by the road diet/lane reduction implemented upstream. During the A.M. peak hour, the only intersection that was significantly impacted by the road diet was the intersection of S Bayshore Drive and 3601 Block. During the P.M. peak hour, southbound traffic traveling on S Bayshore Drive is expected to be affected most, resulting in reduced LOS at Mercy Way/Alatka Street, 3601 Block, and S 32nd Road. However, it should be noted that all intersections are still operating at LOS D or better, which meet the adopted level of service standards for Miami.

Intersection LOS analysis does not provide a complete representation of the existing conditions as it does not provide queueing information. Table 13 below provides queue lengths provided through Trafficware's *SYNCHRO 9.0* simulation. For the purpose of this report, only queues along S Bayshore

Drive are reported as side street queues would be unchanged unless signal timing modifications are made.

Table 13: Preliminary Queueing Analysis on S Bayshore Drive

INTERSECTION	95TH PERCENTILE QUEUE (FEET) [1]					
	NEL	NET	NER	SWL	SWT	SWR
Existing Conditions (Road Diet Conditions)						
A.M. Peak Hour						
SW 17th Avenue and S Bayshore Drive	103 (103)	811 (811)	N/A[2]	N/A[2]	158 (200)	508 (419)
E Fairview Street and S Bayshore Drive	N/A[2]	121 (121)	N/A[2]	N/A[2]	25 (141)	N/A[2]
Mercy Way/Alatka Street and S Bayshore Drive	N/A[2]	146 (#1083)	N/A[2]	65 (77)	159 (425)	N/A[2]
3601 Block and S Bayshore Drive	N/A[2]	64 (#1026)	N/A[2]	81 (122)	222 (857)	N/A[2]
Samana Drive and S Bayshore Drive	N/A[2] (25) [3]	61 (66)	N/A[2]	N/A[2]	60 (258)	N/A[2]
S 32nd Road and S Bayshore Drive	N/A[2] (25) [3]	34 (66)	N/A[2]	N/A[2] (25)[3]	124 (535)	N/A[2]
P.M. Peak Hour						
SW 17th Avenue and S Bayshore Drive	137 (137)	549 (549)	N/A[2]	N/A[2]	#1237 (#1250)	66 (215)
E Fairview Street and S Bayshore Drive	N/A[2]	93 (93)	N/A[2]	N/A[2]	77 (165)	N/A[2]
Mercy Way/Alatka Street and S Bayshore Drive	N/A[2]	291 (246)	N/A[2]	25[3] (25) [3]	219 (513)	N/A[2]
3601 Block and S Bayshore Drive	N/A[2]	56 (892)	N/A[2]	25[3] (25) [3]	398 (#1434)	N/A[2]
Samana Drive and S Bayshore Drive	N/A[2] (25) [3]	148 (666)	N/A[2]	N/A[2]	172 (#1415)	N/A[2]
S 32nd Road and S Bayshore Drive	N/A[2] (25) [3]	41 (34)	N/A[2]	N/A[2] (25) [3]	172 (#1380)	N/A[2]

Note: [1] The 95th percentile queue length is based on Synchro 9 capacity analyses.
[2] Movement is not permitted, or no vehicles were counted making movement.
[3] If queue is present, minimum queue length is assumed to be 25 feet. Queue reported by Synchro is < 25 feet.
95th percentile volume exceeds capacity, queue may be longer. Queue reported is maximum after two cycles

Comparing queue lengths for existing conditions and road diet conditions, it can be noted that queues at certain intersections of S Bayshore Drive increase by varying amounts at different times of the day when through lanes are reduced from two to one. However, consideration should be made that increased queue length may be mitigated by improved signal timing and re-coordination along the corridor. These potential decisions regarding signal timing adjustments have not been made as a part of this report. Reports from the Synchro analyses are provided in Appendix B.

Miami Springs Connection to Okeechobee Metrorail Station

Miami Springs has greenway/bicycle trails along N Royal Poinciana Boulevard (just southwest of the Miami Canal) and along NW 67th Avenue.

The Okeechobee Metrorail station is located on the northeast side of Okeechobee Road and the Miami Canal, across from the northern portion of Miami Springs. Currently, the closest pedestrian crossing of the Miami Canal to Okeechobee Station is located at NW 74th Street/NW 12th Avenue, at the border of Medley and Hialeah. Okeechobee Station Railroad Station is approximately 500 feet from Miami Springs (as the crow flies). However, bicyclists and pedestrians needing to access the Okeechobee Station from the end of the paved path on N Royal Poinciana Boulevard (at Starling Avenue) are required to travel approximately ½ mile north to the nearest crossing of the Miami Canal, and then approximately 2,000 feet south to the station. An elevated sidewalk exists to the north side of Okeechobee Road (US 27) that provides an at-grade crossing of the FEC railroad, approximately 650 feet west of the Okeechobee Metrorail Station. 24-hour video counts were taken at the pedestrian railroad crossing to assess the pedestrian and bicyclist traffic using the sidewalk to access the Metrorail Station. It was also noted that several bicyclists and pedestrians used the railroad bridge rather than the NW 12th Avenue Bridge to cross the Miami Canal and Okeechobee Road (US 27). The findings of the 24-hour counts are summarized in Table 14.

Table 14: Bicycle and Pedestrian Traffic From/To Okeechobee Metrorail Station

	NUMBER OF BICYCLISTS	NUMBER OF PEDESTRIANS
Coming From/Going To Sidewalk on Okeechobee Road	131	142
Coming From/Going To FEC Railroad Bridge	19	25

VII. RECOMMENDATIONS

Bicycle and pedestrian mobility recommendations were developed for the six projects identified in Section V. Recommendations are based on needs of the projects as well as the results of preliminary data analysis discussed in Section VI. All improvements have been developed under an overarching principle to improve connectivity for pedestrians and bicyclists to and from key attractions such as Municipal, County, and State Parks, existing bicycle facilities, and transit stations in Miami-Dade County.

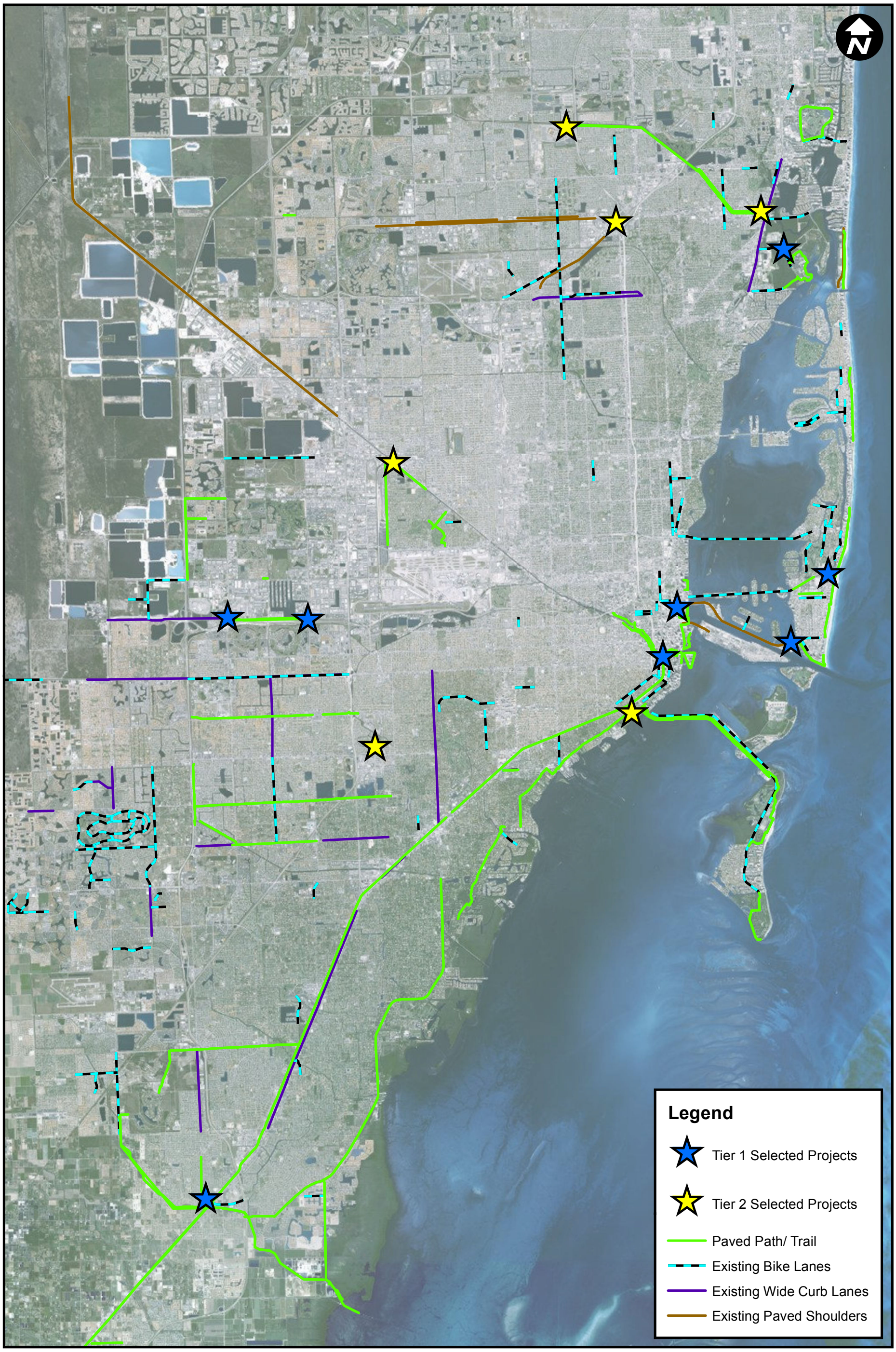
Project Listing

All projects identified in this plan are intended to fill critical 'gaps' in Miami-Dade County's existing non-motorized network. A total of 14 projects were initially selected, of which six were identified as capital improvement projects for implementations. The six 'Tier 2' projects are represented by the yellow stars in Figure 23, while the remaining eight 'Tier 1' projects are represented by the blue stars. Project descriptions, lead agencies, tasks, timeframes, and generalized implementation cost levels for the six selected projects are included below. Implementation costs are identified with a dollar sign "$", where "$" represents lower cost improvements and "$$$$" represents the highest level of investment.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 23: Tier 1 and Tier 2 Selected Projects
Miami-Dade MPO



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Project 1: Miami Gardens to Golden Glades Tri-Rail Station	
Project Goal	Connect the residential and employment areas of Miami Gardens to the Golden Glades Park-and-Ride and the Golden Glades Tri-Rail Station. Leverage the funded project for non-motorized facility improvements along the NW 167th Street frontage roads.
Project Description	• Provide pedestrian signal heads for all existing crosswalks at the intersection of NW 167th Street and NW 12th Avenue/NW 13th Avenue (both north and south of the Palmetto Expressway). • Provide a crosswalk across NW 167th Street (south of Palmetto Expressway), on the west leg of the intersection with NW 10th Avenue. • Provide wide sidewalk/shared use path on the north side of NW 167th Street (south of the Palmetto Expressway), from NW 10th Avenue to NW 7th Avenue. • Provide a pedestrian bridge over the South Florida Rail Corridor (SFRC), on the west side of Florida's Turnpike (minimum vertical clearance required is 24'3"). • Provide a pedestrian bridge over State Road (SR) 9 to the Golden Glades Park-and-Ride. • Provide ramp along the embankment from NW 7th Avenue to pedestrian bridge. • Provide wide sidewalk/shared use path on the north side of State Road (SR) 9 from the pedestrian bridge crossing the SFRC (west of Florida's Turnpike) to the Golden Glades Tri-Rail Station.
Lead Agencies	Florida Department of Transportation (FDOT) District 4 (which oversees the SFRC), District 6, and Florida Turnpike Enterprise (FTE), South Florida Regional Transportation Authority (SFRTA), City of Miami Gardens,
Notes	• Ramp north of the SFRC would likely require switch backs to keep slope within ADA compliance. • Ramp south of SFRC may be able to use existing slope to return to at-grade. • Project provides a key connection for residents north of the SFRC to the Golden Glades Tri-Rail Station and the Golden-Glades Park-and-Ride
Implementation Timeframe	Long Term (5+ years)
Implementation Cost	$$$$

Existing Conditions: Facing east towards Golden Glades interchange

Pedestrian Bridge across US 1 and I-95 adjacent to Vizcaya Metrorail Station

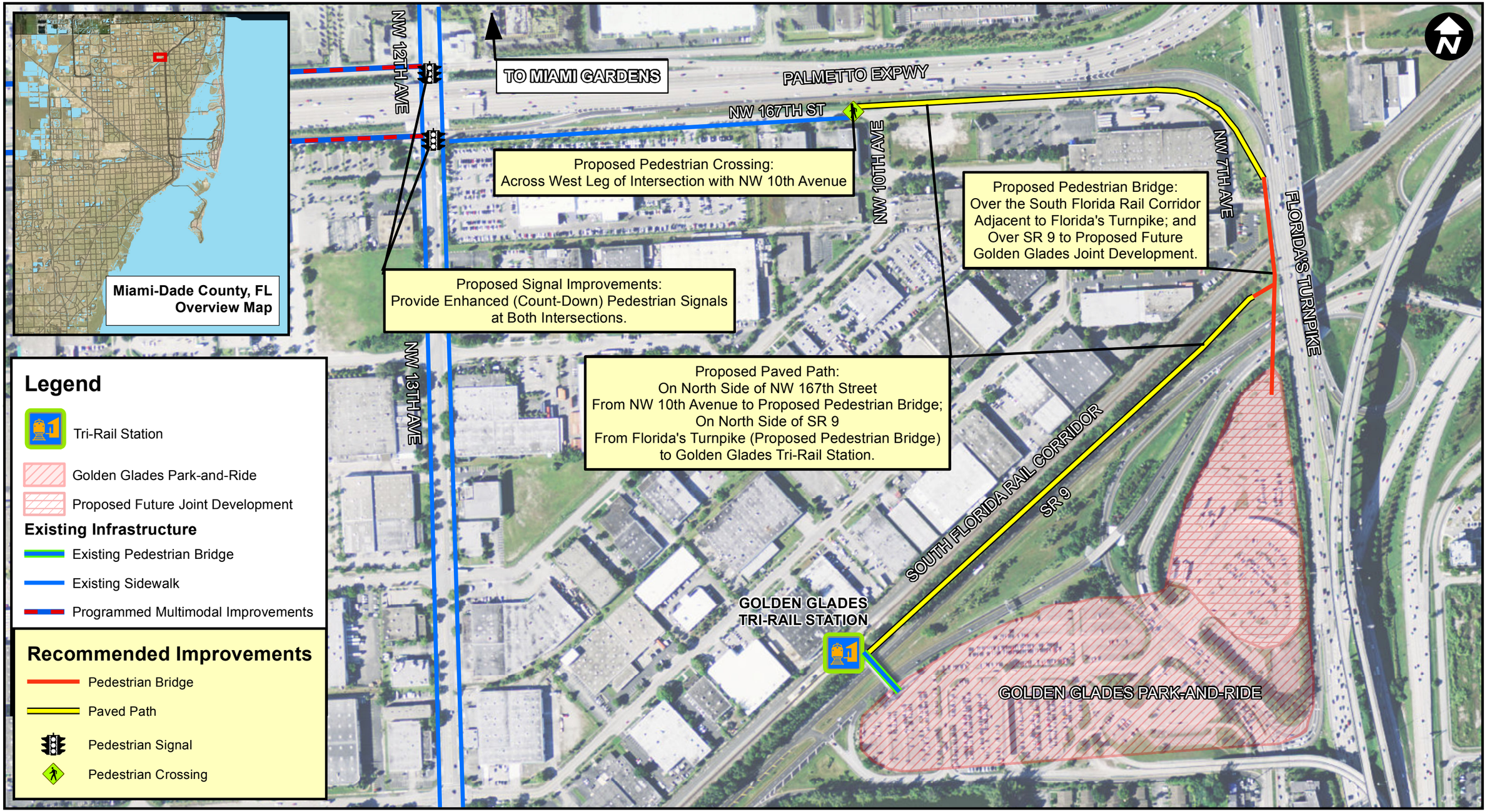
Existing embankment on north side of State Road 9

Proposed at-grade sidewalk/ shared use path location on north side of State Road 9

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 24: Miami Gardens to Golden Glades Tri-Rail Station
Miami-Dade MPO



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Project 2: Snake Creek Trail Extension to Unity Station and NW 199th Street BRT Station	
Project Goal	Connect the existing Snake Creek Trail (Bike Route 2) through Miami Gardens to the proposed MDT Unity Station and park-and-ride, located on the southwest corner of NW 215th Street and NW 27th Avenue, and to the proposed NW 199th Street bus rapid transit (BRT) Station.
Project Description	• Extend the existing Snake Creek Trail west to NW 27th Avenue. • Provide paved path connection from Snake Creek Trail to Sun Life (Dolphin) Stadium. • Construct an underpass to provide users of the Snake Creek Trail with a connection under Florida's Turnpike. • Join Snake Creek Trail with sidewalk on north side of NW 203rd Street. • Provide enhanced (countdown) pedestrian signal heads at intersection of NW 207th Street and NW 27th Avenue. • Provide a paved path from Snake Creek Trail to Sun Life (Dolphin) Stadium. • Provide wayfinding signs to/from Snake Creek Trail, Unity Station, NW 199th Street BRT Station, and Sun Life Stadium.
Lead Agencies	Florida Department of Transportation (FDOT) Florida Turnpike Enterprise (FTE), Miami-Dade County Public Works and Waste Management, City of Miami Gardens.
Notes	• Extends the Snake Creek Trail to provide connection from North Miami to Sun Life Stadium and onto the NW 27th Avenue. • Engineering analysis will need to be conducted to evaluate if underpass under Florida's Turnpike (and the Turnpike's southbound off-ramp) is a feasible option.
Implementation Timeframe	Long Term (5+ years)
Implementation Cost	$$$$

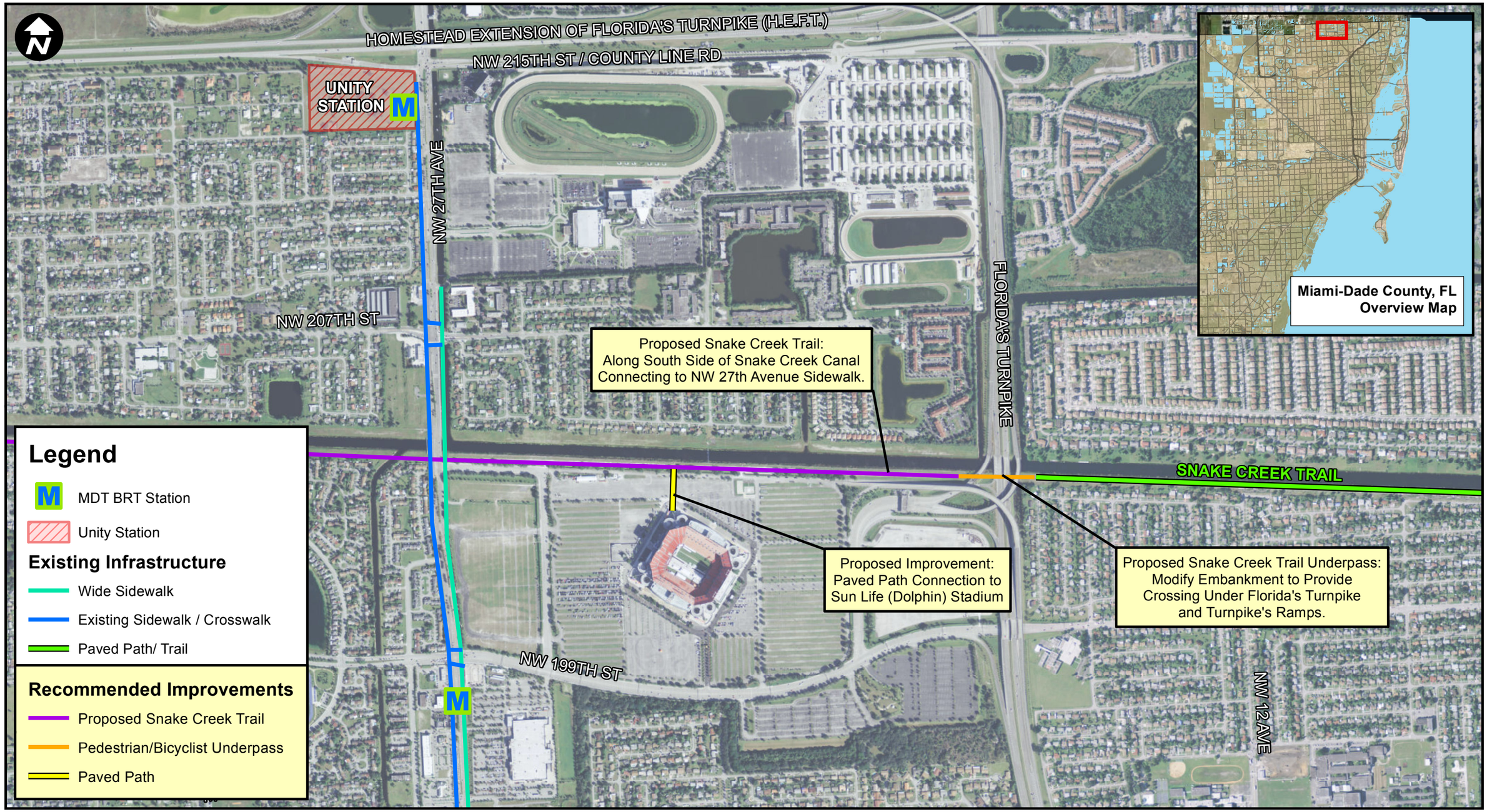
Bicycle/Pedestrian Underpasses:
Bicycle path and sidewalk under roadway, The Netherlands (Left)
Camelback Trail below water level passing under low clearance bridge, Scottsdale, Arizona (Right)

Existing Conditions and Proposed Underpass Location:
Under Turnpike's elevated southbound off-ramp (Left)
Current limits of existing Snake Creek Trail, east of Turnpike (Right)

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 25: Snake Creek Trail Extension to Unity Station and NW 199th Street BRT Station
Miami-Dade MPO



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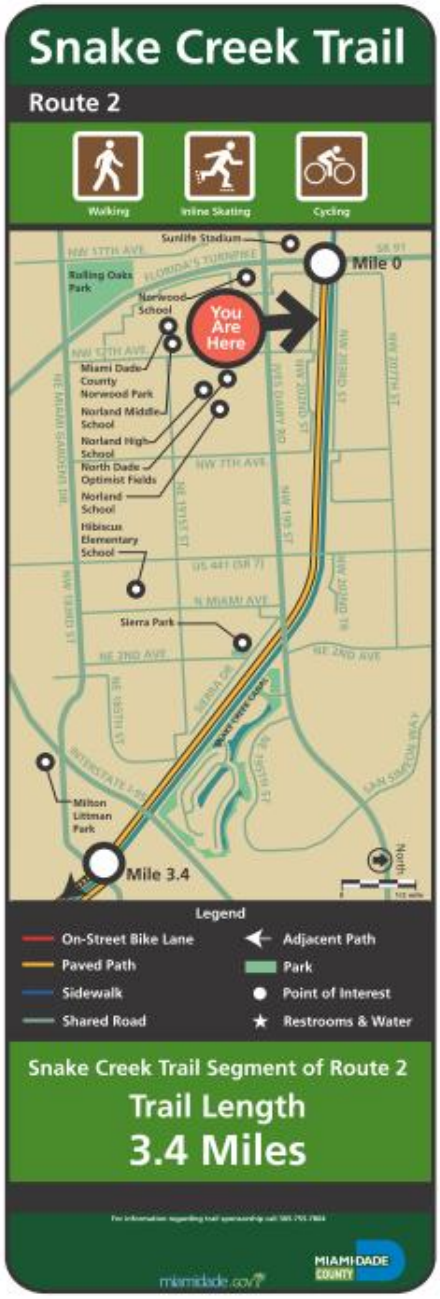
Project 3: Snake Creek Trail Extension to Greynolds Park and Sunny Isles Causeway	
Project Goal	Connect the existing Snake Creek Trail (Bike Route 2) to a large county park (Greynolds Park) and State park (Oleta River State Park).
Project Description	• Designate S Glades Drive (NE 165th Street) as a one-way, westbound roadway from NE 19th Avenue to NE 21st Avenue. • Widen bicycle lane on the north side of S Glades Drive (NE 165th Street) from Miami Drive to NE 21st Avenue to 10 feet to provide bidirectional shared use path. • Provide wayfinding signs along existing trail, west of NE 22nd Avenue with directions to key destinations. • Provide crosswalk across the channelized southbound right turn off of W Dixie Highway onto NE 22nd Avenue. • Provide wayfinding sign at intersection of NE 22nd Avenue and NE 167th Street. • Provide crosswalk across west leg of intersection between W Dixie Highway and NE 170th Street. • Provide enhanced (count-down) pedestrian signal at the west leg of intersection between W Dixie highway and NE 172nd Street. • Provide advanced warning signs warning eastbound motorists on NE 173rd Street that they are approaching a crosswalk. • Designate NW 164th Street as a neighborhood greenway from West Dixie Highway to NE 23rd Avenue. • Designate NE 23rd Avenue as a neighborhood greenway from NE 164th Street to NE 163rd Street (Sunny Isles Causeway).
Lead Agencies	Miami-Dade County Public Works and Waste Management, SFRTA, City of North Miami Beach.
Notes	• Traffic counts conducted on S Glades Drive (NE 165th Street) demonstrate that approximately 1,100 of the 1,400 vehicles (79%) between NE 19th Avenue and NE 20th Avenue travel westbound, supporting the change in designation to a one-way westbound roadway. • Extends the Snake Creek Trail to provide connection north to Greynolds Park and south to Sunny Isles Causeway. • Proposed neighborhood greenway would run through future Tri-Rail Coastal Link Mixed Development. • Wayfinding signs should be provided for Greynolds Park, Sunny Isles Causeway/Oleta River State Park, and the Old Spanish Monastery.
Implementation Timeframe	Now (1-2 years)
Implementation Cost	$$



Miami-Dade County Existing Wayfinding Signage for Snake Creek Trail

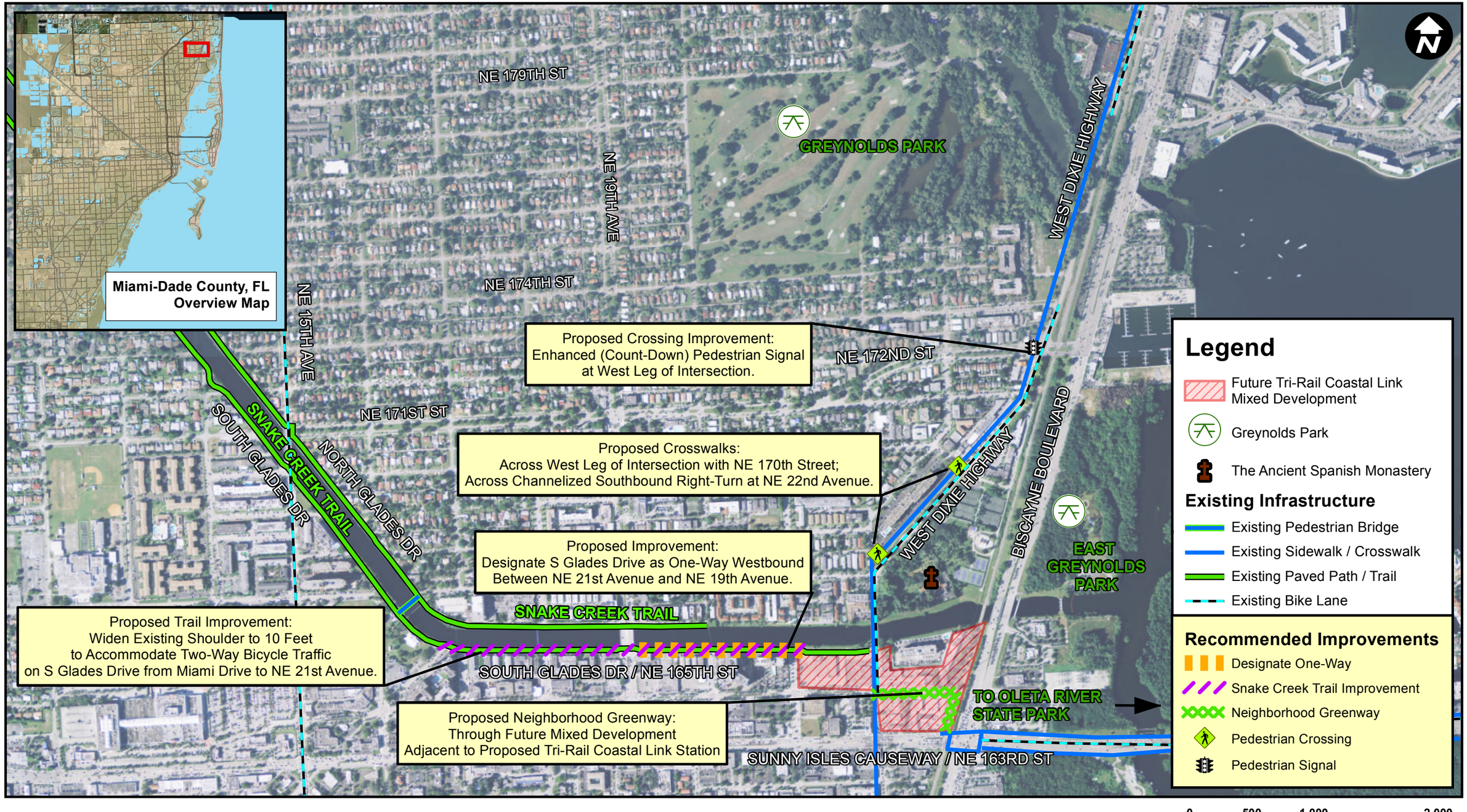
Existing narrow shoulder portion of Snake Creek Trail on Glades Drive (NE 165th Street), east of NE 19th Avenue looking east, within the portion proposed to be converted to one-way westbound for motor vehicles

Existing narrow shoulder portion of Snake Creek Trail on Glades Drive (NE 165th Street), east of NE 19th Avenue looking west, within the portion proposed to be converted to one-way westbound for motor vehicles

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 26: Snake Creek Trail Extension to Greynolds Park and Sunny Isles Causeway
Miami-Dade MPO



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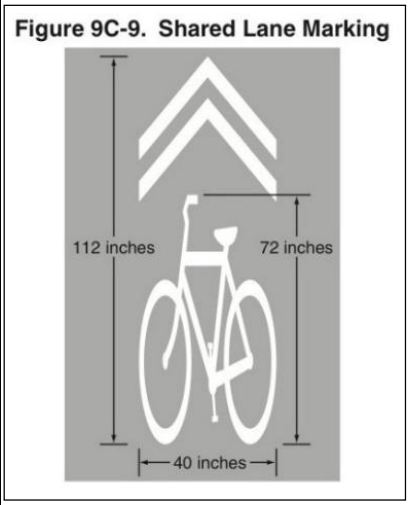
Project 4: Westchester to A.D. "Doug" Barnes Park and Tropical Park	
Project Goal	Connect the Coral Way Green-and-White shared use path to key destinations, schools, and residential neighborhoods. Provide a tri-park connection between Tamiami Park, Tropical Park, and A.D. "Doug" Barnes Park.

Project Description	• Provide enhanced (countdown) pedestrian signals at the intersections of:
	  • Coral Way (SW 24th Street) and SW 79th Avenue,
	  • Bird Road (SW 40th Street) and SW 79th Avenue.
	• Provide wayfinding signs:
	  • Intersection of SW 79th Avenue and SW 36th Street,
	  • Intersection of SW 79th Avenue and Bird Road,
	  • East end of 7700 Block of SW 36th Street,
	  • Intersection of SW 76th Avenue and SW 35th Street,
	  • Intersection of SW 35th Street and SW 75th Avenue,
	  • Intersection of SW 75th Avenue and SW 39th Street.
	• Provide Shared Arrow (Sharrow) markings and "Bicycles May Use Full Lane" signs (MUTCD Sign R4-11) on:
	  • SW 79th Avenue between Coral Way and Bird Road,
	  • SW 36th Street east of SW 79th Avenue,
	  • SW 36th Street west of SW 75th Avenue,
	  • SW 75th Avenue from SW 36th Street to SW 39th Street,
	  • SW 39th Street east of SW 75th Avenue.
	• Provide crosswalk and pedestrian crossing sign (MUTCD Sign W11-1) across north leg of intersection between S Lake Drive and SW 39th Street.
	• Provide "Turning Vehicles Yield to Bike/Ped" sign (MUTCD Sign R10-15 (mod)) sign on westbound approach to intersection between S Lake Drive and SW 39th Street.
	• Provide a sidewalk on the north side of SW 39th Street from S Lake Drive to SW 72nd Avenue.
	• Provide pedestrian crossing across CSX Railroad on north side of SW 39th Street.
	• Provide an actuated pedestrian phase at the intersection of SW 39th Street and SW 72nd Avenue.
	• Provide a crosswalk across the north leg of the intersection of SW 39th Street and SW 72nd Avenue.
	• Provide a paved path from west side of SW 72nd Avenue to paved path in A.D. "Doug" Barnes Park.

Lead Agencies	Miami-Dade County Public Works and Waste Management, Florida Department of Transportation (FDOT) District 6.

Notes	• Wayfinding signs at the intersection of Coral Way and SW 79th Avenue should direct users south onto SW 79th Avenue for A.D. "Doug" Barnes Park and Tropical Park, and direct users west for Tamiami Park. • Wayfinding signs at the intersection of SW 79th Avenue should direct users east for A.D. "Doug" Barnes Park, south for Tropical Park, and north for Tamiami Park. • Wayfinding signs at intersection of SW 79th Avenue and Bird Road should direct users east for Tropical Park and for A.D. "Doug" Barnes Park, and north for Tamiami Park.
Implementation Timeframe	Now (1-2 years)
Implementation Cost	$



Neighborhood Greenway with Shared Lane Markings

SW 79th Avenue near Emerson Elementary School, looking north

SW 36th Street east of SW 79th Avenue, looking west

SW 39th Street west of SW 72nd Avenue, looking west

Non-Motorized Connectivity Plan

Figure 27: Westchester to A.D. "Doug" Barnes Park and Tropical Park
Miami-Dade MPO

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

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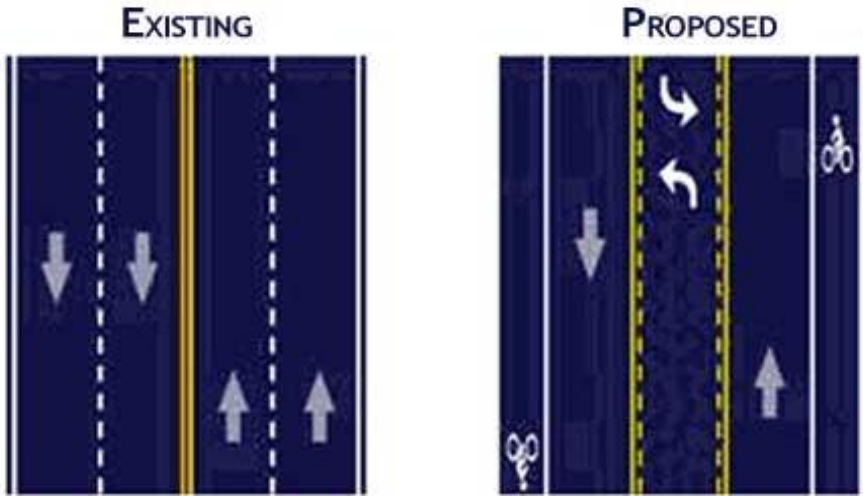
Project 5: Commodore Trail to the Rickenbacker Causeway	
Project Goal	Connect Commodore Trail (Bike Route 1) in Coconut Grove with the Rickenbacker Causeway (Bike Route 11), two of the County's highest volume bicycle facilities. Create a more pedestrian- and bicycle-friendly Bayshore Drive.
Project Description	• Implement road diet/lane reduction on S Bayshore Drive/S Miami Avenue from Halissee Street to S 32nd Road: Reduce to one 10-foot lane per direction with an 11-foot two-way left-turn lane/emergency access lane. See Figure 28 for proposed lane configuration along corridor. • Reduce lane widths to 10 feet (where applicable) on S Bayshore Drive between SW 17th Avenue and Federal Highway (US 1). • Provide northbound and southbound buffered bicycle lanes on S Bayshore Drive/S Miami Avenue from Halissee Street to S 32nd Road. • Provide wide shoulder on the south-east side of S Bayshore Drive between SW 17th Avenue and Halissee Street. • Provide shared lane (sharrow) markings on the center, southbound through lane of S Bayshore Drive between Halissee Street and SW 17th Avenue, accompanied by "Bicycles May Use Full Lane" sign (MUTCD R4-11 sign). • Provide 4-foot wide northbound and southbound bicycle lanes on S Miami Avenue between S 32nd Road and Federal Highway (US 1). • Provide an actuated pedestrian crossing phase and crosswalk across the north-east leg of the intersection between S Bayshore Drive and SW 17th Avenue. • Provide raised 'pork-chop' median for the channelized southbound right-turn lane from S Bayshore Drive onto northbound SW 17th Avenue. • Provide pedestrian crossing across SW 17th Avenue, using the 'pork-chop' median as a pedestrian refuge.
Lead Agencies	Miami-Dade County Public Works and Waste Management, City of Miami.
Notes	• New sidewalk shall meet ADA requirements, and should be 6-feet wide, if possible (some locations may be restricted due to trees/vegetation or right-of-way limitations). • Bicycle lanes shall be no less than 4 feet wide. • Buffered bicycle lanes should provide 2- to 3-foot painted buffers adjacent to the 4-to 5-foot bicycle lanes. • Recommended improvements between S 32nd Road and Federal Highway (US 1) may require curb modifications for approximately 300 feet south of Federal Highway (US 1) on the north/west side of S Miami Avenue. • Bicycle lanes should be maintained regularly to ensure debris does not accumulate and provide a hazard to bicyclists. • Preliminary analysis was conducted to evaluate feasibility of a road diet, as discussed in Section VI. Refer to Appendix B for results from Synchro analysis. • Emergency access to Mercy Way Hospital may be improved through provision of a center left-turn/emergency vehicle access lane. • Road diet and pedestrian crossing recommendations are consistent with Vizcaya enhancement plans, which include redevelopment of area to the north of S Bayshore Drive.

Implementation Timeframe	Short Term (3-5 years)
Implementation Cost	$$$

Existing Conditions at Various Locations Along the Corridor:
Pedestrians and bicyclists share the shoulder in three-lane section north of SW 17th Avenue (Left)
Existing sidewalk with signage and utility poles in the path north of Samana Drive (Right)

Northbound bicyclist passed by car in lane

Buffered bike lane



S Bayshore Dr / S Miami Ave

NOT TO SCALE

N

Legend

Study Roadway

Intersection

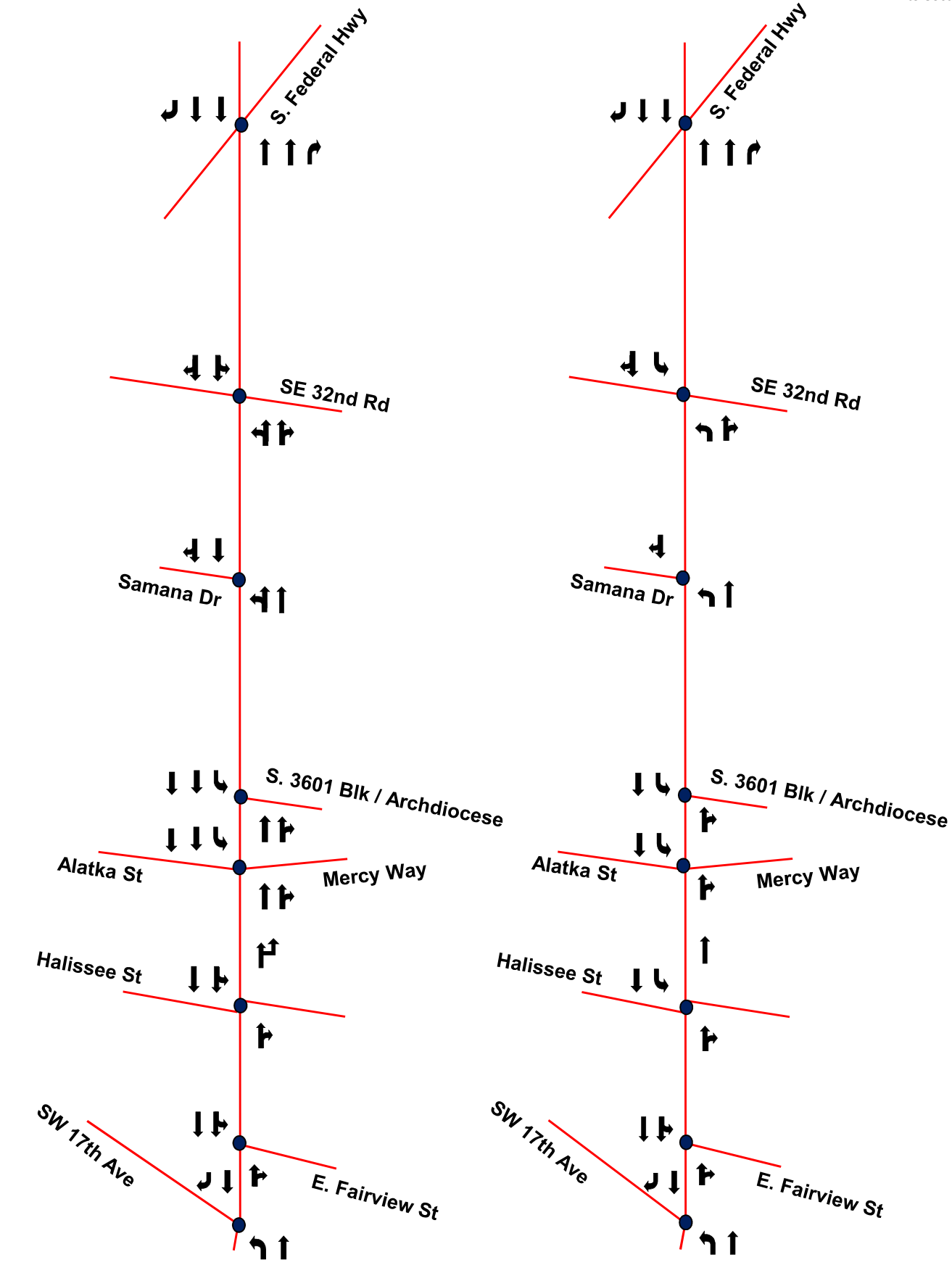


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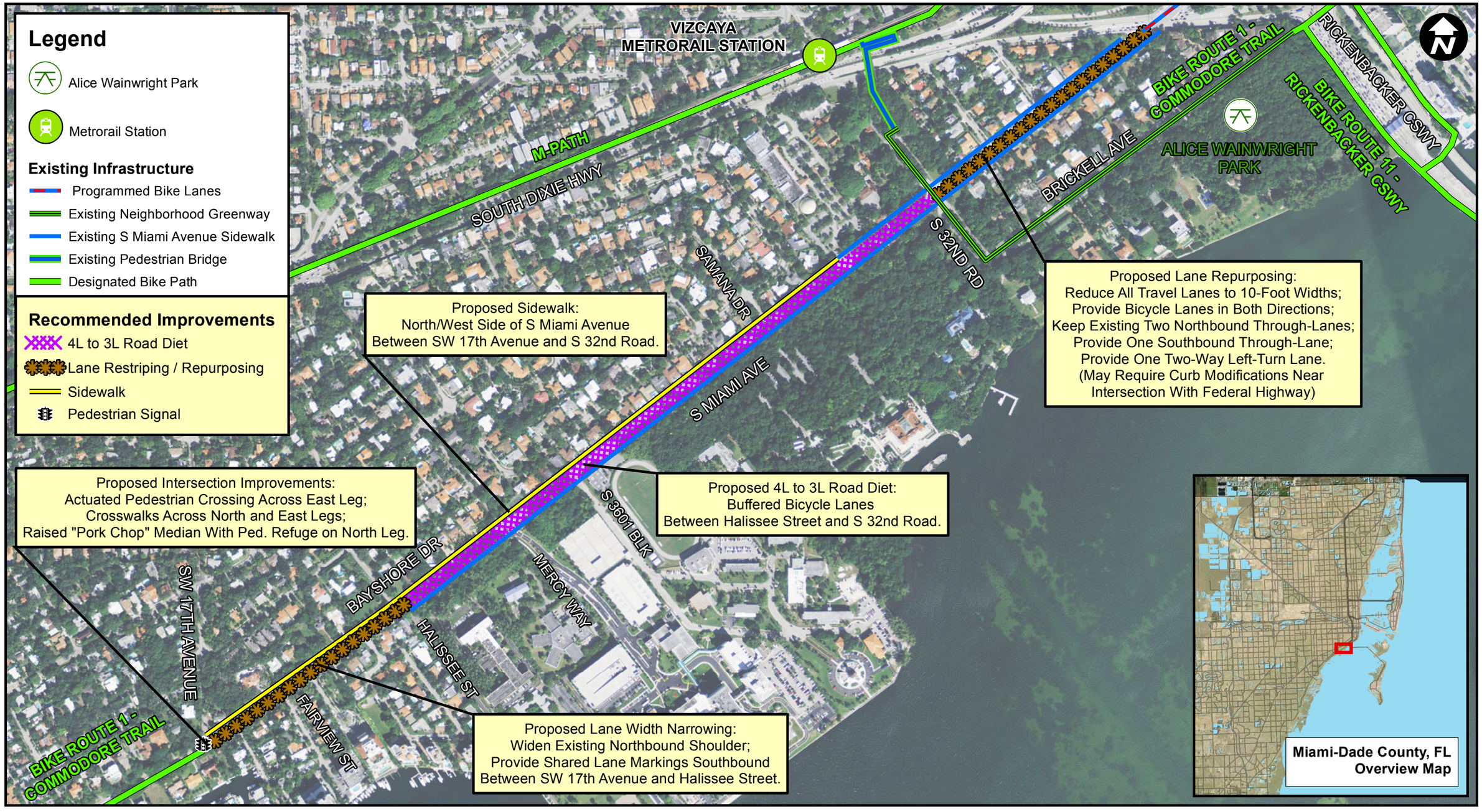
Figure 28: Existing and Proposed Lane Configuration on S Bayshore Drive

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 29: Commodore Trail to Rickenbacker Causeway
Miami-Dade MPO



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Project 6: Miami Springs and Medley to Okeechobee Metrorail Station	
Project Goal	Provide an improved bicycle- and pedestrian-friendly connection from Miami Springs and Medley to the Okeechobee Metrorail Station.

Project Description	• Construct a pedestrian bridge spanning the Miami Canal approximately 80 to 100 feet south of the existing FEC railroad bridge.
	• Construct a pedestrian bridge spanning Okeechobee Road (US Hwy. 27) adjacent (south-east) of the existing FEC railroad bridge.
	• Provide paved pedestrian path from the pedestrian railroad crossing due east to the Okeechobee Metrorail Station, following the 'goat path' that has been established.
	• Provide a paved path from the pedestrian railroad crossing north to the intersection of W 21st Place and W 11th Avenue, following the 'goat path' that has been established.
	• Extend shared use path along N Royal Poinciana Boulevard north to the newly proposed pedestrian bridge.
	• Provide a crosswalk across the north leg of the intersection between N Royal Poinciana Boulevard and Crane Avenue, connecting existing shared use path north of Crane Avenue to proposed extension of shared use path on the north side of N Royal Poinciana.
	• Provide Rectangular Rapid Flashing Beacon (RRFB) and pedestrian/bicyclist crossing warning sign assembly (MUTCD W11-15 sign with W16-7PL sign) at newly proposed crossing across N Royal Poinciana Boulevard.
	• Provide high-emphasis crosswalks and ADA-compliant ramps at the following intersections:
	  • NW 74th Street at CSX Railroad Crossing;
	  • NW South River Drive and NW 75th Street;
	  • NW South River Drive and NW 69th Avenue;
	  • Okeechobee Road and W 22nd Street.
	• Provide pedestrian countdown signalization and high-emphasis crosswalks at the following intersections:
	  • NW 75th Street and NW 69th Avenue;
	  • NW 74th Street/W 12th Avenue and NW South River Drive;
	  • W 12th Avenue and Okeechobee Road (US Hwy. 27).
	• Reconstruct sidewalks to meet ADA requirements and widen sidewalk to 6-feet where feasible at the following locations:
	  • NW 74th Street from NW 69th Avenue to end of the roadway;
	  • NW S River Drive from NW 74th Street to NW 72nd Avenue.

Lead Agencies	Miami-Dade County Public Works and Waste Management, the South Florida Water Management District, City of Miami.
Notes	• Pedestrian bridge crossing Okeechobee Road (US Hwy. 27) should tie into the existing pedestrian sidewalk just south-east of the pedestrian railroad crossing. • Advanced warning signs (MUTCD W11-15 sign with W16-9P sign) should also be provided in advance of the newly proposed crossing across N Royal Poinciana.

Implementation Timeframe	Long Term (5+ years)
Implementation Cost	$$$$

Proposed Pedestrian Bridge Location Across Miami Canal

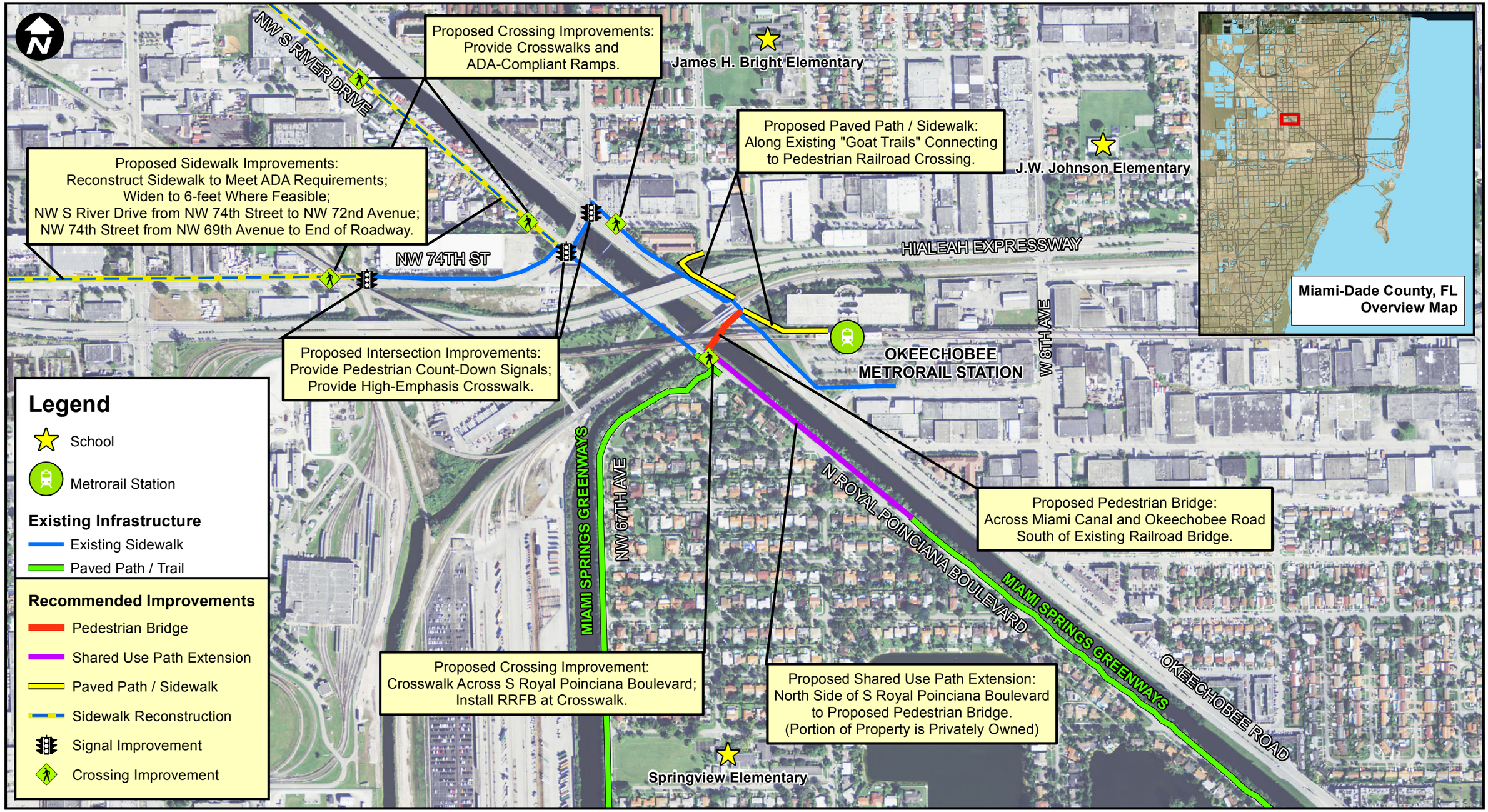
Example of Prefabricated Pedestrian Bridge

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Non-Motorized Connectivity Plan

Figure 30: Miami Springs and Medley to Okeechobee Metrorail Station

Miami-Dade MPO



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APPENDIX A: TRAFFIC COUNT DATA

APPENDIX A1: 24-HOUR TRAFFIC COUNTS

County: 87
Station: 9001
Description: BAYSHORE Between Hiawatha Avenue and Glencoe St
Start Date: 05/26/2015
Start Time: 0000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	30	15	7	13	65	23	8	16	13	60	125
0100	15	4	4	3	26	9	9	10	3	31	57
0200	4	2	7	3	16	3	2	3	4	12	28
0300	0	6	5	9	20	3	2	2	2	9	29
0400	2	7	14	11	34	0	2	9	5	16	50
0500	22	30	41	55	148	9	11	13	16	49	197
0600	91	140	225	231	687	33	24	65	98	220	907
0700	275	319	305	243	1142	136	222	287	276	921	2063
0800	282	302	287	309	1180	255	169	216	194	834	2014
0900	295	289	281	275	1140	170	198	222	251	841	1981
1000	267	228	210	222	927	256	180	187	205	828	1755
1100	187	185	202	183	757	170	212	238	221	841	1598
1200	194	214	215	216	839	241	244	225	230	940	1779
1300	217	193	203	185	798	209	190	218	252	869	1667
1400	196	191	238	231	856	224	299	368	302	1193	2049
1500	229	221	188	172	810	308	300	383	315	1306	2116
1600	183	191	189	198	761	353	362	356	379	1450	2211
1700	203	196	204	227	830	388	463	462	411	1724	2554
1800	182	206	184	217	789	427	347	377	344	1495	2284
1900	160	159	159	138	616	234	220	236	202	892	1508
2000	129	108	103	85	425	167	142	124	123	556	981
2100	81	76	63	57	277	108	87	77	65	337	614
2200	52	62	43	50	207	85	69	65	49	268	475
2300	39	24	21	20	104	55	37	44	32	168	272
24-Hour Totals:					13454					15860	29314

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	815	1193	715	1040	715	2189
P.M.	1430	919	1715	1763	1715	2572
Daily	815	1193	1715	1763	1715	2572

Generated by SPS 5.0.47P

County: 87
Station: 9002
Description: BAYSHORE Between Samana Drive and South 32nd Road
Start Date: 05/26/2015
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	33	42	10	14	99	16	10	11	10	47	146
0100	16	10	5	5	36	6	5	10	4	25	61
0200	6	2	5	3	16	2	3	4	3	12	28
0300	2	2	0	8	12	3	2	2	3	10	22
0400	1	3	13	3	20	3	2	11	10	26	46
0500	12	11	31	24	78	11	23	27	34	95	173
0600	56	70	107	126	359	35	72	161	188	456	815
0700	194	239	312	247	992	211	280	299	295	1085	2077
0800	307	270	295	275	1147	279	202	209	212	902	2049
0900	278	253	235	244	1010	203	198	231	221	853	1863
1000	225	210	191	198	824	178	181	169	170	698	1522
1100	176	180	206	185	747	152	206	199	219	776	1523
1200	212	223	187	213	835	177	203	195	202	777	1612
1300	187	219	201	177	784	158	177	176	251	762	1546
1400	149	211	279	266	905	210	234	256	274	974	1879
1500	276	273	303	227	1079	245	247	264	290	1046	2125
1600	207	216	236	235	894	285	332	276	329	1222	2116
1700	261	236	248	255	1000	309	409	376	355	1449	2449
1800	210	207	194	201	812	348	350	414	314	1426	2238
1900	166	151	171	153	641	263	206	180	183	832	1473
2000	150	122	129	98	499	125	116	90	116	447	946
2100	107	85	69	71	332	86	66	57	63	272	604
2200	60	71	59	54	244	60	81	52	39	232	476
2300	54	34	35	24	147	37	31	33	26	127	274
24-Hour Totals:					13512					14551	28063

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	800	1147	715	1153	715	2258
P.M.	1445	1118	1715	1488	1700	2449
Daily	800	1147	1715	1488	1700	2449

Generated by SPS 5.0.47P

County: 87
Station: 9003
Description: ROYAL POINCIANA South of Hialeah Exp Overpass
Start Date: 05/27/2015
Start Time: 0000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	7	3	3	1	14	7	7	6	3	23	37
0100	3	1	8	3	15	5	2	2	2	11	26
0200	2	5	2	0	9	4	1	2	1	8	17
0300	1	1	3	2	7	2	0	2	2	6	13
0400	4	4	4	8	20	3	1	2	1	7	27
0500	10	17	13	17	57	3	7	11	11	32	89
0600	26	29	42	49	146	14	17	35	41	107	253
0700	104	92	62	77	335	71	59	56	60	246	581
0800	65	69	102	53	289	38	46	44	29	157	446
0900	57	124	53	53	287	46	38	36	27	147	434
1000	58	77	66	71	272	37	34	49	40	160	432
1100	74	60	69	51	254	43	35	57	51	186	440
1200	75	74	53	68	270	47	49	58	43	197	467
1300	52	68	76	71	267	50	68	60	68	246	513
1400	71	134	76	62	343	38	62	55	77	232	575
1500	96	95	73	76	340	57	70	66	62	255	595
1600	83	75	97	71	326	79	66	90	85	320	646
1700	86	88	105	106	385	105	95	104	107	411	796
1800	67	73	66	56	262	90	80	73	69	312	574
1900	72	69	74	45	260	59	51	53	37	200	460
2000	17	58	35	26	136	19	69	36	48	172	308
2100	38	31	43	32	144	46	39	29	16	130	274
2200	19	19	25	9	72	41	23	21	13	98	170
2300	15	11	14	8	48	15	11	6	6	38	86
24-Hour Totals:					4558					3701	8259

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	830	336	700	246	700	581
P.M.	1700	385	1700	411	1700	796
Daily	1700	385	1700	411	1700	796

Generated by SPS 5.0.47P

County: 87
Station: 9004
Description: NE 165 ST Between NE 19th Avenue And NE 20th Ave
Start Date: 05/27/2015
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	0	0	0	0	0	2	5	3	2	12	12
0100	0	2	1	0	3	4	3	3	0	10	13
0200	0	0	0	0	0	0	1	0	1	2	2
0300	0	0	0	0	0	0	0	2	0	2	2
0400	0	0	0	1	1	0	0	0	0	0	1
0500	0	0	1	0	1	1	2	1	4	8	9
0600	0	1	5	5	11	1	4	10	9	24	35
0700	5	3	6	7	21	7	10	15	16	48	69
0800	7	1	4	5	17	12	14	12	15	53	70
0900	5	9	1	6	21	18	14	6	13	51	72
1000	6	7	7	2	22	10	17	14	13	54	76
1100	5	3	1	1	10	19	12	20	19	70	80
1200	3	4	5	3	15	21	17	15	16	69	84
1300	9	5	5	5	24	15	20	28	22	85	109
1400	3	9	6	2	20	17	18	21	21	77	97
1500	5	4	1	5	15	25	23	14	17	79	94
1600	5	1	8	8	22	30	18	20	16	84	106
1700	4	8	10	6	28	27	21	28	36	112	140
1800	5	4	3	4	16	19	26	24	19	88	104
1900	4	7	2	8	21	19	18	14	12	63	84
2000	3	6	1	3	13	12	16	7	7	42	55
2100	2	5	0	3	10	8	10	8	7	33	43
2200	2	1	0	0	3	9	6	5	7	27	30
2300	1	0	2	1	4	4	2	4	4	14	18
24-Hour Totals:					298					1107	1405

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	715	23	815	59	830	82
P.M.	1645	30	1700	112	1700	140
Daily	1645	30	1700	112	1700	140

Generated by SPS 5.0.47P

County: 87
Station: 9005
Description: NW 167th Street East of NW 10th Avenue
Start Date: 05/27/2015
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	0	0	0	0	0	0	1	0	0	1	1
0100	0	1	0	1	2	1	1	0	1	3	5
0200	0	0	0	0	0	0	0	0	0	0	0
0300	3	0	0	0	3	2	0	0	0	2	5
0400	0	0	0	0	0	0	1	0	0	1	1
0500	0	0	0	0	0	0	1	0	0	1	1
0600	0	0	1	1	2	0	0	3	9	12	14
0700	1	2	4	1	8	4	11	8	5	28	36
0800	0	8	3	5	16	6	10	5	10	31	47
0900	8	4	2	5	19	9	9	6	4	28	47
1000	7	5	4	3	19	4	7	7	9	27	46
1100	3	10	1	5	19	8	7	6	7	28	47
1200	12	2	2	5	21	10	2	4	6	22	43
1300	5	7	7	4	23	10	9	7	1	27	50
1400	10	5	5	5	25	11	4	6	2	23	48
1500	0	7	4	6	17	3	9	1	3	16	33
1600	6	2	1	4	13	10	1	1	5	17	30
1700	5	7	3	2	17	1	2	4	3	10	27
1800	2	0	2	2	6	3	2	0	1	6	12
1900	0	2	0	1	3	2	3	1	2	8	11
2000	2	0	1	0	3	2	0	1	0	3	6
2100	0	4	0	1	5	0	3	1	1	5	10
2200	1	1	0	0	2	1	1	0	0	2	4
2300	0	0	4	0	4	0	1	4	0	5	9
24-Hour Totals:					227					306	533

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	815	24	815	34	815	58
P.M.	1315	28	1245	32	1245	56
Daily	1115	28	815	34	815	58

Generated by SPS 5.0.47P

APPENDIX A2: TURNING MOVEMENT COUNTS

CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE &SW 17 AVE
Weather: Sunny
County: Miami-Dade

File Name : 1 Bayshore DR _SW 17 Ave
Site Code : 00000001
Start Date : 5/27/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	BAYSHORE DRIVE SB Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	83	10	7	100	20	172	0	192	93	32	1	126	418
07:15 AM	79	13	5	97	15	232	0	247	153	41	0	194	538
07:30 AM	73	14	9	96	14	226	0	240	217	58	0	275	611
07:45 AM	58	23	7	88	19	180	0	199	201	60	0	261	548
Total	293	60	28	381	68	810	0	878	664	191	1	856	2115
08:00 AM	56	19	4	79	18	222	0	240	142	43	0	185	504
08:15 AM	72	20	0	92	17	210	0	227	134	38	0	172	491
08:30 AM	69	19	5	93	14	225	0	239	143	50	0	193	525
08:45 AM	90	21	5	116	11	216	0	227	134	30	0	164	507
Total	287	79	14	380	60	873	0	933	553	161	0	714	2027
*** BREAK ***													
04:00 PM	28	11	5	44	14	107	0	121	124	86	0	210	375
04:15 PM	31	12	6	49	18	145	0	163	176	110	1	287	499
04:30 PM	38	16	3	57	23	184	0	207	219	122	0	341	605
04:45 PM	44	18	2	64	25	215	0	240	243	137	0	380	684
Total	141	57	16	214	80	651	0	731	762	455	1	1218	2163
05:00 PM	45	15	4	64	26	222	0	248	274	145	4	423	735
05:15 PM	39	19	5	63	25	207	0	232	245	174	2	421	716
05:30 PM	33	22	2	57	28	194	0	222	262	150	0	412	691
05:45 PM	48	27	1	76	23	184	0	207	215	86	0	301	584
Total	165	83	12	260	102	807	0	909	996	555	6	1557	2726
Grand Total	886	279	70	1235	310	3141	0	3451	2975	1362	8	4345	9031
Apprch %	71.7	22.6	5.7		9	91	0		68.5	31.3	0.2		
Total %	9.8	3.1	0.8	13.7	3.4	34.8	0	38.2	32.9	15.1	0.1	48.1	
Autos	868	273	70	1211	304	3086	0	3390	2940	1352	8	4300	8901
% Autos	98	97.8	100	98.1	98.1	98.2	0	98.2	98.8	99.3	100	99	98.6
Heavy Vehicles	18	6	0	24	6	55	0	61	35	10	0	45	130
% Heavy Vehicles	2	2.2	0	1.9	1.9	1.8	0	1.8	1.2	0.7	0	1	1.4

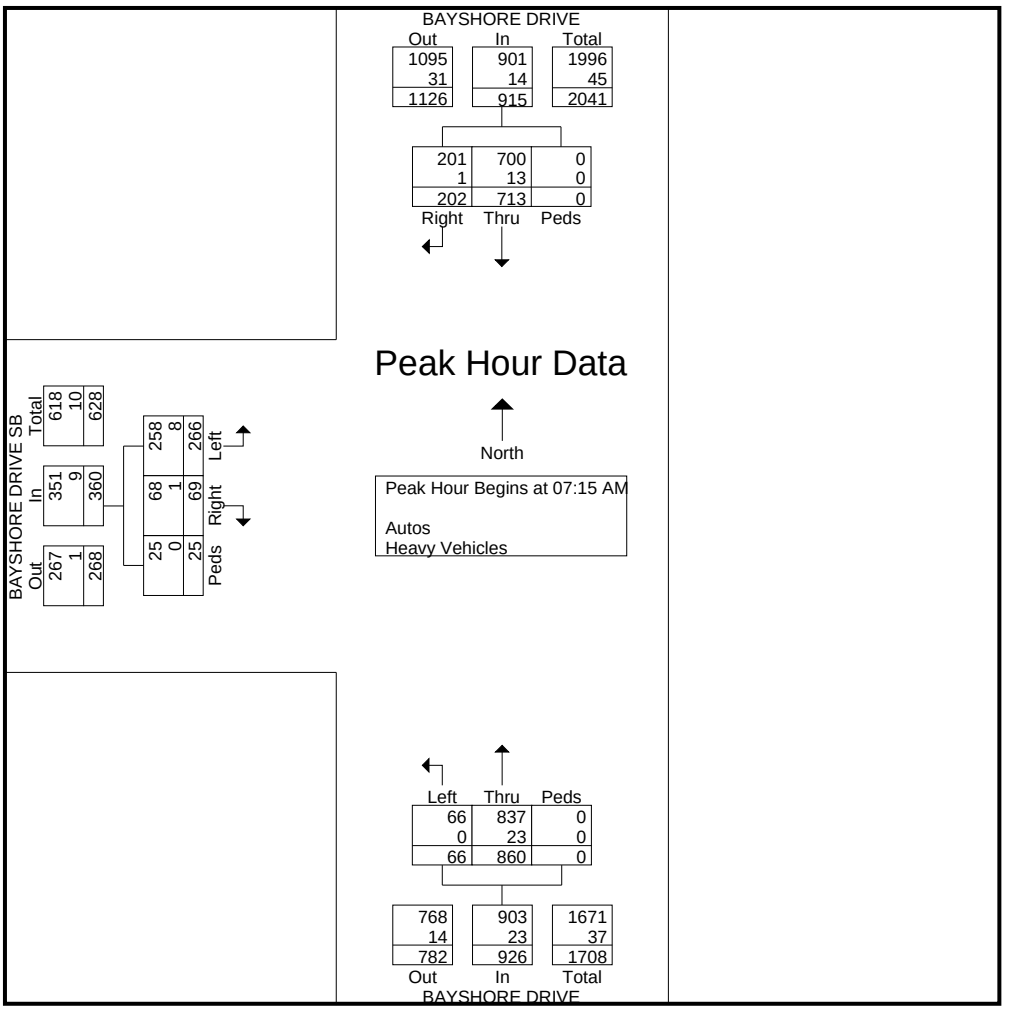
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE &SW 17 AVE
Weather: Sunny
County: Miami-Dade

File Name : 1 Bayshore DR _SW 17 Ave
Site Code : 00000001
Start Date : 5/27/2015
Page No : 2

	BAYSHORE DRIVE SB Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	79	13	5	97	15	232	0	247	153	41	0	194	538
07:30 AM	73	14	9	96	14	226	0	240	217	58	0	275	611
07:45 AM	58	23	7	88	19	180	0	199	201	60	0	261	548
08:00 AM	56	19	4	79	18	222	0	240	142	43	0	185	504
Total Volume	266	69	25	360	66	860	0	926	713	202	0	915	2201
% App. Total	73.9	19.2	6.9		7.1	92.9	0		77.9	22.1	0		
PHF	.842	.750	.694	.928	.868	.927	.000	.937	.821	.842	.000	.832	.901
Autos	258	68	25	351	66	837	0	903	700	201	0	901	2155
% Autos	97.0	98.6	100	97.5	100	97.3	0	97.5	98.2	99.5	0	98.5	97.9
Heavy Vehicles	8	1	0	9	0	23	0	23	13	1	0	14	46
% Heavy Vehicles	3.0	1.4	0	2.5	0	2.7	0	2.5	1.8	0.5	0	1.5	2.1



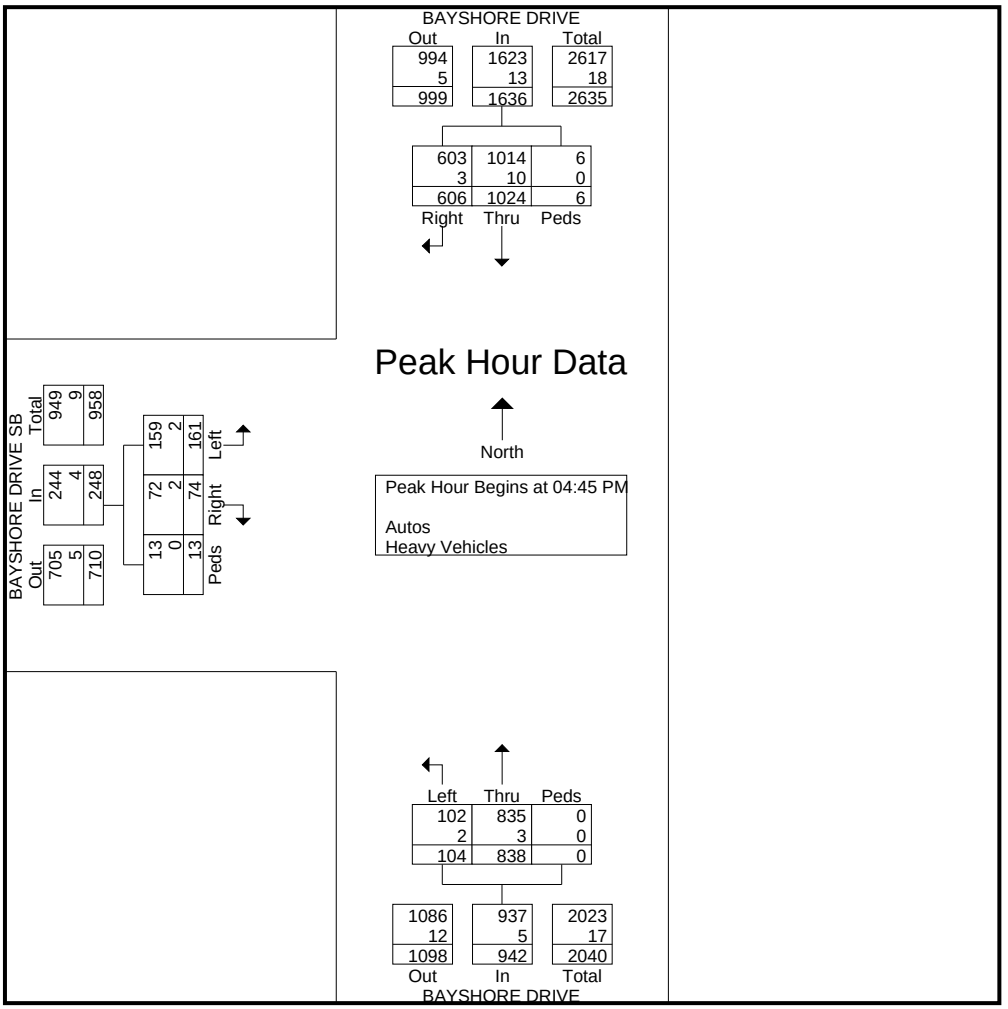
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE &SW 17 AVE
Weather: Sunny
County: Miami-Dade

File Name : 1 Bayshore DR _SW 17 Ave
Site Code : 00000001
Start Date : 5/27/2015
Page No : 3

	BAYSHORE DRIVE SB Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	44	18	2	64	25	215	0	240	243	137	0	380	684
05:00 PM	45	15	4	64	26	222	0	248	274	145	4	423	735
05:15 PM	39	19	5	63	25	207	0	232	245	174	2	421	716
05:30 PM	33	22	2	57	28	194	0	222	262	150	0	412	691
Total Volume	161	74	13	248	104	838	0	942	1024	606	6	1636	2826
% App. Total	64.9	29.8	5.2		11	89	0		62.6	37	0.4		
PHF	.894	.841	.650	.969	.929	.944	.000	.950	.934	.871	.375	.967	.961
Autos	159	72	13	244	102	835	0	937	1014	603	6	1623	2804
% Autos	98.8	97.3	100	98.4	98.1	99.6	0	99.5	99.0	99.5	100	99.2	99.2
Heavy Vehicles	2	2	0	4	2	3	0	5	10	3	0	13	22
% Heavy Vehicles	1.2	2.7	0	1.6	1.9	0.4	0	0.5	1.0	0.5	0	0.8	0.8



CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE &SW 17 AVE
Weather: Sunny
County: Miami-Dade

File Name : 1 Bayshore DR _SW 17 Ave
Site Code : 00000001
Start Date : 5/27/2015
Page No : 1

Groups Printed- Heavy Vehicles

	BAYSHORE DRIVE SB Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	5	0	5	1	1	0	2	7
07:15 AM	4	0	0	4	0	9	0	9	3	0	0	3	16
07:30 AM	2	0	0	2	0	4	0	4	3	1	0	4	10
07:45 AM	1	1	0	2	0	4	0	4	4	0	0	4	10
Total	7	1	0	8	0	22	0	22	11	2	0	13	43
08:00 AM	1	0	0	1	0	6	0	6	3	0	0	3	10
08:15 AM	3	2	0	5	0	9	0	9	3	0	0	3	17
08:30 AM	0	0	0	0	0	8	0	8	0	4	0	4	12
08:45 AM	3	1	0	4	1	2	0	3	3	0	0	3	10
Total	7	3	0	10	1	25	0	26	9	4	0	13	49
*** BREAK ***													
04:00 PM	0	0	0	0	1	2	0	3	2	1	0	3	6
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	1	0	0	1	1	0	0	1	1	0	0	1	3
*** BREAK ***													
Total	1	0	0	1	2	2	0	4	4	1	0	5	10
05:00 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
05:15 PM	1	0	0	1	1	1	0	2	3	2	0	5	8
05:30 PM	1	2	0	3	1	1	0	2	4	1	0	5	10
05:45 PM	1	0	0	1	1	3	0	4	1	0	0	1	6
Total	3	2	0	5	3	6	0	9	11	3	0	14	28
Grand Total	18	6	0	24	6	55	0	61	35	10	0	45	130
Apprch %	75	25	0		9.8	90.2	0		77.8	22.2	0		
Total %	13.8	4.6	0	18.5	4.6	42.3	0	46.9	26.9	7.7	0	34.6	

CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE& FAIRVIEWST
Weather: Sunny
County: Miami-Dade

File Name : 2 BAYSHORE DR_FAIRVIEW ST
Site Code : 00000002
Start Date : 5/27/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	E FAIRVIEW ST Eastbound					E FAIRVIEW ST Westbound					BAYSHORE DR Northbound					BAYSHORE DR Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	2	10	14	1	177	0	0	178	1	253	0	0	254	446
07:15 AM	0	0	0	0	0	1	0	2	4	7	1	258	0	0	259	0	295	1	0	296	562
07:30 AM	0	0	0	0	0	6	0	1	5	12	0	271	1	0	272	0	305	0	0	305	589
07:45 AM	0	0	0	0	0	2	0	0	5	7	1	266	0	0	267	0	229	0	0	229	503
Total	0	0	0	0	0	11	0	5	24	40	3	972	1	0	976	1	1082	1	0	1084	2100
08:00 AM	0	0	0	0	0	2	0	2	5	9	0	231	0	0	231	0	267	1	0	268	508
08:15 AM	0	0	0	0	0	7	0	5	3	15	0	192	0	0	192	0	278	0	0	278	485
08:30 AM	0	0	0	0	0	4	0	0	8	12	0	211	1	0	212	0	292	0	0	292	516
08:45 AM	0	0	0	0	0	4	0	3	4	11	0	168	0	0	168	0	296	2	0	298	477
Total	0	0	0	0	0	17	0	10	20	47	0	802	1	0	803	0	1133	3	0	1136	1986
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	1	0	1	2	301	1	0	304	2	286	1	0	289	594
04:15 PM	0	0	0	0	0	1	0	3	1	5	2	259	0	0	261	0	316	0	0	316	582
04:30 PM	0	0	0	0	0	0	0	2	2	4	0	229	2	0	231	1	347	1	0	349	584
04:45 PM	0	0	0	0	0	2	0	1	4	7	1	232	0	0	233	0	370	0	0	370	610
Total	0	0	0	0	0	3	0	7	7	17	5	1021	3	0	1029	3	1319	2	0	1324	2370
05:00 PM	0	0	0	0	0	2	0	0	5	7	0	256	0	0	256	3	391	0	0	394	657
05:15 PM	0	0	0	0	0	0	0	1	2	3	0	216	1	0	217	1	397	0	0	398	618
05:30 PM	0	0	0	0	0	3	0	2	5	10	0	234	2	0	236	0	356	0	0	356	602
05:45 PM	0	0	0	0	0	1	0	2	2	5	1	201	0	0	202	3	351	0	0	354	561
Total	0	0	0	0	0	6	0	5	14	25	1	907	3	0	911	7	1495	0	0	1502	2438
Grand Total	0	0	0	0	0	37	0	27	65	129	9	3702	8	0	3719	11	5029	6	0	5046	8894
Apprch %	0	0	0	0		28.7	0	20.9	50.4		0.2	99.5	0.2	0		0.2	99.7	0.1	0		
Total %	0	0	0	0	0	0.4	0	0.3	0.7	1.5	0.1	41.6	0.1	0	41.8	0.1	56.5	0.1	0	56.7	
Autos	0	0	0	0	0	36	0	26	65	127	9	3660	8	0	3677	11	4953	5	0	4969	8773
% Autos	0	0	0	0	0	97.3	0	96.3	100	98.4	100	98.9	100	0	98.9	100	98.5	83.3	0	98.5	98.6
Heavy Vehicles	0	0	0	0	0	1	0	1	0	2	0	42	0	0	42	0	76	1	0	77	121
% Heavy Vehicles	0	0	0	0	0	2.7	0	3.7	0	1.6	0	1.1	0	0	1.1	0	1.5	16.7	0	1.5	1.4

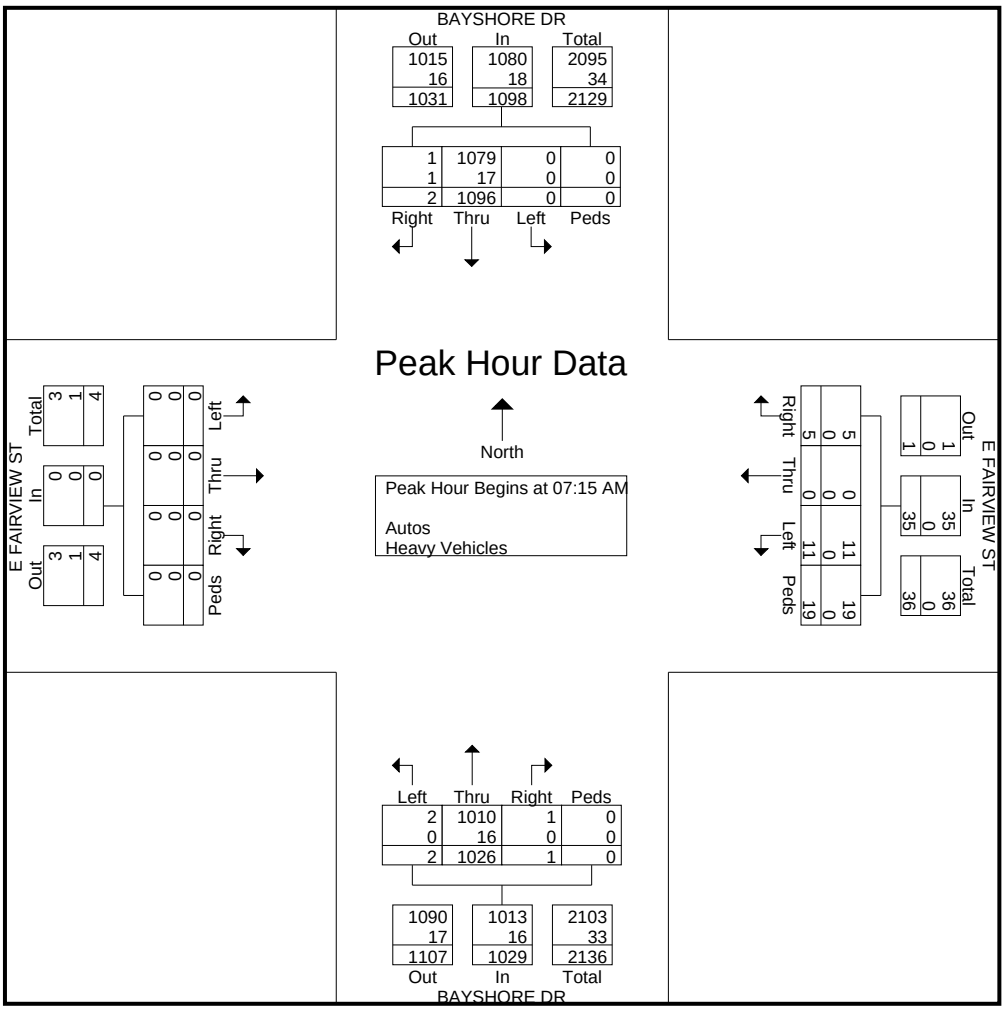
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE& FAIRVIEWST
Weather: Sunny
County: Miami-Dade

File Name : 2 BAYSHORE DR_FAIRVIEW ST
Site Code : 00000002
Start Date : 5/27/2015
Page No : 2

	E FAIRVIEW ST Eastbound					E FAIRVIEW ST Westbound					BAYSHORE DR Northbound					BAYSHORE DR Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	1	0	2	4	7	1	258	0	0	259	0	295	1	0	296	562
07:30 AM	0	0	0	0	0	6	0	1	5	12	0	271	1	0	272	0	305	0	0	305	589
07:45 AM	0	0	0	0	0	2	0	0	5	7	1	266	0	0	267	0	229	0	0	229	503
08:00 AM	0	0	0	0	0	2	0	2	5	9	0	231	0	0	231	0	267	1	0	268	508
Total Volume	0	0	0	0	0	11	0	5	19	35	2	1026	1	0	1029	0	1096	2	0	1098	2162
% App. Total	0	0	0	0		31.4	0	14.3	54.3		0.2	99.7	0.1	0		0	99.8	0.2	0		
PHF	.000	.000	.000	.000	.000	.458	.000	.625	.950	.729	.500	.946	.250	.000	.946	.000	.898	.500	.000	.900	.918
Autos	0	0	0	0	0	11	0	5	19	35	2	1010	1	0	1013	0	1079	1	0	1080	2128
% Autos	0	0	0	0	0	100	0	100	100	100	100	98.4	100	0	98.4	0	98.4	50.0	0	98.4	98.4
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	0	17	1	0	18	34
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1.6	0	0	1.6	0	1.6	50.0	0	1.6	1.6



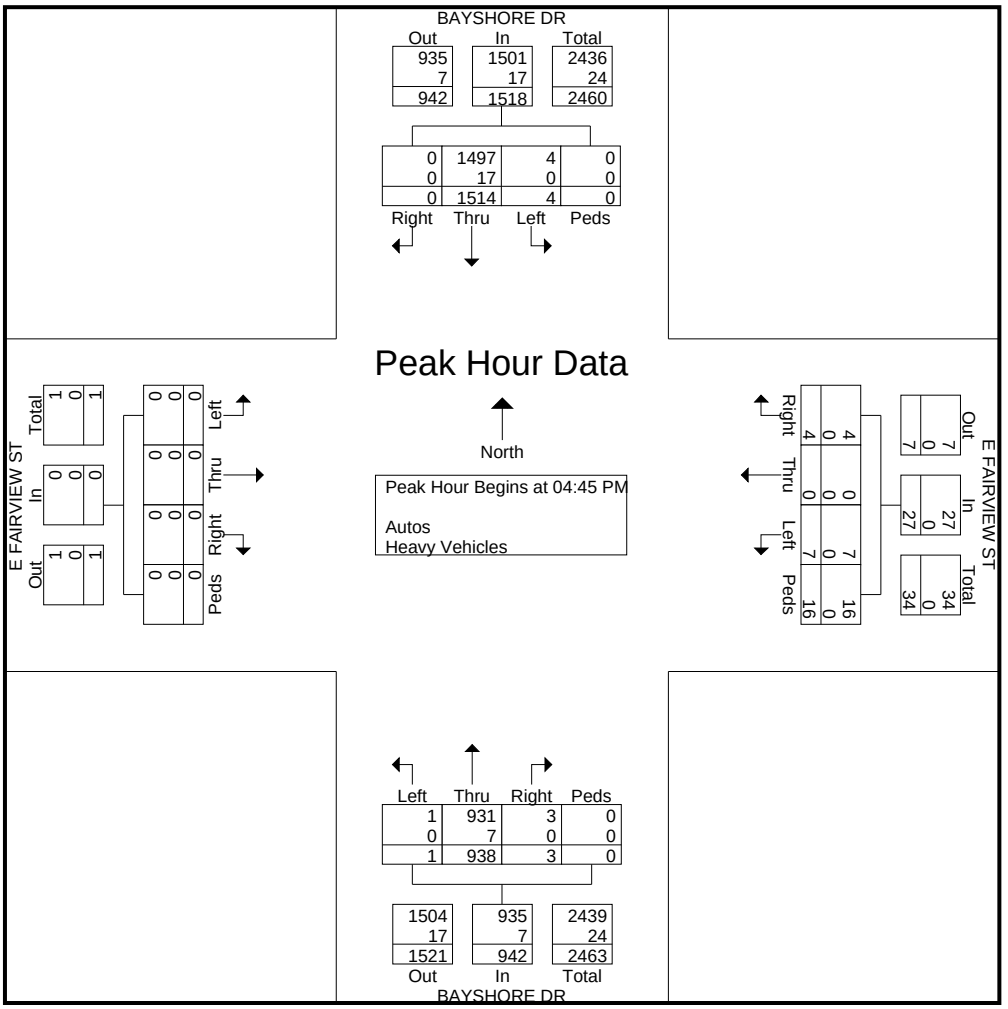
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE& FAIRVIEWST
Weather: Sunny
County: Miami-Dade

File Name : 2 BAYSHORE DR_FAIRVIEW ST
Site Code : 00000002
Start Date : 5/27/2015
Page No : 3

	E FAIRVIEW ST Eastbound					E FAIRVIEW ST Westbound					BAYSHORE DR Northbound					BAYSHORE DR Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	2	0	1	4	7	1	232	0	0	233	0	370	0	0	370	610
05:00 PM	0	0	0	0	0	2	0	0	5	7	0	256	0	0	256	3	391	0	0	394	657
05:15 PM	0	0	0	0	0	0	0	1	2	3	0	216	1	0	217	1	397	0	0	398	618
05:30 PM	0	0	0	0	0	3	0	2	5	10	0	234	2	0	236	0	356	0	0	356	602
Total Volume	0	0	0	0	0	7	0	4	16	27	1	938	3	0	942	4	1514	0	0	1518	2487
% App. Total	0	0	0	0		25.9	0	14.8	59.3		0.1	99.6	0.3	0		0.3	99.7	0	0		
PHF	.000	.000	.000	.000	.000	.583	.000	.500	.800	.675	.250	.916	.375	.000	.920	.333	.953	.000	.000	.954	.946
Autos	0	0	0	0	0	7	0	4	16	27	1	931	3	0	935	4	1497	0	0	1501	2463
% Autos	0	0	0	0	0	100	0	100	100	100	100	99.3	100	0	99.3	100	98.9	0	0	98.9	99.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	17	0	0	17	24
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.7	0	1.1	0	0	1.1	1.0



CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE& FAIRVIEWST
Weather: Sunny
County: Miami-Dade

File Name : 2 BAYSHORE DR_FAIRVIEW ST
Site Code : 00000002
Start Date : 5/27/2015
Page No : 1

Groups Printed- Heavy Vehicles

	E FAIRVIEW ST Eastbound					E FAIRVIEW ST Westbound					BAYSHORE DR Northbound					BAYSHORE DR Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	0	0	5	7
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	7	1	0	8	11
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	4	0	0	4	9
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	2	0	0	2	7
Total	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	18	1	0	19	34
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	0	0	4	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	11	0	0	11	12
08:30 AM	0	0	0	0	0	1	0	0	0	1	0	4	0	0	4	0	5	0	0	5	10
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	5	0	0	5	8
Total	0	0	0	0	0	1	0	0	0	1	0	11	0	0	11	0	25	0	0	25	37
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	0	0	4	8
04:15 PM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	5	0	0	5	8
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Total	0	0	0	0	0	0	0	1	0	1	0	7	0	0	7	0	15	0	0	15	23
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	3	0	0	3	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	0	0	5	6
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	0	0	5	7
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	0	0	5	7
Total	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	18	0	0	18	27
Grand Total	0	0	0	0	0	1	0	1	0	2	0	42	0	0	42	0	76	1	0	77	121
Apprch %	0	0	0	0		50	0	50	0		0	100	0	0		0	98.7	1.3	0		
Total %	0	0	0	0	0	0.8	0	0.8	0	1.7	0	34.7	0	0	34.7	0	62.8	0.8	0	63.6	

CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE DR_MERCY WAY
Weather: Sunny
County: Miami-Dade

File Name : 3 BAYSHORE DR_MERCY WAY
Site Code : 00000003
Start Date : 5/27/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	MERCY WAY Eastbound					MERCY WAY Westbound					BAYSHORE DRIVE Northbound					BAYSHORE DRIVE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	4	0	0	7	16	0	13	5	34	0	243	29	0	272	47	130	0	6	183	496
07:15 AM	2	5	1	0	8	13	0	14	8	35	0	180	42	0	222	52	180	0	2	234	499
07:30 AM	7	6	1	0	14	25	0	15	3	43	0	151	38	0	189	40	268	0	0	308	554
07:45 AM	3	6	0	0	9	31	0	14	3	48	0	154	41	0	195	34	216	0	0	250	502
Total	15	21	2	0	38	85	0	56	19	160	0	728	150	0	878	173	794	0	8	975	2051
08:00 AM	1	4	0	0	5	20	0	17	8	45	0	221	48	0	269	34	203	0	2	239	558
08:15 AM	2	5	0	0	7	14	0	20	4	38	0	219	41	2	262	43	157	0	1	201	508
08:30 AM	0	6	1	1	8	21	0	10	9	40	0	217	68	0	285	37	169	0	1	207	540
08:45 AM	1	11	3	0	15	20	0	17	5	42	0	202	78	1	281	33	143	0	2	178	516
Total	4	26	4	1	35	75	0	64	26	165	0	859	235	3	1097	147	672	0	6	825	2122
*** BREAK ***																					
04:00 PM	0	1	1	0	2	71	0	44	1	116	1	151	17	0	169	17	247	0	1	265	552
04:15 PM	2	0	0	0	2	70	0	39	0	109	0	161	17	0	178	16	261	0	0	277	566
04:30 PM	0	1	0	0	1	73	0	43	5	121	2	163	14	0	179	15	280	0	0	295	596
04:45 PM	0	0	0	0	0	69	0	47	3	119	0	181	18	0	199	16	295	0	0	311	629
Total	2	2	1	0	5	283	0	173	9	465	3	656	66	0	725	64	1083	0	1	1148	2343
05:00 PM	2	1	1	0	4	75	0	45	2	122	2	166	16	0	184	13	305	0	0	318	628
05:15 PM	0	0	0	0	0	63	0	38	9	110	0	180	10	0	190	14	304	0	1	319	619
05:30 PM	0	0	0	0	0	61	0	40	3	104	0	201	19	0	220	17	339	0	0	356	680
05:45 PM	1	0	1	0	2	40	0	25	1	66	1	195	16	0	212	9	324	0	3	336	616
Total	3	1	2	0	6	239	0	148	15	402	3	742	61	0	806	53	1272	0	4	1329	2543
Grand Total	24	50	9	1	84	682	0	441	69	1192	6	2985	512	3	3506	437	3821	0	19	4277	9059
Apprch %	28.6	59.5	10.7	1.2		57.2	0	37	5.8		0.2	85.1	14.6	0.1		10.2	89.3	0	0.4		
Total %	0.3	0.6	0.1	0	0.9	7.5	0	4.9	0.8	13.2	0.1	33	5.7	0	38.7	4.8	42.2	0	0.2	47.2	
Autos	24	49	9	1	83	674	0	418	69	1161	6	2951	504	3	3464	429	3748	0	19	4196	8904
% Autos	100	98	100	100	98.8	98.8	0	94.8	100	97.4	100	98.9	98.4	100	98.8	98.2	98.1	0	100	98.1	98.3
Heavy Vehicles	0	1	0	0	1	8	0	23	0	31	0	34	8	0	42	8	73	0	0	81	155
% Heavy Vehicles	0	2	0	0	1.2	1.2	0	5.2	0	2.6	0	1.1	1.6	0	1.2	1.8	1.9	0	0	1.9	1.7

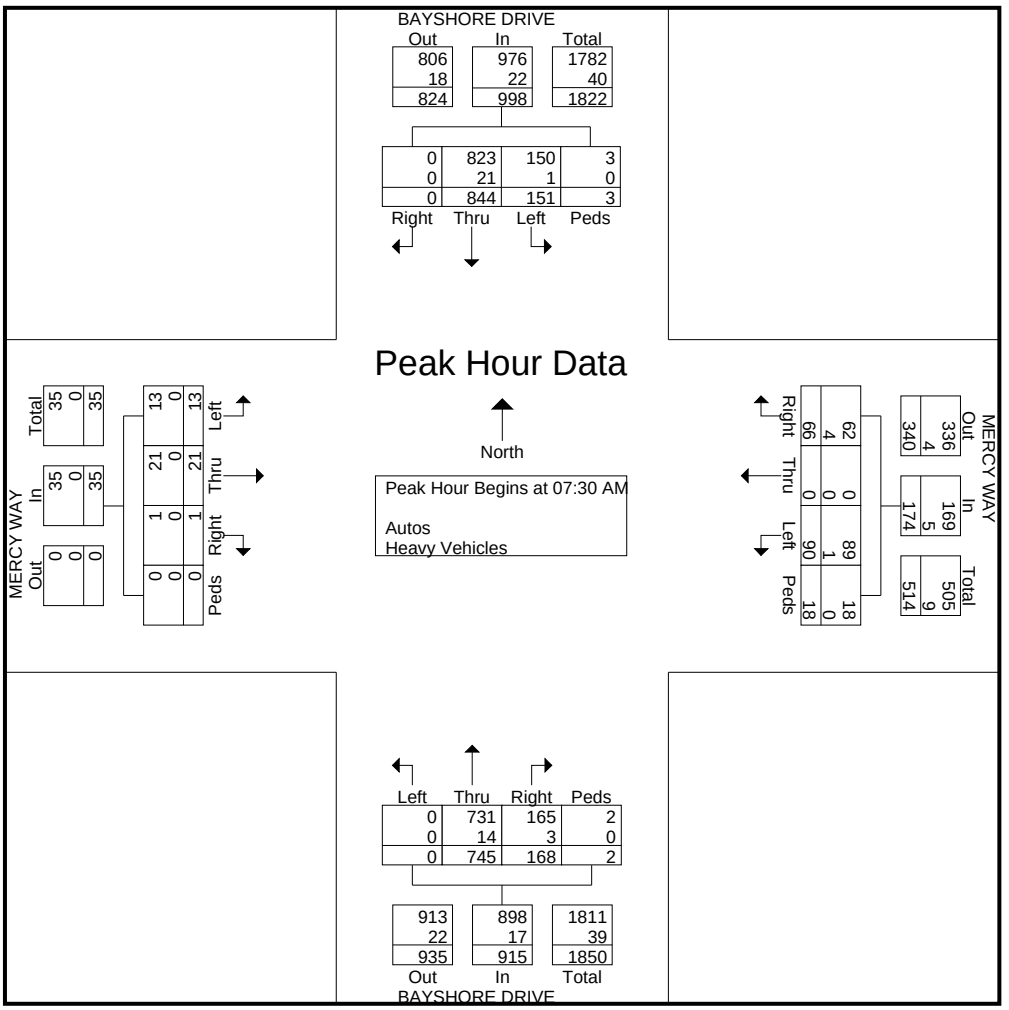
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE DR_MERCY WAY
Weather: Sunny
County: Miami-Dade

File Name : 3 BAYSHORE DR_MERCY WAY
Site Code : 00000003
Start Date : 5/27/2015
Page No : 2

	MERCY WAY Eastbound					MERCY WAY Westbound					BAYSHORE DRIVE Northbound					BAYSHORE DRIVE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	7	6	1	0	14	25	0	15	3	43	0	151	38	0	189	40	268	0	0	308	554
07:45 AM	3	6	0	0	9	31	0	14	3	48	0	154	41	0	195	34	216	0	0	250	502
08:00 AM	1	4	0	0	5	20	0	17	8	45	0	221	48	0	269	34	203	0	2	239	558
08:15 AM	2	5	0	0	7	14	0	20	4	38	0	219	41	2	262	43	157	0	1	201	508
Total Volume	13	21	1	0	35	90	0	66	18	174	0	745	168	2	915	151	844	0	3	998	2122
% App. Total	37.1	60	2.9	0		51.7	0	37.9	10.3		0	81.4	18.4	0.2		15.1	84.6	0	0.3		
PHF	.464	.875	.250	.000	.625	.726	.000	.825	.563	.906	.000	.843	.875	.250	.850	.878	.787	.000	.375	.810	.951
Autos	13	21	1	0	35	89	0	62	18	169	0	731	165	2	898	150	823	0	3	976	2078
% Autos	100	100	100	0	100	98.9	0	93.9	100	97.1	0	98.1	98.2	100	98.1	99.3	97.5	0	100	97.8	97.9
Heavy Vehicles	0	0	0	0	0	1	0	4	0	5	0	14	3	0	17	1	21	0	0	22	44
% Heavy Vehicles	0	0	0	0	0	1.1	0	6.1	0	2.9	0	1.9	1.8	0	1.9	0.7	2.5	0	0	2.2	2.1



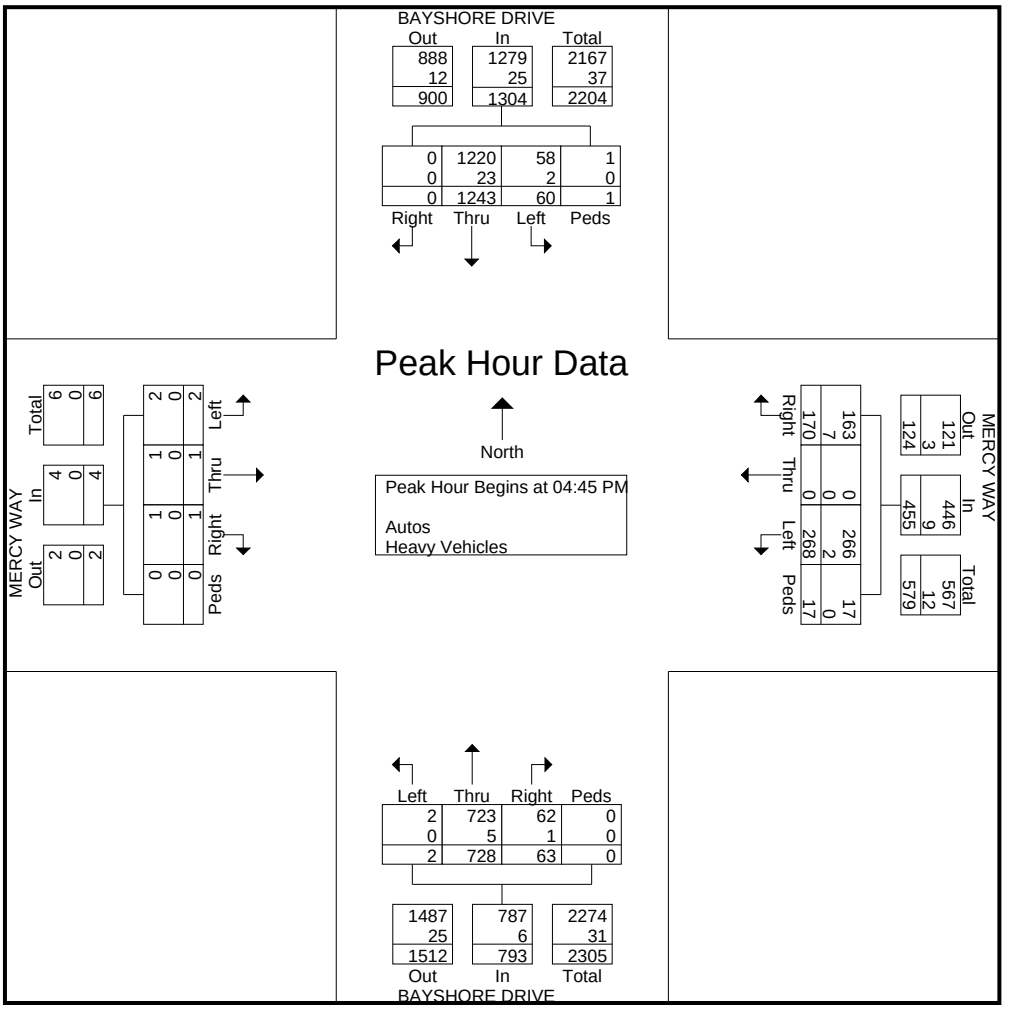
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE DR_MERCY WAY
Weather: Sunny
County: Miami-Dade

File Name : 3 BAYSHORE DR_MERCY WAY
Site Code : 00000003
Start Date : 5/27/2015
Page No : 3

	MERCY WAY Eastbound					MERCY WAY Westbound					BAYSHORE DRIVE Northbound					BAYSHORE DRIVE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	69	0	47	3	119	0	181	18	0	199	16	295	0	0	311	629
05:00 PM	2	1	1	0	4	75	0	45	2	122	2	166	16	0	184	13	305	0	0	318	628
05:15 PM	0	0	0	0	0	63	0	38	9	110	0	180	10	0	190	14	304	0	1	319	619
05:30 PM	0	0	0	0	0	61	0	40	3	104	0	201	19	0	220	17	339	0	0	356	680
Total Volume	2	1	1	0	4	268	0	170	17	455	2	728	63	0	793	60	1243	0	1	1304	2556
% App. Total	50	25	25	0		58.9	0	37.4	3.7		0.3	91.8	7.9	0		4.6	95.3	0	0.1		
PHF	.250	.250	.250	.000	.250	.893	.000	.904	.472	.932	.250	.905	.829	.000	.901	.882	.917	.000	.250	.916	.940
Autos	2	1	1	0	4	266	0	163	17	446	2	723	62	0	787	58	1220	0	1	1279	2516
% Autos	100	100	100	0	100	99.3	0	95.9	100	98.0	100	99.3	98.4	0	99.2	96.7	98.1	0	100	98.1	98.4
Heavy Vehicles	0	0	0	0	0	2	0	7	0	9	0	5	1	0	6	2	23	0	0	25	40
% Heavy Vehicles	0	0	0	0	0	0.7	0	4.1	0	2.0	0	0.7	1.6	0	0.8	3.3	1.9	0	0	1.9	1.6



CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE DR_MERCY WAY
Weather: Sunny
County: Miami-Dade

File Name : 3 BAYSHORE DR_MERCY WAY
Site Code : 00000003
Start Date : 5/27/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	MERCY WAY Eastbound					MERCY WAY Westbound					BAYSHORE DRIVE Northbound					BAYSHORE DRIVE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	4	0	0	7	16	0	13	5	34	0	243	29	0	272	47	130	0	6	183	496
07:15 AM	2	5	1	0	8	13	0	14	8	35	0	180	42	0	222	52	180	0	2	234	499
07:30 AM	7	6	1	0	14	25	0	15	3	43	0	151	38	0	189	40	268	0	0	308	554
07:45 AM	3	6	0	0	9	31	0	14	3	48	0	154	41	0	195	34	216	0	0	250	502
Total	15	21	2	0	38	85	0	56	19	160	0	728	150	0	878	173	794	0	8	975	2051
08:00 AM	1	4	0	0	5	20	0	17	8	45	0	221	48	0	269	34	203	0	2	239	558
08:15 AM	2	5	0	0	7	14	0	20	4	38	0	219	41	2	262	43	157	0	1	201	508
08:30 AM	0	6	1	1	8	21	0	10	9	40	0	217	68	0	285	37	169	0	1	207	540
08:45 AM	1	11	3	0	15	20	0	17	5	42	0	202	78	1	281	33	143	0	2	178	516
Total	4	26	4	1	35	75	0	64	26	165	0	859	235	3	1097	147	672	0	6	825	2122
*** BREAK ***																					
04:00 PM	0	1	1	0	2	71	0	44	1	116	1	151	17	0	169	17	247	0	1	265	552
04:15 PM	2	0	0	0	2	70	0	39	0	109	0	161	17	0	178	16	261	0	0	277	566
04:30 PM	0	1	0	0	1	73	0	43	5	121	2	163	14	0	179	15	280	0	0	295	596
04:45 PM	0	0	0	0	0	69	0	47	3	119	0	181	18	0	199	16	295	0	0	311	629
Total	2	2	1	0	5	283	0	173	9	465	3	656	66	0	725	64	1083	0	1	1148	2343
05:00 PM	2	1	1	0	4	75	0	45	2	122	2	166	16	0	184	13	305	0	0	318	628
05:15 PM	0	0	0	0	0	63	0	38	9	110	0	180	10	0	190	14	304	0	1	319	619
05:30 PM	0	0	0	0	0	61	0	40	3	104	0	201	19	0	220	17	339	0	0	356	680
05:45 PM	1	0	1	0	2	40	0	25	1	66	1	195	16	0	212	9	324	0	3	336	616
Total	3	1	2	0	6	239	0	148	15	402	3	742	61	0	806	53	1272	0	4	1329	2543
Grand Total	24	50	9	1	84	682	0	441	69	1192	6	2985	512	3	3506	437	3821	0	19	4277	9059
Apprch %	28.6	59.5	10.7	1.2		57.2	0	37	5.8		0.2	85.1	14.6	0.1		10.2	89.3	0	0.4		
Total %	0.3	0.6	0.1	0	0.9	7.5	0	4.9	0.8	13.2	0.1	33	5.7	0	38.7	4.8	42.2	0	0.2	47.2	
Autos	24	49	9	1	83	674	0	418	69	1161	6	2951	504	3	3464	429	3748	0	19	4196	8904
% Autos	100	98	100	100	98.8	98.8	0	94.8	100	97.4	100	98.9	98.4	100	98.8	98.2	98.1	0	100	98.1	98.3
Heavy Vehicles	0	1	0	0	1	8	0	23	0	31	0	34	8	0	42	8	73	0	0	81	155
% Heavy Vehicles	0	2	0	0	1.2	1.2	0	5.2	0	2.6	0	1.1	1.6	0	1.2	1.8	1.9	0	0	1.9	1.7

CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Bayshore &3601blk
Weather: Sunny
County: Miami-Dade

File Name : 4 Bayshore Dr_ S 3601 Blk
Site Code : 00000004
Start Date : 5/28/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	3601 BLOCK Westbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
07:00 AM	31	39	2	72	123	77	0	200	58	161	0	219	491
07:15 AM	59	64	4	127	120	111	1	232	71	146	0	217	576
07:30 AM	56	68	7	131	193	83	1	277	60	246	0	306	714
07:45 AM	12	16	4	32	175	8	0	183	11	255	0	266	481
Total	158	187	17	362	611	279	2	892	200	808	0	1008	2262
08:00 AM	0	2	4	6	203	9	0	212	6	283	0	289	507
08:15 AM	3	2	6	11	231	4	0	235	5	246	0	251	497
08:30 AM	5	2	5	12	242	7	0	249	5	297	0	302	563
08:45 AM	3	3	6	12	205	4	0	209	5	251	0	256	477
Total	11	9	21	41	881	24	0	905	21	1077	0	1098	2044
*** BREAK ***													
04:00 PM	31	21	5	57	196	14	1	211	16	233	0	249	517
04:15 PM	34	10	1	45	197	12	0	209	5	251	0	256	510
04:30 PM	26	20	2	48	169	16	0	185	11	299	0	310	543
04:45 PM	17	18	3	38	188	8	0	196	9	324	0	333	567
Total	108	69	11	188	750	50	1	801	41	1107	0	1148	2137
05:00 PM	24	16	0	40	208	7	0	215	5	312	0	317	572
05:15 PM	20	15	4	39	226	9	0	235	5	332	0	337	611
05:30 PM	23	10	4	37	233	7	0	240	4	349	0	353	630
05:45 PM	23	20	7	50	233	6	0	239	7	302	0	309	598
Total	90	61	15	166	900	29	0	929	21	1295	0	1316	2411
Grand Total	367	326	64	757	3142	382	3	3527	283	4287	0	4570	8854
Apprch %	48.5	43.1	8.5		89.1	10.8	0.1		6.2	93.8	0		
Total %	4.1	3.7	0.7	8.5	35.5	4.3	0	39.8	3.2	48.4	0	51.6	
Autos	364	326	64	754	3060	379	3	3442	282	4223	0	4505	8701
% Autos	99.2	100	100	99.6	97.4	99.2	100	97.6	99.6	98.5	0	98.6	98.3
Heavy Vehicles	3	0	0	3	82	3	0	85	1	64	0	65	153
% Heavy Vehicles	0.8	0	0	0.4	2.6	0.8	0	2.4	0.4	1.5	0	1.4	1.7

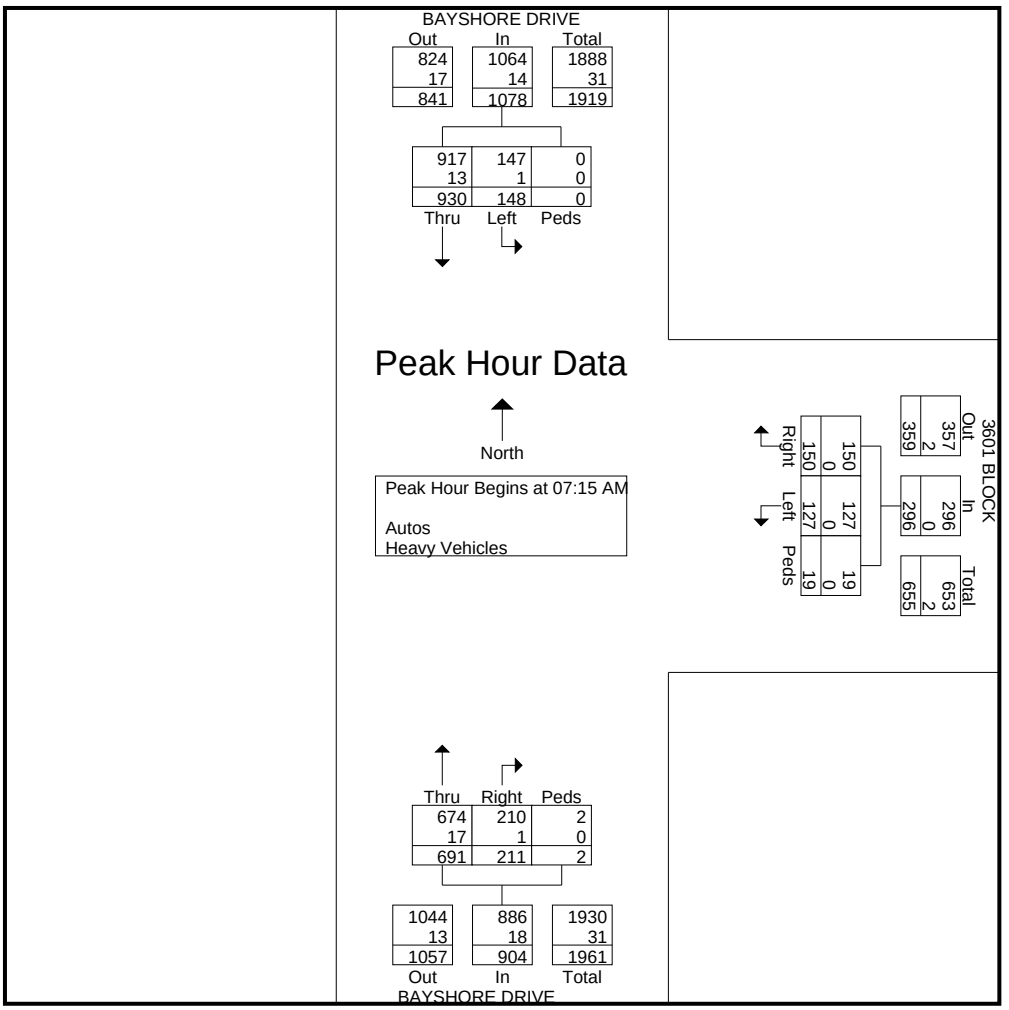
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Bayshore &3601blk
Weather: Sunny
County: Miami-Dade

File Name : 4 Bayshore Dr_ S 3601 Blk
Site Code : 00000004
Start Date : 5/28/2015
Page No : 2

	3601 BLOCK Westbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	59	64	4	127	120	111	1	232	71	146	0	217	576
07:30 AM	56	68	7	131	193	83	1	277	60	246	0	306	714
07:45 AM	12	16	4	32	175	8	0	183	11	255	0	266	481
08:00 AM	0	2	4	6	203	9	0	212	6	283	0	289	507
Total Volume	127	150	19	296	691	211	2	904	148	930	0	1078	2278
% App. Total	42.9	50.7	6.4		76.4	23.3	0.2		13.7	86.3	0		
PHF	.538	.551	.679	.565	.851	.475	.500	.816	.521	.822	.000	.881	.798
Autos	127	150	19	296	674	210	2	886	147	917	0	1064	2246
% Autos	100	100	100	100	97.5	99.5	100	98.0	99.3	98.6	0	98.7	98.6
Heavy Vehicles	0	0	0	0	17	1	0	18	1	13	0	14	32
% Heavy Vehicles	0	0	0	0	2.5	0.5	0	2.0	0.7	1.4	0	1.3	1.4



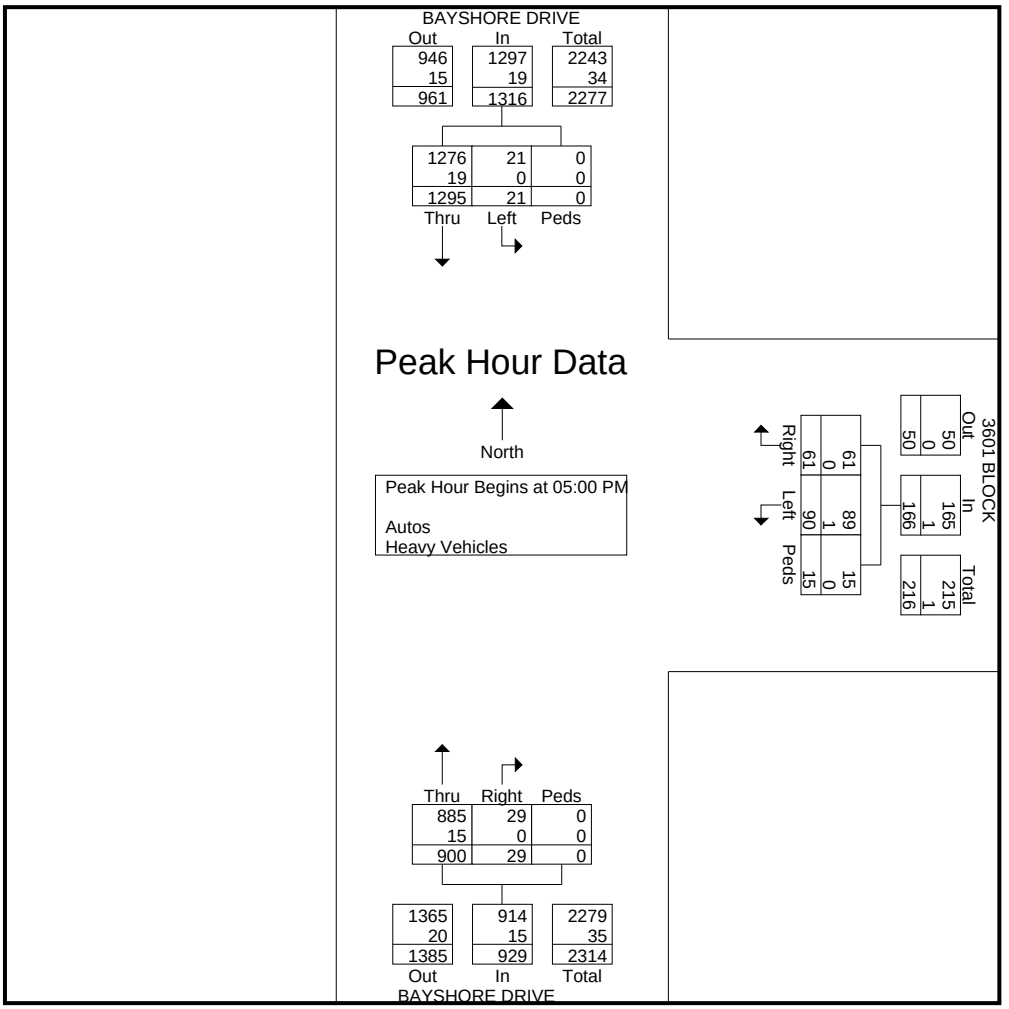
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Bayshore &3601blk
Weather: Sunny
County: Miami-Dade

File Name : 4 Bayshore Dr_ S 3601 Blk
Site Code : 00000004
Start Date : 5/28/2015
Page No : 3

	3601 BLOCK Westbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	24	16	0	40	208	7	0	215	5	312	0	317	572
05:15 PM	20	15	4	39	226	9	0	235	5	332	0	337	611
05:30 PM	23	10	4	37	233	7	0	240	4	349	0	353	630
05:45 PM	23	20	7	50	233	6	0	239	7	302	0	309	598
Total Volume	90	61	15	166	900	29	0	929	21	1295	0	1316	2411
% App. Total	54.2	36.7	9		96.9	3.1	0		1.6	98.4	0		
PHF	.938	.763	.536	.830	.966	.806	.000	.968	.750	.928	.000	.932	.957
Autos	89	61	15	165	885	29	0	914	21	1276	0	1297	2376
% Autos	98.9	100	100	99.4	98.3	100	0	98.4	100	98.5	0	98.6	98.5
Heavy Vehicles	1	0	0	1	15	0	0	15	0	19	0	19	35
% Heavy Vehicles	1.1	0	0	0.6	1.7	0	0	1.6	0	1.5	0	1.4	1.5



CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Bayshore &3601blk
Weather: Sunny
County: Miami-Dade

File Name : 4 Bayshore Dr_ S 3601 Blk
Site Code : 00000004
Start Date : 5/28/2015
Page No : 1

Groups Printed- Heavy Vehicles

	3601 BLOCK Westbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
07:00 AM	1	0	0	1	5	0	0	5	0	1	0	1	7
07:15 AM	0	0	0	0	3	1	0	4	0	3	0	3	7
07:30 AM	0	0	0	0	5	0	0	5	0	3	0	3	8
07:45 AM	0	0	0	0	4	0	0	4	0	4	0	4	8
Total	1	0	0	1	17	1	0	18	0	11	0	11	30
08:00 AM	0	0	0	0	5	0	0	5	1	3	0	4	9
08:15 AM	0	0	0	0	8	0	0	8	0	2	0	2	10
08:30 AM	0	0	0	0	8	0	0	8	0	3	0	3	11
08:45 AM	0	0	0	0	5	0	0	5	0	6	0	6	11
Total	0	0	0	0	26	0	0	26	1	14	0	15	41
*** BREAK ***													
04:00 PM	0	0	0	0	7	0	0	7	0	5	0	5	12
04:15 PM	1	0	0	1	8	1	0	9	0	2	0	2	12
04:30 PM	0	0	0	0	5	1	0	6	0	7	0	7	13
04:45 PM	0	0	0	0	4	0	0	4	0	6	0	6	10
Total	1	0	0	1	24	2	0	26	0	20	0	20	47
05:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
05:15 PM	0	0	0	0	6	0	0	6	0	4	0	4	10
05:30 PM	1	0	0	1	3	0	0	3	0	10	0	10	14
05:45 PM	0	0	0	0	5	0	0	5	0	4	0	4	9
Total	1	0	0	1	15	0	0	15	0	19	0	19	35
Grand Total	3	0	0	3	82	3	0	85	1	64	0	65	153
Apprch %	100	0	0		96.5	3.5	0		1.5	98.5	0		
Total %	2	0	0	2	53.6	2	0	55.6	0.7	41.8	0	42.5	

CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE&SAMANA
Weather: Sunny
County: Miami-Dade

File Name : 5 BAYSHORE DR_SAMANA DR
Site Code : 00000005
Start Date : 5/28/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	SAMANA DRIVE Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	8	3	0	11	1	147	0	148	210	6	0	216	375
07:15 AM	12	2	0	14	1	193	0	194	230	8	0	238	446
07:30 AM	11	0	0	11	0	251	0	251	288	9	1	298	560
07:45 AM	22	5	0	27	3	207	0	210	269	4	2	275	512
Total	53	10	0	63	5	798	0	803	997	27	3	1027	1893
08:00 AM	21	3	0	24	1	200	0	201	304	6	1	311	536
08:15 AM	24	1	0	25	2	250	0	252	270	5	1	276	553
08:30 AM	20	4	0	24	1	243	0	244	293	4	1	298	566
08:45 AM	21	1	1	23	4	209	2	215	255	3	1	259	497
Total	86	9	1	96	8	902	2	912	1122	18	4	1144	2152
*** BREAK ***													
04:00 PM	4	0	0	4	4	204	0	208	232	6	1	239	451
04:15 PM	6	1	0	7	0	219	0	219	269	16	0	285	511
04:30 PM	8	3	0	11	5	176	0	181	294	12	0	306	498
04:45 PM	10	1	0	11	2	220	0	222	330	13	1	344	577
Total	28	5	0	33	11	819	0	830	1125	47	2	1174	2037
05:00 PM	6	0	0	6	2	213	0	215	310	15	2	327	548
05:15 PM	11	0	0	11	1	249	0	250	344	21	1	366	627
05:30 PM	8	2	0	10	1	237	1	239	360	19	2	381	630
05:45 PM	2	1	0	3	2	264	0	266	311	25	0	336	605
Total	27	3	0	30	6	963	1	970	1325	80	5	1410	2410
Grand Total	194	27	1	222	30	3482	3	3515	4569	172	14	4755	8492
Apprch %	87.4	12.2	0.5		0.9	99.1	0.1		96.1	3.6	0.3		
Total %	2.3	0.3	0	2.6	0.4	41	0	41.4	53.8	2	0.2	56	
Autos	192	26	1	219	29	3413	3	3445	4510	171	14	4695	8359
% Autos	99	96.3	100	98.6	96.7	98	100	98	98.7	99.4	100	98.7	98.4
Heavy Vehicles	2	1	0	3	1	69	0	70	59	1	0	60	133
% Heavy Vehicles	1	3.7	0	1.4	3.3	2	0	2	1.3	0.6	0	1.3	1.6

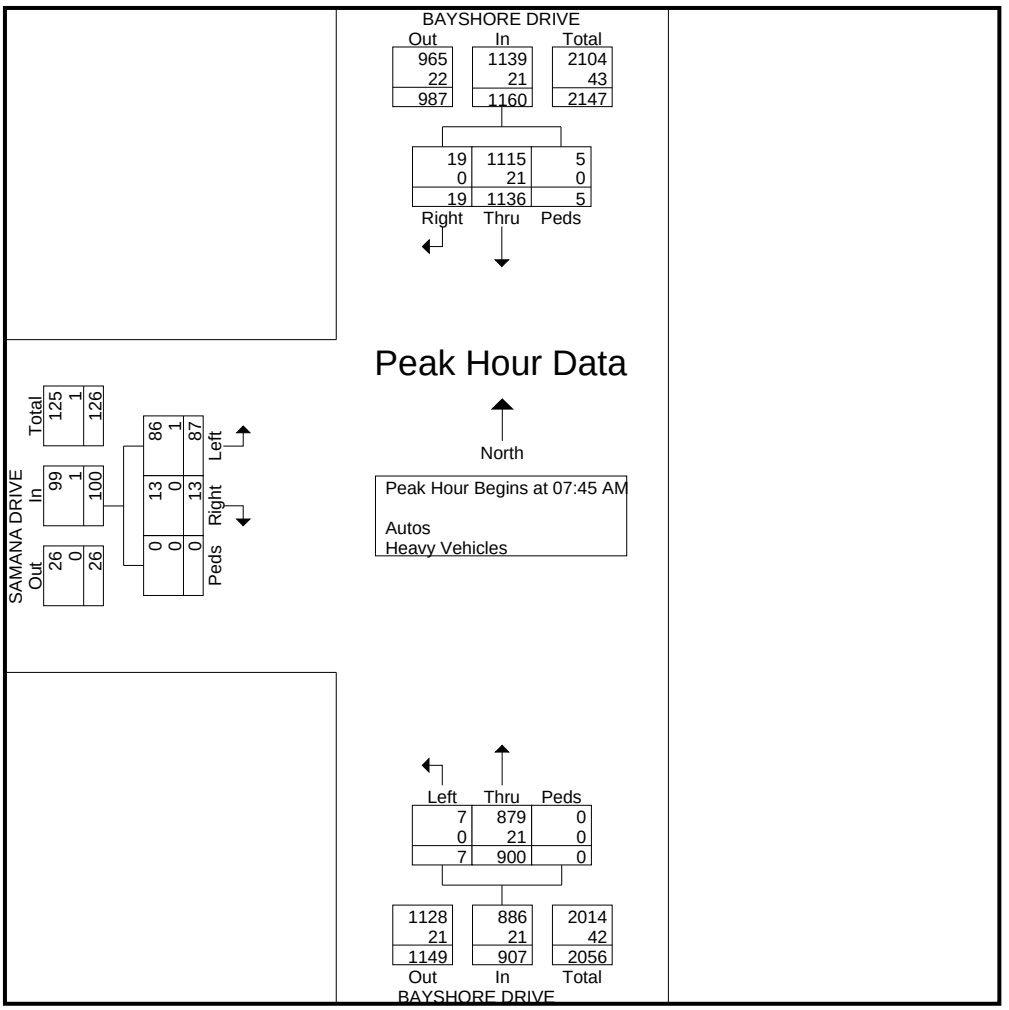
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE&SAMANA
Weather: Sunny
County: Miami-Dade

File Name : 5 BAYSHORE DR_SAMANA DR
Site Code : 00000005
Start Date : 5/28/2015
Page No : 2

	SAMANA DRIVE Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	22	5	0	27	3	207	0	210	269	4	2	275	512
08:00 AM	21	3	0	24	1	200	0	201	304	6	1	311	536
08:15 AM	24	1	0	25	2	250	0	252	270	5	1	276	553
08:30 AM	20	4	0	24	1	243	0	244	293	4	1	298	566
Total Volume	87	13	0	100	7	900	0	907	1136	19	5	1160	2167
% App. Total	87	13	0		0.8	99.2	0		97.9	1.6	0.4		
PHF	.906	.650	.000	.926	.583	.900	.000	.900	.934	.792	.625	.932	.957
Autos	86	13	0	99	7	879	0	886	1115	19	5	1139	2124
% Autos	98.9	100	0	99.0	100	97.7	0	97.7	98.2	100	100	98.2	98.0
Heavy Vehicles	1	0	0	1	0	21	0	21	21	0	0	21	43
% Heavy Vehicles	1.1	0	0	1.0	0	2.3	0	2.3	1.8	0	0	1.8	2.0



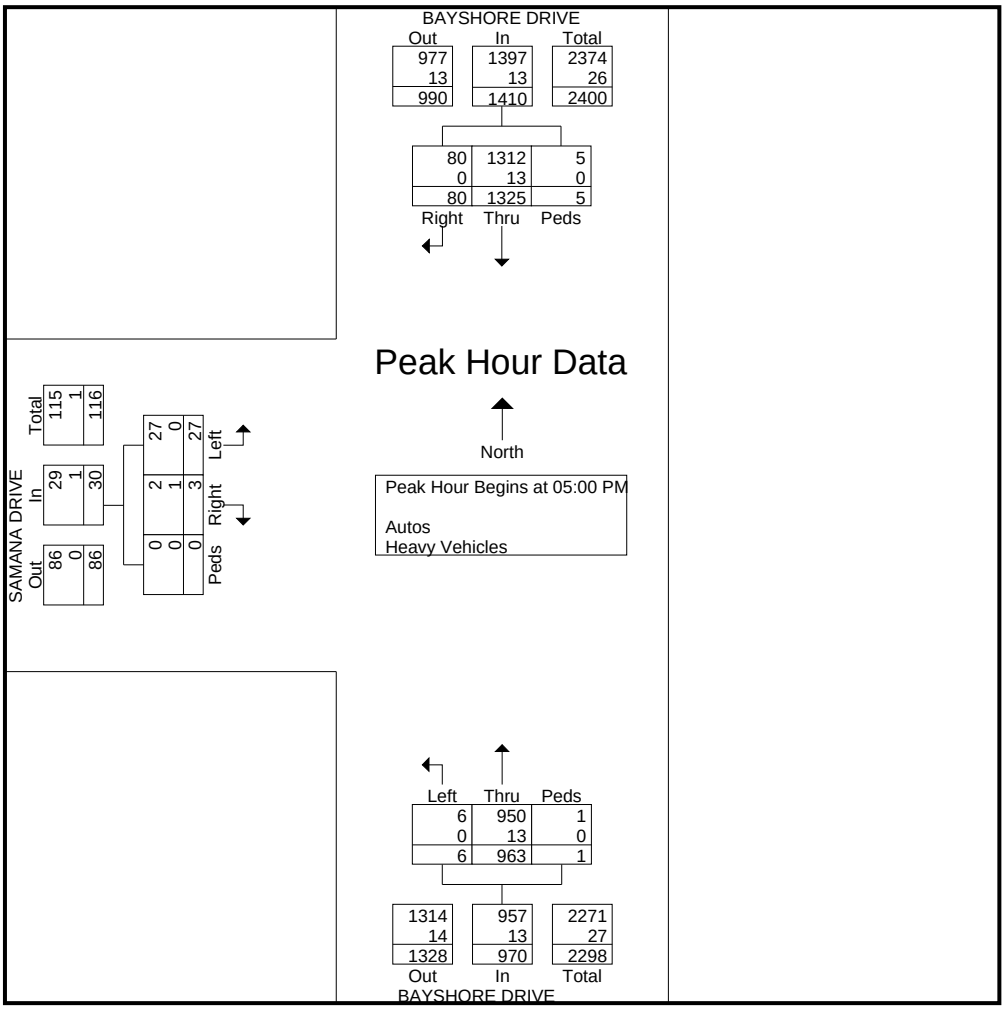
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE&SAMANA
Weather: Sunny
County: Miami-Dade

File Name : 5 BAYSHORE DR_SAMANA DR
Site Code : 00000005
Start Date : 5/28/2015
Page No : 3

	SAMANA DRIVE Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	6	0	0	6	2	213	0	215	310	15	2	327	548
05:15 PM	11	0	0	11	1	249	0	250	344	21	1	366	627
05:30 PM	8	2	0	10	1	237	1	239	360	19	2	381	630
05:45 PM	2	1	0	3	2	264	0	266	311	25	0	336	605
Total Volume	27	3	0	30	6	963	1	970	1325	80	5	1410	2410
% App. Total	90	10	0		0.6	99.3	0.1		94	5.7	0.4		
PHF	.614	.375	.000	.682	.750	.912	.250	.912	.920	.800	.625	.925	.956
Autos	27	2	0	29	6	950	1	957	1312	80	5	1397	2383
% Autos	100	66.7	0	96.7	100	98.7	100	98.7	99.0	100	100	99.1	98.9
Heavy Vehicles	0	1	0	1	0	13	0	13	13	0	0	13	27
% Heavy Vehicles	0	33.3	0	3.3	0	1.3	0	1.3	1.0	0	0	0.9	1.1



CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: BAYSHORE&SAMANA
Weather: Sunny
County: Miami-Dade

File Name : 5 BAYSHORE DR_SAMANA DR
Site Code : 00000005
Start Date : 5/28/2015
Page No : 1

Groups Printed- Heavy Vehicles

	SAMANA DRIVE Eastbound				BAYSHORE DRIVE Northbound				BAYSHORE DRIVE Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	4	0	4	2	0	0	2	6
07:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
07:30 AM	0	0	0	0	0	4	0	4	6	1	0	7	11
07:45 AM	0	0	0	0	0	4	0	4	5	0	0	5	9
Total	0	0	0	0	0	15	0	15	14	1	0	15	30
08:00 AM	0	0	0	0	0	5	0	5	8	0	0	8	13
08:15 AM	1	0	0	1	0	7	0	7	4	0	0	4	12
08:30 AM	0	0	0	0	0	5	0	5	4	0	0	4	9
08:45 AM	0	0	0	0	1	2	0	3	5	0	0	5	8
Total	1	0	0	1	1	19	0	20	21	0	0	21	42
*** BREAK ***													
04:00 PM	1	0	0	1	0	6	0	6	4	0	0	4	11
04:15 PM	0	0	0	0	0	9	0	9	2	0	0	2	11
04:30 PM	0	0	0	0	0	6	0	6	3	0	0	3	9
04:45 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total	1	0	0	1	0	22	0	22	11	0	0	11	34
05:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
05:15 PM	0	0	0	0	0	5	0	5	3	0	0	3	8
05:30 PM	0	1	0	1	0	3	0	3	6	0	0	6	10
05:45 PM	0	0	0	0	0	4	0	4	3	0	0	3	7
Total	0	1	0	1	0	13	0	13	13	0	0	13	27
Grand Total	2	1	0	3	1	69	0	70	59	1	0	60	133
Apprch %	66.7	33.3	0		1.4	98.6	0		98.3	1.7	0		
Total %	1.5	0.8	0	2.3	0.8	51.9	0	52.6	44.4	0.8	0	45.1	

CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Miami Ave_S32 Rd
Weather: Sunny
County: Miami-Dade

File Name : MIAMI AVE_S 32 RD
Site Code : 00000006
Start Date : 5/28/2015
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	S 32 ROAD Eastbound					S 32 ROAD Westbound					S MIAMI AVENUE Northbound					S MIAMI AVENUE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	0	1	2	9	0	9	0	18	0	156	4	1	161	3	210	1	3	217	398
07:15 AM	1	0	2	0	3	1	0	4	1	6	3	190	3	2	198	0	226	0	2	228	435
07:30 AM	0	2	3	0	5	1	0	5	2	8	0	263	5	2	270	3	288	0	1	292	575
07:45 AM	0	2	4	1	7	7	0	4	1	12	1	216	3	1	221	4	256	1	4	265	505
Total	1	5	9	2	17	18	0	22	4	44	4	825	15	6	850	10	980	2	10	1002	1913
08:00 AM	0	0	2	2	4	5	0	1	4	10	1	222	7	0	230	3	290	1	3	297	541
08:15 AM	1	2	0	1	4	0	0	2	2	4	1	243	1	0	245	1	271	0	3	275	528
08:30 AM	0	0	2	0	2	1	0	1	1	3	0	258	2	3	263	3	303	1	4	311	579
08:45 AM	1	2	3	0	6	2	0	5	0	7	0	219	6	1	226	3	255	0	5	263	502
Total	2	4	7	3	16	8	0	9	7	24	2	942	16	4	964	10	1119	2	15	1146	2150
*** BREAK ***																					
04:00 PM	2	3	7	0	12	4	1	5	7	17	1	220	3	1	225	4	255	2	3	264	518
04:15 PM	1	3	1	2	7	1	0	6	4	11	0	197	3	2	202	1	260	1	4	266	486
04:30 PM	2	3	2	0	7	1	1	5	4	11	1	203	3	0	207	4	311	1	2	318	543
04:45 PM	2	1	3	0	6	3	0	4	3	10	1	206	4	3	214	8	339	2	7	356	586
Total	7	10	13	2	32	9	2	20	18	49	3	826	13	6	848	17	1165	6	16	1204	2133
05:00 PM	0	0	1	0	1	3	0	7	1	11	1	237	4	2	244	8	313	2	0	323	579
05:15 PM	2	2	1	1	6	1	0	6	3	10	0	240	5	0	245	5	342	2	2	351	612
05:30 PM	1	0	4	0	5	4	0	6	0	10	1	261	5	0	267	9	358	5	7	379	661
05:45 PM	0	3	2	1	6	3	1	5	7	16	0	253	2	1	256	2	329	0	7	338	616
Total	3	5	8	2	18	11	1	24	11	47	2	991	16	3	1012	24	1342	9	16	1391	2468
Grand Total	13	24	37	9	83	46	3	75	40	164	11	3584	60	19	3674	61	4606	19	57	4743	8664
Apprch %	15.7	28.9	44.6	10.8		28	1.8	45.7	24.4		0.3	97.6	1.6	0.5		1.3	97.1	0.4	1.2		
Total %	0.2	0.3	0.4	0.1	1	0.5	0	0.9	0.5	1.9	0.1	41.4	0.7	0.2	42.4	0.7	53.2	0.2	0.7	54.7	
Autos	13	23	36	9	81	46	3	72	40	161	10	3495	59	19	3583	59	4512	19	57	4647	8472
% Autos	100	95.8	97.3	100	97.6	100	100	96	100	98.2	90.9	97.5	98.3	100	97.5	96.7	98	100	100	98	97.8
Heavy Vehicles	0	1	1	0	2	0	0	3	0	3	1	89	1	0	91	2	94	0	0	96	192
% Heavy Vehicles	0	4.2	2.7	0	2.4	0	0	4	0	1.8	9.1	2.5	1.7	0	2.5	3.3	2	0	0	2	2.2

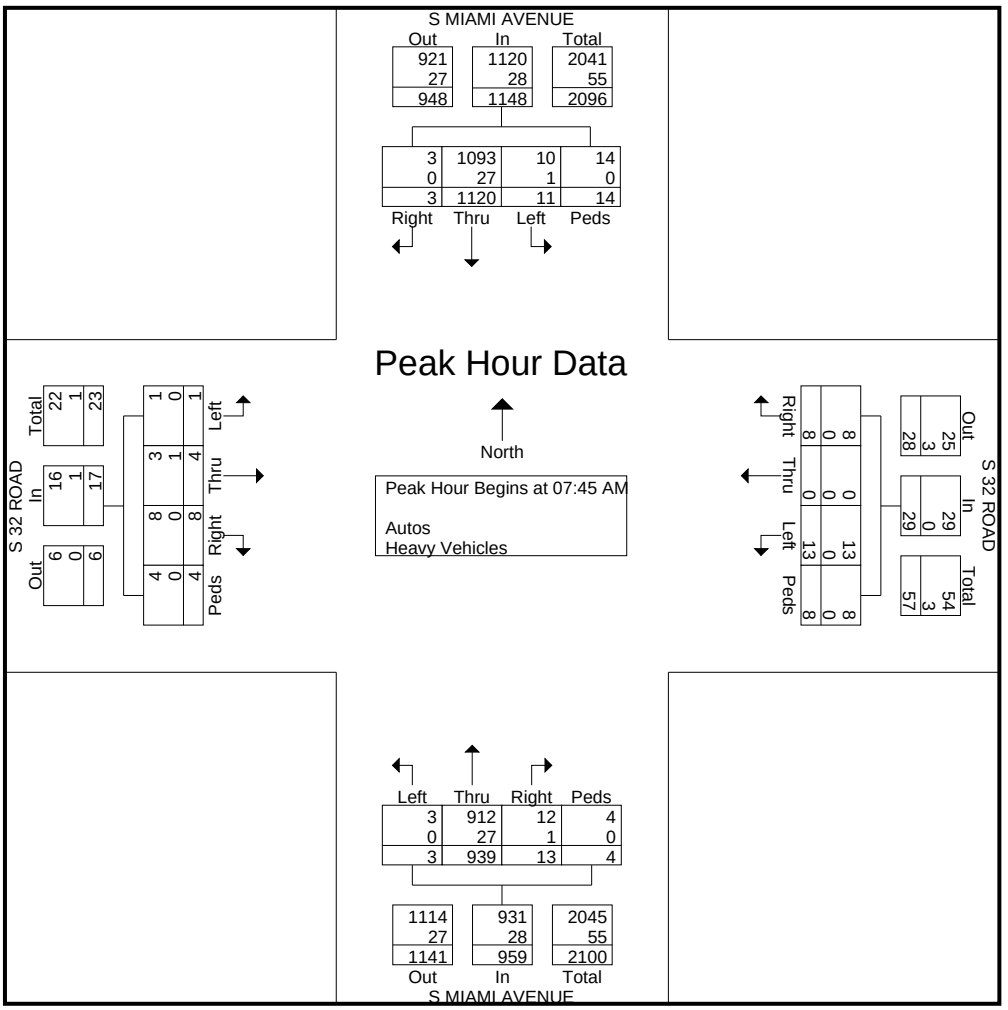
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Miami Ave_S32 Rd
Weather: Sunny
County: Miami-Dade

File Name : MIAMI AVE_S 32 RD
Site Code : 00000006
Start Date : 5/28/2015
Page No : 2

	S 32 ROAD Eastbound					S 32 ROAD Westbound					S MIAMI AVENUE Northbound					S MIAMI AVENUE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	2	4	1	7	7	0	4	1	12	1	216	3	1	221	4	256	1	4	265	505
08:00 AM	0	0	2	2	4	5	0	1	4	10	1	222	7	0	230	3	290	1	3	297	541
08:15 AM	1	2	0	1	4	0	0	2	2	4	1	243	1	0	245	1	271	0	3	275	528
08:30 AM	0	0	2	0	2	1	0	1	1	3	0	258	2	3	263	3	303	1	4	311	579
Total Volume	1	4	8	4	17	13	0	8	8	29	3	939	13	4	959	11	1120	3	14	1148	2153
% App. Total	5.9	23.5	47.1	23.5		44.8	0	27.6	27.6		0.3	97.9	1.4	0.4		1	97.6	0.3	1.2		
PHF	.250	.500	.500	.500	.607	.464	.000	.500	.500	.604	.750	.910	.464	.333	.912	.688	.924	.750	.875	.923	.930
Autos	1	3	8	4	16	13	0	8	8	29	3	912	12	4	931	10	1093	3	14	1120	2096
% Autos	100	75.0	100	100	94.1	100	0	100	100	100	100	97.1	92.3	100	97.1	90.9	97.6	100	100	97.6	97.4
Heavy Vehicles	0	1	0	0	1	0	0	0	0	0	0	27	1	0	28	1	27	0	0	28	57
% Heavy Vehicles	0	25.0	0	0	5.9	0	0	0	0	0	0	2.9	7.7	0	2.9	9.1	2.4	0	0	2.4	2.6



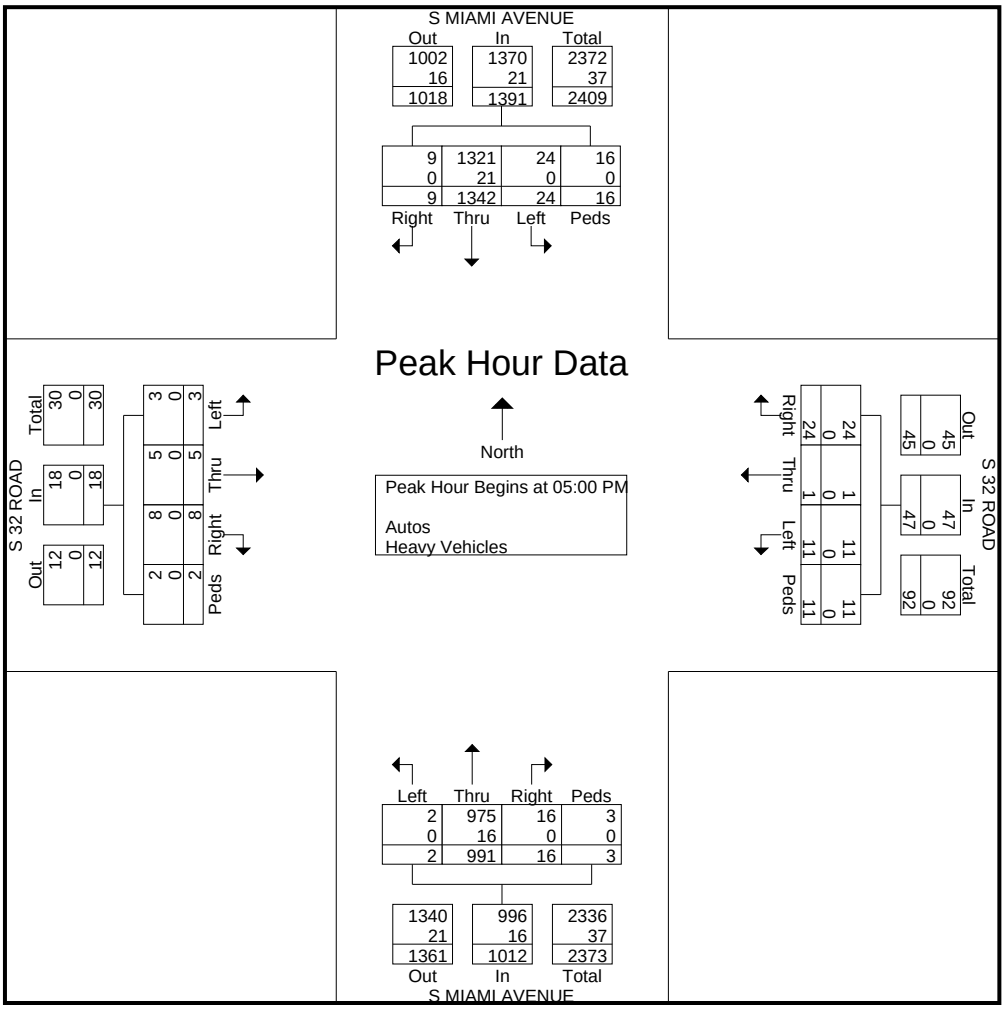
CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Miami Ave_S32 Rd
Weather: Sunny
County: Miami-Dade

File Name : MIAMI AVE_S 32 RD
Site Code : 00000006
Start Date : 5/28/2015
Page No : 3

	S 32 ROAD Eastbound					S 32 ROAD Westbound					S MIAMI AVENUE Northbound					S MIAMI AVENUE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	1	0	1	3	0	7	1	11	1	237	4	2	244	8	313	2	0	323	579
05:15 PM	2	2	1	1	6	1	0	6	3	10	0	240	5	0	245	5	342	2	2	351	612
05:30 PM	1	0	4	0	5	4	0	6	0	10	1	261	5	0	267	9	358	5	7	379	661
05:45 PM	0	3	2	1	6	3	1	5	7	16	0	253	2	1	256	2	329	0	7	338	616
Total Volume	3	5	8	2	18	11	1	24	11	47	2	991	16	3	1012	24	1342	9	16	1391	2468
% App. Total	16.7	27.8	44.4	11.1		23.4	2.1	51.1	23.4		0.2	97.9	1.6	0.3		1.7	96.5	0.6	1.2		
PHF	.375	.417	.500	.500	.750	.688	.250	.857	.393	.734	.500	.949	.800	.375	.948	.667	.937	.450	.571	.918	.933
Autos	3	5	8	2	18	11	1	24	11	47	2	975	16	3	996	24	1321	9	16	1370	2431
% Autos	100	100	100	100	100	100	100	100	100	100	100	98.4	100	100	98.4	100	98.4	100	100	98.5	98.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	0	21	0	0	21	37
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1.6	0	0	1.6	0	1.6	0	0	1.5	1.5



CTS Engineering, Inc.

8095 NW 12 Street, Suite 315
Miami, FL 33126

Client: Miami-Dade MPO
Intersection Name: Miami Ave_S32 Rd
Weather: Sunny
County: Miami-Dade

File Name : MIAMI AVE_S 32 RD
Site Code : 00000006
Start Date : 5/28/2015
Page No : 1

Groups Printed- Heavy Vehicles

	S 32 ROAD Eastbound					S 32 ROAD Westbound					S MIAMI AVENUE Northbound					S MIAMI AVENUE Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	0	3	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	3	0	0	3	8
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	8	0	0	8	14
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	5	0	0	5	9
Total	0	0	0	0	0	0	0	0	0	0	1	17	0	0	18	0	19	0	0	19	37
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	6	1	0	7	0	10	0	0	10	17
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	9	0	0	9	0	6	0	0	6	16
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	1	6	0	0	7	15
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	7	0	0	7	11
Total	0	1	0	0	1	0	0	0	0	0	0	27	1	0	28	1	29	0	0	30	59
*** BREAK ***																					
04:00 PM	0	0	1	0	1	0	0	1	0	1	0	12	0	0	12	0	4	0	0	4	18
04:15 PM	0	0	0	0	0	0	0	1	0	1	0	8	0	0	8	0	6	0	0	6	15
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	8	0	0	8	14
04:45 PM	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	1	7	0	0	8	12
Total	0	0	1	0	1	0	0	3	0	3	0	29	0	0	29	1	25	0	0	26	59
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	6	0	0	6	11
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	9	0	0	9	12
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	4	0	0	4	10
Total	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	0	21	0	0	21	37
Grand Total	0	1	1	0	2	0	0	3	0	3	1	89	1	0	91	2	94	0	0	96	192
Apprch %	0	50	50	0		0	0	100	0		1.1	97.8	1.1	0		2.1	97.9	0	0		
Total %	0	0.5	0.5	0	1	0	0	1.6	0	1.6	0.5	46.4	0.5	0	47.4	1	49	0	0	50	

APPENDIX A3: BICYCLE AND PEDESTRIAN COUNTS

Summary Table CAMERA LOCATION # 2 :_US 27 sidewalk at the RR Crossing - Looking WB							
US-27/Okeechobee Road elevated sidewalk at FEC RR Crossing West of Metrorail Station							
Occurrence #	Date	Time	Bicyclist	Pedestrian	Direction	Bicyclist RR Bridge Crossing	Pedestrian RR Bridge Crossing
1	5/26/2015	14:24		2	WB		
2	5/26/2015	14:25	1		WB		
3	5/26/2015	14:30	1		EB		
4	5/26/2015	14:32	1		EB		
5	5/26/2015	14:33	1		WB		
6	5/26/2015	14:36		1	WB		1
7	5/26/2015	14:37	3		WB		
8	5/26/2015	14:39		2	EB		
9	5/26/2015	14:40		2	EB		
10	5/26/2015	14:40	1		WB		
11	5/26/2015	14:46	1		WB		
12	5/26/2015	14:47	1		WB		
13	5/26/2015	14:49		1	WB		
14	5/26/2015	14:50		1	WB		
15	5/26/2015	14:51	1		EB		
16	5/26/2015	14:58		1	EB		
17	5/26/2015	15:03	1		WB		
18	5/26/2015	15:11		2	WB		
19	5/26/2015	15:12		1	WB		
20	5/26/2015	15:12		1	EB		
21	5/26/2015	15:14		1	EB		1
22	5/26/2015	15:15		1	EB		
23	5/26/2015	15:16	1		EB		
24	5/26/2015	15:36	1		EB		
25	5/26/2015	15:38	1		WB		
26	5/26/2015	15:39		2	WB		
27	5/26/2015	15:57	1		WB		
28	5/26/2015	15:59		1	EB		
29	5/26/2015	16:02		2	EB		
30	5/26/2015	16:04		1	EB		
31	5/26/2015	16:06	1		WB		
32	5/26/2015	16:07	1		EB		
33	5/26/2015	16:10	1		WB		
34	5/26/2015	16:12	1		WB		
35	5/26/2015	16:18		1	EB		
36	5/26/2015	16:23	2		WB		
37	5/26/2015	16:28			EB		1
38	5/26/2015	16:32	1		WB		
39	5/26/2015	16:40			EB	1	
40	5/26/2015	16:41		1	WB		
41	5/26/2015	16:42		1	EB	1	
42	5/26/2015	16:50		2	EB		
43	5/26/2015	16:58		2	EB	1	1
44	5/26/2015	17:01	1		EB		
45	5/26/2015	17:06		1	EB		1
46	5/26/2015	17:08		1	WB		
47	5/26/2015	17:09		2	EB		
48	5/26/2015	17:14	1		EB		
49	5/26/2015	17:17		1	WB		
50	5/26/2015	17:18			WB	1	
51	5/26/2015	17:19	1		WB		
52	5/26/2015	17:25	1		EB		
53	5/26/2015	17:28	1		WB		
54	5/26/2015	17:30	1		EB		
55	5/26/2015	17:30		1	WB		
56	5/26/2015	17:32	1		WB		
57	5/26/2015	17:34	1		EB		
58	5/26/2015	17:36		1	EB		
59	5/26/2015	17:36	1		WB		
60	5/26/2015	17:38	2		WB		

Summary Table CAMERA LOCATION # 2 :_US 27 sidewalk at the RR Crossing - Looking WB							
US-27/Okeechobee Road elevated sidewalk at FEC RR Crossing West of Metrorail Station							
Occurrence #	Date	Time	Bicyclist	Pedestrian	Direction	Bicyclist RR Bridge Crossing	Pedestrian RR Bridge Crossing
61	5/26/2015	17:40			EB	1	
62	5/26/2015	17:41		2	EB		
63	5/26/2015	17:41		1	WB		
64	5/26/2015	17:44		1	WB		
65	5/26/2015	17:44		1	EB		
66	5/26/2015	17:45	1		WB		
67	5/26/2015	17:47		1	WB		
68	5/26/2015	17:49		1	WB		
69	5/26/2015	17:50	1		EB		
70	5/26/2015	17:51		1	WB		
71	5/26/2015	17:52	1		EB		
72	5/26/2015	17:55		1	EB		
73	5/26/2015	17:57		1	EB		
74	5/26/2015	18:00	1		WB		
75	5/26/2015	18:01		1	WB		
76	5/26/2015	18:05	1		WB		
77	5/26/2015	18:05		2	WB		
78	5/26/2015	18:23		1	EB		
79	5/26/2015	18:23		2	WB		
80	5/26/2015	18:31	1		WB	1	1
81	5/26/2015	18:36	1		EB		
82	5/26/2015	19:05		1	EB		
83	5/26/2015	19:06		1	EB		
84	5/26/2015	19:08		1	WB		
85	5/26/2015	19:14	1		WE		1
86	5/26/2015	19:17	1		EB		
87	5/26/2015	19:30	2		WB		
88	5/26/2015	19:30	1		EB		
89	5/26/2015	19:34	1		WB		
90	5/26/2015	19:45		1	EB		
91	5/26/2015	19:49		1	EB		
92	5/26/2015	19:51	1		EB		
93	5/26/2015	20:08	1		WB		
94	5/26/2015	20:12		2	WB		
95	5/26/2015	20:15			WB	1	
96	5/26/2015	20:22		3	WB		
97	5/26/2015	20:23	1		WB		
98	5/26/2015	20:26	2		EB		
99	5/26/2015	20:36		1	EB		
100	5/26/2015	20:41		1	WB		
101	5/26/2015	20:47	1		WB		
102	5/26/2015	20:51		1	EB		
103	5/26/2015	20:52		1	EB		
104	5/26/2015	20:53	1		EB		
105	5/26/2015	20:56	1	1	WB		
106	5/26/2015	20:59		2	WB		
107	5/26/2015	21:00	1		EB		
108	5/26/2015	21:08	1		WB		
109	5/26/2015	21:22	1		EB		
110	5/26/2015	21:25	1		EB		
111	5/26/2015	21:28	1		WB		
112	5/26/2015	21:30	1		EB		
113	5/26/2015	21:46	1		EB		
114	5/26/2015	22:00	1		WB		
115	5/26/2015	22:07	1		EB		
116	5/26/2015	22:18		2	EB		
117	5/26/2015	22:27		1	WB		
118	5/26/2015	22:41		1	WB		
119	5/26/2015	22:51		1	EB		
120	5/26/2015	23:08	1		WB		

Summary Table CAMERA LOCATION # 2 :_US 27 sidewalk at the RR Crossing - Looking WB							
US-27/Okeechobee Road elevated sidewalk at FEC RR Crossing West of Metrorail Station							
Occurrence #	Date	Time	Bicyclist	Pedestrian	Direction	Bicyclist RR Bridge Crossing	Pedestrian RR Bridge Crossing
121	5/26/2015	23:23		1	EB		
122	5/26/2015	23:45	1		EB		
123	5/26/2015	23:51		1	EB		
124	5/26/2015	23:52		1	EB		
125	5/27/2015	0:05		2	WB		
126	5/27/2015	0:07			EB	1	
127	5/27/2015	0:11	1		WB		
128	5/27/2015	0:15		1	WB		
129	5/27/2015	0:31	1		EB		
130	5/27/2015	0:35	1		WB		
131	5/27/2015	0:47	1		WB		
132	5/27/2015	0:54		1	EB		
133	5/27/2015	1:31	1		WB		
134	5/27/2015	1:46		1	WB		
135	5/27/2015	1:59	1		EB		
136	5/27/2015	2:32	1		EB		
137	5/27/2015	2:34	1		WB		
138	5/27/2015	3:17		2	WB		
139	5/27/2015	3:38		1	EB		
140	5/27/2015	4:33		1	WB		
141	5/27/2015	4:57	1		EB		
142	5/27/2015	5:17	1		WB		
143	5/27/2015	5:21	1		EB		
144	5/27/2015	5:23		1	EB		
145	5/27/2015	5:39	1		EB		
146	5/27/2015	5:41	1		WB		
147	5/27/2015	5:49	1		EB		1
148	5/27/2015	5:51	1	2	WB		
149	5/27/2015	5:52			WB		2
150	5/27/2015	5:53	1		WB		
151	5/27/2015	5:54	1		EB		
152	5/27/2015	5:56			WB	1	
153	5/27/2015	6:05	2		EB		
154	5/27/2015	6:07			WB	1	
155	5/27/2015	6:08	1		WB		
156	5/27/2015	6:11	1		EB		
157	5/27/2015	6:11			WB		1
158	5/27/2015	6:13		1	WB		
159	5/27/2015	6:15	1		EB	1	
160	5/27/2015	6:16		1	EB	1	
161	5/27/2015	7:16			WB	1	
162	5/27/2015	6:24			WB	1	
163	5/27/2015	6:25	1		WB		
164	5/27/2015	6:39	1		EB		
165	5/27/2015	6:41	1		EB		2
166	5/27/2015	6:42		1	EB		
167	5/27/2015	6:42		1	WB		
168	5/27/2015	6:44	1		WB		
169	5/27/2015	6:46	2		EB		
170	5/27/2015	6:48		1	WB		
171	5/27/2015	6:49	1		EB		
172	5/27/2015	6:50		1	EB		
173	5/27/2015	6:51		1	EB		
174	5/27/2015	6:52	1		EB		
175	5/27/2015	6:53			WB	1	
176	5/27/2015	7:04	1		WB		
177	5/27/2015	7:04	3		EB		
178	5/27/2015	7:08		1	WB		
179	5/27/2015	7:17	2		WB		1
180	5/27/2015	7:25		1	EB		1

Summary Table CAMERA LOCATION # 2 :_US 27 sidewalk at the RR Crossing - Looking WB							
US-27/Okeechobee Road elevated sidewalk at FEC RR Crossing West of Metrorail Station							
Occurrence #	Date	Time	Bicyclist	Pedestrian	Direction	Bicyclist RR Bridge Crossing	Pedestrian RR Bridge Crossing
181	5/27/2015	7:25		1	WB		
182	5/27/2015	7:25		1	WB		
183	5/27/2015	7:30		1	WB		
184	5/27/2015	7:30	1		WB	1	
185	5/27/2015	7:31		1	WB		
186	5/27/2015	7:35		1	EB		
187	5/27/2015	7:43		1	EB		
188	5/27/2015	7:52			EB		1
189	5/27/2015	7:53		1	EB		
190	5/27/2015	7:55		1	EB		
191	5/27/2015	7:57	1	1	WB		
192	5/27/2015	8:00		4	EB		
193	5/27/2015	8:09	1		EB		
194	5/27/2015	8:16		1	EB		
195	5/27/2015	8:17		2	WB		
196	5/27/2015	8:25	1		EB		
197	5/27/2015	8:27	1		WB		1
198	5/27/2015	8:30	1		WB		1
199	5/27/2015	8:31	1		EB		
200	5/27/2015	8:32	1		WB		
201	5/27/2015	8:35		1	EB		
202	5/27/2015	8:38			WB		1
203	5/27/2015	8:41	1		EB		
204	5/27/2015	8:44	1		WB		
205	5/27/2015	8:49			EB		2
206	5/27/2015	9:21		1	EB		
207	5/27/2015	9:40	1		WB		
208	5/27/2015	9:43	1		EB		
209	5/27/2015	9:48			EB	1	
210	5/27/2015	9:50		1	EB		
211	5/27/2015	9:50		1	WB		
212	5/27/2015	9:51	1	1	WB		
213	5/27/2015	9:54	1	1	EB		
214	5/27/2015	10:16	1		EB		
215	5/27/2015	10:20		2	WB		
216	5/27/2015	10:23	1		EB		
217	5/27/2015	10:26	1		EB		
218	5/27/2015	10:39		1	WB		
219	5/27/2015	10:54	1		WB		
220	5/27/2015	10:57		1	EB		
221	5/27/2015	11:01		1	EB		
222	5/27/2015	11:04		1	EB		
223	5/27/2015	11:10		1	WB		
224	5/27/2015	11:12			WB		1
225	5/27/2015	11:16		1	WB		
226	5/27/2015	11:20			WB	1	
227	5/27/2015	11:26	1		WB		
228	5/27/2015	11:30		1	EB		
229	5/27/2015	11:47	1		WB		
230	5/27/2015	11:55	1		WB		
231	5/27/2015	12:08			WB		1
232	5/27/2015	12:18	1		WB		
233	5/27/2015	12:21	1		WB		
234	5/27/2015	12:24	1		EB		
235	5/27/2015	12:28			WB	1	
236	5/27/2015	12:37		2	WB		
237	5/27/2015	12:40		1	EB		
238	5/27/2015	12:43	1		EB		
239	5/27/2015	12:56		2	EB		
240	5/27/2015	13:07		1	WB		

Summary Table CAMERA LOCATION # 2 :_US 27 sidewalk at the RR Crossing - Looking WB							
US-27/Okeechobee Road elevated sidewalk at FEC RR Crossing West of Metrorail Station							
Occurrence #	Date	Time	Bicyclist	Pedestrian	Direction	Bicyclist RR Bridge Crossing	Pedestrian RR Bridge Crossing
241	5/27/2015	13:08		1	WB		
242	5/27/2015	13:09	1		WB		
243	5/27/2015	13:20	1		EB		
244	5/27/2015	13:22		1	EB		
245	5/27/2015	13:22		1	WB		
246	5/27/2015	13:35	1		EB		
247	5/27/2015	13:36	1		EB		
248	5/27/2015	13:38		1	EB		
249	5/27/2015	13:48		1	WB		
250	5/27/2015	13:56			WB		2
251	5/27/2015	13:57		2	EB		
	Totals:		131	142		19	25
				EB=	123		
				WB=	127		

APPENDIX B: SYNCHRO ANALYSIS REPORTS

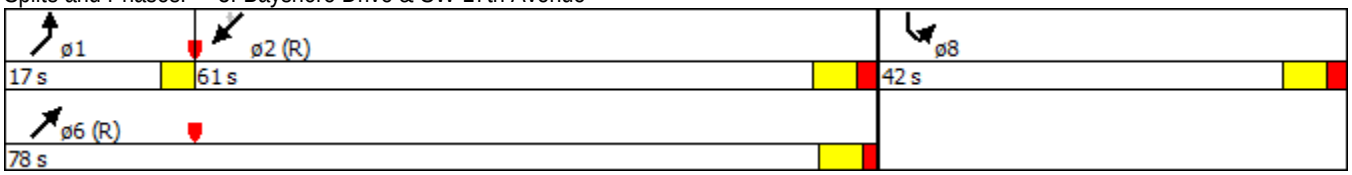
APPENDIX B1: EXISTING CONDITIONS (AM)

Lane Group	SBL	NEL	NET	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	266	66	860	202	713
Future Volume (vph)	266	66	860	202	713
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	8	1	6	2	
Permitted Phases					2
Detector Phase	8	1	6	2	2
Switch Phase					
Minimum Initial (s)	7.0	5.0	12.0	12.0	12.0
Minimum Split (s)	23.9	9.5	22.5	22.5	22.5
Total Split (s)	42.0	17.0	78.0	61.0	61.0
Total Split (%)	35.0%	14.2%	65.0%	50.8%	50.8%
Yellow Time (s)	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.9	0.0	1.4	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	3.0	5.4	5.9	5.9
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 17 (14%), Referenced to phase 2:SWT and 6:NET, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Bayshore Drive & SW 17th Avenue



Lane Group	SBL	NEL	NET	SWT	SWR
Lane Group Flow (vph)	376	74	965	227	800
v/c Ratio	0.86	0.51	0.79	0.22	0.73
Control Delay	61.2	64.1	21.7	22.3	19.9
Queue Delay	0.0	0.0	0.1	0.0	0.3
Total Delay	61.2	64.1	21.8	22.3	20.2
Queue Length 50th (ft)	270	56	494	124	357
Queue Length 95th (ft)	366	103	811	158	508
Internal Link Dist (ft)	1022		1177	416	
Turn Bay Length (ft)					
Base Capacity (vph)	531	206	1229	1049	1092
Starvation Cap Reductn	0	0	0	0	40
Spillback Cap Reductn	0	0	15	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.36	0.79	0.22	0.76

Intersection Summary

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	266	69	66	860	202	713
Future Volume (veh/h)	266	69	66	860	202	713
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	299	77	74	965	227	0
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	322	83	95	1242	1096	932
Arrive On Green	0.23	0.23	0.05	0.67	0.59	0.00
Sat Flow, veh/h	1373	354	1774	1863	1863	1583
Grp Volume(v), veh/h	377	0	74	965	227	0
Grp Sat Flow(s),veh/h/ln	1732	0	1774	1863	1863	1583
Q Serve(g_s), s	25.6	0.0	4.9	43.0	6.9	0.0
Cycle Q Clear(g_c), s	25.6	0.0	4.9	43.0	6.9	0.0
Prop In Lane	0.79	0.20	1.00			1.00
Lane Grp Cap(c), veh/h	407	0	95	1242	1096	932
V/C Ratio(X)	0.93	0.00	0.78	0.78	0.21	0.00
Avail Cap(c_a), veh/h	521	0	207	1242	1096	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.94	0.00
Uniform Delay (d), s/veh	44.9	0.0	56.1	13.8	11.6	0.0
Incr Delay (d2), s/veh	19.1	0.0	9.9	4.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.4	0.0	2.7	23.4	3.7	0.0
LnGrp Delay(d),s/veh	64.0	0.0	66.0	18.6	12.0	0.0
LnGrp LOS	E		E	B	B	
Approach Vol, veh/h	377			1039	227	
Approach Delay, s/veh	64.0			22.0	12.0	
Approach LOS	E			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.4	76.5				85.9		34.1
Change Period (Y+Rc), s	3.0	* 5.9				* 5.9		5.9
Max Green Setting (Gmax), s	14.0	* 55				* 73		36.1
Max Q Clear Time (g_c+I1), s	6.9	8.9				45.0		27.6
Green Ext Time (p_c), s	0.1	3.1				3.1		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

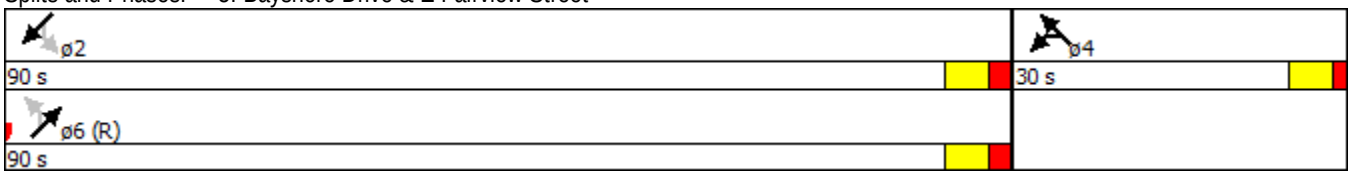
Notes

Lane Group	NWT	NEL	NET	SWT
Lane Configurations				
Traffic Volume (vph)	0	2	1026	1096
Future Volume (vph)	0	2	1026	1096
Turn Type	NA	Perm	NA	NA
Protected Phases	4		6	2
Permitted Phases		6		
Detector Phase	4	6	6	2
Switch Phase				
Minimum Initial (s)	7.0	16.0	16.0	16.0
Minimum Split (s)	24.1	24.1	24.1	24.1
Total Split (s)	30.0	90.0	90.0	90.0
Total Split (%)	25.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.4	2.1	2.1	2.1
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.4		6.1	6.1
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Min	C-Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 37 (31%), Referenced to phase 6:NETL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bayshore Drive & E Fairview Street



Lane Group	NWT	NET	SWT
Lane Group Flow (vph)	17	1129	1205
v/c Ratio	0.13	0.65	0.36
Control Delay	12.7	2.4	0.9
Queue Delay	0.0	0.1	0.0
Total Delay	12.7	2.6	0.9
Queue Length 50th (ft)	0	0	8
Queue Length 95th (ft)	16	121	25
Internal Link Dist (ft)	442	416	784
Turn Bay Length (ft)			
Base Capacity (vph)	376	1746	3321
Starvation Cap Reductn	0	93	0
Spillback Cap Reductn	0	0	61
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.05	0.68	0.37

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	11	0	5	2	1026	1	0	1096	2
Future Volume (veh/h)	0	0	0	11	0	5	2	1026	1	0	1096	2
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				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
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h				12	0	5	2	1126	1	0	1203	2
Adj No. of Lanes				0	1	0	0	1	0	0	2	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	2	2	2	2
Cap, veh/h				31	0	13	30	1222	1	0	2384	4
Arrive On Green				0.03	0.00	0.03	0.66	0.66	0.66	0.00	0.66	0.66
Sat Flow, veh/h				1209	0	504	1	1859	2	0	3718	6
Grp Volume(v), veh/h				17	0	0	1129	0	0	0	587	618
Grp Sat Flow(s),veh/h/ln				1713	0	0	1861	0	0	0	1770	1862
Q Serve(g_s), s				1.2	0.0	0.0	0.0	0.0	0.0	0.0	20.4	20.4
Cycle Q Clear(g_c), s				1.2	0.0	0.0	63.2	0.0	0.0	0.0	20.4	20.4
Prop In Lane				0.71		0.29	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				43	0	0	1254	0	0	0	1164	1224
V/C Ratio(X)				0.39	0.00	0.00	0.90	0.00	0.00	0.00	0.50	0.50
Avail Cap(c_a), veh/h				351	0	0	1331	0	0	0	1237	1302
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.49	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				57.6	0.0	0.0	17.9	0.0	0.0	0.0	10.5	10.5
Incr Delay (d2), s/veh				4.3	0.0	0.0	5.6	0.0	0.0	0.0	0.3	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.0	33.9	0.0	0.0	0.0	10.0	10.5
LnGrp Delay(d),s/veh				61.8	0.0	0.0	23.5	0.0	0.0	0.0	10.8	10.8
LnGrp LOS				E			C				B	B
Approach Vol, veh/h					17			1129			1205	
Approach Delay, s/veh					61.8			23.5			10.8	
Approach LOS					E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		85.0		8.4		85.0		
Change Period (Y+Rc), s		6.1		* 5.4		6.1		
Max Green Setting (Gmax), s		83.9		* 25		83.9		
Max Q Clear Time (g_c+I1), s		22.4		3.2		65.2		
Green Ext Time (p_c), s		27.7		0.0		13.7		

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

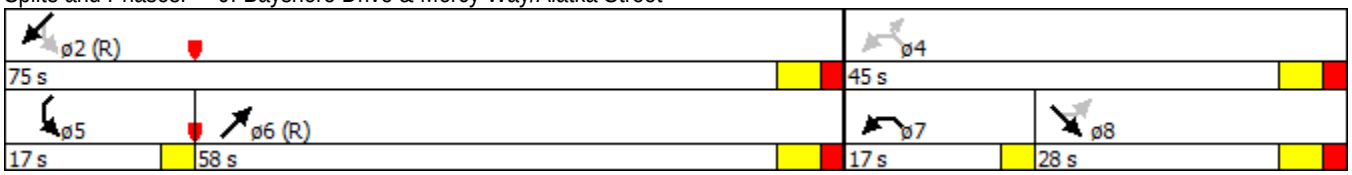
Notes

Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	21	90	66	745	151	844
Future Volume (vph)	21	90	66	745	151	844
Turn Type	NA	pm+pt	Perm	NA	pm+pt	NA
Protected Phases	8	7		6	5	2
Permitted Phases		4	4		2	
Detector Phase	8	7	4	6	5	2
Switch Phase						
Minimum Initial (s)	7.0	5.0	7.0	25.0	5.0	25.0
Minimum Split (s)	22.5	9.5	22.5	31.1	10.1	31.1
Total Split (s)	28.0	17.0	45.0	58.0	17.0	75.0
Total Split (%)	23.3%	14.2%	37.5%	48.3%	14.2%	62.5%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.3	0.0	2.3	2.1	0.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	3.0	6.3	6.1	3.0	6.1
Lead/Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	
Recall Mode	Min	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bayshore Drive & Mercy Way/Alatka Street



Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	37	96	70	971	161	897
v/c Ratio	0.31	0.30	0.22	0.45	0.39	0.35
Control Delay	58.6	40.9	10.3	9.8	9.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	58.6	40.9	10.3	9.8	9.3	8.4
Queue Length 50th (ft)	27	63	0	97	41	151
Queue Length 95th (ft)	62	105	38	146	65	159
Internal Link Dist (ft)	367			503		363
Turn Bay Length (ft)					150	
Base Capacity (vph)	329	333	525	2146	483	2531
Starvation Cap Reductn	0	0	0	0	0	671
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.29	0.13	0.45	0.33	0.48

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	13	21	1	90	0	66	0	745	168	151	844	0
Future Volume (veh/h)	13	21	1	90	0	66	0	745	168	151	844	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
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		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	0	1776	0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	14	22	1	96	0	70	0	792	179	161	897	0
Adj No. of Lanes	0	1	0	1	0	1	0	2	0	1	2	0
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	0	7	0	2	2	2	2	0
Cap, veh/h	41	0	0	181	0	0	0	1926	435	453	2626	0
Arrive On Green	0.06	0.06	0.06	0.07	0.00	0.00	0.00	0.67	0.67	0.04	0.74	0.00
Sat Flow, veh/h	0	0	0	1774	96		0	2954	647	1774	3632	0
Grp Volume(v), veh/h	37	0	0	96	56.0		0	490	481	161	897	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1774	E		0	1770	1738	1774	1770	0
Q Serve(g_s), s	0.0	0.0	0.0	6.4			0.0	15.0	15.0	3.2	10.5	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	6.4			0.0	15.0	15.0	3.2	10.5	0.0
Prop In Lane	0.38		0.03	1.00			0.00		0.37	1.00		0.00
Lane Grp Cap(c), veh/h	41	0	0	181			0	1191	1170	453	2626	0
V/C Ratio(X)	0.89	0.00	0.00	0.53			0.00	0.41	0.41	0.36	0.34	0.00
Avail Cap(c_a), veh/h	232	0	0	268			0	1191	1170	582	2626	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00			0.00	1.00	1.00	0.89	0.89	0.00
Uniform Delay (d), s/veh	52.9	0.0	0.0	55.1			0.0	8.9	8.9	6.4	5.3	0.0
Incr Delay (d2), s/veh	34.4	0.0	0.0	0.9			0.0	1.1	1.1	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.2			0.0	7.6	7.4	1.5	5.2	0.0
LnGrp Delay(d),s/veh	87.3	0.0	0.0	56.0			0.0	9.9	9.9	6.5	5.7	0.0
LnGrp LOS	F			E				A	A	A	A	
Approach Vol, veh/h		37						971			1058	
Approach Delay, s/veh		87.3						9.9			5.8	
Approach LOS		F						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6	7	8
Phs Duration (G+Y+Rc), s		95.2			8.3	86.9	11.1	13.7
Change Period (Y+Rc), s		6.1			3.0	6.1	3.0	* 6.3
Max Green Setting (Gmax), s		68.9			14.0	51.9	14.0	* 22
Max Q Clear Time (g_c+I1), s		12.5			5.2	17.0	8.4	2.1
Green Ext Time (p_c), s		5.3			0.1	5.2	0.0	0.1

Intersection Summary		
HCM 2010 Ctrl Delay		11.3
HCM 2010 LOS		B

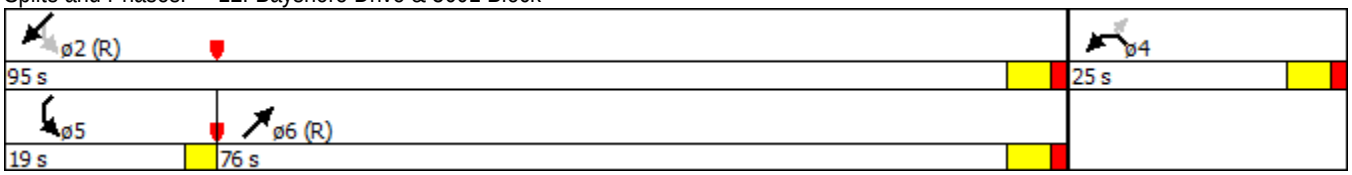
Notes

Lane Group	NWL	NWR	NET	SWL	SWT
Lane Configurations					
Traffic Volume (vph)	127	150	691	148	930
Future Volume (vph)	127	150	691	148	930
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	4		6	5	2
Permitted Phases		4		2	
Detector Phase	4	4	6	5	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	14.0	5.0	14.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.0	25.0	76.0	19.0	95.0
Total Split (%)	20.8%	20.8%	63.3%	15.8%	79.2%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.6	1.6	1.6	0.0	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	3.0	5.6
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 76 (63%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: Bayshore Drive & 3601 Block



Lane Group	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	160	189	1138	187	1174
v/c Ratio	0.70	0.51	0.48	0.48	0.43
Control Delay	65.4	11.3	3.9	10.3	6.5
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay	65.4	11.3	4.0	10.3	6.5
Queue Length 50th (ft)	120	0	47	28	132
Queue Length 95th (ft)	161	41	64	81	222
Internal Link Dist (ft)	672		363		1211
Turn Bay Length (ft)				100	
Base Capacity (vph)	292	419	2352	486	2760
Starvation Cap Reductn	0	0	253	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.45	0.54	0.38	0.43

Intersection Summary

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	127	150	691	211	148	930
Future Volume (veh/h)	127	150	691	211	148	930
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	160	189	872	266	187	1174
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	242	216	1863	567	413	2727
Arrive On Green	0.14	0.14	0.70	0.70	0.05	0.77
Sat Flow, veh/h	1774	1583	2758	811	1774	3632
Grp Volume(v), veh/h	160	189	579	559	187	1174
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1706	1774	1770
Q Serve(g_s), s	10.3	14.0	17.5	17.6	3.4	13.7
Cycle Q Clear(g_c), s	10.3	14.0	17.5	17.6	3.4	13.7
Prop In Lane	1.00	1.00		0.48	1.00	
Lane Grp Cap(c), veh/h	242	216	1237	1193	413	2727
V/C Ratio(X)	0.66	0.88	0.47	0.47	0.45	0.43
Avail Cap(c_a), veh/h	287	256	1237	1193	568	2727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	0.91	0.91
Uniform Delay (d), s/veh	49.2	50.8	8.1	8.1	6.4	4.7
Incr Delay (d2), s/veh	3.7	23.3	1.1	1.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.1	8.9	8.6	1.6	6.7
LnGrp Delay(d),s/veh	52.9	74.1	9.2	9.3	6.6	5.2
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	349		1138			1361
Approach Delay, s/veh	64.4		9.2			5.4
Approach LOS	E		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		98.0		22.0	8.5	89.5		
Change Period (Y+Rc), s		* 5.6		* 5.6	3.0	* 5.6		
Max Green Setting (Gmax), s		* 89		* 19	16.0	* 70		
Max Q Clear Time (g_c+I1), s		15.7		16.0	5.4	19.6		
Green Ext Time (p_c), s		7.7		0.3	0.2	7.7		

Intersection Summary

HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

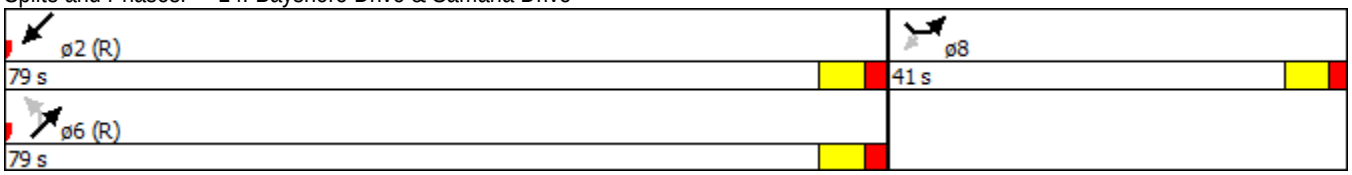
Notes

Lane Group	SEL	SER	NEL	NET	SWT
Lane Configurations					
Traffic Volume (vph)	87	13	7	900	1136
Future Volume (vph)	87	13	7	900	1136
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	8			6	2
Permitted Phases		8	6		
Detector Phase	8	8	6	6	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	24.3	24.3	24.3
Total Split (s)	41.0	41.0	79.0	79.0	79.0
Total Split (%)	34.2%	34.2%	65.8%	65.8%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.7	5.7		6.3	6.3
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 10 (8%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 14: Bayshore Drive & Samana Drive



Lane Group	SEL	SER	NET	SWT
Lane Group Flow (vph)	92	14	954	1215
v/c Ratio	0.56	0.09	0.35	0.43
Control Delay	64.3	22.2	3.5	2.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	64.3	22.2	3.5	2.7
Queue Length 50th (ft)	69	0	121	35
Queue Length 95th (ft)	120	20	61	60
Internal Link Dist (ft)	379		1211	1004
Turn Bay Length (ft)				
Base Capacity (vph)	520	475	2698	2849
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.03	0.35	0.43

Intersection Summary

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	87	13	7	900	1136	19
Future Volume (veh/h)	87	13	7	900	1136	19
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	92	14	7	947	1195	20
Adj No. of Lanes	1	1	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	119	107	36	2868	2966	50
Arrive On Green	0.07	0.07	0.83	0.83	0.83	0.83
Sat Flow, veh/h	1774	1583	7	3529	3655	60
Grp Volume(v), veh/h	92	14	509	445	594	621
Grp Sat Flow(s),veh/h/ln	1774	1583	1841	1610	1770	1852
Q Serve(g_s), s	6.1	1.0	0.0	7.7	10.1	10.1
Cycle Q Clear(g_c), s	6.1	1.0	7.5	7.7	10.1	10.1
Prop In Lane	1.00	1.00	0.01			0.03
Lane Grp Cap(c), veh/h	119	107	1563	1341	1474	1542
V/C Ratio(X)	0.77	0.13	0.33	0.33	0.40	0.40
Avail Cap(c_a), veh/h	522	466	1563	1341	1474	1542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.87	0.87	0.92	0.92
Uniform Delay (d), s/veh	55.1	52.7	2.3	2.3	2.5	2.5
Incr Delay (d2), s/veh	7.6	0.4	0.5	0.6	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.4	4.0	3.6	5.1	5.3
LnGrp Delay(d),s/veh	62.6	53.1	2.8	2.9	3.3	3.2
LnGrp LOS	E	D	A	A	A	A
Approach Vol, veh/h	106			954	1215	
Approach Delay, s/veh	61.4			2.8	3.3	
Approach LOS	E			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		106.2				106.2		13.8
Change Period (Y+Rc), s		* 6.3				* 6.3		5.7
Max Green Setting (Gmax), s		* 73				* 73		35.3
Max Q Clear Time (g_c+I1), s		12.1				9.7		8.1
Green Ext Time (p_c), s		21.0				21.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	5.8
HCM 2010 LOS	A

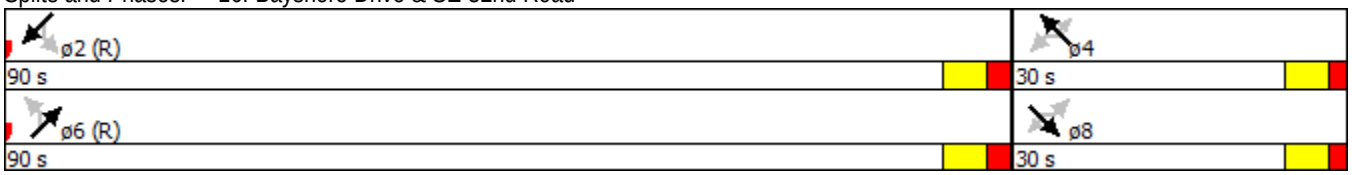
Notes

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	1	4	8	13	0	8	3	939	11	1120
Future Volume (vph)	1	4	8	13	0	8	3	939	11	1120
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		8			4			6		2
Permitted Phases	8		8	4		4	6		2	
Detector Phase	8	8	8	4	4	4	6	6	2	2
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	23.7	23.7	23.7	23.7	24.3	24.3	24.3	24.3
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)		5.7	5.7		5.7	5.7		6.3		6.3
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 16: Bayshore Drive & SE 32nd Road



Lane Group	SET	SER	NWT	NWR	NET	SWT
Lane Group Flow (vph)	5	9	14	9	1037	1231
v/c Ratio	0.05	0.07	0.14	0.08	0.34	0.41
Control Delay	53.8	1.1	56.5	1.2	1.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	1.1	56.5	1.2	1.1	2.2
Queue Length 50th (ft)	4	0	11	0	46	93
Queue Length 95th (ft)	17	2	32	2	34	124
Internal Link Dist (ft)	447		325		1004	579
Turn Bay Length (ft)						
Base Capacity (vph)	347	338	332	330	3034	3005
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.03	0.04	0.03	0.34	0.41

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	1	4	8	13	0	8	3	939	13	11	1120	3
Future Volume (veh/h)	1	4	8	13	0	8	3	939	13	11	1120	3
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.94	0.94		0.94	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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	1	4	9	14	0	9	3	1020	14	12	1216	3
Adj No. of Lanes	0	1	1	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	121	109	153	0	109	32	2889	40	41	2897	7
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	0.83	0.83	0.83	0.83	0.83	0.83
Sat Flow, veh/h	148	1655	1492	1273	0	1492	2	3494	48	13	3503	9
Grp Volume(v), veh/h	5	0	9	14	0	9	544	0	493	640	0	591
Grp Sat Flow(s),veh/h/ln	1803	0	1492	1273	0	1492	1857	0	1686	1831	0	1694
Q Serve(g_s), s	0.0	0.0	0.7	1.2	0.0	0.7	0.0	0.0	8.6	0.0	0.0	11.1
Cycle Q Clear(g_c), s	0.3	0.0	0.7	1.5	0.0	0.7	8.6	0.0	8.6	10.9	0.0	11.1
Prop In Lane	0.20		1.00	1.00		1.00	0.01		0.03	0.02		0.01
Lane Grp Cap(c), veh/h	168	0	109	153	0	109	1566	0	1395	1545	0	1401
V/C Ratio(X)	0.03	0.00	0.08	0.09	0.00	0.08	0.35	0.00	0.35	0.41	0.00	0.42
Avail Cap(c_a), veh/h	391	0	302	324	0	302	1566	0	1395	1545	0	1401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	0.0	51.9	52.4	0.0	51.9	2.5	0.0	2.5	2.7	0.0	2.8
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2	0.0	0.2	0.6	0.0	0.7	0.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.4	0.0	0.3	4.5	0.0	4.1	5.9	0.0	5.5
LnGrp Delay(d),s/veh	51.7	0.0	52.1	52.6	0.0	52.1	3.1	0.0	3.2	3.6	0.0	3.7
LnGrp LOS	D		D	D		D	A		A	A		A
Approach Vol, veh/h		14			23			1037			1231	
Approach Delay, s/veh		52.0			52.4			3.2			3.6	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		105.5		14.5		105.5		14.5
Change Period (Y+Rc), s		* 6.3		* 5.7		* 6.3		* 5.7
Max Green Setting (Gmax), s		* 84		* 24		* 84		* 24
Max Q Clear Time (g_c+I1), s		13.1		3.5		10.6		2.7
Green Ext Time (p_c), s		22.1		0.1		22.2		0.1

Intersection Summary

HCM 2010 Ctrl Delay	4.2
HCM 2010 LOS	A

Notes

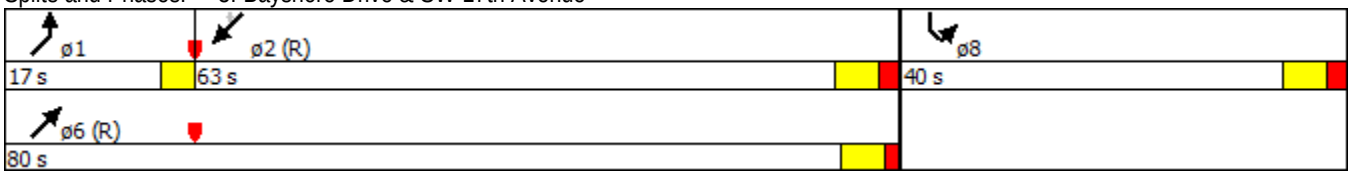
APPENDIX B2: EXISTING CONDITIONS (PM)

Lane Group	SBL	NEL	NET	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	161	104	838	1024	606
Future Volume (vph)	161	104	838	1024	606
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	8	1	6	2	
Permitted Phases					2
Detector Phase	8	1	6	2	2
Switch Phase					
Minimum Initial (s)	7.0	5.0	12.0	12.0	12.0
Minimum Split (s)	23.9	9.5	22.5	22.5	22.5
Total Split (s)	40.0	17.0	80.0	63.0	63.0
Total Split (%)	33.3%	14.2%	66.7%	52.5%	52.5%
Yellow Time (s)	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.9	0.0	1.4	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	3.0	5.4	5.9	5.9
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 33 (28%), Referenced to phase 2:SWT and 6:NET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Bayshore Drive & SW 17th Avenue



Lane Group	SBL	NEL	NET	SWT	SWR
Lane Group Flow (vph)	247	109	882	1077	638
v/c Ratio	0.78	0.61	0.65	0.96	0.63
Control Delay	60.1	65.3	12.1	36.0	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	60.1	65.3	12.1	36.0	5.3
Queue Length 50th (ft)	171	82	306	806	28
Queue Length 95th (ft)	246	137	549	#1237	66
Internal Link Dist (ft)	1022		1177	416	
Turn Bay Length (ft)					
Base Capacity (vph)	503	215	1362	1118	1008
Starvation Cap Reductn	0	0	0	0	52
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.49	0.51	0.65	0.96	0.67

Intersection Summary

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

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	161	74	104	838	1024	606
Future Volume (veh/h)	161	74	104	838	1024	606
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	169	78	109	882	1077	0
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	189	87	134	1375	1187	1009
Arrive On Green	0.16	0.16	0.08	0.74	0.64	0.00
Sat Flow, veh/h	1158	534	1774	1863	1863	1583
Grp Volume(v), veh/h	248	0	109	882	1077	0
Grp Sat Flow(s),veh/h/ln	1699	0	1774	1863	1863	1583
Q Serve(g_s), s	17.2	0.0	7.3	28.3	59.6	0.0
Cycle Q Clear(g_c), s	17.2	0.0	7.3	28.3	59.6	0.0
Prop In Lane	0.68	0.31	1.00			1.00
Lane Grp Cap(c), veh/h	278	0	134	1375	1187	1009
V/C Ratio(X)	0.89	0.00	0.81	0.64	0.91	0.00
Avail Cap(c_a), veh/h	483	0	207	1375	1187	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.00
Uniform Delay (d), s/veh	49.2	0.0	54.6	7.8	18.7	0.0
Incr Delay (d2), s/veh	8.4	0.0	10.5	2.3	10.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	4.0	15.1	33.6	0.0
LnGrp Delay(d),s/veh	57.5	0.0	65.2	10.1	28.8	0.0
LnGrp LOS	E		E	B	C	
Approach Vol, veh/h	248			991	1077	
Approach Delay, s/veh	57.5			16.2	28.8	
Approach LOS	E			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.1	82.4				94.5		25.5
Change Period (Y+Rc), s	3.0	* 5.9				* 5.9		5.9
Max Green Setting (Gmax), s	14.0	* 57				* 75		34.1
Max Q Clear Time (g_c+I1), s	9.3	61.6				30.3		19.2
Green Ext Time (p_c), s	0.1	0.0				6.3		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

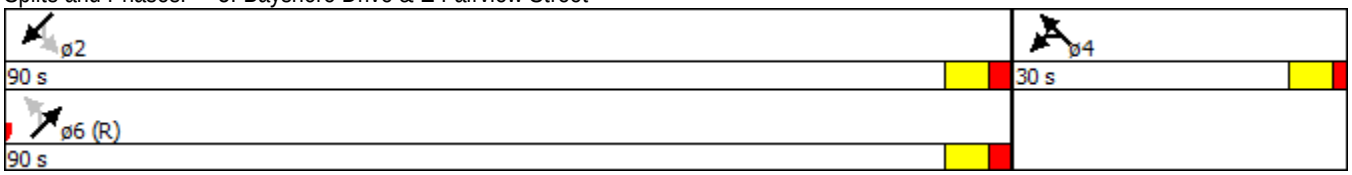
Notes

Lane Group	NWT	NEL	NET	SWL	SWT
Lane Configurations					
Traffic Volume (vph)	7	1	938	4	1514
Future Volume (vph)	7	1	938	4	1514
Turn Type	NA	Perm	NA	Perm	NA
Protected Phases	4		6		2
Permitted Phases		6		2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	7.0	16.0	16.0	16.0	16.0
Minimum Split (s)	24.1	24.1	24.1	24.1	24.1
Total Split (s)	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.4	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0		0.0		0.0
Total Lost Time (s)	5.4		6.1		6.1
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 46 (38%), Referenced to phase 6:NETL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bayshore Drive & E Fairview Street



Lane Group	NWT	NET	SWT
Lane Group Flow (vph)	12	1001	1614
v/c Ratio	0.11	0.57	0.51
Control Delay	45.5	1.9	1.5
Queue Delay	0.0	0.0	0.0
Total Delay	45.5	1.9	1.5
Queue Length 50th (ft)	6	0	14
Queue Length 95th (ft)	27	93	77
Internal Link Dist (ft)	442	416	784
Turn Bay Length (ft)			
Base Capacity (vph)	366	1746	3164
Starvation Cap Reductn	0	19	0
Spillback Cap Reductn	0	0	164
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.03	0.58	0.54

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	7	4	1	938	3	4	1514	0
Future Volume (veh/h)	0	0	0	1	7	4	1	938	3	4	1514	0
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h				1	7	4	1	997	3	4	1610	0
Adj No. of Lanes				0	1	0	0	1	0	0	2	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	2	2	2	2
Cap, veh/h				3	20	11	30	1162	3	31	2173	0
Arrive On Green				0.02	0.02	0.02	0.63	0.63	0.63	0.63	0.63	0.00
Sat Flow, veh/h				146	1022	584	0	1855	6	2	3552	0
Grp Volume(v), veh/h				12	0	0	1001	0	0	865	749	0
Grp Sat Flow(s),veh/h/ln				1752	0	0	1861	0	0	1858	1610	0
Q Serve(g_s), s				0.8	0.0	0.0	0.0	0.0	0.0	0.0	38.9	0.0
Cycle Q Clear(g_c), s				0.8	0.0	0.0	52.1	0.0	0.0	38.8	38.9	0.0
Prop In Lane				0.08		0.33	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				34	0	0	1196	0	0	1195	1009	0
V/C Ratio(X)				0.36	0.00	0.00	0.84	0.00	0.00	0.72	0.74	0.00
Avail Cap(c_a), veh/h				359	0	0	1330	0	0	1328	1126	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.68	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				58.1	0.0	0.0	18.1	0.0	0.0	15.6	15.6	0.0
Incr Delay (d2), s/veh				4.7	0.0	0.0	4.9	0.0	0.0	1.6	2.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.0	28.1	0.0	0.0	20.2	17.7	0.0
LnGrp Delay(d),s/veh				62.8	0.0	0.0	23.0	0.0	0.0	17.2	17.8	0.0
LnGrp LOS				E			C			B	B	
Approach Vol, veh/h					12			1001			1614	
Approach Delay, s/veh					62.8			23.0			17.5	
Approach LOS					E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		81.3		7.7		81.3		
Change Period (Y+Rc), s		6.1		* 5.4		6.1		
Max Green Setting (Gmax), s		83.9		* 25		83.9		
Max Q Clear Time (g_c+I1), s		40.9		2.8		54.1		
Green Ext Time (p_c), s		26.9		0.0		21.1		

Intersection Summary			
HCM 2010 Ctrl Delay		19.8	
HCM 2010 LOS		B	

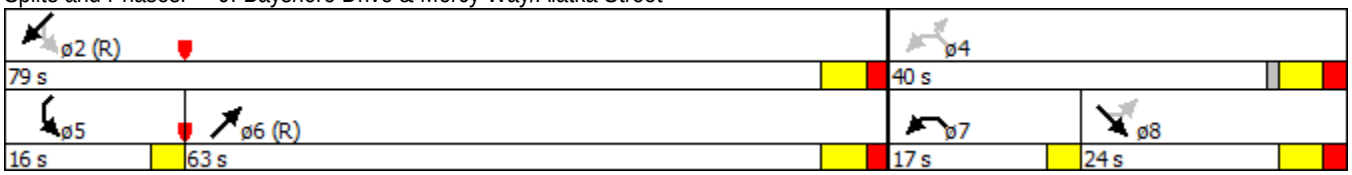
Notes

Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	1	268	170	730	60	1243
Future Volume (vph)	1	268	170	730	60	1243
Turn Type	NA	pm+pt	Perm	NA	pm+pt	NA
Protected Phases	8	7		6	5	2
Permitted Phases		4	4		2	
Detector Phase	8	7	4	6	5	2
Switch Phase						
Minimum Initial (s)	7.0	5.0	7.0	25.0	5.0	25.0
Minimum Split (s)	22.5	9.5	22.5	31.1	10.1	31.1
Total Split (s)	24.0	17.0	40.0	63.0	16.0	79.0
Total Split (%)	20.0%	14.2%	33.3%	52.5%	13.3%	65.8%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.3	0.0	2.3	2.1	0.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	3.0	6.3	6.1	3.0	6.1
Lead/Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	
Recall Mode	Min	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bayshore Drive & Mercy Way/Alatka Street



Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	4	288	183	852	64	1336
v/c Ratio	0.04	0.54	0.32	0.45	0.18	0.63
Control Delay	49.2	35.9	5.3	22.6	5.8	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	49.2	35.9	5.3	22.6	5.8	11.2
Queue Length 50th (ft)	2	180	0	214	11	389
Queue Length 95th (ft)	14	235	47	291	m13	219
Internal Link Dist (ft)	367			503		363
Turn Bay Length (ft)					150	
Base Capacity (vph)	259	531	606	1906	437	2219
Starvation Cap Reductn	0	0	0	0	0	278
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.54	0.30	0.45	0.15	0.69

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	2	1	1	268	0	170	0	730	63	60	1243	0
Future Volume (veh/h)	2	1	1	268	0	170	0	730	63	60	1243	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
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		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	0	1827	0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	2	1	1	288	0	183	0	784	68	64	1336	0
Adj No. of Lanes	0	1	0	1	0	1	0	2	0	1	2	0
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	0	4	0	2	2	2	2	0
Cap, veh/h	45	0	0	268	0	0	0	2086	181	459	2461	0
Arrive On Green	0.06	0.06	0.06	0.12	0.00	0.00	0.00	0.63	0.63	0.04	0.70	0.00
Sat Flow, veh/h	0	0	0	1774	288		0	3385	285	1774	3632	0
Grp Volume(v), veh/h	4	0	0	288	130.1		0	421	431	64	1336	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1774	F		0	1770	1808	1774	1770	0
Q Serve(g_s), s	0.0	0.0	0.0	14.0			0.0	13.7	13.7	1.4	22.2	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	14.0			0.0	13.7	13.7	1.4	22.2	0.0
Prop In Lane	0.50		0.25	1.00			0.00		0.16	1.00		0.00
Lane Grp Cap(c), veh/h	45	0	0	268			0	1121	1146	459	2461	0
V/C Ratio(X)	0.09	0.00	0.00	1.07			0.00	0.38	0.38	0.14	0.54	0.00
Avail Cap(c_a), veh/h	169	0	0	268			0	1121	1146	586	2461	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00			0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	53.2	0.0	0.0	54.5			0.0	10.6	10.6	7.2	8.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	75.6			0.0	1.0	0.9	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	14.4			0.0	7.0	7.1	0.7	11.0	0.0
LnGrp Delay(d),s/veh	53.8	0.0	0.0	130.1			0.0	11.5	11.5	7.3	9.6	0.0
LnGrp LOS	D			F				B	B	A	A	
Approach Vol, veh/h		4						852			1400	
Approach Delay, s/veh		53.8						11.5			9.5	
Approach LOS		D						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6	7	8
Phs Duration (G+Y+Rc), s		89.5			7.4	82.1	17.0	13.5
Change Period (Y+Rc), s		6.1			3.0	6.1	3.0	* 6.3
Max Green Setting (Gmax), s		72.9			13.0	56.9	14.0	* 18
Max Q Clear Time (g_c+I1), s		24.2			3.4	15.7	16.0	2.1
Green Ext Time (p_c), s		7.1			0.0	7.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		23.9
HCM 2010 LOS		C

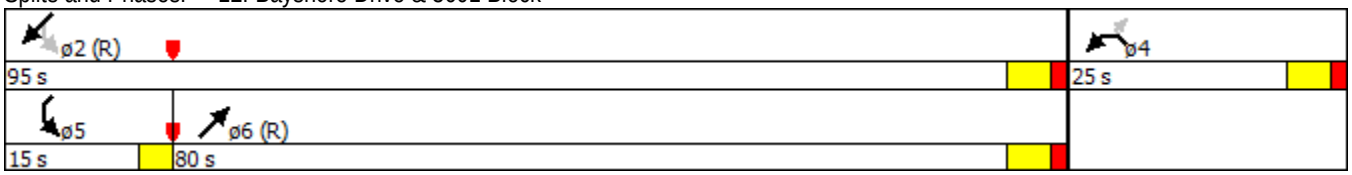
Notes

Lane Group	NWL	NWR	NET	SWL	SWT
Lane Configurations					
Traffic Volume (vph)	90	61	900	21	1295
Future Volume (vph)	90	61	900	21	1295
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	4		6	5	2
Permitted Phases		4		2	
Detector Phase	4	4	6	5	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	14.0	5.0	14.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.0	25.0	80.0	15.0	95.0
Total Split (%)	20.8%	20.8%	66.7%	12.5%	79.2%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.6	1.6	1.6	0.0	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	3.0	5.6
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 51 (43%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: Bayshore Drive & 3601 Block



Lane Group	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	114	77	1173	27	1635
v/c Ratio	0.62	0.33	0.44	0.07	0.58
Control Delay	65.2	14.1	2.3	3.1	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	65.2	14.1	2.4	3.1	7.2
Queue Length 50th (ft)	86	0	41	2	108
Queue Length 95th (ft)	124	33	56	m9	398
Internal Link Dist (ft)	672		363		1211
Turn Bay Length (ft)				100	
Base Capacity (vph)	286	320	2680	457	2839
Starvation Cap Reductn	0	0	224	0	0
Spillback Cap Reductn	0	0	0	0	176
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.40	0.24	0.48	0.06	0.61

Intersection Summary

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

Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	90	61	900	29	21	1295		
Future Volume (veh/h)	90	61	900	29	21	1295		
Number	7	14	6	16	5	2		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	114	77	1136	37	27	1635		
Adj No. of Lanes	1	1	2	0	1	2		
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	145	130	2710	88	421	2919		
Arrive On Green	0.08	0.08	0.78	0.78	0.02	0.82		
Sat Flow, veh/h	1774	1583	3590	114	1774	3632		
Grp Volume(v), veh/h	114	77	575	598	27	1635		
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1841	1774	1770		
Q Serve(g_s), s	7.6	5.6	13.0	13.0	0.3	18.1		
Cycle Q Clear(g_c), s	7.6	5.6	13.0	13.0	0.3	18.1		
Prop In Lane	1.00	1.00		0.06	1.00			
Lane Grp Cap(c), veh/h	145	130	1372	1427	421	2919		
V/C Ratio(X)	0.78	0.59	0.42	0.42	0.06	0.56		
Avail Cap(c_a), veh/h	287	256	1372	1427	554	2919		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.88	0.88		
Uniform Delay (d), s/veh	54.1	53.2	4.5	4.5	3.0	3.4		
Incr Delay (d2), s/veh	6.8	3.2	0.9	0.8	0.0	0.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.0	5.0	6.6	6.8	0.2	8.9		
LnGrp Delay(d),s/veh	60.8	56.4	5.3	5.3	3.1	4.1		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	191		1173			1662		
Approach Delay, s/veh	59.0		5.3			4.1		
Approach LOS	E		A			A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		104.6		15.4	6.0	98.6		
Change Period (Y+Rc), s		* 5.6		* 5.6	3.0	* 5.6		
Max Green Setting (Gmax), s		* 89		* 19	12.0	* 74		
Max Q Clear Time (g_c+I1), s		20.1		9.6	2.3	15.0		
Green Ext Time (p_c), s		11.4		0.3	0.0	11.3		

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

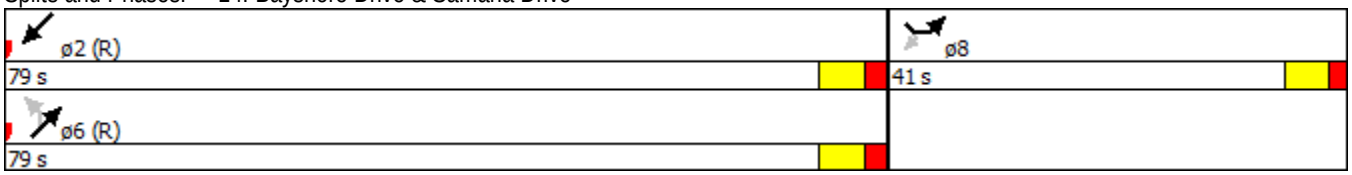
Notes

Lane Group	SEL	SER	NEL	NET	SWT
Lane Configurations					
Traffic Volume (vph)	27	3	6	963	1325
Future Volume (vph)	27	3	6	963	1325
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	8			6	2
Permitted Phases		8	6		
Detector Phase	8	8	6	6	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	24.3	24.3	24.3
Total Split (s)	41.0	41.0	79.0	79.0	79.0
Total Split (%)	34.2%	34.2%	65.8%	65.8%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.7	5.7		6.3	6.3
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 111 (93%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 14: Bayshore Drive & Samana Drive



Lane Group	SEL	SER	NET	SWT
Lane Group Flow (vph)	28	3	1019	1478
v/c Ratio	0.25	0.03	0.34	0.47
Control Delay	58.7	34.3	2.9	2.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	58.7	34.3	2.9	2.4
Queue Length 50th (ft)	21	0	51	120
Queue Length 95th (ft)	52	10	148	172
Internal Link Dist (ft)	379		1211	1004
Turn Bay Length (ft)				
Base Capacity (vph)	520	461	3010	3156
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.34	0.47

Intersection Summary

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	27	3	6	963	1325	80
Future Volume (veh/h)	27	3	6	963	1325	80
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	3	6	1013	1394	84
Adj No. of Lanes	1	1	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	67	59	35	2972	2926	176
Arrive On Green	0.04	0.04	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1774	1583	5	3531	3486	204
Grp Volume(v), veh/h	28	3	544	475	725	753
Grp Sat Flow(s),veh/h/ln	1774	1583	1841	1610	1770	1827
Q Serve(g_s), s	1.9	0.2	0.0	6.9	11.5	11.6
Cycle Q Clear(g_c), s	1.9	0.2	6.8	6.9	11.5	11.6
Prop In Lane	1.00	1.00	0.01			0.11
Lane Grp Cap(c), veh/h	67	59	1618	1389	1526	1575
V/C Ratio(X)	0.42	0.05	0.34	0.34	0.48	0.48
Avail Cap(c_a), veh/h	522	466	1618	1389	1526	1575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	0.85	0.85
Uniform Delay (d), s/veh	56.5	55.7	1.6	1.6	1.9	1.9
Incr Delay (d2), s/veh	3.1	0.3	0.5	0.6	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	3.7	3.3	5.8	6.0
LnGrp Delay(d),s/veh	59.6	55.9	2.1	2.2	2.8	2.8
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	31			1019	1478	
Approach Delay, s/veh	59.2			2.2	2.8	
Approach LOS	E			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		109.8				109.8		10.2
Change Period (Y+Rc), s		* 6.3				* 6.3		5.7
Max Green Setting (Gmax), s		* 73				* 73		35.3
Max Q Clear Time (g_c+I1), s		13.6				8.9		3.9
Green Ext Time (p_c), s		28.0				28.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	3.2
HCM 2010 LOS	A

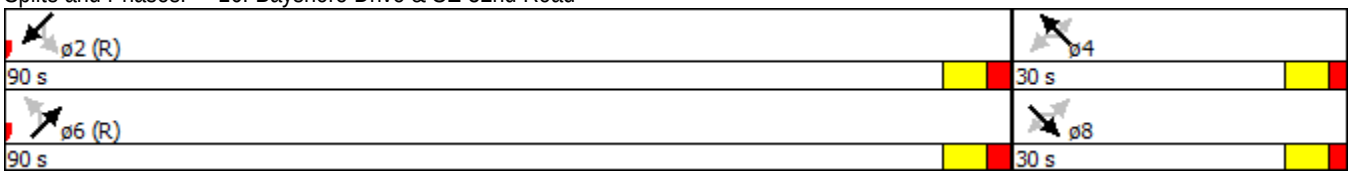
Notes

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	3	5	8	11	1	24	2	991	24	1342
Future Volume (vph)	3	5	8	11	1	24	2	991	24	1342
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		8			4			6		2
Permitted Phases	8		8	4		4	6		2	
Detector Phase	8	8	8	4	4	4	6	6	2	2
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	23.7	23.7	23.7	23.7	24.3	24.3	24.3	24.3
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)		5.7	5.7		5.7	5.7		6.3		6.3
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 16: Bayshore Drive & SE 32nd Road



Lane Group	SET	SER	NWT	NWR	NET	SWT
Lane Group Flow (vph)	8	9	13	26	1095	1493
v/c Ratio	0.08	0.07	0.14	0.22	0.36	0.51
Control Delay	55.3	1.2	56.7	20.7	1.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	1.2	56.7	20.7	1.3	2.7
Queue Length 50th (ft)	6	0	10	0	51	132
Queue Length 95th (ft)	23	2	31	26	41	172
Internal Link Dist (ft)	447		325		1004	579
Turn Bay Length (ft)						
Base Capacity (vph)	324	339	327	328	3041	2917
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.03	0.04	0.08	0.36	0.51

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	5	8	11	1	24	2	991	16	24	1342	9
Future Volume (veh/h)	3	5	8	11	1	24	2	991	16	24	1342	9
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.94	0.94		0.94	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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	5	9	12	1	26	2	1076	17	26	1457	10
Adj No. of Lanes	0	1	1	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	103	121	153	11	121	31	2856	45	58	2793	19
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.82	0.82	0.82	0.82	0.82	0.82
Sat Flow, veh/h	417	1268	1490	1181	130	1490	1	3488	55	33	3411	23
Grp Volume(v), veh/h	8	0	9	13	0	26	574	0	521	770	0	723
Grp Sat Flow(s),veh/h/ln	1684	0	1490	1312	0	1490	1859	0	1685	1776	0	1691
Q Serve(g_s), s	0.0	0.0	0.7	0.8	0.0	2.0	0.0	0.0	9.7	0.0	0.0	16.2
Cycle Q Clear(g_c), s	0.5	0.0	0.7	1.3	0.0	2.0	9.7	0.0	9.7	15.3	0.0	16.2
Prop In Lane	0.37		1.00	0.92		1.00	0.00		0.03	0.03		0.01
Lane Grp Cap(c), veh/h	178	0	121	164	0	121	1553	0	1380	1486	0	1385
V/C Ratio(X)	0.04	0.00	0.07	0.08	0.00	0.22	0.37	0.00	0.38	0.52	0.00	0.52
Avail Cap(c_a), veh/h	373	0	302	327	0	302	1553	0	1380	1486	0	1385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.95	0.00	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.9	0.0	51.0	51.3	0.0	51.6	2.8	0.0	2.8	3.4	0.0	3.4
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2	0.0	0.7	0.6	0.0	0.7	1.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.4	0.0	0.8	5.2	0.0	4.8	8.2	0.0	8.0
LnGrp Delay(d),s/veh	51.0	0.0	51.2	51.5	0.0	52.2	3.5	0.0	3.6	4.6	0.0	4.9
LnGrp LOS	D		D	D		D	A		A	A		A
Approach Vol, veh/h		17			39			1095			1493	
Approach Delay, s/veh		51.1			52.0			3.5			4.7	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		104.6		15.4		104.6		15.4
Change Period (Y+Rc), s		* 6.3		* 5.7		* 6.3		* 5.7
Max Green Setting (Gmax), s		* 84		* 24		* 84		* 24
Max Q Clear Time (g_c+I1), s		18.2		4.0		11.7		2.7
Green Ext Time (p_c), s		29.4		0.1		30.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	5.2
HCM 2010 LOS	A

Notes

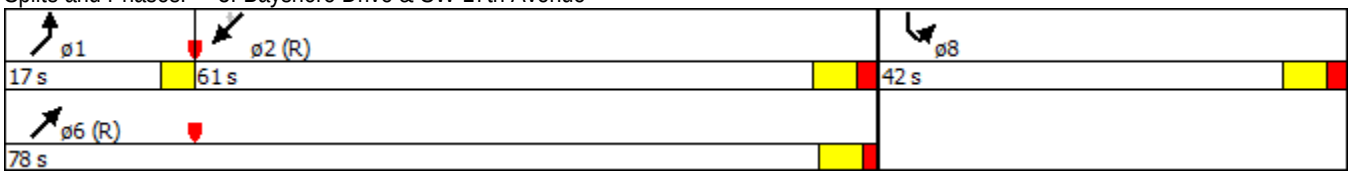
APPENDIX B3: ROAD DIET CONDITIONS (AM)

Lane Group	SBL	NEL	NET	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	266	66	860	202	713
Future Volume (vph)	266	66	860	202	713
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	8	1	6	2	
Permitted Phases					2
Detector Phase	8	1	6	2	2
Switch Phase					
Minimum Initial (s)	7.0	5.0	12.0	12.0	12.0
Minimum Split (s)	23.9	9.5	22.5	22.5	22.5
Total Split (s)	42.0	17.0	78.0	61.0	61.0
Total Split (%)	35.0%	14.2%	65.0%	50.8%	50.8%
Yellow Time (s)	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.9	0.0	1.4	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	3.0	5.4	5.9	5.9
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 17 (14%), Referenced to phase 2:SWT and 6:NET, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Bayshore Drive & SW 17th Avenue



Lane Group	SBL	NEL	NET	SWT	SWR
Lane Group Flow (vph)	376	74	965	227	800
v/c Ratio	0.86	0.51	0.79	0.22	0.73
Control Delay	61.2	64.1	21.7	16.7	10.8
Queue Delay	0.0	0.0	0.1	0.0	0.3
Total Delay	61.2	64.1	21.8	16.7	11.0
Queue Length 50th (ft)	270	56	494	75	83
Queue Length 95th (ft)	366	103	811	200	419
Internal Link Dist (ft)	1022		866	416	
Turn Bay Length (ft)		150			
Base Capacity (vph)	531	206	1229	1049	1092
Starvation Cap Reductn	0	0	0	0	40
Spillback Cap Reductn	0	0	15	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.36	0.79	0.22	0.76

Intersection Summary

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	266	69	66	860	202	713
Future Volume (veh/h)	266	69	66	860	202	713
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	299	77	74	965	227	0
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	322	83	95	1242	1096	932
Arrive On Green	0.23	0.23	0.05	0.67	0.59	0.00
Sat Flow, veh/h	1373	354	1774	1863	1863	1583
Grp Volume(v), veh/h	377	0	74	965	227	0
Grp Sat Flow(s),veh/h/ln	1732	0	1774	1863	1863	1583
Q Serve(g_s), s	25.6	0.0	4.9	43.0	6.9	0.0
Cycle Q Clear(g_c), s	25.6	0.0	4.9	43.0	6.9	0.0
Prop In Lane	0.79	0.20	1.00			1.00
Lane Grp Cap(c), veh/h	407	0	95	1242	1096	932
V/C Ratio(X)	0.93	0.00	0.78	0.78	0.21	0.00
Avail Cap(c_a), veh/h	521	0	207	1242	1096	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.94	0.00
Uniform Delay (d), s/veh	44.9	0.0	56.1	13.8	11.6	0.0
Incr Delay (d2), s/veh	19.1	0.0	9.9	4.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.4	0.0	2.7	23.4	3.7	0.0
LnGrp Delay(d),s/veh	64.0	0.0	66.0	18.6	12.0	0.0
LnGrp LOS	E		E	B	B	
Approach Vol, veh/h	377			1039	227	
Approach Delay, s/veh	64.0			22.0	12.0	
Approach LOS	E			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.4	76.5				85.9		34.1
Change Period (Y+Rc), s	3.0	* 5.9				* 5.9		5.9
Max Green Setting (Gmax), s	14.0	* 55				* 73		36.1
Max Q Clear Time (g_c+I1), s	6.9	8.9				45.0		27.6
Green Ext Time (p_c), s	0.1	3.1				3.1		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

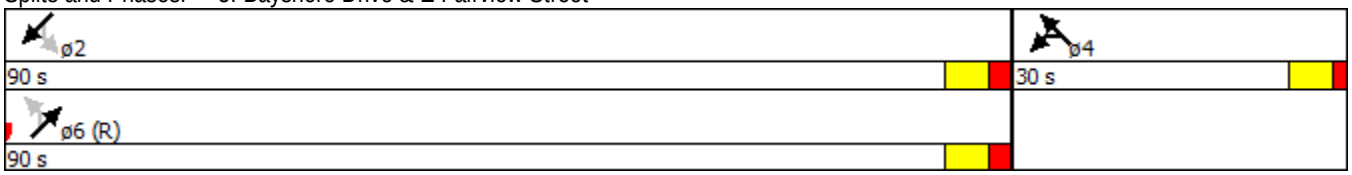
Notes

Lane Group	NWT	NEL	NET	SWT
Lane Configurations				
Traffic Volume (vph)	0	2	1026	1096
Future Volume (vph)	0	2	1026	1096
Turn Type	NA	Perm	NA	NA
Protected Phases	4		6	2
Permitted Phases		6		
Detector Phase	4	6	6	2
Switch Phase				
Minimum Initial (s)	7.0	16.0	16.0	16.0
Minimum Split (s)	24.1	24.1	24.1	24.1
Total Split (s)	30.0	90.0	90.0	90.0
Total Split (%)	25.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.4	2.1	2.1	2.1
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.4		6.1	6.1
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Min	C-Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 37 (31%), Referenced to phase 6:NETL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bayshore Drive & E Fairview Street



Lane Group	NWT	NET	SWT
Lane Group Flow (vph)	17	1129	1205
v/c Ratio	0.13	0.65	0.36
Control Delay	12.7	2.4	1.6
Queue Delay	0.0	0.1	0.0
Total Delay	12.7	2.6	1.6
Queue Length 50th (ft)	0	0	0
Queue Length 95th (ft)	16	121	141
Internal Link Dist (ft)	442	416	1367
Turn Bay Length (ft)			
Base Capacity (vph)	376	1746	3321
Starvation Cap Reductn	0	93	0
Spillback Cap Reductn	0	0	58
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.05	0.68	0.37

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	11	0	5	2	1026	1	0	1096	2
Future Volume (veh/h)	0	0	0	11	0	5	2	1026	1	0	1096	2
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				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
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h				12	0	5	2	1126	1	0	1203	2
Adj No. of Lanes				0	1	0	0	1	0	0	2	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	2	2	2	2
Cap, veh/h				31	0	13	30	1222	1	0	2384	4
Arrive On Green				0.03	0.00	0.03	0.66	0.66	0.66	0.00	1.00	1.00
Sat Flow, veh/h				1209	0	504	1	1859	2	0	3718	6
Grp Volume(v), veh/h				17	0	0	1129	0	0	0	587	618
Grp Sat Flow(s),veh/h/ln				1713	0	0	1861	0	0	0	1770	1862
Q Serve(g_s), s				1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				1.2	0.0	0.0	63.2	0.0	0.0	0.0	0.0	0.0
Prop In Lane				0.71		0.29	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				43	0	0	1254	0	0	0	1164	1224
V/C Ratio(X)				0.39	0.00	0.00	0.90	0.00	0.00	0.00	0.50	0.50
Avail Cap(c_a), veh/h				351	0	0	1331	0	0	0	1237	1302
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.49	0.00	0.00	0.00	0.73	0.73
Uniform Delay (d), s/veh				57.6	0.0	0.0	17.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				4.3	0.0	0.0	5.6	0.0	0.0	0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.0	33.9	0.0	0.0	0.0	0.1	0.1
LnGrp Delay(d),s/veh				61.8	0.0	0.0	23.5	0.0	0.0	0.0	0.2	0.2
LnGrp LOS				E			C				A	A
Approach Vol, veh/h					17			1129			1205	
Approach Delay, s/veh					61.8			23.5			0.2	
Approach LOS					E			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		85.0		8.4		85.0		
Change Period (Y+Rc), s		6.1		* 5.4		6.1		
Max Green Setting (Gmax), s		83.9		* 25		83.9		
Max Q Clear Time (g_c+I1), s		2.0		3.2		65.2		
Green Ext Time (p_c), s		30.4		0.0		13.7		

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

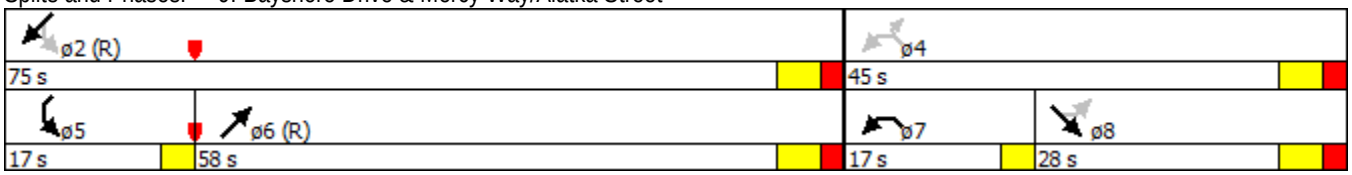
Notes

Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	21	90	66	745	151	844
Future Volume (vph)	21	90	66	745	151	844
Turn Type	NA	pm+pt	Perm	NA	pm+pt	NA
Protected Phases	8	7		6	5	2
Permitted Phases		4	4		2	
Detector Phase	8	7	4	6	5	2
Switch Phase						
Minimum Initial (s)	7.0	5.0	7.0	25.0	5.0	25.0
Minimum Split (s)	22.5	9.5	22.5	31.1	10.1	31.1
Total Split (s)	28.0	17.0	45.0	58.0	17.0	75.0
Total Split (%)	23.3%	14.2%	37.5%	48.3%	14.2%	62.5%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.3	0.0	2.3	2.1	0.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	3.0	6.3	6.1	3.0	6.1
Lead/Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	
Recall Mode	Min	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bayshore Drive & Mercy Way/Alatka Street



Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	37	96	70	971	161	897
v/c Ratio	0.31	0.30	0.22	0.88	0.60	0.67
Control Delay	58.6	41.4	10.6	29.3	18.3	9.2
Queue Delay	0.0	0.0	0.0	48.5	0.0	2.7
Total Delay	58.6	41.4	10.6	77.7	18.3	11.9
Queue Length 50th (ft)	27	63	0	617	29	170
Queue Length 95th (ft)	62	106	38	#1083	m77	425
Internal Link Dist (ft)	367			1367		363
Turn Bay Length (ft)					300	
Base Capacity (vph)	328	328	519	1109	330	1337
Starvation Cap Reductn	0	0	0	0	0	315
Spillback Cap Reductn	0	0	12	339	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.29	0.14	1.26	0.49	0.88

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.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	13	21	1	90	0	66	0	745	168	151	844	0
Future Volume (veh/h)	13	21	1	90	0	66	0	745	168	151	844	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
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		0.99	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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	0	1776	0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	14	22	1	96	0	70	0	792	179	161	897	0
Adj No. of Lanes	0	1	0	1	0	1	0	1	0	1	1	0
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	0	7	0	2	2	2	2	0
Cap, veh/h	41	0	0	181	0	0	0	985	223	527	1382	0
Arrive On Green	0.06	0.06	0.06	0.07	0.00	0.00	0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	0	0	0	1774	96		0	1467	332	1774	1863	0
Grp Volume(v), veh/h	37	0	0	96	56.0		0	0	971	161	897	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1774	E		0	0	1799	1774	1863	0
Q Serve(g_s), s	0.0	0.0	0.0	6.4			0.0	0.0	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	6.4			0.0	0.0	0.0	3.4	0.0	0.0
Prop In Lane	0.38		0.03	1.00			0.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	41	0	0	181			0	0	1208	527	1382	0
V/C Ratio(X)	0.89	0.00	0.00	0.53			0.00	0.00	0.80	0.31	0.65	0.00
Avail Cap(c_a), veh/h	232	0	0	268			0	0	1208	653	1382	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00			0.00	0.00	0.72	0.51	0.51	0.00
Uniform Delay (d), s/veh	52.9	0.0	0.0	55.1			0.0	0.0	0.0	4.5	0.0	0.0
Incr Delay (d2), s/veh	34.4	0.0	0.0	0.9			0.0	0.0	4.2	0.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.2			0.0	0.0	1.4	1.6	0.5	0.0
LnGrp Delay(d),s/veh	87.3	0.0	0.0	56.0			0.0	0.0	4.2	4.6	1.2	0.0
LnGrp LOS	F			E					A	A	A	
Approach Vol, veh/h		37						971			1058	
Approach Delay, s/veh		87.3						4.2			1.7	
Approach LOS		F						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6	7	8
Phs Duration (G+Y+Rc), s		95.2			8.5	86.7	11.1	13.7
Change Period (Y+Rc), s		6.1			3.0	6.1	3.0	* 6.3
Max Green Setting (Gmax), s		68.9			14.0	51.9	14.0	* 22
Max Q Clear Time (g_c+I1), s		2.0			5.4	2.0	8.4	2.1
Green Ext Time (p_c), s		5.9			0.1	5.9	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

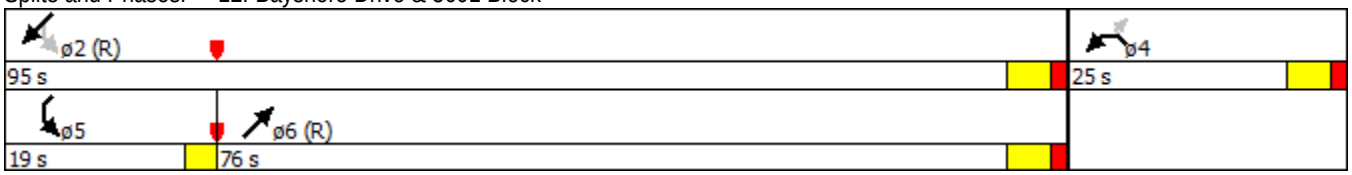
Notes

Lane Group	NWL	NWR	NET	SWL	SWT
Lane Configurations					
Traffic Volume (vph)	127	150	691	148	930
Future Volume (vph)	127	150	691	148	930
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	4		6	5	2
Permitted Phases		4		2	
Detector Phase	4	4	6	5	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	14.0	5.0	14.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.0	25.0	76.0	19.0	95.0
Total Split (%)	20.8%	20.8%	63.3%	15.8%	79.2%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.6	1.6	1.6	0.0	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	3.0	5.6
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 76 (63%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 12: Bayshore Drive & 3601 Block



Lane Group	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	160	189	1138	187	1174
v/c Ratio	0.71	0.52	0.96	0.80	0.81
Control Delay	67.6	11.7	35.5	41.8	20.1
Queue Delay	7.4	0.0	42.6	0.0	0.0
Total Delay	74.9	11.7	78.1	41.8	20.1
Queue Length 50th (ft)	120	0	917	81	769
Queue Length 95th (ft)	164	42	#1026	m122	857
Internal Link Dist (ft)	672		363		1211
Turn Bay Length (ft)				100	
Base Capacity (vph)	286	414	1185	296	1453
Starvation Cap Reductn	0	0	188	0	0
Spillback Cap Reductn	86	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.46	1.14	0.63	0.81

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.

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	127	150	691	211	148	930
Future Volume (veh/h)	127	150	691	211	148	930
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	160	189	872	266	187	1174
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	242	216	952	290	488	1435
Arrive On Green	0.14	0.14	1.00	1.00	0.10	1.00
Sat Flow, veh/h	1774	1583	1366	417	1774	1863
Grp Volume(v), veh/h	160	189	0	1138	187	1174
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1782	1774	1863
Q Serve(g_s), s	10.3	14.0	0.0	0.0	3.6	0.0
Cycle Q Clear(g_c), s	10.3	14.0	0.0	0.0	3.6	0.0
Prop In Lane	1.00	1.00		0.23	1.00	
Lane Grp Cap(c), veh/h	242	216	0	1243	488	1435
V/C Ratio(X)	0.66	0.88	0.00	0.92	0.38	0.82
Avail Cap(c_a), veh/h	287	256	0	1243	639	1435
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	0.45	0.50	0.50
Uniform Delay (d), s/veh	49.2	50.8	0.0	0.0	3.7	0.0
Incr Delay (d2), s/veh	3.7	23.3	0.0	6.0	0.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.1	0.0	2.1	1.7	1.1
LnGrp Delay(d),s/veh	52.9	74.1	0.0	6.0	3.7	2.7
LnGrp LOS	D	E		A	A	A
Approach Vol, veh/h	349		1138			1361
Approach Delay, s/veh	64.4		6.0			2.8
Approach LOS	E		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		98.0		22.0	8.8	89.3		
Change Period (Y+Rc), s		* 5.6		* 5.6	3.0	* 5.6		
Max Green Setting (Gmax), s		* 89		* 19	16.0	* 70		
Max Q Clear Time (g_c+I1), s		2.0		16.0	5.6	2.0		
Green Ext Time (p_c), s		10.0		0.3	0.2	10.0		

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

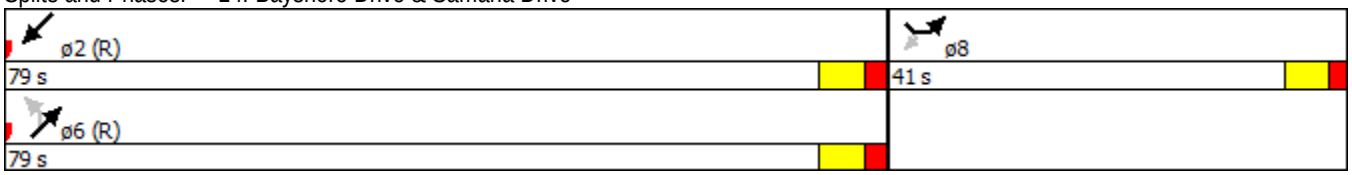
Notes

Lane Group	SEL	SER	NEL	NET	SWT
Lane Configurations					
Traffic Volume (vph)	87	13	7	900	1136
Future Volume (vph)	87	13	7	900	1136
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	8			6	2
Permitted Phases		8	6		
Detector Phase	8	8	6	6	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	24.3	24.3	24.3
Total Split (s)	41.0	41.0	79.0	79.0	79.0
Total Split (%)	34.2%	34.2%	65.8%	65.8%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	6.3	6.3	6.3
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 10 (8%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 14: Bayshore Drive & Samana Drive



Lane Group	SEL	SER	NEL	NET	SWT
Lane Group Flow (vph)	92	14	7	947	1215
v/c Ratio	0.56	0.09	0.03	0.63	0.81
Control Delay	64.3	22.2	0.7	4.9	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	22.2	0.7	4.9	10.5
Queue Length 50th (ft)	69	0	0	162	828
Queue Length 95th (ft)	120	20	m0	m66	258
Internal Link Dist (ft)	379			1211	1004
Turn Bay Length (ft)			150		
Base Capacity (vph)	520	475	209	1502	1499
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.03	0.03	0.63	0.81

Intersection Summary

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

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	87	13	7	900	1136	19
Future Volume (veh/h)	87	13	7	900	1136	19
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	92	14	7	947	1195	20
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	119	107	441	1551	1521	25
Arrive On Green	0.07	0.07	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1774	1583	458	1863	1827	31
Grp Volume(v), veh/h	92	14	7	947	0	1215
Grp Sat Flow(s),veh/h/ln	1774	1583	458	1863	0	1857
Q Serve(g_s), s	6.1	1.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	1.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.02
Lane Grp Cap(c), veh/h	119	107	441	1551	0	1547
V/C Ratio(X)	0.77	0.13	0.02	0.61	0.00	0.79
Avail Cap(c_a), veh/h	522	466	441	1551	0	1547
HCM Platoon Ratio	1.00	1.00	1.33	1.33	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.32	0.32	0.00	0.62
Uniform Delay (d), s/veh	55.1	52.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.4	0.0	0.6	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.4	0.0	0.2	0.0	1.1
LnGrp Delay(d),s/veh	62.6	53.1	0.0	0.6	0.0	2.6
LnGrp LOS	E	D	A	A		A
Approach Vol, veh/h	106			954	1215	
Approach Delay, s/veh	61.4			0.6	2.6	
Approach LOS	E			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		106.2				106.2		13.8
Change Period (Y+Rc), s		* 6.3				* 6.3		5.7
Max Green Setting (Gmax), s		* 73				* 73		35.3
Max Q Clear Time (g_c+I1), s		2.0				2.0		8.1
Green Ext Time (p_c), s		33.4				33.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	4.5
HCM 2010 LOS	A

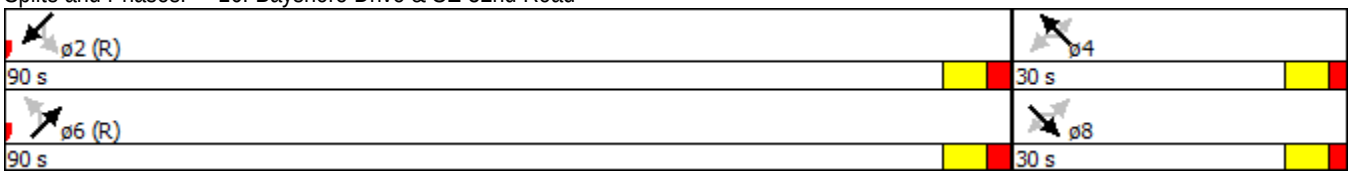
Notes

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	1	4	8	13	0	8	3	939	11	1120
Future Volume (vph)	1	4	8	13	0	8	3	939	11	1120
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		8			4			6		2
Permitted Phases	8		8	4		4	6		2	
Detector Phase	8	8	8	4	4	4	6	6	2	2
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	23.7	23.7	23.7	23.7	24.3	24.3	24.3	24.3
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	5.7		5.7	5.7	6.3	6.3	6.3	6.3
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 16: Bayshore Drive & SE 32nd Road



Lane Group	SET	SER	NWT	NWR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	5	9	14	9	3	1034	12	1219
v/c Ratio	0.05	0.07	0.14	0.08	0.01	0.62	0.03	0.73
Control Delay	53.8	1.2	56.5	1.2	1.3	3.2	1.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	1.2	56.5	1.2	1.3	3.2	1.8	6.7
Queue Length 50th (ft)	4	0	11	0	0	338	1	319
Queue Length 95th (ft)	17	2	32	2	m0	66	4	535
Internal Link Dist (ft)	447		325			1004		758
Turn Bay Length (ft)					150		150	
Base Capacity (vph)	345	334	330	320	298	1677	415	1681
Starvation Cap Reductn	0	0	0	0	0	1	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.03	0.04	0.03	0.01	0.62	0.03	0.73

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	1	4	8	13	0	8	3	939	13	11	1120	3
Future Volume (veh/h)	1	4	8	13	0	8	3	939	13	11	1120	3
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.91		0.90	0.91		0.90	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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	1	4	9	14	0	9	3	1020	14	12	1216	3
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	120	105	149	0	105	287	1516	21	509	1536	4
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	1.00	1.00	1.00	0.83	0.83	0.83
Sat Flow, veh/h	147	1649	1432	1223	0	1432	456	1833	25	543	1857	5
Grp Volume(v), veh/h	5	0	9	14	0	9	3	0	1034	12	0	1219
Grp Sat Flow(s),veh/h/ln	1796	0	1432	1223	0	1432	456	0	1858	543	0	1862
Q Serve(g_s), s	0.0	0.0	0.7	1.2	0.0	0.7	0.3	0.0	0.0	0.5	0.0	39.4
Cycle Q Clear(g_c), s	0.3	0.0	0.7	1.5	0.0	0.7	39.7	0.0	0.0	0.5	0.0	39.4
Prop In Lane	0.20		1.00	1.00		1.00	1.00		0.01	1.00		0.00
Lane Grp Cap(c), veh/h	167	0	105	149	0	105	287	0	1537	509	0	1540
V/C Ratio(X)	0.03	0.00	0.09	0.09	0.00	0.09	0.01	0.00	0.67	0.02	0.00	0.79
Avail Cap(c_a), veh/h	388	0	290	313	0	290	287	0	1537	509	0	1540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.74	0.00	0.74	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	0.0	51.9	52.4	0.0	51.9	7.9	0.0	0.0	1.8	0.0	5.2
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.2	0.0	0.3	0.0	0.0	1.8	0.1	0.0	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	0.2	0.0	0.3	0.4	0.0	0.3	0.0	0.0	0.8	0.1	0.0	21.5
LnGrp Delay(d),s/veh	51.7	0.0	52.1	52.6	0.0	52.1	7.9	0.0	1.8	1.9	0.0	9.5
LnGrp LOS	D		D	D		D	A		A	A		A
Approach Vol, veh/h		14			23			1037			1231	
Approach Delay, s/veh		52.0			52.4			1.8			9.4	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		105.5		14.5		105.5		14.5
Change Period (Y+Rc), s		* 6.3		* 5.7		* 6.3		* 5.7
Max Green Setting (Gmax), s		* 84		* 24		* 84		* 24
Max Q Clear Time (g_c+I1), s		41.4		3.5		41.7		2.7
Green Ext Time (p_c), s		26.3		0.1		26.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

Notes

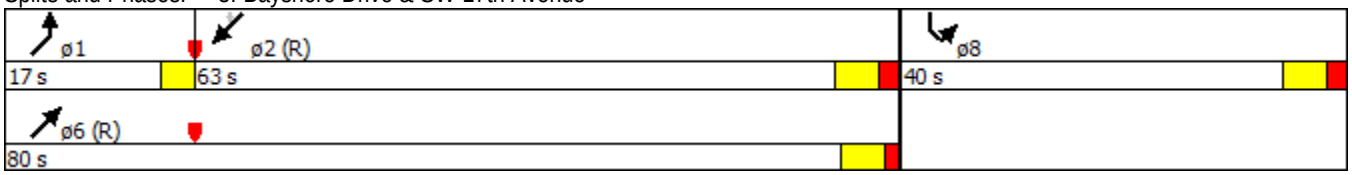
APPENDIX B4: ROAD DIET CONDITIONS (PM)

Lane Group	SBL	NEL	NET	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	161	104	838	1024	606
Future Volume (vph)	161	104	838	1024	606
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	8	1	6	2	
Permitted Phases					2
Detector Phase	8	1	6	2	2
Switch Phase					
Minimum Initial (s)	7.0	5.0	12.0	12.0	12.0
Minimum Split (s)	23.9	9.5	22.5	22.5	22.5
Total Split (s)	40.0	17.0	80.0	63.0	63.0
Total Split (%)	33.3%	14.2%	66.7%	52.5%	52.5%
Yellow Time (s)	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.9	0.0	1.4	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	3.0	5.4	5.9	5.9
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 33 (28%), Referenced to phase 2:SWT and 6:NET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Bayshore Drive & SW 17th Avenue



Lane Group	SBL	NEL	NET	SWT	SWR
Lane Group Flow (vph)	247	109	882	1077	638
v/c Ratio	0.78	0.61	0.65	0.96	0.63
Control Delay	60.1	65.3	12.1	43.5	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	60.1	65.3	12.1	43.5	11.3
Queue Length 50th (ft)	171	82	306	667	104
Queue Length 95th (ft)	246	137	549	#1250	215
Internal Link Dist (ft)	1022		917	416	
Turn Bay Length (ft)		150			
Base Capacity (vph)	503	215	1362	1118	1008
Starvation Cap Reductn	0	0	0	0	52
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.49	0.51	0.65	0.96	0.67

Intersection Summary

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

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	161	74	104	838	1024	606
Future Volume (veh/h)	161	74	104	838	1024	606
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	169	78	109	882	1077	0
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	189	87	134	1375	1187	1009
Arrive On Green	0.16	0.16	0.08	0.74	0.64	0.00
Sat Flow, veh/h	1158	534	1774	1863	1863	1583
Grp Volume(v), veh/h	248	0	109	882	1077	0
Grp Sat Flow(s),veh/h/ln	1699	0	1774	1863	1863	1583
Q Serve(g_s), s	17.2	0.0	7.3	28.3	59.6	0.0
Cycle Q Clear(g_c), s	17.2	0.0	7.3	28.3	59.6	0.0
Prop In Lane	0.68	0.31	1.00			1.00
Lane Grp Cap(c), veh/h	278	0	134	1375	1187	1009
V/C Ratio(X)	0.89	0.00	0.81	0.64	0.91	0.00
Avail Cap(c_a), veh/h	483	0	207	1375	1187	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.00
Uniform Delay (d), s/veh	49.2	0.0	54.6	7.8	18.7	0.0
Incr Delay (d2), s/veh	8.4	0.0	10.5	2.3	10.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	4.0	15.1	33.6	0.0
LnGrp Delay(d),s/veh	57.5	0.0	65.2	10.1	28.8	0.0
LnGrp LOS	E		E	B	C	
Approach Vol, veh/h	248			991	1077	
Approach Delay, s/veh	57.5			16.2	28.8	
Approach LOS	E			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.1	82.4				94.5		25.5
Change Period (Y+Rc), s	3.0	* 5.9				* 5.9		5.9
Max Green Setting (Gmax), s	14.0	* 57				* 75		34.1
Max Q Clear Time (g_c+I1), s	9.3	61.6				30.3		19.2
Green Ext Time (p_c), s	0.1	0.0				6.3		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

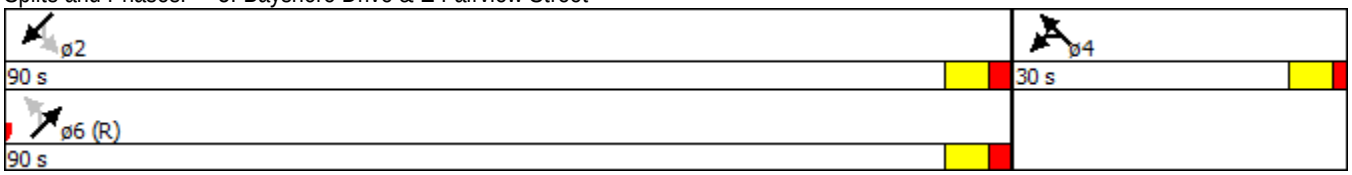
Notes

Lane Group	NWT	NEL	NET	SWL	SWT
Lane Configurations					
Traffic Volume (vph)	7	1	938	4	1514
Future Volume (vph)	7	1	938	4	1514
Turn Type	NA	Perm	NA	Perm	NA
Protected Phases	4		6		2
Permitted Phases		6		2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	7.0	16.0	16.0	16.0	16.0
Minimum Split (s)	24.1	24.1	24.1	24.1	24.1
Total Split (s)	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.4	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0		0.0		0.0
Total Lost Time (s)	5.4		6.1		6.1
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 46 (38%), Referenced to phase 6:NETL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bayshore Drive & E Fairview Street



Lane Group	NWT	NET	SWT
Lane Group Flow (vph)	12	1001	1614
v/c Ratio	0.11	0.57	0.51
Control Delay	45.5	1.9	1.9
Queue Delay	0.0	0.0	0.1
Total Delay	45.5	1.9	2.0
Queue Length 50th (ft)	6	0	0
Queue Length 95th (ft)	27	93	m165
Internal Link Dist (ft)	442	416	1367
Turn Bay Length (ft)			
Base Capacity (vph)	366	1746	3164
Starvation Cap Reductn	0	19	0
Spillback Cap Reductn	0	0	453
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.03	0.58	0.60

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	7	4	1	938	3	4	1514	0
Future Volume (veh/h)	0	0	0	1	7	4	1	938	3	4	1514	0
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h				1	7	4	1	997	3	4	1610	0
Adj No. of Lanes				0	1	0	0	1	0	0	2	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	2	2	2	2
Cap, veh/h				3	20	11	30	1162	3	31	2173	0
Arrive On Green				0.02	0.02	0.02	0.63	0.63	0.63	1.00	1.00	0.00
Sat Flow, veh/h				146	1022	584	0	1855	6	2	3552	0
Grp Volume(v), veh/h				12	0	0	1001	0	0	865	749	0
Grp Sat Flow(s),veh/h/ln				1752	0	0	1861	0	0	1858	1610	0
Q Serve(g_s), s				0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.8	0.0	0.0	52.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane				0.08		0.33	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				34	0	0	1196	0	0	1195	1009	0
V/C Ratio(X)				0.36	0.00	0.00	0.84	0.00	0.00	0.72	0.74	0.00
Avail Cap(c_a), veh/h				359	0	0	1330	0	0	1328	1126	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.68	0.00	0.00	0.12	0.12	0.00
Uniform Delay (d), s/veh				58.1	0.0	0.0	18.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				4.7	0.0	0.0	4.9	0.0	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.0	28.1	0.0	0.0	0.1	0.1	0.0
LnGrp Delay(d),s/veh				62.8	0.0	0.0	23.0	0.0	0.0	0.2	0.3	0.0
LnGrp LOS				E			C			A	A	
Approach Vol, veh/h					12			1001			1614	
Approach Delay, s/veh					62.8			23.0			0.2	
Approach LOS					E			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		81.3		7.7		81.3		
Change Period (Y+Rc), s		6.1		* 5.4		6.1		
Max Green Setting (Gmax), s		83.9		* 25		83.9		
Max Q Clear Time (g_c+I1), s		2.0		2.8		54.1		
Green Ext Time (p_c), s		37.1		0.0		21.1		

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

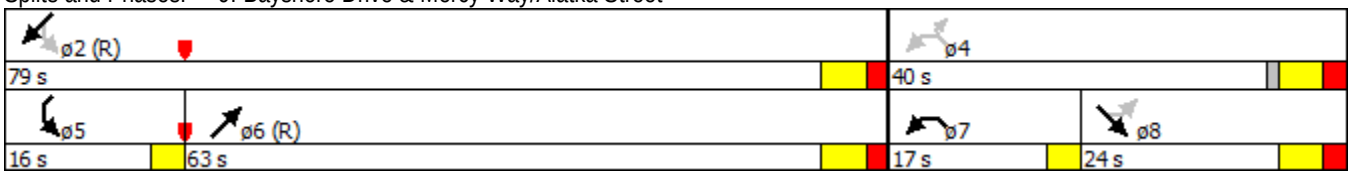
Notes

Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	1	268	170	730	60	1243
Future Volume (vph)	1	268	170	730	60	1243
Turn Type	NA	pm+pt	Perm	NA	pm+pt	NA
Protected Phases	8	7		6	5	2
Permitted Phases		4	4		2	
Detector Phase	8	7	4	6	5	2
Switch Phase						
Minimum Initial (s)	7.0	5.0	7.0	25.0	5.0	25.0
Minimum Split (s)	22.5	9.5	22.5	31.1	10.1	31.1
Total Split (s)	24.0	17.0	40.0	63.0	16.0	79.0
Total Split (%)	20.0%	14.2%	33.3%	52.5%	13.3%	65.8%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.3	0.0	2.3	2.1	0.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	3.0	6.3	6.1	3.0	6.1
Lead/Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	
Recall Mode	Min	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bayshore Drive & Mercy Way/Alatka Street



Lane Group	SET	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	4	288	183	852	64	1336
v/c Ratio	0.04	0.79	0.41	0.73	0.20	1.03
Control Delay	49.2	60.1	8.7	14.1	6.0	35.3
Queue Delay	0.0	0.0	0.1	11.5	0.0	27.9
Total Delay	49.2	60.1	8.8	25.6	6.0	63.2
Queue Length 50th (ft)	2	207	0	290	15	~1103
Queue Length 95th (ft)	14	#347	61	245	m15	m513
Internal Link Dist (ft)	367			1367		363
Turn Bay Length (ft)					300	
Base Capacity (vph)	259	363	568	1171	403	1297
Starvation Cap Reductn	0	0	0	0	0	248
Spillback Cap Reductn	0	0	30	302	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.79	0.34	0.98	0.16	1.27

Intersection Summary

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

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

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	2	1	1	268	0	170	0	730	63	60	1243	0
Future Volume (veh/h)	2	1	1	268	0	170	0	730	63	60	1243	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
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		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	0	1827	0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	2	1	1	288	0	183	0	784	68	64	1336	0
Adj No. of Lanes	0	1	0	1	0	1	0	1	0	1	1	0
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	0	4	0	2	2	2	2	0
Cap, veh/h	45	0	0	268	0	0	0	1070	93	532	1295	0
Arrive On Green	0.06	0.06	0.06	0.12	0.00	0.00	0.00	1.00	1.00	0.05	0.92	0.00
Sat Flow, veh/h	0	0	0	1774	288		0	1688	146	1774	1863	0
Grp Volume(v), veh/h	4	0	0	288	130.1		0	0	852	64	1336	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1774	F		0	0	1835	1774	1863	0
Q Serve(g_s), s	0.0	0.0	0.0	14.0			0.0	0.0	0.0	1.4	83.4	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	14.0			0.0	0.0	0.0	1.4	83.4	0.0
Prop In Lane	0.50		0.25	1.00			0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	45	0	0	268			0	0	1163	532	1295	0
V/C Ratio(X)	0.09	0.00	0.00	1.07			0.00	0.00	0.73	0.12	1.03	0.00
Avail Cap(c_a), veh/h	169	0	0	268			0	0	1163	659	1295	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	2.00	2.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00			0.00	0.00	0.80	0.09	0.09	0.00
Uniform Delay (d), s/veh	53.2	0.0	0.0	54.5			0.0	0.0	0.0	6.0	4.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	75.6			0.0	0.0	3.3	0.0	17.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	14.4			0.0	0.0	1.1	0.7	43.2	0.0
LnGrp Delay(d),s/veh	53.8	0.0	0.0	130.1			0.0	0.0	3.3	6.0	22.0	0.0
LnGrp LOS	D			F					A	A	F	
Approach Vol, veh/h		4						852			1400	
Approach Delay, s/veh		53.8						3.3			21.2	
Approach LOS		D						A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6	7	8
Phs Duration (G+Y+Rc), s		89.5			7.4	82.1	17.0	13.5
Change Period (Y+Rc), s		6.1			3.0	6.1	3.0	* 6.3
Max Green Setting (Gmax), s		72.9			13.0	56.9	14.0	* 18
Max Q Clear Time (g_c+I1), s		85.4			3.4	2.0	16.0	2.1
Green Ext Time (p_c), s		0.0			0.0	9.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

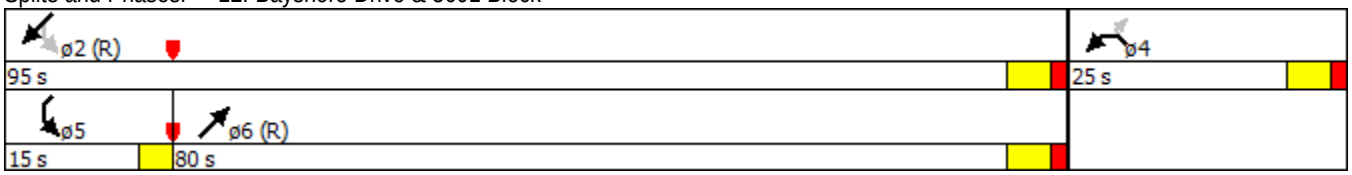
Notes

Lane Group	NWL	NWR	NET	SWL	SWT
Lane Configurations					
Traffic Volume (vph)	90	61	900	21	1295
Future Volume (vph)	90	61	900	21	1295
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	4		6	5	2
Permitted Phases		4		2	
Detector Phase	4	4	6	5	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	14.0	5.0	14.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	25.0	25.0	80.0	15.0	95.0
Total Split (%)	20.8%	20.8%	66.7%	12.5%	79.2%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.6	1.6	1.6	0.0	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	3.0	5.6
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 51 (43%), Referenced to phase 2:SWTL and 6:NET, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 12: Bayshore Drive & 3601 Block



Lane Group	NWL	NWR	NET	SWL	SWT
Lane Group Flow (vph)	114	77	1173	27	1635
v/c Ratio	0.62	0.33	0.83	0.12	1.09
Control Delay	65.2	14.1	19.2	3.5	67.9
Queue Delay	95.7	0.0	3.1	0.0	2.8
Total Delay	161.0	14.1	22.3	3.5	70.7
Queue Length 50th (ft)	86	0	914	3	~1428
Queue Length 95th (ft)	124	33	892	m6	#1434
Internal Link Dist (ft)	672		363		1211
Turn Bay Length (ft)				100	
Base Capacity (vph)	286	320	1411	325	1494
Starvation Cap Reductn	0	0	150	0	0
Spillback Cap Reductn	233	0	0	0	186
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.15	0.24	0.93	0.08	1.25

Intersection Summary

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

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

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

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	90	61	900	29	21	1295
Future Volume (veh/h)	90	61	900	29	21	1295
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	114	77	1136	37	27	1635
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	145	130	1390	45	472	1536
Arrive On Green	0.08	0.08	1.00	1.00	0.03	1.00
Sat Flow, veh/h	1774	1583	1793	58	1774	1863
Grp Volume(v), veh/h	114	77	0	1173	27	1635
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1852	1774	1863
Q Serve(g_s), s	7.6	5.6	0.0	0.0	0.3	0.0
Cycle Q Clear(g_c), s	7.6	5.6	0.0	0.0	0.3	0.0
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	145	130	0	1435	472	1536
V/C Ratio(X)	0.78	0.59	0.00	0.82	0.06	1.06
Avail Cap(c_a), veh/h	287	256	0	1435	606	1536
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	0.69	0.34	0.34
Uniform Delay (d), s/veh	54.1	53.2	0.0	0.0	2.1	0.0
Incr Delay (d2), s/veh	6.8	3.2	0.0	3.7	0.0	34.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.0	0.0	1.5	0.2	14.7
LnGrp Delay(d),s/veh	60.8	56.4	0.0	3.7	2.1	34.4
LnGrp LOS	E	E		A	A	F
Approach Vol, veh/h	191		1173			1662
Approach Delay, s/veh	59.0		3.7			33.9
Approach LOS	E		A			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		104.6		15.4	6.0	98.6		
Change Period (Y+Rc), s		* 5.6		* 5.6	3.0	* 5.6		
Max Green Setting (Gmax), s		* 89		* 19	12.0	* 74		
Max Q Clear Time (g_c+I1), s		2.0		9.6	2.3	2.0		
Green Ext Time (p_c), s		22.6		0.3	0.0	22.0		

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

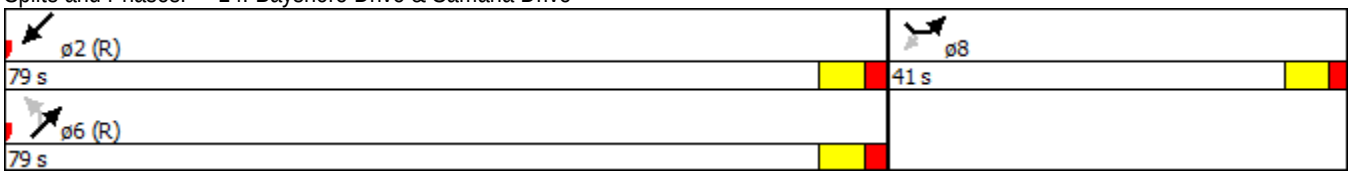
Notes

Lane Group	SEL	SER	NEL	NET	SWT
Lane Configurations					
Traffic Volume (vph)	27	3	6	963	1325
Future Volume (vph)	27	3	6	963	1325
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	8			6	2
Permitted Phases		8	6		
Detector Phase	8	8	6	6	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	24.3	24.3	24.3
Total Split (s)	41.0	41.0	79.0	79.0	79.0
Total Split (%)	34.2%	34.2%	65.8%	65.8%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	6.3	6.3	6.3
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 111 (93%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 14: Bayshore Drive & Samana Drive



Lane Group	SEL	SER	NEL	NET	SWT
Lane Group Flow (vph)	28	3	6	1013	1478
v/c Ratio	0.25	0.03	0.06	0.60	0.89
Control Delay	58.7	34.3	2.3	7.1	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	34.3	2.3	7.1	11.4
Queue Length 50th (ft)	21	0	1	698	506
Queue Length 95th (ft)	52	10	m1	666	#1415
Internal Link Dist (ft)	379			1211	1004
Turn Bay Length (ft)			150		
Base Capacity (vph)	520	457	101	1676	1663
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	13	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.06	0.61	0.89

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.

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	27	3	6	963	1325	80
Future Volume (veh/h)	27	3	6	963	1325	80
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	28	3	6	1013	1394	84
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	67	59	107	1606	1500	90
Arrive On Green	0.04	0.04	0.86	0.86	0.58	0.58
Sat Flow, veh/h	1774	1583	356	1863	1739	105
Grp Volume(v), veh/h	28	3	6	1013	0	1478
Grp Sat Flow(s),veh/h/ln	1774	1583	356	1863	0	1844
Q Serve(g_s), s	1.9	0.2	1.8	19.7	0.0	87.7
Cycle Q Clear(g_c), s	1.9	0.2	89.5	19.7	0.0	87.7
Prop In Lane	1.00	1.00	1.00			0.06
Lane Grp Cap(c), veh/h	67	59	107	1606	0	1591
V/C Ratio(X)	0.42	0.05	0.06	0.63	0.00	0.93
Avail Cap(c_a), veh/h	522	466	107	1606	0	1591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	1.00	0.50	0.50	0.00	0.38
Uniform Delay (d), s/veh	56.5	55.7	46.0	2.5	0.0	22.0
Incr Delay (d2), s/veh	3.1	0.3	0.5	0.9	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	0.2	10.3	0.0	46.8
LnGrp Delay(d),s/veh	59.6	55.9	46.5	3.4	0.0	26.9
LnGrp LOS	E	E	D	A		C
Approach Vol, veh/h	31			1019	1478	
Approach Delay, s/veh	59.2			3.7	26.9	
Approach LOS	E			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		109.8				109.8		10.2
Change Period (Y+Rc), s		* 6.3				* 6.3		5.7
Max Green Setting (Gmax), s		* 73				* 73		35.3
Max Q Clear Time (g_c+I1), s		89.7				91.5		3.9
Green Ext Time (p_c), s		0.0				0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

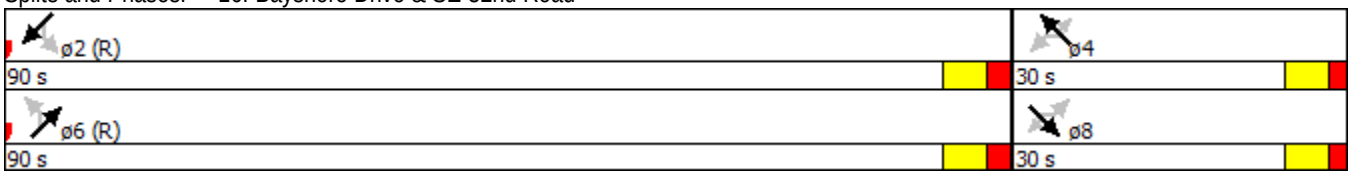
Notes

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	3	5	8	11	1	24	2	991	24	1342
Future Volume (vph)	3	5	8	11	1	24	2	991	24	1342
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		8			4			6		2
Permitted Phases	8		8	4		4	6		2	
Detector Phase	8	8	8	4	4	4	6	6	2	2
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.7	23.7	23.7	23.7	23.7	23.7	24.3	24.3	24.3	24.3
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	5.7		5.7	5.7	6.3	6.3	6.3	6.3
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 16: Bayshore Drive & SE 32nd Road



Lane Group	SET	SER	NWT	NWR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	8	9	13	26	2	1093	26	1467
v/c Ratio	0.09	0.07	0.14	0.23	0.02	0.65	0.07	0.87
Control Delay	55.3	1.2	56.7	21.0	0.5	3.1	2.0	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	1.2	56.7	21.0	0.5	3.1	2.0	13.7
Queue Length 50th (ft)	6	0	10	0	0	30	3	627
Queue Length 95th (ft)	23	2	31	26	m0	34	7	#1380
Internal Link Dist (ft)	447		325			1004		471
Turn Bay Length (ft)					150		150	
Base Capacity (vph)	320	335	326	317	117	1679	378	1681
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.04	0.08	0.02	0.65	0.07	0.87

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.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	5	8	11	1	24	2	991	16	24	1342	9
Future Volume (veh/h)	3	5	8	11	1	24	2	991	16	24	1342	9
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.91		0.90	0.91		0.90	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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	5	9	12	1	26	2	1076	17	26	1457	10
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	102	116	150	10	116	112	1497	24	480	1513	10
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	1.00	1.00	1.00	0.82	0.82	0.82
Sat Flow, veh/h	409	1256	1427	1136	127	1427	360	1829	29	513	1848	13
Grp Volume(v), veh/h	8	0	9	13	0	26	2	0	1093	26	0	1467
Grp Sat Flow(s),veh/h/ln	1665	0	1427	1263	0	1427	360	0	1857	513	0	1860
Q Serve(g_s), s	0.0	0.0	0.7	0.9	0.0	2.0	0.6	0.0	0.0	1.2	0.0	81.0
Cycle Q Clear(g_c), s	0.5	0.0	0.7	1.4	0.0	2.0	81.6	0.0	0.0	1.2	0.0	81.0
Prop In Lane	0.37		1.00	0.92		1.00	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	176	0	116	160	0	116	112	0	1521	480	0	1524
V/C Ratio(X)	0.05	0.00	0.08	0.08	0.00	0.22	0.02	0.00	0.72	0.05	0.00	0.96
Avail Cap(c_a), veh/h	368	0	289	317	0	289	112	0	1521	480	0	1524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.77	0.00	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.9	0.0	51.0	51.3	0.0	51.6	33.6	0.0	0.0	2.1	0.0	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2	0.0	0.7	0.2	0.0	2.3	0.2	0.0	15.8
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	0.2	0.0	0.3	0.4	0.0	0.8	0.1	0.0	1.0	0.2	0.0	47.0
LnGrp Delay(d),s/veh	51.0	0.0	51.2	51.5	0.0	52.3	33.9	0.0	2.3	2.3	0.0	25.1
LnGrp LOS	D		D	D		D	C		A	A		C
Approach Vol, veh/h		17			39			1095			1493	
Approach Delay, s/veh		51.1			52.1			2.4			24.7	
Approach LOS		D			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		104.6		15.4		104.6		15.4
Change Period (Y+Rc), s		* 6.3		* 5.7		* 6.3		* 5.7
Max Green Setting (Gmax), s		* 84		* 24		* 84		* 24
Max Q Clear Time (g_c+I1), s		83.0		4.0		83.6		2.7
Green Ext Time (p_c), s		0.7		0.1		0.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes