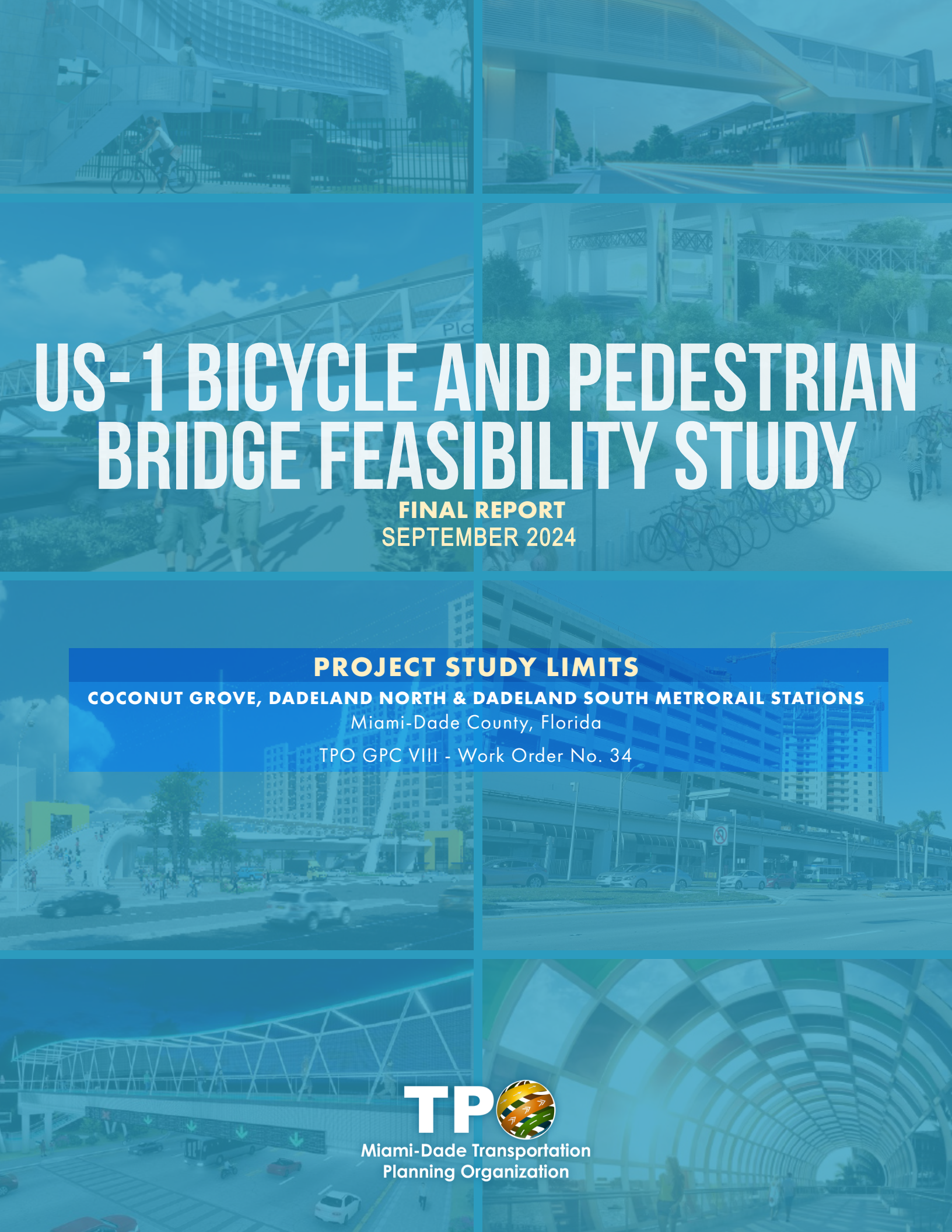

US-1 BICYCLE AND PEDESTRIAN BRIDGE FEASIBILITY STUDY

FINAL REPORT

SEPTEMBER 2024

PROJECT STUDY LIMITS

COCONUT GROVE, DADELAND NORTH & DADELAND SOUTH METRORAIL STATIONS

Miami-Dade County, Florida

TPO GPC VIII - Work Order No. 34

TPO
Miami-Dade Transportation Planning Organization

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1.0 INTRODUCTION

On March 3, 2022, the Miami-Dade Transportation Planning Organization (TPO) Governing Board adopted resolution #08-2022 authorizing the TPO Executive Director to conduct a feasibility study for the implementation of bicycle and pedestrian bridges across US-1 at the Coconut Grove, Dadeland North, and Dadeland South Metrorail stations as depicted in Figure 1-1.

The US-1 corridor is a high-volume multi-modal thoroughfare featuring an established rapid transit guideway, a shared multi-use path, and a heavily traveled six-lane arterial road prone to substantial vehicular congestion. The heavy traffic congestion makes it very difficult and unsafe for pedestrians to cross the six-lane, heavy-traveled corridor. Bicycle/pedestrian bridges are designed to separate pedestrians and bicyclists from vehicular traffic, thus allowing for safe, uninterrupted pedestrian and bicycle flow. The proposed placement of bicycle/pedestrian bridges at the Coconut Grove, Dadeland North, and Dadeland South Metrorail stations located along the US-1 corridor will seek to provide pedestrians and bicyclists with safer mobility options. It will promote transit use by providing greater pedestrian/bicyclist accessibility to the Metrorail system, which is more critical with the current and future development of high-density mixed-use projects along the US-1 corridor. Three bicycle/pedestrian bridges currently exist over US-1 at the Vizcaya, DouglasRoad, and University Metrorail stations. There have also been previous studies on the concept of a bridge by the South Miami Metrorail station. This study will provide the necessary information to determine the feasibility of implementing bicycle/pedestrian bridges at the identified locations.

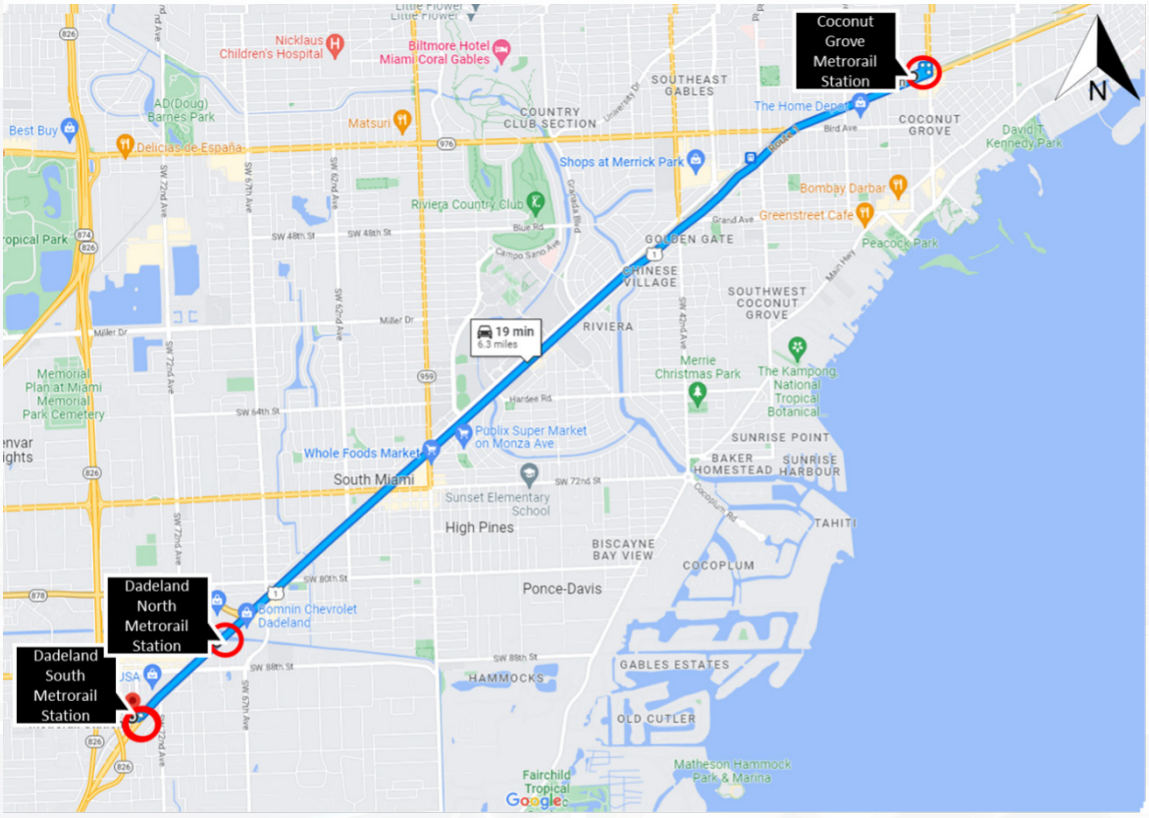


Figure 1-1: Project Location Map

2.0 METHODOLOGY

The methodology used for this feasibility study is based on a planning analysis of the study area, providing pedestrians and bicyclists with safer mobility alternatives to at-grade roadway crossings, discussing state-of-the-art mobility methods, and above all, consistent communication at various levels in the community to ensure consensus. The ending result will create a system of bridges that connect bicyclists and pedestrians across US-1 for the interaction of pedestrian and vehicular traffic.

This study analyzed the existing conditions at three (3) Metrorail Stations and intersections crossings over US-1 in order to improve bicycle and pedestrian safety by providing countermeasures and improving conflict points. Pedestrians and bicyclists are defined as Vulnerable Road Users by Florida Statute 316.027 due to Station lack of protection in the event of a crash. Our goal is in line with the Miami Dade Vision Zero Framework to provide ZERO traffic fatalities by 2040. Refer to ***Figure 2-1: FDOT Graphic***.

Reasons to review installation of a pedestrian bridge at the Metrorail Station locations:

- Heavy pedestrian and bicycle traffic along the existing crosswalks between Metrorail Stations and the other side of US-1.
- Poor bicycle and pedestrian safety at the three (3) locations.
- To improve safety and serious bodily injuries.

As part of this feasibility study, both short-term (at-grade improvements) and long-term (pedestrian bridges) improvements were proposed. These alternatives will provide guidance in planning, designing, and constructing safer infrastructure at and over US-1.

Figure 2-1: FDOT Graphic

3.0 TECHNICAL MEMORANDUM NO. 1

LITERATURE REVIEW

Miami-Dade Transportation
Planning Organization

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
1A. Dangerous By Design Pedestrian Fatalities Maps (2021)	Overview/Purpose	This report aims to draw attention to the high number of pedestrian fatalities and injuries in the United States and advocate for policy changes prioritizing pedestrian safety.
	General Findings	1. Between 2010 and 2019, 53,435 people were struck while walking throughout the United States with approximately 14 pedestrians daily. 2. The number of people struck and killed yearly has grown by forty-five (45) percent between 2010 and 2019. 3. Dangerous by design has produced this report for over a decade, and the problem has only worsened. 4. Several groups of people are at higher risk of dying while walking, including older adults, Black or African American, American Indian or Alaska Native People, and people walking in low-income communities. 5. COVID-19 pandemic impacted daily travel in the early stages of the lockdown in 2020 because it was reported that fewer cars were transiting. As a consequence, drivers tended to speed more often. 6. Nine (9) out of the twenty (20) most dangerous Metropolitan Statistical Areas (MSAs) are in Florida. Forty-nine (49) out of fifty (50) states have become more unsafe for people to walk since the last edition of Dangerous by Design.
	Issues	1. Policymakers have focused more on moving cars at high speeds than safety. 2. There are more people driving trucks and SUVs 3. There are better data on the street conditions where fatalities occur and the demographics of the victims. 4. The disability data reported by the Fatality Analysis Reporting System (FARS) is incomplete since standards for better race and ethnicity data during crashes are needed. 5. Slip lanes increase the distance required to cross a street, putting people walking into spots with the worst visibility for drivers. 6. The most dangerous states for pedestrians in the United States (in the same order) are Florida, Alabama, New Mexico, Mississippi, Delaware, Louisiana, Arizona, South Carolina, Georgia, and Texas.
	Recommendations	1. Designing streets for slower speeds to improve safety and reduce deaths 2. Eliminating right turn "slip" lanes in favor of right lane turns produces safer and slower turns, and shortens crossing distance for pedestrians. 3. Revising motor vehicle safety standards to protect pedestrians better as recommended by the National Transportation Safety Administration (NTSA) in 2018. 4. Setting performance targets to reduce the number of pedestrians killed while funding projects to make it happen. 5. Providing engineers with the most up-to-date training and education on implementing Complete Streets, while updating policies to support Complete Streets in every State.
1B. Dangerous By Design Pedestrian Fatalities Maps (2022)	Overview/Purpose	This report aims to follow up with several recommendations on previous editions that require remodeling or changing the approach to address bicycle and pedestrian safety to avoid future crashes, and reduce the number of pedestrians struck or killed in crashes.
	General Findings	1. More than 6,500 people, or nearly 18 per day, were struck or killed while walking in 2020, a 4.7 percent increase over 2019. 2. Pedestrian fatalities are up 62 percent since they steadily rose in 2009 following years of improvement.
	Issues	1. The number of pedestrian fatalities have increased over the past decade. 2. Pedestrian fatalities are disproportionately concentrated in certain states. 3. There is a lack of pedestrian infrastructure. 4. High-speed limits 5. Dangerous street's design 6. There is poor lighting 7. There is a lack of public transportation 8. The existing crosswalks are faded or invisible. Additionally, sidewalks also have obstructions (utility poles, boxes, etc.)
	Recommendations	1. Prioritizing vulnerable communities, including low-income areas and communities of color. 2. Investing in complete streets. This report recommends that states and local governments invest in Complete Streets, designed to accommodate for all users, including pedestrians, bicyclists, and motorists. 3. Improving data collection and analysis, including data on the race and ethnicity of the victims, while ensuring that crash reports include information on the speed and design of the roadway. 4. Increasing funding for pedestrian safety initiatives in addition to improving public transportation.
2. DTPW Complete Streets Collaborative Report	Overview/Purpose	The complete streets collaborative report seeks to provide safe policy and design guidelines for all users, including pedestrians, motorists, and transit riders.
	General Findings	The collaborative report would orient governmental agencies, consults, private developers, and community groups to prepare safer and more accessible streets for all users. Additionally, an inventory of existing bridges obtained from the Engineering, Planning and Development Division of the Miami-Dade County Department of Transportation and Public Works (DTPW) comprise data from the following sources: • Roadway Pedestrian Bridges • Transit Pedestrian Bridges • County Pedestrian Bridges
	Issues	N/A
	Recommendations	N/A

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
3. Existing Bike-Ped bridges along US-1 by Metrorail Stations	Overview/Purpose	This report looks forward to using the recorded data of existing bicycle and pedestrian bridges along US-1 to maximize the future capacity along this corridor.
	General Findings	The Miami Dade Transit's BIKE & RIDE program allows transit riders to bring their bicycles onto the rack-equipped Metrorail train cars and Metrobus fleet. Additionally, bicycles are also allowed on all Tri-Rail trains. An inventory of existing bridges obtained from the Engineering, Planning and Development Division of the Miami-Dade County DTPW comprise data from the following sources: • Roadway Pedestrian Bridges • Transit Pedestrian Bridges • County Pedestrian Bridges
	Issues	N/A
	Recommendations	N/A
4. Existing Bike-Ped bridges over major roadways throughout Miami-Dade County	Overview/Purpose	The goal of this report is to show the existing bicycle and pedestrian bridges over major roadways throughout Miami Dade County, while seeking options to improve transportation for pedestrians and cyclists.
	General Findings	The county maintains approximately 5,500 miles of dedicated public roads and around 195 pedestrian bridges. An inventory of existing bridges obtained from the Engineering, Planning and Development Division of the Miami-Dade County DTPW comprise data from the following sources: • Roadway pedestrian bridges • Transit pedestrian bridges • County pedestrian bridges
	Issues	N/A
	Recommendations	N/A
5. FDOT District 6 Bicycle Connectivity Network Assessment	Overview/Purpose	The Bicycle Connectivity Assessment is meant to serve as a foundational proposed network since it is intended to create collaborative and continuing conversations with all concerned organizations. In Miami-Dade County, this assessment discovers links that raise the equity, connectivity, accessibility, and safety of bicycles.
	General Findings	The long-term goals of this assessment include the following: 1. Striving towards Florida's Target Zero. 2. Allowing visitors and residents to bicycle to any destination. 3. Ensuring that residents who require an alternate mode of transportation can rely on bicycle infrastructure as a remedy. 4. Shifting the culture of the County to a more bike-friendly environment.
	Issues	1. Fewer people are likely to bicycle on highways or roadways because of the varying stress levels from traffic. Level of Traffic Stress (LTS) is an approach that quantifies the discomfort people feel when they bicycle close to traffic. 2. According to a survey for Bicyclist Design User Profiles, 51-56% of the population are often uncomfortable with bicycle lanes, and may cycle on sidewalks even if bicycle lanes are provided. Another 5-9% of people prefer more separated facilities but are comfortable riding in bicycle lanes or on paved shoulders. 3. Only 4-6% of the population is comfortable riding in traffic and will use roads without bicycle lanes.
	Recommendations	1. Developing an online interactive map available for anyone to access with a detailed view of the baseline bicycle network data, aspirational proposed projects documented from the literature review, political boundaries, and community fixtures. 2. Setting a criteria of requirements for on-street cycling facilities without separation such as: a. Roadways with 30 mph or fewer speed limits. b. Roadways with Annual Average Daily Traffic (AADT) of 9,000 or less. c. Roadways with 1 thru lane in each direction. d. Roadways with estimated available Right-of-Way (ROW) e. Roadways with no on-street parking or dedicated spaces, with a width of 12 feet or broader. 3. Establishing a Greenway Selection Prioritization that include: a. Proximity to municipality downtown areas b. Greenways with a more significant number of municipality connections c. Greater proximity to community fixtures and essential areas d. Satellite and field reviews suggest more feasible Greenway alignments and available public Right-of-Way (ROW). e. Must be within the Urban Development Boundary (UDB).

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
6. FDOT Golden Glades Bicycle and Pedestrian Access Study (2018)	Overview/Purpose	To develop viable short- and long-term conceptual alternatives that improve accessibility, connectivity, and mobility of bicyclists and pedestrians to available or potential transit services across the Golden Glades Interchange and between surroundings neighborhoods.
	General Findings	This study focuses on a broad area to understand the existing challenges and opportunities across the Golden Glades Interchange (GGI), with a density of approximately 4,000 to 6,500 people per square mile. The study limits are SR-860/ NW 183 Street/Miami Gardens Drive to the north, SR-9 and the Biscayne Canal to the south, North Miami Avenue to the east, and NW 22 Avenue to the west.
	Issues	1. Existing highway transportation facilities (including many interconnecting ramps) result in adverse impacts on bicycle and pedestrian travel due to a lack of connectivity and accessibility, primarily because of the limited travel distances natural to these active modes of transportation. 2. There is a lack of connectivity between bicycle and pedestrian routes across major roadway facilities, which isolates neighborhoods. 3. Existing conditions indicate that high-intensity areas are underserved by bicyclists, pedestrians, or transit infrastructure, and that there are opportunities for congestion management. 4. Increasing mobility options should be encouraged for vulnerable and disadvantaged populations. 5. Protecting the safety of vulnerable roadway users should be a priority. 6. First- and last-mile connections to public transit and ridesharing need to be improved. 7. Interconnected bicycle and pedestrian networks are needed.
	Recommendations	1. For the study focus area, the ideal bicyclist travel distance should be no more than a 2-mile radius, and the ideal pedestrian travel distance should be 1/2-mile radius to facilitate walking and bicycling activities in the selected areas. 2. Providing a non-motorized network to increase pedestrian access to the Golden Glades Multimodal Transportation Facility (GGMTF). 3. First & Last Mile connections to public transit service need to be provided, particularly for specific segments of the population that may not have easy access to motorized modes of travel. 4. Providing safe options for bicycles and pedestrians to travel to and from all public transportation stops or stations to support a sustainable transportation network and provide equitable mobility. *These recommendations have been identified through field visits and research.
7. FDOT Highway Safety Plan	Overview/Purpose	Florida's safety vision is to eliminate all transportation-related fatalities and serious injuries for all modes of travel. This priority focuses on motor vehicle safety and includes pedestrians, bicyclists, motorcyclists, micro-mobility device users, transit users using the roadway system, as well as connections between the roadway system and other modes of transportation.
	General Findings	1. The personal and societal costs of traffic crashes in Florida today are unacceptably high. 2. More than 3,000 Floridians and visitors die in traffic crash each a year, and an average of 16,000 are seriously injured in Florida. 3. Crashes involving fatalities, serious injuries, and property damage also take a toll on our quality of life and economy, while impeding the efficiency and reliability of our transportation system. 4. The 2021-2025 Strategic Highway Safety Plan (SHSP) provides a framework for how Florida's traffic safety partners will move toward the vision of a fatality-free transportation system during the next five years. This plan is a call to action for public, private, and civic partners to identify collaboration, investment, and innovation areas.
	Issues	1. Distracted driving 2. Older drivers 3. Occupant protection and child passenger safety 4. Pedestrian and bicycle safety 5. Police traffic services 6. Speeding and aggressive driving 7. Teen drivers 8. Work zone safety
	Recommendations	1. Hosting a Vision Zero Workshop, with the Safety Subcommittee for safety coalition meetings, partner briefings, and social media outreach. 2. Having FDOT's State Safety Office execute subgrants, identified in this annual HSP, in areas with a high frequency of fatalities to increase. 3. Implementing preventative measures such as enforcing traffic laws, education campaigns about traffic laws and safety practices, providing and educating regarding alternate transportation methods, as well as public traffic safety outreach. 4. Having FDOT and NHTSA fund the Florida Law Enforcement Liaison (LEL) program to reduce traffic-related fatalities and injuries by working with law enforcement agencies across the state to increase safety belt use, reduce impaired driving, and encourage the implementation of other traffic safety initiatives. 5. Heightening traffic safety awareness to support enforcement efforts by aggressively marketing state and national traffic safety campaigns.

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
8. FDOT Non-Motorized Overpass Study: US-1 across Bird Road (FM 41053-3-12-01)	Overview/Purpose	The Department requested a conceptual and feasibility analysis to identify, evaluate, and recommend potential alignments for a non-motorized overpass on US-1 across Bird Road. This conceptual analysis consisted of: 1. A typical section analysis 2. Horizontal and vertical geometric analyses 3. Traffic control analysis
	General Findings	Existing conditions are summarized below: 1. This skewed intersection is approximately 0.60 miles southwest of the Coconut Grove Metrorail Station. 2. There are designated pedestrian access points with pedestrian signals 3. There are high visibility pedestrian crossings on the south approach of US-1, and on the approach of SW 40 Street 4. Onsite pedestrian facilities provide sidewalks and extensive non-motorized facilities (M-Path). However, there are no bicycle lanes on the roads and arterials corridors.
	Issues	1. There is a 5-foot clearance from the drip edge of the Metrorail structure to the proposed overpass structure. 2. There is a 750kV electrified third rail next to the Metrorail tracks. 3. The noise level from Metrorail will be significant to pedestrians and bicyclists. Therefore, further noise analysis will be required 4. The proximity of the existing Metrorail foundations to the proposed overpass foundations requires that any construction near those foundations to be restricted from 1:00 AM to 4:00 AM only to avoid disrupting train services.
	Recommendations	The following are proposed: 1. A 2-3 % grade, closed box bridge (Gateway) with a 12-foot clear walkway width. 2. Retaining walls, where the grade separation is greater than 5 feet. 3. Gravity walls were accessed ramps elevations are less than 5 feet. 4. Adding a Type 3 Sunshine Infill Panel to protect pedestrians and bicyclists on the south side of the Metrorail's alignment. This will include using the Metrorail's ROW (215,428 sf from Miami-Dade County)."
9. FDOT Non-Motorized Overpass Study: US-1 across SW 27 Avenue (FM 421053-3-12-03)	Overview/Purpose	Perform field-review existing conditions, analyze existing ROW maps and surveys, as well as develop a concept alternative including a typical section, plans, and profile. Additionally, FDOT requested a conceptual and feasibility analysis to identify, evaluate, and recommend potential alignments for a non-motorized overpass. This conceptual analysis consisted of the following: 1. A typical section analysis 2. Horizontal and vertical geometric analyses 3. Traffic control analysis
	General Findings	1. This skewed intersection is adjacent to the Coconut Grove Metrorail Station. 2. There are designated pedestrian access points with pedestrian signals 3. There are high visibility pedestrian crossings in all directions. 4. Onsite pedestrian facilities provide sidewalks and expansive non-motorized facilities (M-Path). 5. A fence along US-1 prohibits/channelizes pedestrians traffic from crossing US-1 mid-block. There are no bicycle lanes on the streets and arterials directly accessing the station."
	Issues	1. There is a 5-foot clearance from the drip edge of the Metrorail structure to the proposed overpass structure. 2. There is a 750kV electrified third rail next to the Metrorail tracks. 3. The noise level from the Metrorail will be significant to pedestrians and bicyclists. Therefore, further noise analysis will be required 4. The proximity of the existing Metrorail foundations to the proposed overpass foundations prompts that any construction near their foundations is restricted from 1:00 AM to 4:00 AM to avoid disruption to the train service."
	Recommendations	1. A 1260-foot, non-motorized pedestrian and bicycle prefabricated overpass or closed box bridge (gateway), with a 3% grade and a 12-foot effective walkway width. 2. Minor re-alignment to the US-1 southbound approach to the intersection of SW 27 Avenue. 3. Minor widening, reconstruction of curb and gutter, traffic separator, minor drainage, milling and resurfacing, signing, as well as pavement markings. 4. Construction of retaining walls where the grade separation is greater than 5 feet, or gravity walls where access ramps elevations are less than 5 feet. 5. Type 3 sunshine infill panels to protect pedestrians and bicyclists placed on the south side of the Metrorail's alignment. 6. Due to physical constraints and to meet vertical clearance criteria, the bridge needs to be extended west of the limits of the Coconut Grove Metrorail Station. 7. The bridge's lateral offset will be mitigated by providing barrier and guardrail protection to bridge piers and retaining walls since there is no ROW acquisition is proposed.

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
10. FDOT Capital Grant Pedestrian Overpass at Dadeland North Metrorail Station (FM 420792-1-94-01)	Overview/Purpose	The purpose of this letter is to request an amendment to the Miami Urbanized Area's FY 2011-2015 Transportation Improvement Program (TIP) to transfer funds originally programmed for pedestrian overpasses along US-1. ***NOTE: The project does not show as dropped, but per the Miami-Dade TPO Resolution #36-2010 (from October of 2010) the project funding was requested to be moved to the University Metrorail Station's Pedestrian Bridge Project.**
	General Findings	1. This request sought to amend FY 2011-2015 TIP to transfer funds to the University Metrorail Station's Pedestrian Overpass from similar overpasses at Dadeland North, Dadeland South, and the South Miami Metrorail Stations. 2. Former Board Member Carlos A. Giménez moved the preceding resolution's adoption. The motion was seconded by former Board Member Maritza Gutiérrez, and it was then put to vote.
	Issues	The $1,931.000 in Congestion Mitigation Air Quality (CMAQ) flex funds that were initially requested for the Dadeland North Metrorail Station's Pedestrian Overpass project were transferred by the Federal Highway Administration (FHWA) to the Federal Transit Administration (FTA) on September 2, 2008, and are currently available. However, Miami-Dade Transit (MDT), under Miami-Dade County DTPW, could not proceed with this project because it did not meet the screening criterion to justify the need for a pedestrian overpass at this location. Consequently, MDT proposed to transfer these funds to be used for the University Metrorail Station's Pedestrian Overpass project.
	Recommendations	Three overpass projects for which FTA funds were programmed are no longer feasible. Hence, it would be in the best interest of the public to delete these projects and transfer the funds, which will become available upon deletion of the projects, to a single Pedestrian Overpass at the University Metrorail Station (FM 4180841-94-02/03), which has already programmed in state funding for FY 2010/2011 and FY 2012/2013 in the amount of $951,098.
11. FDOT Capital Grant Pedestrian Overpass at Dadeland South Metrorail Station (FM 420790-1-94-01)	Overview/Purpose	The purpose of this letter is to request an amendment to the Miami Urbanized Area's FY 2011-2015 Transportation Improvement Program (TIP) to transfer funds originally programmed for pedestrian overpasses along US-1. ***NOTE: This project was dropped by the Department, again see Resolution 36-10.**
	General Findings	1. This request sought to amend FY 2011-2015 TIP to transfer funds to the University Metrorail Station's Pedestrian Overpass from similar overpasses at Dadeland North, Dadeland South, and the South Miami Metrorail Stations. 2. Former Board Member Carlos A. Giménez moved the preceding resolution's adoption. The motion was seconded by former Board Member Maritza Gutiérrez, and it was then put to vote.
	Issues	1. 1. MDT requested $431,000 in Congestion Mitigation Air Quality (CMAQ) funds initially programmed for the Dadeland South Metrorail Station's Pedestrian Overpass project be transferred and used for the University Metrorail Station's Pedestrian Overpass project (FM# 418084-2-94-01). These funds are available as they have been rolling forward in the FDOT District Six' Five-Year Work Program. 2. 2. MDT could not move forward with the Pedestrian Overpass project at the Dadeland South Metrorail Station because it needed to meet the screening criterion to justify the need for a pedestrian overpass at such location. MDT asked for the Dadeland South Project to be deleted, and the available funds to be added to the funds for the University Metrorail Station's Overpass project.
	Recommendations	Approving this action will enable the construction of the much-needed University Pedestrian Overpass project, which is expected to improve pedestrian safety near and around the University Metrorail Station on US-1. The project is also supported by the City of Coral Gables and the University of Miami, as this location was the scene of an accident in 2005 that resulted in the death of a student attempting to cross US-1.
12. FDOT Strategic Highway Safety Plan	Overview/Purpose	To present the Strategic Highway Safety Plan (SHSP) for Florida. The SHSP is a comprehensive, data-driven approach to improving highway safety in Florida, intending to reduce fatalities and severe injuries on the state's roadways.
	General Findings	1. The economic cost of crashes in Florida in 2019 was estimated to be over $43 billion. 2. In 2019, there were 401,851 crashes in Florida, resulting in 236,157 injuries and 3,185 fatalities. 3. The number of traffic fatalities in Florida increased from 2,444 in 2014 to 3,185 in 2019, representing a 30% increase over five years. 4. In 2019, there were 1,490 alcohol-confirmed traffic fatalities and injuries in Florida. 5. The report identifies six focus areas for improving highway safety in Florida such as distracted driving, impaired driving, aggressive driving, vulnerable road users (e.g., pedestrians and bicyclists), speeding, and intersection safety. 6. The report aims to reduce fatalities and severe injuries on Florida's roadways by 50% by 2035, using 2015 as a baseline.
	Issues	1. Distracted driving 2. Impaired driving 3. Vulnerable road users 4. Aggressive driving 5. Work zone safety 6. Teen drivers 7. Older drivers
	Recommendations	1. Increasing law enforcement efforts 2. Enhancing infrastructure design and maintenance 3. Improving data collection and analysis 4. Promoting public awareness and education campaigns

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
13. FHWA Guidebook for Developing Pedestrian & Bicycle Performance Measures	Overview/Purpose	To provide recommendations for state and local agencies to track and evaluate the effectiveness of their efforts to improve walking and biking conditions.
	General Findings	1. **The importance of creating performance measures:** to monitor development, develop efficient solutions to demands, and rank needs and investments. Prioritization is an aim for some performance measures. For instance, a local authority could use bike Level of Service (LOS) to determine which bicycle routes most urgently require improvement. State agencies may also utilize performance measures to benchmark yearly advancements toward statewide policies and objectives. For example, to track pedestrian fatalities to see if state-level regulations enhance safety. 2. **The need for standardized performance measures:** Standards like the volume-to-capacity ratio and automobile level of service should be developed to improve safety for pedestrians and cyclists. Other standards supporting pedestrian and bicycle performance include system completeness or pedestrian/bicycle delays statistics. 3. **The importance of considering diverse user groups:** Low-income and minority neighborhoods are less likely to have access to a car, so access to walking or biking facilities is crucial. Breaking out population or household data by income level and race is vital. 4. **The need for data-driven decision making:** Before making any transportation decision, it is critical to consider different ways of collecting data, such as: Sales tax data would track how much spending takes place within a given study area. Customer survey data can disclose access mode preference and the demand for walking/biking infrastructure. Mobile Smartphone applications collecting data on trips and time traveled; GIS analysis techniques. Transportation Performance Management (TPM) uses performance data to support decisions to execute desired performance outcomes.
	Issues	1. There is limited data availability 2. Lack of data quality and consistency: data quality varies across states and MPOs. However, data for walking or biking is less prevalent, making it easier to create policies and improve these facilities with sufficient data. Some factors to consider when collecting data include U.S Census demographic data (income, poverty levels, zero-car households, seniors, and children). Another factor is the GIS transportation network for all modes, including existing and proposed pedestrian and bicycle infrastructure. 3. There is a lack of consensus on appropriate performance measures 4. Lack of sidewalks, bike facilities, multi-use paths, roadway shoulders, and bike lanes. 5. Project impact assessment: some regional planning entities are involved with assessing the impacts of development, often in partnership with local and State agencies. Florida's regional planning agencies play a role in growth management and are moving toward multimodal performance measurement.
	Recommendations	1. Developing specific, measurable goals 2. Standardizing performance measures 3. Considering diverse user groups 4. Using data to inform decision making 5. Tracking multiple performance measures 6. Regularly evaluating and updating performance measures
14. Miami-Dade County Complete Streets Guidelines	Overview/Purpose	The purpose of this article is to provide guidance and recommendations for designing streets that are safe, accessible, and equitable for all users, including pedestrians, cyclists, transit users, and drivers. The guidebook provides information on design principles, such as incorporating sidewalks, bicycle lanes, and transit facilities, as well as recommendations for addressing issues such as traffic calming, parking, and accessibility. The ultimate goal of the guidebook is to support the implementation of Complete Streets, which can help improve mobility, safety, and quality of life for all residents and visitors of Miami-Dade County.
	General Findings	1. Complete Streets are designed to accommodate all users, including pedestrians, cyclists, transit users, and drivers. 2. Complete Streets prioritize safety for all users, with features like traffic calming measures, improved lighting, and protected bicycle lanes and pedestrian crossings. 3. Complete Streets can help reduce traffic congestion by encouraging alternative modes of transportation like cycling and transit. 4. Complete Streets can help improve public health by promoting physical activity and reducing air pollution from motor vehicles. 5. Complete Streets can support economic development by improving accessibility and mobility for businesses and residents. 6. Complete Streets can help address social equity concerns by improving access to transportation options for low-income communities, people with disabilities, and other underserved populations.
	Issues	There are some challenges and considerations that are commonly associated with implementing Complete Streets, which include: 1. Funding constraints 2. Limited public support 3. Technical challenges 4. Limited space 5. Concerns about traffic congestion

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
	Recommendations	1. Adopt a Complete Streets policy that prioritizes the needs of all street users. 2. Engage stakeholders, including community members, advocacy groups, and transportation agencies. 3. Conduct a context analysis 4. Prioritize safety 5. Accommodate all modes of transportation, including pedestrians, cyclists, transit users, and drivers. 6. Consider equity, including accessibility for people with disabilities, access to transit for low-income communities, and addressing historical disparities in transportation infrastructure.
15. Miami-Dade County Vision Zero Plan	Overview/Purpose	The article aims to provide a framework for implementing Vision Zero, a strategy to eliminate all traffic fatalities and severe injuries on roadways. The "Vision Zero Framework Plan: Eliminating Traffic Deaths and Severe Injuries on Miami-Dade County Roadways" report was developed by the Miami-Dade County DTPW.
	General Findings	1. Miami-Dade County has experienced increased traffic fatalities and severe injuries in recent years. 2. Pedestrians and bicyclists are particularly vulnerable to traffic crashes and comprise a significant proportion of fatalities and severe injuries. 3. Vision Zero is a data-driven traffic safety approach focusing on engineering, education, and enforcement to reduce traffic fatalities and severe injuries. 4. The Vision Zero Framework Plan includes a set of strategies and actions to be implemented over time, including data analysis, infrastructure improvements, public awareness campaigns, and policy changes. 5. The success of Vision Zero will depend on collaboration between government agencies, community organizations, and other stakeholders.
	Issues	1. There have been high traffic fatalities cases and severe injuries in recent years, with vulnerable road users such as pedestrians and bicyclists being particularly at risk. 2. There is a disproportionate impact on low-income and minority communities resulting in traffic fatalities and severe injuries disproportionately affecting low-income and minority communities in Miami-Dade County, where access to safe and reliable transportation options may be limited. 3. There needs to be more infrastructure to support safe mobility. Hence, more infrastructure is required to support safe mobility for all users, including crosswalks, bicycle lanes, and transit stops. 4. Insufficient data and analysis: the Miami-Dade County crashes data set should be expanded to include crashes involving people using active and emerging mobility, more accurate Signal Four Analytics should be provided, and hospital crash data should be combined with police incident reports to address the data gap with pedestrian and bicycle crashes. Also, it is essential to ensure transportation safety data is publicly available for local agency staff and elected officials and launch a safety dashboard with integrated crash data. Lastly, it is crucial to use a Complete Crash Dataset as crash data for the analysis documented in this report is based only on police reports. However, police reports do not accurately report crashes for people walking or biking, nor do they have classification to input collisions related to micro-mobility and other emerging mobility solutions. Additionally, communities of color and low-income communities usually have low police reporting rates. 5. Limited resources include funding, staff time, and political support.
	Recommendations	1. Developing a comprehensive data collection and analysis system to track traffic crashes and identify patterns and trends. 2. Conducting safety assessments of high-risk locations to identify opportunities for infrastructure improvements. 3. Implementing engineering treatments to improve safety that include adding protected bicycle lanes, pedestrian crosswalks, and calming traffic measures. 4. Educating the public on safe behaviors and raising awareness of the importance of traffic safety. 5. Strengthening enforcement efforts to deter unsafe behaviors like speeding and distracted driving. 6. Partnering with community organizations and other stakeholders to build support for Vision Zero, and engage the public in the implementation process. 7. Allocating dedicated funding for Vision Zero implementation, and establishing metrics to track progress towards eliminating traffic deaths and severe injuries.
16. Miami-Dade MPO Complete Streets Manual	Overview/Purpose	The purpose of this manual is to create a more comprehensive approach to transportation planning that considers the needs of all road users, including pedestrians, bicyclists, public transit riders, and motorists. The manual aims to provide a framework for designing streets that are safe, accessible, and convenient for all users, regardless of their mode of transportation.
	General Findings	1. Complete Streets improve safety and reduce traffic fatalities and severe injuries. 2. Complete Streets enhance mobility and accessibility for all users, including people with disabilities, children, and older adults. 3. Complete Streets can boost economic development and support local businesses by making streets more attractive and inviting to pedestrians and bicyclists. 4. Complete Streets can help reduce traffic congestion and greenhouse gas emissions by encouraging alternative modes of transportation, such as walking, biking, and public transit.

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
	Issues	1. **The dominance of automobile traffic:** There needs to be more viable transportation modes and choices. Sixty-five percent (65%) of the shortest trips are now made by automobiles because streets are incomplete and separate land uses, making it dangerous for other modes of travel. Walking and biking decrease automobile dependence, improving air quality and our environment's overall health. 2. **Inadequate infrastructure for non-motorized transportation:** Creating infrastructure for non-motorized transportation and lowering automobile speeds by changing road conditions can improve economic conditions for business owners and residents. Complete Streets also helps improve the economy by increasing property values because people are generally willing to pay to live in walkable communities. 3. **Limited access to public transit:** Improving access to public transit is vital for increasing ridership and promoting a multi-modal approach to transportation. Complete Streets promote more active forms of transportation, such as walking, biking, and public transit. 4. **Safety concerns:** Some safety concerns include delays with striping, increasing police enforcement of speeds, and enforcing proper use of the center turn lane. Often, Complete Street treatments include traffic-calming techniques, which typically reduce vehicular rates and alert drivers to the presence of their road users, such as pedestrians and bicyclists.
	Recommendations	1. Adopting a multimodal approach to transportation planning 2. Improving pedestrian and bicycle infrastructure 3. Prioritizing public transit 4. Encouraging transit-oriented development (TOD) 5. Creating safe and accessible streets 6. Encouraging public participation in the planning process
17. Miami-Dade TPO 2018 Bicycle and Pedestrian Data Collection Report	Overview/Purpose	Trends in pedestrian and bicycle travel growth in Miami-Dade County and its municipalities are used to inform programs and prioritization for improving and expanding pedestrian and bicycle network facilities. This study aims to capture current bicycle and pedestrian travel trends, with implications for increased non-motorized travel potential for unlinked and first- and last-mile trips to transit stations. The importance of the growth in pedestrian bicycle travel will show the economic, ecological, and social sustainability of urban mobility impacts.
	General Findings	Locations chosen for three-period counts included representative locations on: 1. Dense urban areas that are predominantly office use (Miami CBD north of Miami river). 2. Dense urban areas that are a mix of office, residential, and evening entertainment (Brickell Area). 3. Tourist areas with a combination of retail, entertainment, and residential uses. 4. Recreational trails in densely populated areas (Atlantic Trail sites on Miami Beach and the Turnberry Trail in Aventura).
	Issues	Based on the data collected during the study, the report provides insights into problems between pedestrians and bicycles in Miami-Dade County. Some potential issues include: 1. Conflicts at intersections, which were the most common location for pedestrian and bicycle conflicts. 2. Sidewalk riding, which was shown to be a common practice potentially creating conflicts with pedestrians. 3. Wrong-way riding, also a common practice as this study found that many bicyclists were riding the wrong way on streets and sidewalks, which can increase the risk of collisions with pedestrians. 4. Limited visibility, which is a significant issue for pedestrians and cyclists, especially at night.
	Recommendations	1. Implementing more bike lanes and pedestrian crosswalks. 2. Improving lighting and signage. 1. Increasing public education and awareness of campaigns 2. Strengthening enforcement of traffic laws. 1. Conducting ongoing data collection and analysis
18. Miami-Dade TPO 2045 Bicycle Pedestrian Master Plan	Overview/Purpose	This article aims to present the Miami-Dade 2045 Bicycle and Pedestrian Master Plan, which outlines a comprehensive strategy for improving bicycle and pedestrian infrastructure, safety, and accessibility in Miami-Dade County over the next 25 years. The plan aims to create a safer, more connected, and more equitable transportation system that prioritizes walking, cycling, and other forms of active transportation by enhancing accessibility, safety, public health, social equity, environment, and overall quality of life.
	General Findings	1. Miami-Dade County has a high rate of pedestrian and bicyclist fatalities and injuries, with an average of 75 pedestrian and ten bicyclist fatalities per year between 2013 and 2017. 2. To make walking and biking safer and more convenient, there is a need to improve the existing network of sidewalks, bicycle lanes, and trails in Miami-Dade County. 3. Many residents and visitors are interested in using active transportation, but there are concerns about safety, connectivity, and accessibility that need to be addressed. 4. Active transportation can provide significant health, environmental, and economic benefits to Miami-Dade County, including reduced congestion, improved air quality, and increased physical activity.

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
	Issues	1. **Congestion:** Some of the goals for the 2045 bicycle-pedestrian plan include reducing traffic and parking congestion in Miami Dade County, especially in the following areas: South Miami Dade, Key Biscayne, City of Miami Beach, Village of Palmetto Bay and the Central Business District (CBD) often referred to as "Downtown, Miami." 2. **Limited Transit Options:** The Miami-Dade Communities of Concern represent most transit-reliant populations within the County; therefore, maximizing mobility options is essential and would improve equity in Miami- Dade's transit system designs. Areas with the largest concentration of transit dependants include Downtowntown Miami, US-27/Okeechobee Road, the northern section of South Beach, Opa-Locka, Florida City, and Homestead. 3. **Safety risks for cyclists and pedestrians** include traffic volume, posted speeds, size of the roadway (Number of Lanes), volume of large vehicles, and frequency of intersections. 4. **Limited active transportation infrastructure:** High traffic speeds and inadequate infrastructure (not designed for all road users such as pedestrians and cyclists) in low-income communities impede active transportation, making walking, biking, and public transit unsafe and increasing collisions between pedestrians and cyclists.
	Recommendations	1. Establishing a countywide bicycle and pedestrian network 2. Improving bicycle and pedestrian safety 3. Providing access to transit 4. Encouraging active transportation 5. Creating more public spaces that are friendly to bicyclists and pedestrians, such as plazas and parks, while improving the connectivity of these spaces with the surrounding neighborhoods. 6. Incorporating innovative design features such as protected bicycle lanes, pedestrian plazas, and green streets to improve safety and promote active transportation. 7. Implementing a comprehensive evaluation process to track progress and ensure the plan's goals are met over time.
19. Miami-Dade TPO 2045 Long Range Transportation Plan	Overview/Purpose	The Miami-Dade County 2045 Long Range Transportation Plan (LRTP) aims to provide a vision for the future of transportation in the county and guide transportation investments over the next 25 years. The plan was developed through a comprehensive and collaborative process that involved input from the public, stakeholders, and technical experts.
	General Findings	1. The population of Miami-Dade County is expected to continue growing over the next 25 years, which will put increasing demands on the transportation system. 2. The county faces significant congestion, safety, and equity challenges, which must be addressed through a comprehensive and integrated approach to transportation planning. 3. The Long Range Transportation Plan (LRTP) identifies several critical goals and objectives for improving mobility, safety, accessibility, sustainability, and resiliency in the transportation system. The 2045 LRTP Goals are: a. Maximize Mobility Choices Systemwide b. Increase the Safety of the Transportation System for All Users c. Increase the Security of the Transportation System for All Users d. Support Economic Vitality e. Protect and Preserve the Environment and Quality of Life and Promote Energy Conservation, f. Enhance the Integration & Connectivity of the System, g. Across & Between Modes, for People and Freight, h. Optimize Sound Investment Strategies for System i. Improvement and Management/Operations, and j. Improve and Preserve the Existing Transportation System. 4. To achieve these goals, the LRTP proposes to make improvements to public transit, bicycle, and pedestrian infrastructure enhancements, expand managed lanes on highways, as well as adopting new technologies to improve transportation system performance. 5. The LRTP also emphasizes the importance of engaging the public in the transportation planning process, and ensuring that transportation investments reflect the needs and priorities of all stakeholders.
	Issues	1. Miami-Dade County is one of the most congested areas in the country, and traffic congestion is a significant issue that impacts mobility and economic competitiveness. 2. Miami-Dade County has many traffic fatalities and serious injuries, particularly among vulnerable road users such as pedestrians and bicyclists. 3. There are significant disparities in access to transportation and mobility options across different communities countywide, which can negatively impact social and economic opportunities. 4. The transportation system is vulnerable to the impacts of climate change, such as flooding and sea level rise, which can disrupt mobility and increase maintenance costs.

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
	Recommendations	1. **Expanding and upgrading public transportation:** Locating areas where it is available and where it is needed. Respondents want to see public transit receive the highest amount of investment, according to a significant result from the Civic Dinner. Civic dinner is a forum that brings together a small group of diverse people to engage in dialogues about issues that are significant to them. 2. **Improving safety** by making the transportation system safer for all users (with and without motorized vehicles). Some safety performance measures are the Number of Fatalities, Fatality Rate over 100 million Vehicle Miles Traveled (VMT), Number of Serious Injuries, Serious Injury Rate per 100 million Vehicle Miles Traveled (VMT), and Number of Combined Non-Motorized Fatalities and Serious Injuries. 3. **Improving equity:** Providing outreach materials in English, Spanish, and Creole and emphasizing populations targeted such as Minorities, Low Income, millennials, Gen Z, Communities of concern, and the Aging population.
20. Miami-Dade TPO SMART Trails Master Plan	Overview/Purpose	The Strategic Miami Area Rapid Transit (SMART) Plan is an infrastructure investment program focused on improving transportation mobility throughout Miami-Dade County to support economic growth. With the metropolitan area of Miami becoming a major international freight, passenger, and cargo hub, the Miami-Dade TPO Governing Board declared the advancement of the SMART Plan as the top priority for Miami-Dade County, supported by public and private sector partners, residents, and elected officials. The SMART Plan will expand transit options in Miami-Dade County along six (6) critical corridors, impacting an estimated 1.7 million people.
	General Findings	1. 20 proposed SMART Trail connections to population areas and practical destinations 2. 14 miles of new active transportation facilities 3. 6 shared-use path bridges 4. $62 million in SMART Trails investment
	Issues	1. Beach Corridor: Highest tourist demand in the region with major employment centers. 2. East-West Corridor: Heaviest commuter travel for international, state, and local businesses. 3. Kendall Corridor: One of the most congested arterial roadways with the highest demand. 4. North Corridor: Key regional mobility linkage for access to jobs, stadiums, and educational facilities. 5. Northeast Corridor: High transit demand and part of a critical regional corridor stretching to Palm Beach County. 6. South Corridor: Experiencing the fastest population growth in Miami-Dade County.
	Recommendations	Proposed Project #1: Ludlam Trail to Dadeland North Metrorail Station/ Underline/Kendall Corridor 1A. Route A, which includes a proposed shared-use pathway and a bridge west of SW 70 Avenue 1B. Route B, which includes a proposed shared-use path south of Snapper Creek Expressway 1C. Useful destination as it will provide access to Dadeland Mall. Proposed Project #2: Snapper Creek Trail to Kendall Corridor 2A. A shared use pathway on the north side of SW 88 Street/Kendall Drive from SW 98 Court to SW 94 Avenue as shown in the Snapper Creek Trail Segment "A" planning study 2B. Modifications are needed under the Don Shula Expressway at Kendall Drive. 2C. Useful destinations such as access to the Boys and Girls Club of Miami, SW Langer/Kendall Unit, and K-Land Park. Five Evaluation Criteria that the proposed projects shown above must have are: 1. Connectivity: Providing access to population areas and valuable destinations. 2. Gap Analysis: Filling in strategic gaps in the non-motorized network. 3. Constructability: Concept to be incorporated into the existing facility without significant impacts and right-of-way is generally available. 4. Low Stress: Utilize low-volume and low-speed roads 5. Stakeholder Input: Considers stakeholder agency and public feedback.
21. South Miami Metrorail Station Pedestrian Bridge (TPO 2027 List of Program Priorities)	Overview/Purpose	According to the FDOT's correspondence dated May 18, 2021, FDOT, in collaboration with the TPO, has concluded the selection process for the FY 2021 Transportation Alternatives (TA) Application Cycle. On June 17, 2021, the Miami-Dade Transportation Planning Organization's Governing Board passed Resolution #28-2021, approving the 2021 Transportation Improvements Plan's (TIP) List of Program Priorities (LOPP). This LOPP includes the South Miami Pedestrian Bridge for $400,000 for the Construction Engineering Inspection (CEI) phase in FY 2027. ***NOTE: This project was also originally funded under FM 413238-4. However, that project was dropped because of Resolution #36-2010. A TA grant was awarded to the City of South Miami for FY 2027 as shown in the 2021 TIP's LOPP under FM 447986-1 for the construction of a pedestrian bridge in the vicinity of the South Miami Metrorail Station between SW 57 Avenue and Sunset Drive. The design of that project has started, and construction is scheduled to start in late FY 2024.**
	General Findings	On January 28, 2021, the Miami-Dade TPO's Governing Board adopted Resolution #02-2021, approving as an amendment to the 2021 TIP to add FTA Section 5307 Program funding, and the transfer of FHWA funds for use by Miami-Dade County DTPW for the Miami Springs - Okeechobee Metrorail Station SMART Trail Connector project. However, on August 9, 2021, the City Council unanimously adopted a motion opposing this project, and requested that all applicable governmental agencies ended said project.

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
	Issues	This project was also funded initially under FM 413238-4. That project was dropped because of the Miami-Dade TPO's Resolution #36-2010. A TA grant was awarded to the City of South Miami for FY 2027 as shown in the 2021 TIP's LOPP under FM 447986-1 for constructing a pedestrian bridge near the South Miami Metrorail Station between SW 57 Avenue and Sunset Drive. The design of that project has started, and construction is scheduled to begin in late FY 2024.
	Recommendations	On September 20, 2021, the Transportation Planning Council (TPC) recommended the approval of an amendment to the FY 2021 TIP to remove the Miami Springs - Okeechobee Metrorail Station SMART Trail Connector project, FM #446747-1.
22. The Underline Site Plan Documents for the three Metrorail stations in this study	Overview/Purpose	The Underline will transform the land below the southern half of Miami's Metrorail into a 10-mile signature linear park, urban trail, and living art destination, well-connected to transit, promoting a healthy lifestyle as a gateway to the adjacent communities.
	General Findings	1. The Underline will also encourage a healthier lifestyle. Over half of Miami residents don't exercise the recommended 20-30 minutes daily. 2. The numerous proposed recreation features, from the walking/running and biking trails, basketball courts, soccer fields, outdoor gyms, and related programming, will attract residents and tourists alike to enjoy an active lifestyle, a proven prescription to defend against chronic diseases and enhance longevity.
	Issues	Dadeland South: 1. No intersection work 2. Road work for Datran Boulevard and Dadeland Boulevard under the Dadeland South Metrorail Station scope of work 3. The Underline stops at the kiss-and-ride facility north of the station. Dadeland North: the intersections of SW 70 Avenue and SW 84 Street adjacent to the Underline are to be improved. Coconut Grove: the intersection of SW 27 Avenue adjacent to the Underline is to be improved.
	Recommendations	For a major intersection 1. Considering grade-separated crossing at the highest volume intersections and crossings with unavoidable constraints. 2. Exploring strategies for significant path re-alignment associated with tactical opportunities. For medium intersection 1. Maintaining straight approach path alignment across the intersection 2. Providing early indicators for approaching pathway users 3. Providing tabled crossing or lift grade of roadway to provide smooth crossing while notifying motorists of the crossing 4. Widening crosswalks and curb openings to 18 feet in width (minimum). For minor intersection 1. Re-aligning the pathway approach to improve visibility and orientation. 2. Providing early indicators for approaching pathway users 3. Considering no-turn-on-red for cross-street right-turn movement 4. Providing leading pedestrian interval (LPI) for underlined crossing
23. US-1 Multimodal and/or Roadway Intersection Analysis between SW 27 Avenue and SW 72 Street (TPO ongoing study) Underline	Overview/Purpose	This study aims to conduct a traffic analysis to assess vehicular and pedestrian crossing access along and across US-1 from SW 72 Street to SW 27 Avenue, and provide recommendations to maximize the capacity of this corridor via multimodal and roadway improvements. ***NOTE: The draft of this report was circulated for comments by the Miami-Dade TPO in January 2023. From that draft, long- and short-term recommendations were included for SW 57 Avenue, Granada Boulevard, SW 42 Avenue, as well as operational modifications for other intersections along the corridor. None of these improvements seem to have been brought up to FDOT by Miami-Dade County or local municipalities for funding programming.**
	General Findings	The study focused on six areas that were identified to be transportation deficient and congestion hot spots for the corridor based on previous studies, available data, and guidance from the Study Advisory Committee (SAC). These six (6) focus areas are listed below: **Focus Area 1**: SW 57 Avenue/SW 72 Street **Focus Area 2**: S Alhambra Circle **Focus Area 3**: Granda Boulevard **Focus Area 4**: SW 42 Avenue/Blue Road/Grand Avenue **Focus Area 5**: SW 37 Avenue/SW 40 Street **Focus Area 6**: SW 27 Avenue

Table 3-1: Literature Review Summary Matrix

DOCUMENT NO. & TITLE	ATTRIBUTE	DESCRIPTION
	Issues	1. Income along the corridor varies 2. Areas with better pedestrian, bicycle, and transit infrastructure and mixed land uses have higher rates of walking, biking, and using transit 3. Study area residents are diverse in age, with concentrations of millennials in certain areas 4. 106,500 jobs areas located in the study area 5. Most US-1 trips do not travel the entire length of the study area 6. Majority of intersections are operating over capacity 7. Existing street lighting is auto-focused 8. Dadeland South Metrorail Station has the highest Metrorail ridership 9. Park-and-ride are heavily used in some areas (Dadeland South Metrorail Station has exceptionally high demand) 10. Only 5.5% of study area trips are made by transit 11. Stakeholders expressed a desire for improvements to accommodate sustainability and mitigate sea-level rise 12. Drivers attributed causes from left-turn queue spillbacks to signal to time as contributing to traffic build-up. ***None of these improvements issues seem to have been brought up to FDOT by the Miami-Dade County or local municipalities for funding programming.**
	Recommendations	For US-1 and SW 57 Avenue: 1. Short-term recommendations include extending the pavement at the intersections to shorten the pedestrian crossing distance, adding high-emphasis crosswalks, adding pavement to the medians to create pedestrian refuges, staggering the stop bars for vehicles, and implementing The Underline. 2. Long-Term Recommendations include an elevated bicycle pathway consistent with the Friends of The Underline concept. This includes pedestrian walkovers across US-1 and SW 57 Avenue.
24. **FHWA's Moving to a Complete Streets Design Model**	Overview/Purpose	This article aims to report on implementing the Complete Streets policy across the United States, and to provide recommendations for improving implementation efforts. The report provides general findings on the state of Complete Streets implementation in the country, and it identifies areas where progress has been made, and more work is needed.
	General Findings	1. Many states and local governments have adopted Complete Streets policies and are progressing towards implementing them. 2. There is a need for better data collection and analysis to assess the effectiveness of Complete Streets policies. 3. Many implementation challenges remain, including securing funding, overcoming political resistance, and addressing concerns about parking and traffic flow impacts. 4. Collaboration between transportation agencies, public health agencies, and community organizations is essential to successful Complete Streets implementation. 5. There is a need for continued education and outreach efforts to increase public awareness and support for Complete Streets.
	Issues	1. Lack of uniform data collection 2. Inadequate funding 3. Implementation challenges due to varying political and community support levels and technical as well as institutional barriers. 4. There is a need to address equity in Complete Streets planning and implementation, as historically marginalized communities often lack access to safe and accessible transportation options. 5. Coordination among agencies and jurisdictions often leads to more consistent implementation of Complete Streets policies and investments. .
	Recommendations	1. Improving data collection and analysis to track progress better, and assess the effectiveness of Complete Streets policies. 2. Increasing federal, state, and local funding for Complete Streets projects. 3. Encouraging collaboration and coordination between transportation agencies, public health agencies, and community organizations to support Complete Streets implementation. 4. Providing technical assistance and training to transportation professionals and local officials on Complete Streets design and implementation. 5. Continuing education and outreach efforts to increase public awareness and support for Complete Streets.

Table 3-1: Literature Review Summary Matrix

3.2 FINDINGS

Walking and biking are considered vital transportation options in all communities especially in those locations that are near premium transit stations such as the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations. After performing the Literature Review, the following findings were identified:

• One of the most dangerous states for pedestrians in the United States is Florida. It is classified as the 2nd most dangerous state for pedestrians according to Dangerous by Design 2022. Policymakers have focused more on moving cars at high speeds than safety. Our study will focus on improving safety along US-1 at the intersections near the three Metrorail stations. Refer to ***Figure 3-1: Top 20 Most Dangerous States for Pedestrians.***

• Miami-Dade County has experienced increased traffic fatalities and severe injuries in recent years. Pedestrians and bicyclists are particularly vulnerable to traffic crashes and comprise a significant proportion of fatalities and severe injuries. US-1 is an important north-south corridor that links many residential communities, businesses, and schools in Miami-Dade County, where pedestrian and bicyclist safety is a major concern.

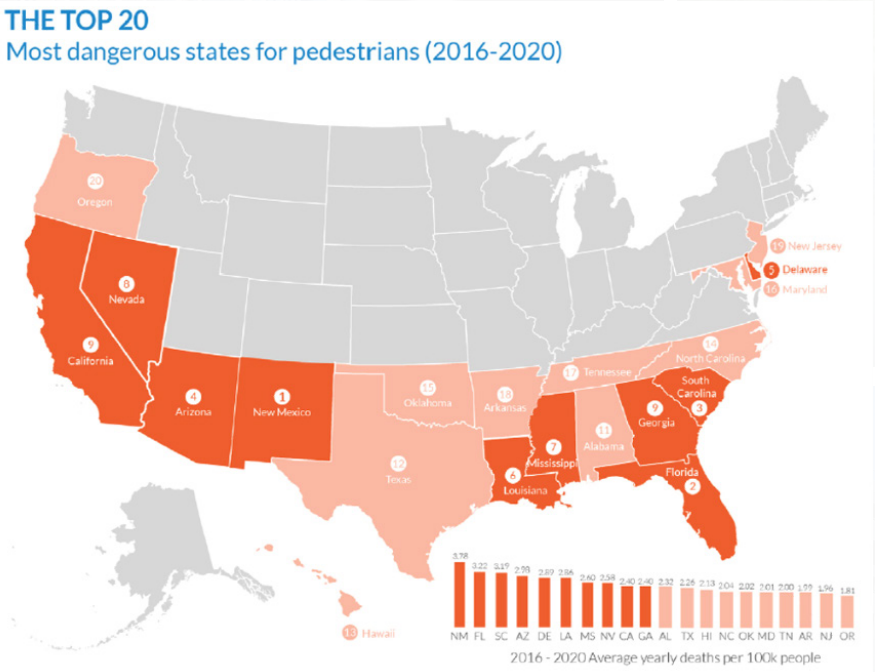


Figure 3-1: Top 20 Most Dangerous States for Pedestrians (Dangerous By Design 2022)

• The costs of traffic crashes in Florida today are unacceptably high. The economic cost of crashes in Florida in 2019 was estimated to be over $43 billion. More than 3,000 Floridians and visitors die in traffic crashes each year, and an average of 16,000 are seriously injured in Florida according to FDOT's FY 2023 Highway Safety Plan. Crashes involving fatalities, serious injuries, and property damage also take a toll on our quality of life and economy, while impeding the efficiency and reliability of our transportation system.

• The number of pedestrian fatalities has increased over the past decade. The conditions people face when they want to walk or bike—whether to work or for recreation—are not the same for all users. Low-income communities are significantly less likely to have access to safe recreational walking and are less likely to have sidewalks, marked crosswalks, and street design to support safer, slower speeds. There is a disproportionate impact on low-income and minority communities resulting in traffic fatalities and severe injuries disproportionately affecting low-income and minority communities in Miami-Dade. It is vital that the County provide safe and reliable infrastructure and transportation options for vulnerable communities.

• The ultimate goal of Miami-Dade County is to improve mobility, safety, and quality of life for all residents and visitors. We envision a County that is healthy, prosperous and resilient for all people who live, work and visit no matter where you live.

3.3 PURPOSE AND NEED

Study Purpose
The purpose of this study is to provide enhanced pedestrian and bicyclist access across US-1 at the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing US-1.

Need
There is a need to improve bicycle/pedestrian routes around major roadways in Miami-Dade County. US-1 is a 6-lane arterial that experiences high traffic volumes and congestion that contribute to poor bicycle and pedestrian safety at the three Metrorail Station location crossings. Providing safe infrastructure over US-1 will open opportunities to reduce crashes, maximize transit use, increase neighborhood livability and recreation, while reducing congestion.

According to *Dangerous By Design 2022*, the COVID-19 pandemic perpetuated existing disparities in terms of who is most likely to be struck and killed while walking nationally. Although people of all ages, races, income levels, and abilities are affected by dangerous street design, certain populations bear the brunt of the burden. People of color, low-income residents, and older adults are much more likely to die while walking, and the many people who exist at the intersections of these identities are even more vulnerable. People of color, particularly Native and Black Americans, are more likely to die while walking than any other race or ethnic group, as illustrated ***Figure 3-2: Pedestrian Deaths by Race & Ethnicity.*** Despite making up a smaller proportion of the population in the United States, people of color are overrepresented in the percentage of pedestrian deaths.

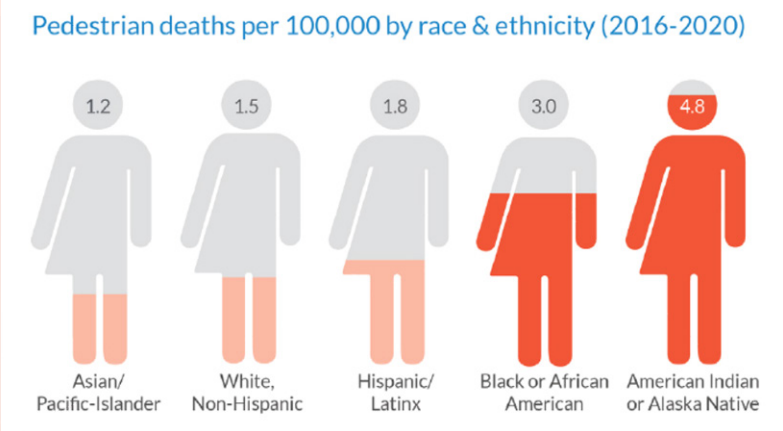


Figure 3-2: National Pedestrian Deaths by Race & Ethnicity (Dangerous By Design 2022)

TECHNICAL MEMORANDUM NO. 2

MULTIMODAL ACCESSIBILITY & DATA COLLECTION

Miami-Dade Transportation
Planning Organization

4.0 MULTIMODAL ACCESSIBILITY AND DATA COLLECTION

MULTIMODAL ACCESSIBILITY AND DATA COLLECTION

The Project Team collected data as part of the feasibility study in order to provide mobility recommendations and build an implementation assessment. Existing and proposed facilities were identified at the three Metrorail Stations and adjacent park-and-ride lots, along with amenities for the non-motorized access modes (walk, bicycle, etc.). The mode of ingress and egress was assessed along with the activity at transit generator areas. The plans/improvement concepts were also obtained from transportation partners for each Metrorail Station. Close attention was paid to the latest technologies and financial feasibility.

4.1 TRAFFIC VOLUME REVIEW

Six intersections serve the three Metrorail Stations as shown in ***Table 4-1*** below. Traffic data was collected from available resources at the following locations:

Station	Intersection	Intersection
Coconut Grove Metrorail Station	1	US-1 and SW 27th Avenue
Dadeland North Metrorail Station	2	US-1 and SW 68th Court
	3	US-1 and SW 84th Street
	4	US-1 and SW 88th Street
Dadeland South Metrorail Station	5	US-1 and Dadeland Blvd/ SW 72nd Court
	6	US-1 and Datran Drive

Table 4-1: Metrorail Station Intersections

Traffic data includes Annual Average Daily Traffic (AADT) data obtained from the Florida Department of Transportation's FDOT Traffic Online Tool for the year 2021 for the intersections shown in ***Table 4-2*** below:

Station	Intersection No.	Intersection	AADT (Vehicles per day) Intersection Leg			
			West	East	North	South
Coconut Grove Metrorail Station	1	US-1 and SW 27th Avenue	80,500	83,500	25,500	16,800
Dadeland North Metrorail Station	2	US-1 and SW 68th Court	N/A	N/A	40,500	N/A
	3	US-1 and SW 84th Street	N/A	N/A	78,000	40,500
	4	US-1 and SW 88th Street	36,500	7,100	40,500	42,500
Dadeland South Metrorail Station	5	US-1 and Dadeland Blvd/ SW 72nd Court	10,200	N/A	42,500	N/A
	6	US-1 and Datran Drive	5,600	N/A	42,500	N/A

Table 4-2: FDOT Traffic Data for the Metrorail Station Intersections

4.2 FDOT LEVEL OF SERVICE REVIEW

The traffic volumes derived from Florida Traffic Online database were used to perform motorized Level of Service (LOS) analysis. Motor Vehicle Arterial Generalized Service Volume Tables from the FDOT 2023 Multimodal Quality LOS Handbook are shown in ***Table 4-3*** below:

(C4-Urban General)

	B	C	D	E
2 Lane	*	*	17,600	24,000
4 Lane	*	24,400	36,100	40,800
6 Lane	*	44,700	56,800	60,400
8 Lane	*	52,300	66,900	70,900

(C5-Urban Center)

	B	C	D	E
2 Lane	*	*	13,900	21,800
4 Lane	*	26,100	38,300	43,000
6 Lane	*	28,400	53,900	62,800
8 Lane	*	58,800	71,900	73,600

Table 4-3: Motor Vehicle Arterial Generalized Service Volume Tables

(Reference: FDOT 2023 Multimodal Quality LOS Handbook)

The context classification of US-1 at the three locations are described below *(Reference: FDOT Preliminary Context Classification open data hub for State Roads)*. US-1 at the Coconut Grove Metrorail Station falls into an FDOT C4 Urban Area Context Classification. The Dadeland North and Dadeland South Metrorail Stations fall into a FDOT C5 Urban Center Context Classification.

The FDOT LOS Handbook indicated the following:

Intersection 1: US-1 (6 Lane going East and West) and SW 27th Ave (4 lanes going North and South)
- The AADT on US-1 East and West of SW 27th Avenue is 80,000, which translates to LOS F.
- The AADT on SW 27th Avenue (North) is between 24,400 and 36,100, meaning it falls into LOS D, and the AADT on SW 27th Avenue (South) is 16,800, translating to at least LOS C.

Intersection 2: US-1 (6 Lane on North leg) and SW 68th Court
- The AADT on US-1 (North) is 40,500, which translates to LOS D.
- No AADT available for SW 68th Court.

Intersection 3: US-1 (6 lanes on North and South) and SW 84th Street.
- No AADT on SW 84th Street
- The AADT on US-1 (North leg) is 78,000, which translates to LOS F.
- The AADT on US-1 (South leg) is 40,500, which translates to LOS D.

Intersection 4: US-1 (6 lanes on North and South) and SW 88th St (4 lanes on East and West)
- The AADT on SW 88th Street (West) is 36,500, which translates to LOS D.
- The AADT on SW 88th Street (East) is 7,100, which translates to LOS C or better.
- The AADT on US-1 (North leg) is 40,500, which translates to LOS D,
- The AADT on US-1 (South leg) is 42,500, which translates to LOS D.

Intersection 5: US-1 (6 lanes on the North leg) and Dadeland Blvd (4 lanes on the West side):
- The AADT on Dadeland Boulevard (West leg) is 10,200, which is equivalent to a LOS C or better.
- The AADT on US-1 (North leg) is 42,500, which translates to LOS D.

Intersection 6: US-1 (6 lanes on the North leg) and Datran Drive (2 routes on the West leg)
- The AADT on US-1 (North leg) is of 42,500, which translates to LOS D,
- The AADT on Datran Drive (West leg) is 5,600, which translates to LOS C or better.

For additional traffic data information refer to ***Appendix A: Traffic Data Sheets*****.**

4.3 COCONUT GROVE METRORAIL STATION

The Coconut Grove Metrorail Station is in the center north part of Miami, Florida's Coconut Grove neighborhood. It is located at the crossroads of South Dixie Highway (US-1) and West 27th Avenue/Grapeland Boulevard (SR 9). Refer to ***Figure 4-1: Coconut Grove Metrorail Station Location Map*****.**

Coconut Grove Metrorail Station Address: 2880 SW 28th Lane, Miami, FL 33133

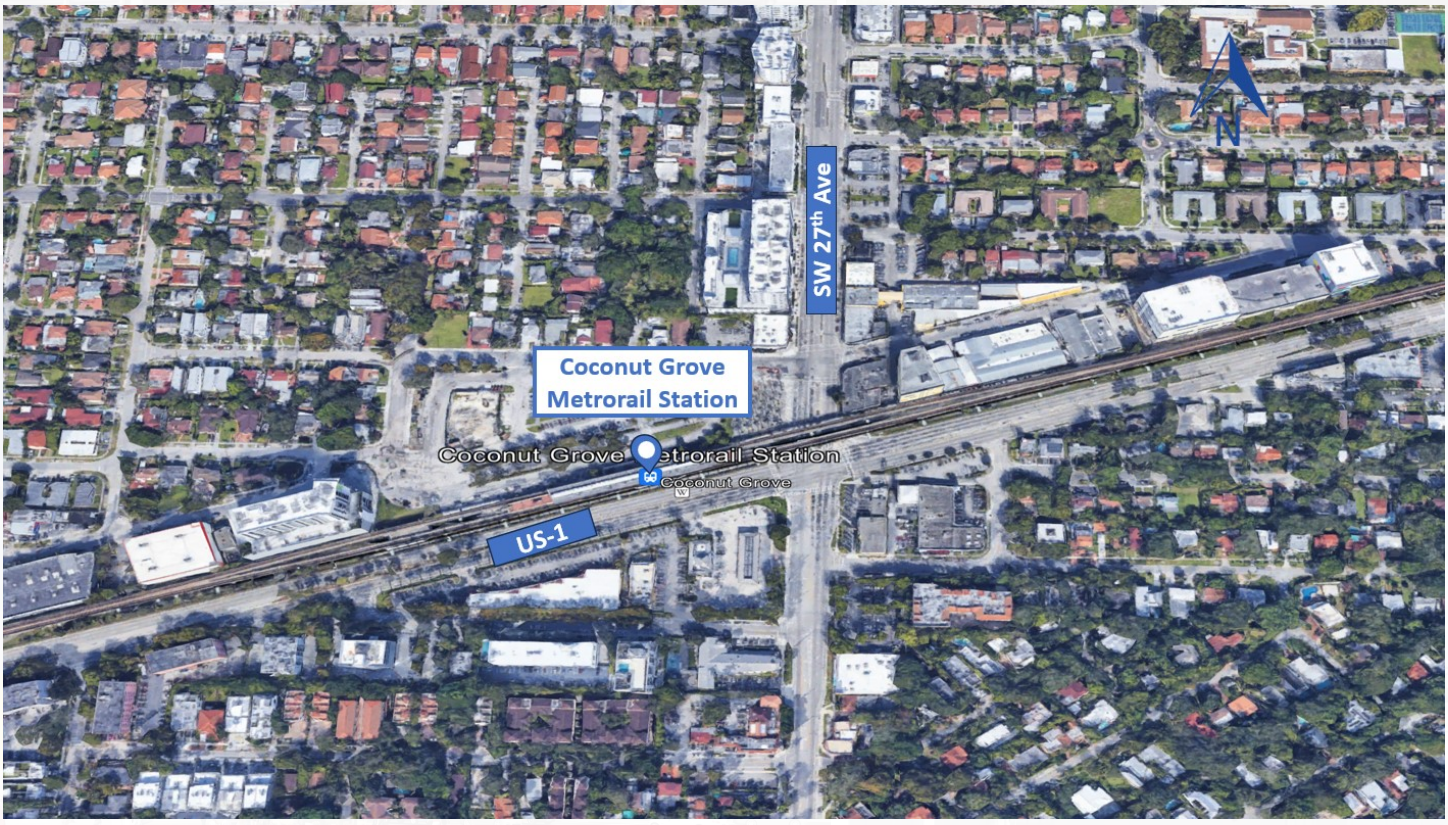


Figure 4-1: Coconut Grove Metrorail Station Location Map

The Coconut Grove Metrorail Station has two tracks served by an island platform, with a parking lot just north of the platform. A site visit was performed on March 30, 2023, and a summary of the existing conditions related to pedestrian and bicycle use around the Metrorail Station are identified below. Originally, a 0.25-mile radius was used to evaluate the traffic generators, however we observed that major traffic generators were within 1-mile of the Metrorail Station. Existing station amenities, infrastructure, and land uses include the following:

- **Average Bicycle Count:** 13
- **Bike Racks Present:** 9
- **Bicycle Lockers Available:** 28
- **Bicycle Lockers Rented:** 12
- **Lockers Damaged/ Not Rentable:** 18/15
- **Comments:** Insufficient rack capacity; 2 inverted U racks
- **Recommended Short Term Parking Needs (Rack Capacity):** 12
- **Recommended Long Term Parking Needs (Locker Capacity):** 20
- **Pedestrian attractors around station:**
    - CocoWalk is an outdoor shopping center near Coconut Grove Metrorail Station (approximately 0.8 miles from the station) including restaurants, cafes, and bars.
    - Monty's Raw Bar (approximately 0.6 miles from the station), Greenstreet Café (approximately 1 mile from the station), and
    - Peacock Park.
- **ADA facilities are available at the following locations:**
    - Coconut Grove Metrorail Station,
    - Barnacle Historic State Park, and
    - CocoWalk.
- **Major Land Uses:** Blanche Park, Lincoln Park, David T. Kennedy Park, Little Apple Learning Center, Douglas Park, and the Home Depot.

Some observations from our field visit to the Coconut Grove Metrorail Station are shown in ***Figure 4-2: Coconut Grove Metrorail Station Field Visit Images.*** Some of the items identified are described below:

1. Security Hazards: There is a lot of congestion and construction in the area (Grove Central, a mixed-use development is under construction, which will be a future traffic generator):
    - Grove Central will provide 172,000-square feet of retail space as well as 402 residential units, including 60 work-force housing units (future traffic generator).
    - Grove Central will connect with The Underline, a 10-mile linear park, transforming the land below Miami's Metrorail into an urban trail and living art destination.
2. There is no lighting in the walkway in front of the rail,
3. There is a bicycle repair station but no parking available. There are no bike lanes or trail. We identified a total of 9 bike racks.
4. There is elevator access inside the station for ADA purposes,
5. There are no bicycle lockers or bike lids available,
6. Speed limit is 45mph but driver behavior is fast/ aggressive (qualitative),
7. There are no scooters at this station,
8. Traffic generators include:
    - Cafes: Greenstreet Cafe & Mary's Café.
    - Parks: Peacock Park & Barnacle Historic State Park (located near the station). Barnacle Park is wheelchair accessible and there are parking spots for individuals with disabilities.

- Hotels: Hampton Inn by Hilton Miami-Coconut, Grove/Coral Gables.
- Schools: Mater Grove Academy and Coconut Grove Montessori School.
- Churches: Church of Scientology of Florida & Miami Church.
- Restaurants: Flanigan's Seafood Bar and Grill & Coral Bagels, and Monty's Raw Bar.








Figure 4-2: Coconut Grove Metrorail Station Field Visit Images

4.3.1 PEDESTRIAN AND BICYCLE TRAFFIC VOLUME FINDINGS

As part of the data collection effort the Project Team gathered bicycle and pedestrian activity and counts, as well as crash data. Refer to ***Figure 4-3: Coconut Grove Metrorail Station Traffic Volume Data Collection Graphic*** for Traffic Volume Counts. The counts are also summarized in ***Table 4-4: Coconut Grove Metrorail Station Traffic Volume Counts.***

Figure 4-3: Coconut Grove Metrorail Station Traffic Volume Data Collection Graphic

(See follow page for detailed view)

Intersection: US-1 at SW 27th Avenue

Crosswalk Leg	Mode	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Nighttime Peak Hour
East leg	Pedestrian Count	23	7	46	2
	Bicycle Count	6	0	5	1
West leg	Pedestrian Count	338	58	373	36
	Bicycle Count	45	4	25	6
North leg	Pedestrian Count	19	4	31	4
	Bicycle Count	14	5	19	0
South leg	Pedestrian Count	21	3	29	0
	Bicycle Count	21	1	4	1

Table 4-4: Coconut Grove Metrorail Station Traffic Volume Count at US-1and SW 27th Avenue

4.3.1 PEDESTRIAN AND BICYCLE TRAFFIC VOLUME FINDINGS

Figure 4-3: Coconut Grove Metrorail Station Traffic Volume Data Collection Graphic

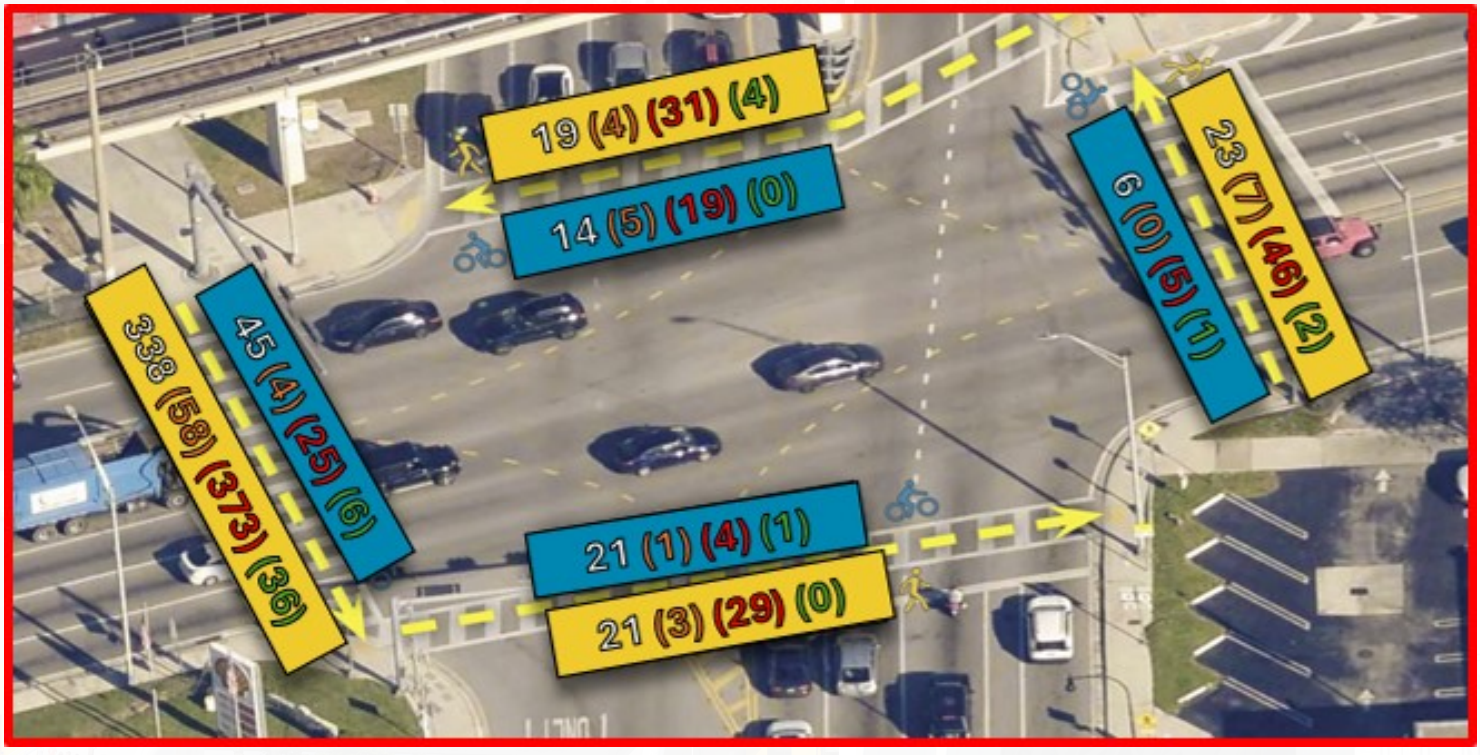


Figure 4-3: Coconut Grove Metrorail Station Traffic Volume Data Collection Graphic (detailed view)

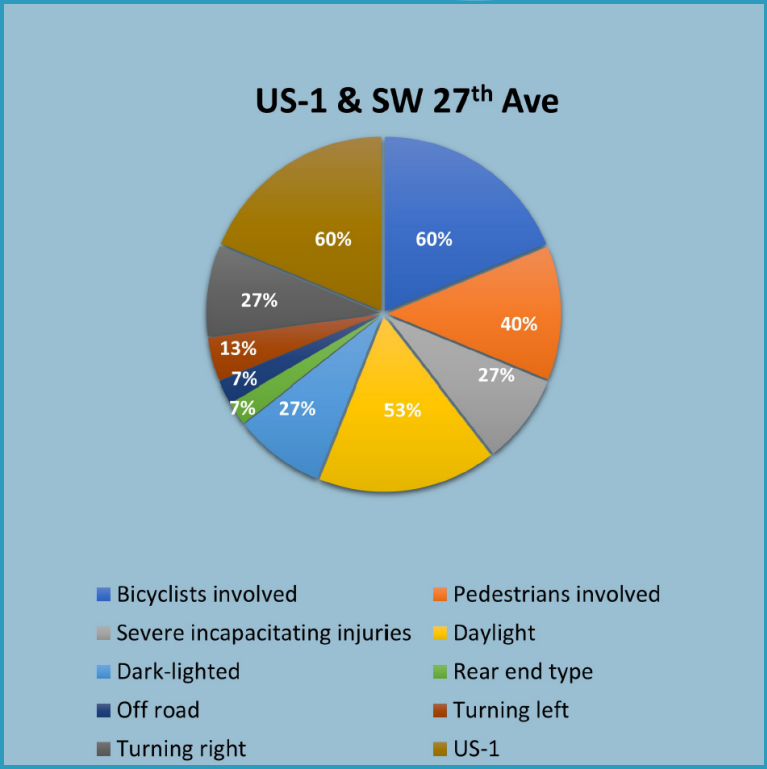
4.3.2 CRASH DATA

The main goal of the crash data analysis was to examine the causes of crashes throughout a five-year period. This analysis served as a guide to providing potential at-grade improvements. Below is a description of the data analysis performed:

US-1 and SW 27th Ave Data Analysis:

A total of fifteen (15) bike-pedestrian crashes were observed within the last five (5) years. Based on the safety analysis, below are some of the findings:

- 2 out of the 15 crashes occurred within the west leg crosswalk of the intersection which experienced higher demand compared to the other crosswalk due to the north part of the crosswalk connecting to the station,
- Out of the 12 crashes that occurred on the west leg,
    - 7 crashes involved bike-pedestrians not yielding to vehicles driving along US-1 or S Dixie Highway,
- 2 of these crashes were serious bodily injuries (SBIs),
    - In the 2 other crashes, it was unknown who had the right-of-way.
- A serious injury occurred with southbound left-turn vehicle (did not yield) colliding with bicycle on the east leg crosswalk,
- 3 out of the 15 crashes involved southbound right-turning vehicles colliding with bicyclists:
    - 2 crashes with southbound right-turning vehicles (during right turn on red phase) unable to stop before the crosswalk colliding with the bicyclists riding on the north leg crosswalk,
    - 1 crash occurred with southbound right-turning vehicle not yielding to bicyclist on the west leg crosswalk, during green for SW 27th Avenue vehicles.
- 7 out of the 15 crashes 47% occurred during dark and lighted conditions, which is higher than the Districtwide average of 27%.



4.3.3 IMPROVEMENTS TO THE COCONUT GROVE METRORAIL STATION

Project 1: Grove Central

- **Description:** Grove One Plaza is a Transit Oriented Development adjacent to the Coconut Grove Metrorail Station. The property was an on-grade parking lot with a large unused plaza to the East. The spaces filled up quickly for people riding for the most part north, into Downtown and Civic Center stations.

- **Location:** 2780 SW 27th Court, Miami, FL 33133

- **Bike-ped facilities:**
  - Polishing of stainless steel; and additional bike lockers.
  - Grove Central will also connect with The Underline, a 10-mile linear park, transforming the land below Miami's Metrorail into an urban trail and living art destination.
  - BikeLids will be provided to enable people to secure their bike using their own padlock and offering covered protection, (it would be free on a first-come, first-served basis). Note: BikeLids are not provided at this Metrorail location.
  - Grove Central will provide 172,000-square feet of retail space as well as 402 residential units, including 60 work-force housing units.
  - ADA facility: refurbished elevator and escalator.

- **Transportation benefits:**
  - Better mobility with ease of movement.
  - Higher foot-traffic for commercial businesses.
  - Reduced household spending on transportation.
  - Improved the hardscape and landscape between the new development and the station.
  - Upgraded lighting.
  - Increased transit parking: Five levels of parking with approximately 1,270 parking spaces.

- **Proposed innovations:**
  - New bus shelters with a continuous canopy to the station
  - Painting of existing structure
  - Real-time arrival and departure display at the covered connection to Grove Central.

4.4 DADELAND NORTH METRORAIL STATION

The Dadeland North Metrorail Station is a stop within the Metrorail Rapid Transit System, located in the Dadeland District of Glenvar Heights, Florida. Positioned at the crossing of South Dixie Highway (US-1) and SW 83rd Street along the Snapper Creek, the station is located two blocks north of Kendall Drive and two blocks south of the junction between US-1 and the Snapper Creek Expressway (SR 878). Refer to ***Figure 4-4: Dadeland North Metrorail Station Location Map***.

Dadeland North Metrorail Station Address: 8300 South Dixie Hwy, Miami, FL 33143

Figure 4-4: Dadeland North Metrorail Station Location Map

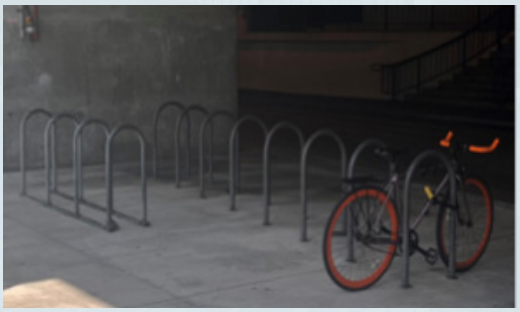
The Dadeland North Metrorail Station has two tracks served by an island platform, with a parking lot just north of the platform. A site visit was performed on March 29, 2023, and a summary of the existing conditions related to pedestrian and bicycle use around the Metrorail Station are identified below. A 0.25-mile radius was used to evaluate the traffic generators. Existing station amenities, infrastructure, and land uses include the following:

- **Average Bicycle Count:** 11
- **Bike Racks Present:** 1
- **Bicycle Lockers Available:** 2
- **Bicycle Lockers Rented:** 2
- **Lockers Damaged/ Not Rentable:** 0
- **Comments:** Insufficient rack capacity; lockers do not need replacement, but more lockers are needed
- **Recommended Short Term Parking Needs (Rack Capacity):** 16
- **Recommended Long Term Parking Needs (Locker Capacity):** 8
- **Pedestrian attractors around station:**
    - Dadeland Mall: Restaurants, Department stores, and the AC hotel.
    - Downtown Dadeland: Orange Theory Fitness, salons, a Publix, and Ghee Indian Kitchen.
    - Dadeland Station Shopping Center: Located directly off the Dadeland North Metrorail Station. This shopping center includes stores like Target, Best Buy, and Dick's Sporting Goods. **Note:** These are popular sites for UM students.
- **ADA facilities are available at the following locations:**
    - A network of escalators and pedestrian and cart elevators.
    - Signage throughout the Dadeland Mall to help direct both arriving vehicles and transit system users to their destinations.
- **Major Land Uses:** Dadeland North shopping center, Hampton Inn Miami Dadeland, Miami Marriot Dadeland, Gulliver Prep Upper School Campus, Gary Matzner Park, Dadeland Mall, Xceed Preparatory Academy Kendall/ Pinecrest

Some observations from our field visit to the Dadeland North Metrorail Station are shown in ***Figure 4-5: Dadeland North Metrorail Station Field Visit Images***. Some of the items identified are described below:

1. Security Hazards: There is a need for dedicated bike lanes and crosswalks, specially a need to cross over US-1 since there are no push buttons.
2. There are streetlights and station lighting but some of the lights around the station are not working.
3. Parking availability: micro-mobility parking is available. Bicycle racks are available in front of the station and in the northside. No motorcycle parking is available at the station.
4. No bicycle lockers or bike lids available
5. There are pedestrian ramps, a bike trail/path, and elevator access for disabled. Future improvements on additional elevators and special ADA ramps are needed.
6. Hazards for a blind person: Manhole cover.
7. There is a drop-off pick up zone available.
8. Speed limit: 45 mph and driver behavior is regularly slow/patient.
9. Scooters present at the station.
10. Traffic generators include:
    - Malls: Dadeland Mall and Dadeland Station Shopping Center.
    - Gym: Orange Theory Fitness.

- Restaurants: Ghee Indian Kitchen and The Big Cheese of Miami.
- Stores: Target, Best Buy, Dick's Sporting Goods.
- Schools: Gulliver Preparatory School.



Speed limit: 45 mph
Driver's behavior: slow/patient
Traffic generators: mall & shopping center, hotels, a school &restaurants.

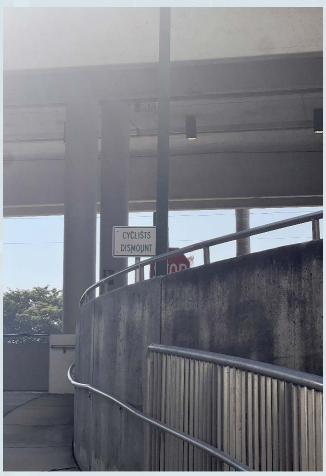


Figure 4-5: Dadeland North Metrorail Station Field Visit Images

4.4.1 PEDESTRIAN AND BICYCLE TRAFFIC VOLUME FINDINGS

As part of the data collection effort the Project Team gathered bicycle and pedestrian activity and counts, as well as crash data. Refer to ***Figure 4-6: Dadeland North Metrorail Station Traffic Volume Graphic*** for Traffic Volume Counts. The counts are also summarized in ***Table 4-5: Dadeland North Metrorail Station Traffic Volume Counts at US-1 and SW 88th Street, Table 4-6: Dadeland North Metrorail Station Traffic Volume Counts at US-1 and SW 68th Court***, and ***Table 4-7: Dadeland North Metrorail Station Traffic Volume Count at US-1 and SW 84th Street***.

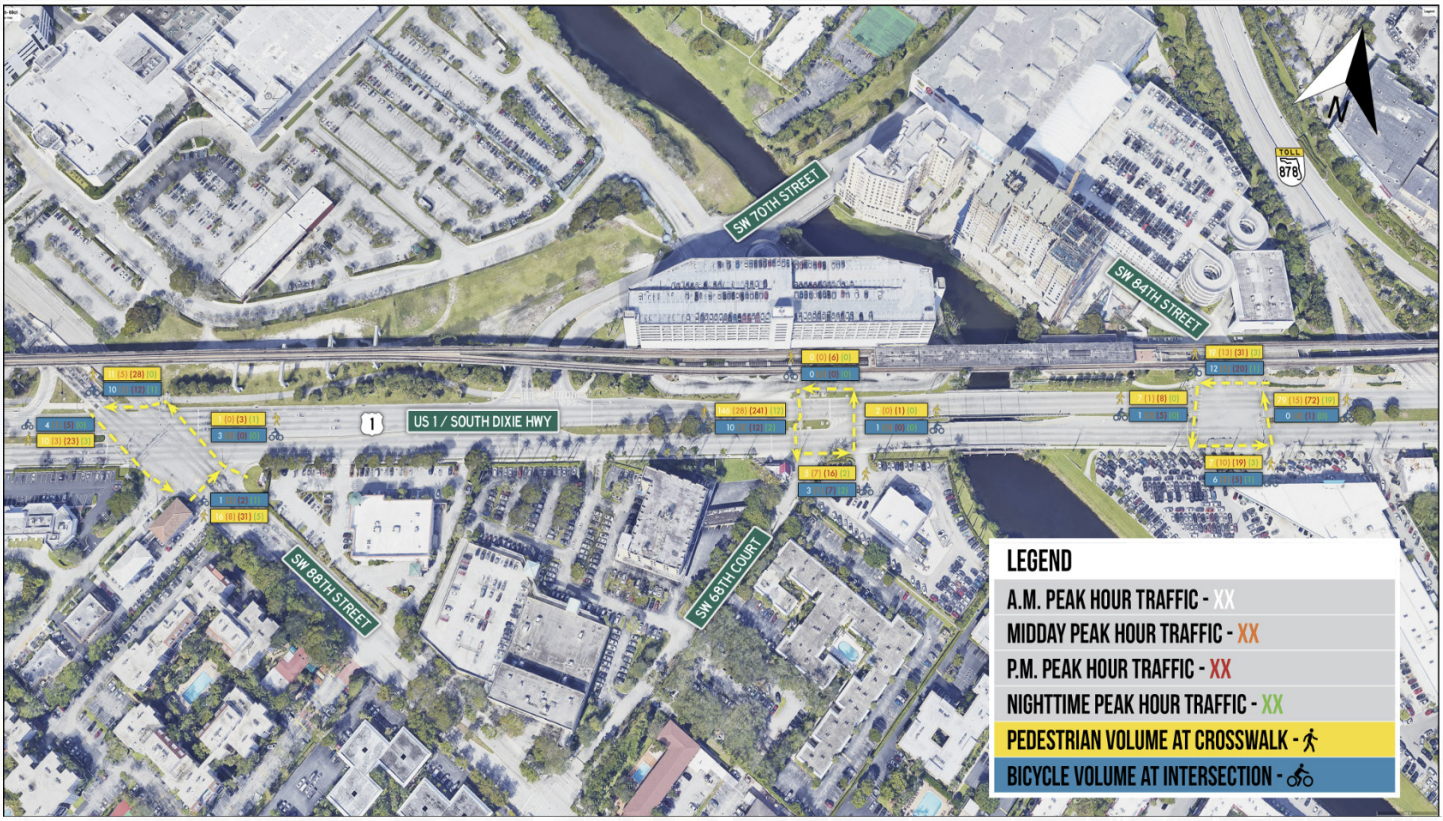


Figure 4-6: Dadeland North Metrorail Station Traffic Volume Data Collection Graphic *(See follow page for detailed view)*

4.4.1 PEDESTRIAN AND BICYCLE TRAFFIC VOLUME FINDINGS

Figure 4-6: Dadeland North Metrorail Station Traffic Volume Data Collection Graphic

Figure 4-6: Dadeland North Metrorail Station Traffic Volume Data Collection Graphic (detailed view)

Intersection 1: US-1 at SW 88th Street

Crosswalk Leg	Mode	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Nighttime Peak Hour
East leg	Pedestrian Count	1	0	3	1
	Bicycle Count	3	0	0	0
West leg	Pedestrian Count	10	3	23	3
	Bicycle Count	4	1	5	0
North leg	Pedestrian Count	11	5	28	0
	Bicycle Count	10	1	12	1
South leg	Pedestrian Count	16	8	31	5
	Bicycle Count	1	2	2	1

Table 4-5: Dadeland North Metrorail Station Traffic Volume Count at US-1and SW 88th Street

Intersection 2: US-1 at SW 68th Court

Crosswalk Leg	Mode	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Nighttime Peak Hour
East leg	Pedestrian Count	2	0	1	0
	Bicycle Count	1	0	0	0
West leg	Pedestrian Count	146	28	241	12
	Bicycle Count	10	5	12	2
North leg	Pedestrian Count	0	0	6	0
	Bicycle Count	0	0	0	0
South leg	Pedestrian Count	5	7	16	2
	Bicycle Count	3	1	7	2

Table 4-6: Dadeland North Metrorail Station Traffic Volume Count at US-1 and SW 68th Court

Intersection 3: US-1 at SW 84th Street

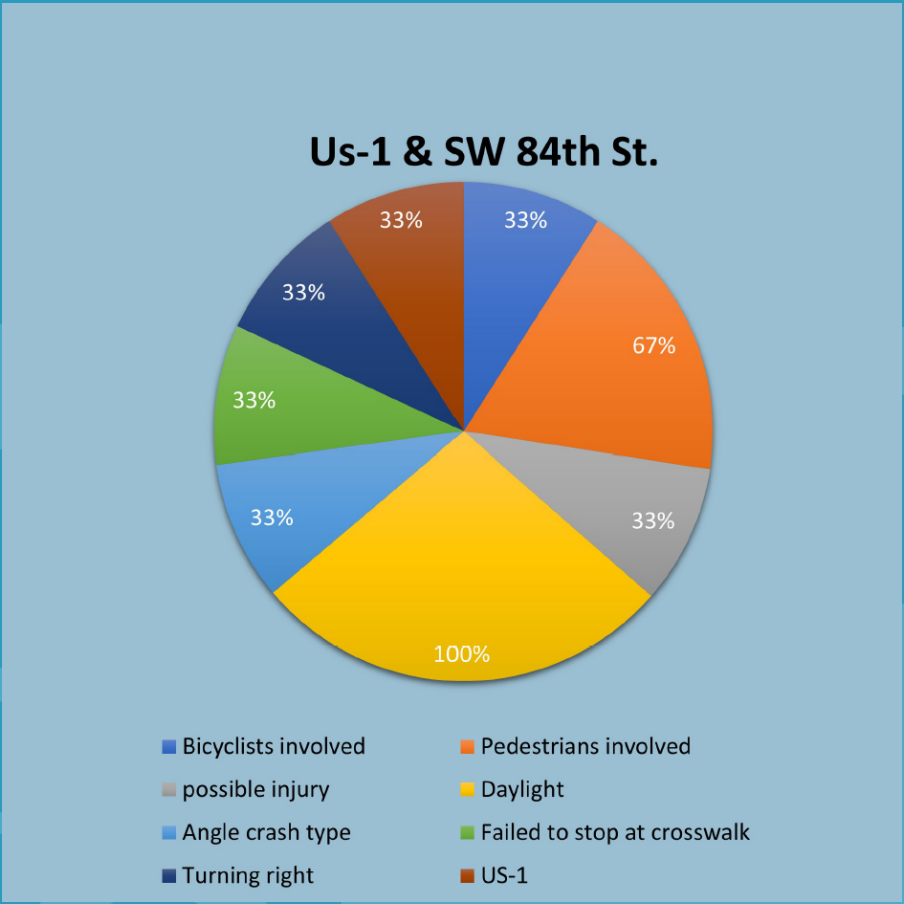
Crosswalk Leg	Mode	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Nighttime Peak Hour
East leg	Pedestrian Count	2	0	1	0
	Bicycle Count	1	0	0	0
West leg	Pedestrian Count	146	28	241	12
	Bicycle Count	10	5	12	2
North leg	Pedestrian Count	0	0	6	0
	Bicycle Count	0	0	0	0
South leg	Pedestrian Count	5	7	16	2
	Bicycle Count	3	1	7	2

Table 4-7: Dadeland North Metrorail Station Traffic Volume Count at US-1 and SW 84th Street

4.4.2 CRASH DATA

The main goal of the crash data analysis is to examine the causes throughout a five-year period, which can provide an overview of potential at-grade improvements. Three (3) crashes occurred in total during the five years:

- At SW 68th Court mid-block crossing: A pedestrian was crossing US-1 about 250 feet away from the available mid-block crossing at SW 68th Court. This was a serious injury and occurred during the nighttime.
- At SW 84th Street, a couple of crashes were observed within the intersection:
- In one crash, a vehicle was driving south on SW 84th Street attempting to make a right-turn to drive west on US-1 (the light was red for the southbound approach). To make the right turn on red, the vehicle drove slightly onto the crosswalk, looking left for the vehicles on US-1 and collided with the bicyclist on the north leg crosswalk. The driver was cited for not yielding to bicyclists.
- In another crash, that occurred during the green for southbound vehicle, the right turning vehicle collided with a bicyclist on the west leg crosswalk. Similar to the previous crash, the vehicle did not yield to the bicyclist in the crosswalk.



4.4.3 IMPROVEMENTS TO THE DADELAND NORTH METRORAIL STATION

Project 1: The Pedestrian Bridge Proposal

- **Description:** The plan is to build a bridge to connect the Metrorail Station to the nearby Dadeland Mall.
- **Location:** The intersection of North Kendall Drive and North Dixie Highway.
- **Bike-ped facilities:**
  - The proposed bridge would be approximately 1,000 feet long and would span the busy intersection and accommodate pedestrians and bicyclists with separate lanes for each.
  - It would feature elevators and escalators, making it accessible for people with disabilities.
- **Transportation benefits:**
  - The bridge would provide a safer and more convenient route for pedestrians, allowing them to cross busy roads without having to navigate traffic.
- **Proposed innovations:**
  - Elevated and safer design
  - Elevators and escalators for ADA facilities
  - Aesthetically pleasing design
  - Separated lanes for pedestrians and bicyclists.

4.4.3 IMPROVEMENTS TO THE DADELAND NORTH METRORAIL STATION

Project 2: The Underline

- **Description:** A 10-mile linear park underneath the Metrorail elevated mass transit tracks from the Miami River south to Dadeland.

- **Location:** It is located underneath the Metrorail's elevated tracks, running from Miami River to Dadeland South Metrorail Station in South Miami.

- **Bike-ped facilities:**
  - The project will include bike and walking paths, landscaping and connections to other transit and parks.
  - Green space
  - Community Gathering Area
  - Public art installations

- **Transportation benefits:**
  - Active transportation: biking paths would reduce traffic congestion and improve air quality in the area.
  - Improved connectivity: it would be easier for different neighborhoods and destinations in the area to get around without a car.
  - Transit oriented development: It would encourage people to use public transportation.
  - Multi-Modal Transportation: pedestrians, bicyclists, scooters and electric bikes would be accommodated on the linear park.

- **Proposed innovations:**
  - Stormwater Management
  - Solar Panels
  - Public Art Installations
  - Educational Signage: Park's history, ecology, and sustainability features promoting environmental awareness.

4.5 DADELAND SOUTH METRORAIL STATION

The Dadeland South Metrorail Station is located in the Dadeland District of Kendall, Florida. This station serves as a transfer point within the Metrorail's rapid transit system. It is located close to the crossing of Dadeland Boulevard (9150 Dadeland Boulevard) and Datran Boulevard, and near South Dixie Highway (US 1). The station is located three blocks southwest of Kendall Drive and Dadeland Mall, and is situated just east of the junction between US-1 and the Palmetto Expressway (SR 826). Refer to ***Figure 4-7: Dadeland South Metrorail Station Location Map***.

Dadeland South Metrorail Station Address: 9150 Dadeland Boulevard Miami, Florida 33156

Figure 4-7: Dadeland South Metrorail Station Location Map

The Dadeland South Metrorail Station has two tracks served by an island platform, with a subterranean parking lot located adjacent (south side) of the platform. A site visit was performed on March 28, 2023, and a summary of the existing conditions related to pedestrian and bicycle use around the Metrorail Station are identified below. A 0.25-mile radius was used to evaluate the traffic generators. Existing station amenities, infrastructure, and land uses include the following:

- **Average Bicycle Count:** 12
- **Bike Racks Present:** 0
- **Bicycle Lockers Available:** 18
- **Bicycle Lockers Rented:** 9
- **Lockers Damaged/ Not Rentable:** 8/6
- **Comments:** Insufficient rack capacity.
- **Recommended Short Term Parking Needs (Rack Capacity):** 16
- **Recommended Long Term Parking Needs (Locker Capacity):** 16
- **Pedestrian attractors around station:**
    - Hospital: American Access Care of Miami.
    - School: Xceed Preparatory Academy-Kendall/Pinecrest.
    - Bank: Bank of America.
    - Salons: Drama Salon and Riudi Salon.
    - Hotels: Miami Marriot Dadeland.
    - Supermarket: Publix.
    - Gym: Orange Theory Fitness.
- **Major Land Uses:** Dadeland Mall, Dadeland Animal Hospital, Flagler Grove Park, True North Classical Academy Dadeland, Saint Andrew Greek Orthodox Church

Some observations from our field visit to Dadeland South Metrorail Station are shown in ***Figure 4-8: Dadeland South Metrorail Station Field Visit Images.*** Some of the items identified are described below:

1. Security Hazards: Parking entrance needs pedestrian signs for cars to yield. No speed limit signs visible. Push button present and crosswalks need maintenance.
2. There are streetlights and station lighting but some of the lights around the station are not working.
3. Parking entrance at Datran Center needs pedestrian signs for cars to yield. No speed limit signs visible.
4. No bicycle lockers or bike racks available. Only 6 bike lids are present, and bicyclists dismount at Datran Drive.
5. There are pedestrian ramps, a bike trail/path and elevator access for disabled. Future improvements on additional elevators and special ADA ramps are needed.
6. There are push buttons at Datran Drive
7. Drivers' behavior is fast/aggressive.
8. Crosswalks need maintenance.
9. There are scooters available.
10. Traffic generators include:
    - Hospital: American Access Care of Miami.
    - School: Xceed Preparatory Academy-Kendall/Pinecrest.
    - Bank: Bank of America.
    - Salons: Drama Salon and Riudi Salon.
    - Hotels: Miami Marriot Dadeland.
    - Supermarket: Publix.
    - Gym: Orange Theory Fitness.

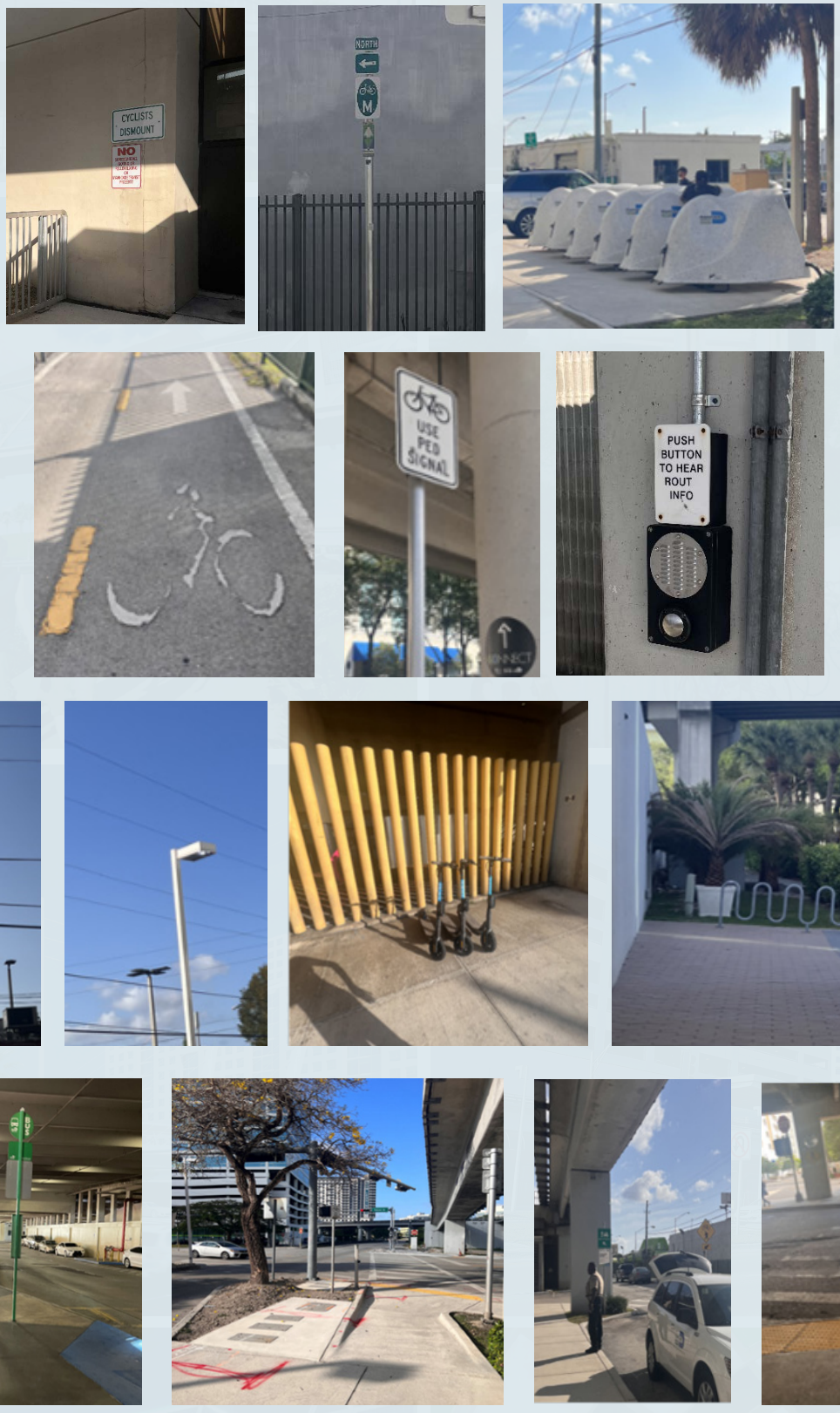


Figure 4-8: Dadeland South Metrorail Station Field Visit Images

4.5.1 PEDESTRIAN AND BICYCLE TRAFFIC VOLUME FINDINGS

As part of the data collection effort the Project Team gathered bicycle and pedestrian activity and counts, as well as crash data. Refer to ***Figure 4-9: Dadeland South Metrorail Station Traffic Volume Data Collection Graphic*** for Traffic Volume Counts. The counts are also summarized in ***Table 4-8: Dadeland South Metrorail Station Traffic Volume Counts at Dadeland Boulevard.*** and in ***Table 4-9: Dadeland South Metrorail Station Traffic Volume Counts at Datran Drive.***

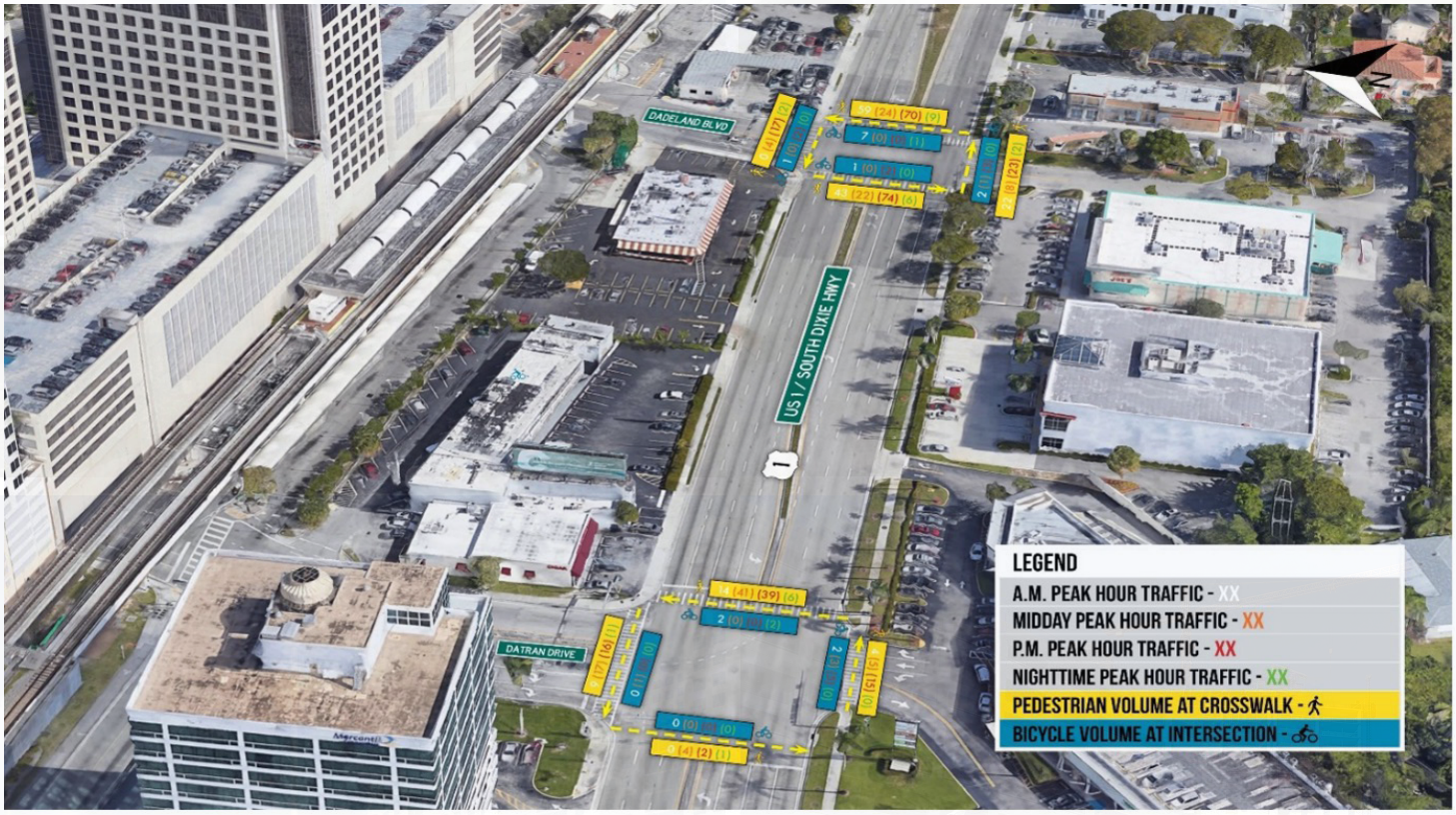


Figure 4-9: Dadeland South Metrorail Station Traffic Volume Data Collection Graphic *(See follow page for detailed view)*

Intersection: US-1 at Dadeland Boulevard

Crosswalk Leg	Mode	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Nighttime Peak Hour
East leg	Pedestrian Count	22	8	23	2
	Bicycle Count	2	1	3	0
West leg	Pedestrian Count	0	4	17	2
	Bicycle Count	1	0	2	0
North leg	Pedestrian Count	59	24	70	9
	Bicycle Count	7	0	0	1
South leg	Pedestrian Count	43	22	74	6
	Bicycle Count	1	0	2	0

Table 4-8: Dadeland South Metrorail Station Traffic Volume Count at US-1 and Dadeland Boulevard

4.5.1 PEDESTRIAN AND BICYCLE TRAFFIC VOLUME FINDINGS

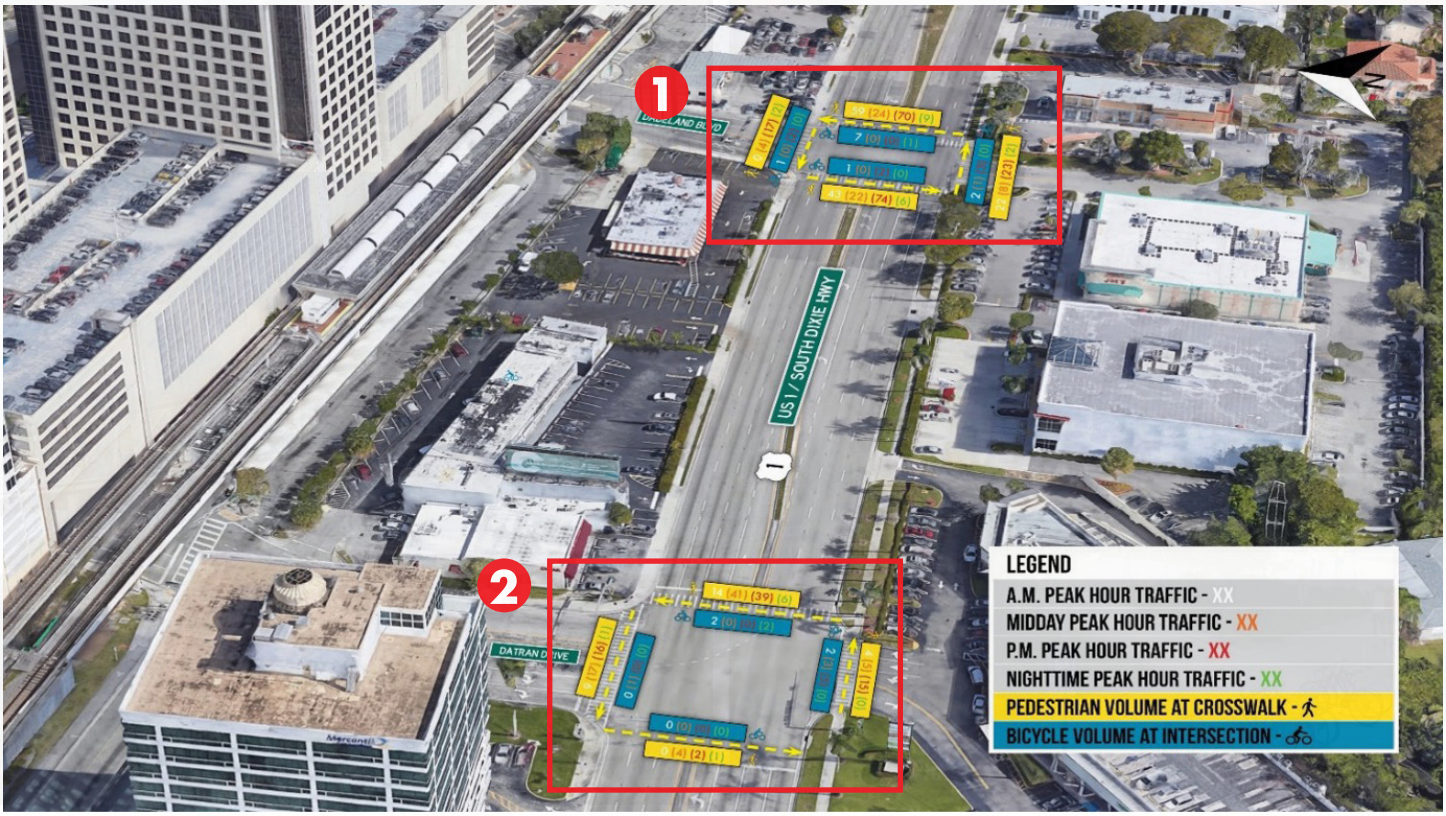


Figure 4-9: Dadeland South Metrorail Station Traffic Volume Data Collection Graphic

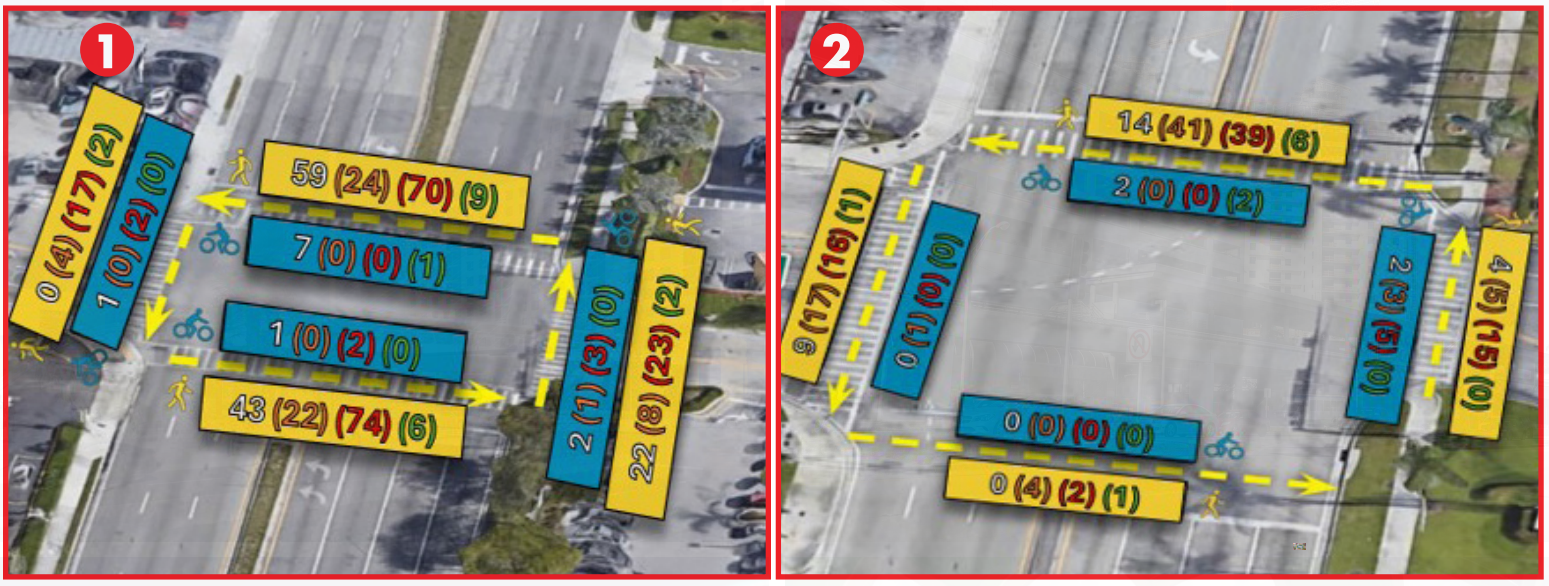


Figure 4-9: Dadeland South Metrorail Station Traffic Volume Data Collection Graphic (zoomed-in)

Intersection: US-1 at Datran Drive

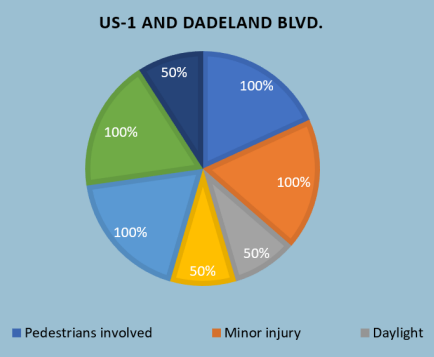
Crosswalk Leg	Mode	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Nighttime Peak Hour
East leg	Pedestrian Count	4	5	15	0
	Bicycle Count	2	3	5	0
West leg	Pedestrian Count	9	17	16	1
	Bicycle Count	0	1	0	0
North leg	Pedestrian Count	14	41	39	6
	Bicycle Count	2	0	0	2
South leg	Pedestrian Count	0	4	2	1
	Bicycle Count	0	0	0	0

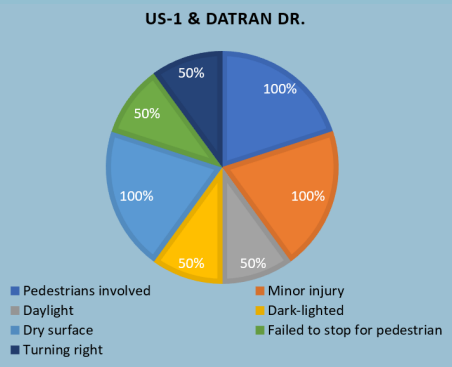
Table 4-9: Dadeland South Metrorail Traffic Volume Count at US-1 and Datran Drive

4.5.2 CRASH DATA

The main goal of the crash data analysis is to examine the causes throughout a five-year period, which provide an overview for the potential at-grade improvements. Four (4) crashes occurred in total during the five years:

- At Datran Drive, a couple of crashes occurred where the vehicles were driving south on Datran Drive attempting to make a right-turn to drive west on US-1 (the light was red for the southbound approach). To make the right turn on red, the vehicle drove slightly onto the crosswalk, looking left for the vehicles on US-1 and collided with the bicyclist on the north leg crosswalk. In both the cases, drivers were cited for not yielding to bicyclists.
- At Dadeland Boulevard, a couple of crashes were observed within the intersection:
- One crash occurred with a southeast bound (Dadeland Boulevard to US-1 east) vehicle making a left-turn and collided with a pedestrian who was crossing US-1 in the north-south direction away from the available crosswalk on the east leg.
- Another crash occurred with a motorcycle riding southwest bound on US-1 and collided with a pedestrian on the east leg crosswalk. The vehicle had the green light and the pedestrian did not yield to the vehicle.





4.5.3 IMPROVEMENTS TO THE DADELAND SOUTH METRORAIL STATION

Project 1: South Dade Transitway

- **Description:** The Project includes improvements to the existing Dadeland South Metrorail Station to provide better weather protection, reconfiguration of the drop-off/pick-up area, and improvements to existing amenities.
  - The SMART Initiative is a strategic and expansive vision for our region that uses technology at the highest levels to leverage existing infrastructure to build a network of numerous mobility options. The program supports projected increases in employment and population.
  - South Dade Transitway under construction which will provide Bus Rapid Transit (BRT) service from Dadeland South to SW 344 Street Transit Terminal.
- **Location:** The South Dade TransitWay extends from the Dadeland South Metrorail Station to the SW 344th Street Park-and-Ride/Transit Terminal, and it provides a mobility connection between the Miami Central Business District and the Village of Pinecrest, the Village of Palmetto Bay, Town of Cutler Bay, City of Homestead, and Florida City.

- **Bike-ped facilities:**
  - Surface Park and ride lot north of the station area
  - Dedicated lanes with multi-layered service lines, BRT will also offer improved safety features and other modifications on the TransitWay.

- **Transportation benefits:**
  - Connects numerous municipalities which represent some of the fastest growing communities in Miami-Dade County.
  - Sets new efficiency standard for public transportation.
  - Viable solution for future transportation demands.
  - Improvements to the existing amenities include facility technologies, barrier and security systems, bicycle amenities, lighting, landscape and hardscape elements, climate control systems, wayfinding signage, and vertical circulation elements. Also, site improvements to adjacent roadways, signalized.
  - Through lane for buses not stopping at BRT stations
  - Off-Board fare collection
  - Traffic Signal Preemption (TSP) technology to keep BRT vehicles moving through intersections.
  - Gate arms at intersections for added safety.

- **Proposed innovations:**
  - The design and construction of canopies.
  - This project is targeting LEED for Transit Stations "Silver"- level certification.
  - When fully operational, BRT will have iconic stations, rail-like journey times, level boarding through all doors, and pre-paid fees for quick access.
  - Air-conditioned vestibules
  - Center platform loading
  - Wi-Fi inside stations
  - CCTV cameras & 24-hour security
  - Improved lighting at and around stations
  - ADA compliant level boarding platform
  - Real-time bus arrival display

4.5.3 IMPROVEMENTS TO THE DADELAND SOUTH METRORAIL STATION

Project 2: Dadeland South Intermodal Station Preliminary Design

- **Description:** This project will significantly improve and enhance the infrastructure, operations, and safety at the Dadeland South Metrorail Station, a core transit hub. The station is the southern terminus of the existing Metrorail system and is the northern terminal station of the South Dade TransitWay, which was selected to operate as the County's first Bus Raid Transit (BRT) program by the County's Transportation Planning Organization in 2018. Upon project completion, the Station shall seamlessly integrate the BRT operations with the existing transit services (Metrorail and local bus). The project is a continuation of and complementary to the South Corridor of the SMART Program. The specific scope of work includes the design and construction of: (1) various canopies to provide better weather protection for transit riders on the BRT platform, Metrorail platform and connecting elements between the Metrorail platform and the drop-off/pick-up area; (2) the drop-off/pick-up area north of the Station for easier vehicular and pedestrian access; (3) an at-grade bike path connecting to the County's Underline project and the South Dade Trail; (4) improvements throughout the station to the existing amenities such as barrier and security systems, bicycle infrastructure, lighting, landscape and hardscape elements, climate control systems, wayfinding signage and vertical circulation; and (5) the Metrorail guideway structural and drainage improvements and site improvements to adjacent roadways, signalized intersections and the surface park-and-ride lot north of the Station area. It is anticipated that the construction work will have a minimal impact on bus and rail service for transit riders. Plans include a phased approach to ensure continuity of service throughout the project, with short-term service adjustments as needed (e.g., temporary relocation of bus drop-off/pick-up zones). The project is also aiming to qualify for LEED for Transit Stations Silver-level certification.

- **Location:** The South Dadeland Metrorail Station between Datran Drive and Dadeland Boulevard in Kendall, Florida.

- **Transportation benefits:** The proposed improvements will have a positive impact for transit users and riders.

4.5.3 IMPROVEMENTS TO THE DADELAND SOUTH METRORAIL STATION

Project 3: Two Connected Transit-Oriented Mixed-Use Towers; Ocean Dadeland, LLC.

- **Description:** The legendary Shorty's Barbecue, located on US-1 across the street from the Dadeland South Metrorail Station, is being replaced by two (2) transit-oriented community towers. The project calls for two connected mixed-use towers of 20 and 25 stories that would collectively yield 780,703 square feet of space, including 500 multifamily residential units, 4,851 square feet of ground-floor retail, and 668 parking spaces. The towers would rise 318 and 280 feet. The two towers will be connected by a bridge designed to provide a free flow of light and air from the east to west towers. The property comprises two parcels of land that sit north and south of Dadeland Boulevard, between South Miami-Dade Busway and South Dixie Highway. The north parcel is the smallest of the two, spanning 12,382 square feet and currently improved with an auto service center. The south parcel spans 32,220 square feet and is home to Shorty's BBQ restaurant. The transit-oriented community assemblage sits adjacent to the Metrorail Dadeland South Metrorail Station and is within the Core subdistrict of the Downtown Kendall Urban Center.

- **Location:** 9180 & 9200 S Dixie Hwy, Miami, FL 33156

- **Transportation benefits:** Improves mobility and options for residents and riders around the South Dadeland Metrorail Station.

TECHNICAL MEMORANDUM NO. 3

CONNECTIVITY ASSESSMENT AND CONCEPT DEVELOPMENT

TPO
Miami-Dade Transportation Planning Organization

5.0 CONNECTIVITY ASSESSMENT AND CONCEPT DEVELOPMENT

The Project Team performed a feasibility analysis to identify, evaluate and determine the best suited bicycle and pedestrian connectivity improvement recommendations at the three Metrorail stations crossing over US-1. As part of the connectivity assessment, the Project Team assessed travel volumes and connection points for the origin and destination of pedestrian and bicyclists' travel and proposed concepts for bicycle/pedestrian overpasses and other safety enhancements to improve accessibility at each of the three Metrorail stations.

The placement of bicycle/pedestrian bridges at the Coconut Grove, Dadeland North and Dadeland South Metrorail stations located along the US-1 corridor would seek to provide pedestrians and bicyclists with safer mobility options and would promote transit use by providing greater pedestrian/bicyclist accessibility to the existing Metrorail system. This is made more critical with the current and future development of high-density mixed-use projects along the US-1 corridor. Three bicycle/pedestrian bridges currently exist over US-1 at the Vizcaya, Douglas Road and University Metrorail stations. The following section is based on the assumption that the project will propose a pedestrian bridge similar to the existing bicycle/pedestrian bridge footprint located at the University Metrorail Station.

Figure 5-1: University Metrorail Station Pedestrian Bridge over US-1

5.1 BICYCLE/PEDESTRIAN OVERPASS FOOTPRINT

The University Metrorail Station Pedestrian bridge footprint is comprised of the following:

- The footprint of each tower is approximately 275 square feet (20-ft. 8-in length by 13-ft. 4-in width).
- The footprint of each staircase accounts for a width of 5-ft. with the orientation of the steps set to accommodate conditions at each tower location.
- The width of the bicycle/pedestrian bridge is set to 13-ft. 4-in.

5.2 COCONUT GROVE METRORAIL STATION ALTERNATIVES

To understand the existing bicycle or pedestrian accessibility and connectivity issues around the Metrorail station, available data was collected and analyzed to understand bicycle and pedestrian conditions. The existing conditions of the intersection at US-1 & SW 27th Avenue consist of 10-ft. crosswalks, lighting, mast arms, CCTV Cameras, and Drainage inlets. Refer to ***Figure 5-2: Coconut Grove Metrorail Station Intersection at US-1 and SW 27th Avenue Existing Conditions***.

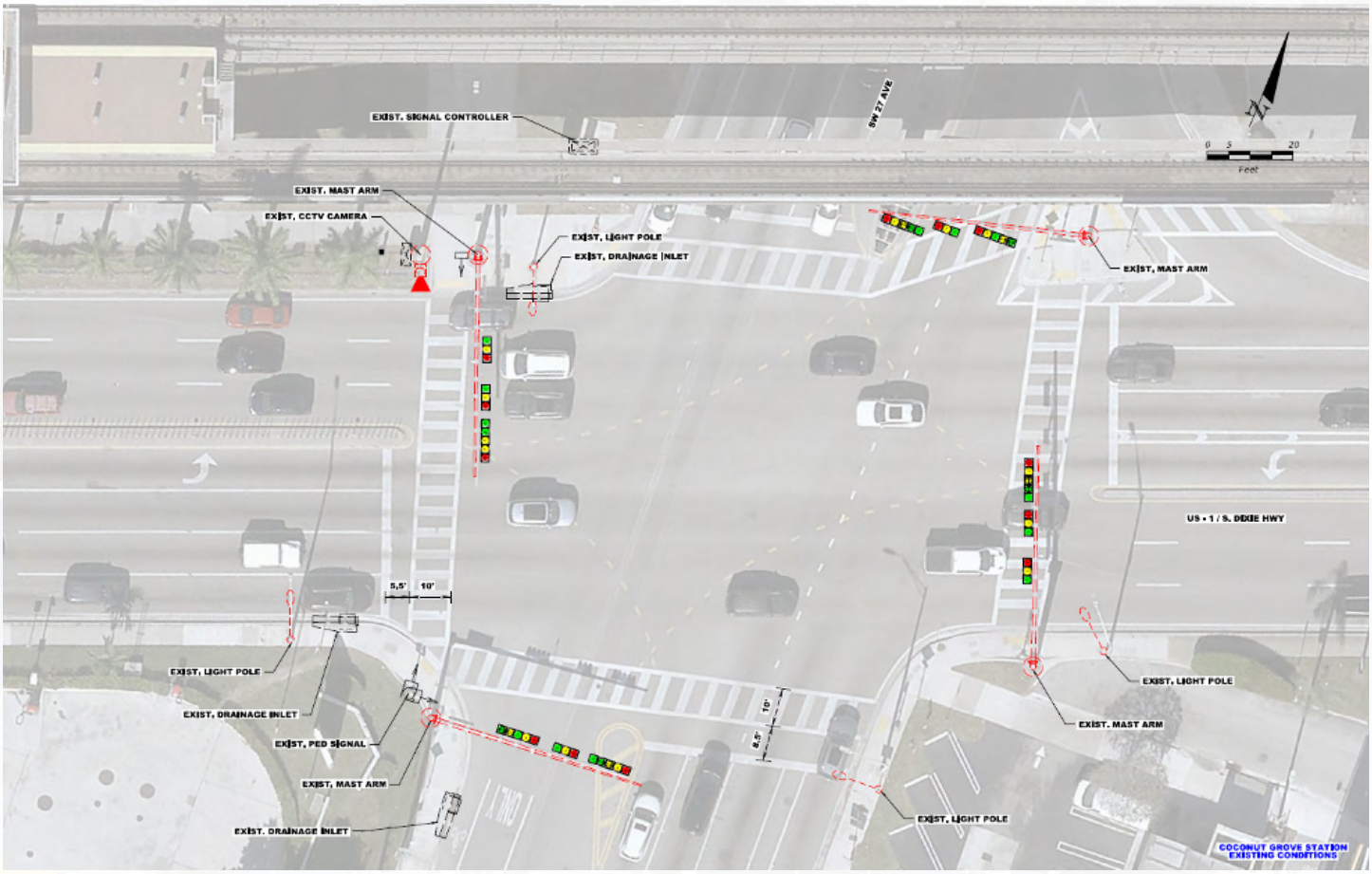


Figure 5-2: Existing Conditions at Coconut Grove Metrorail Station Intersection at US-1 and SW 27th Avenue

Based on the goals and objectives supporting the Purpose and Need of the Feasibility Study the following alternatives have been identified at the Coconut Grove Metrorail Station:

1. **Alternative 1** - Second Level Pedestrian Bridge Over US-1 & SW 27th Avenue
2. **Alternative 2** - Third Level Pedestrian Bridge Over US-1 & SW 27th Avenue
3. **Alternative 3** – At Grade Improvements at US-1 & SW 27th Avenue

5.2.1 ALTERNATIVE 1 – SECOND LEVEL PEDESTRIAN BRIDGE OVER US-1 & SW 27TH AVENUE

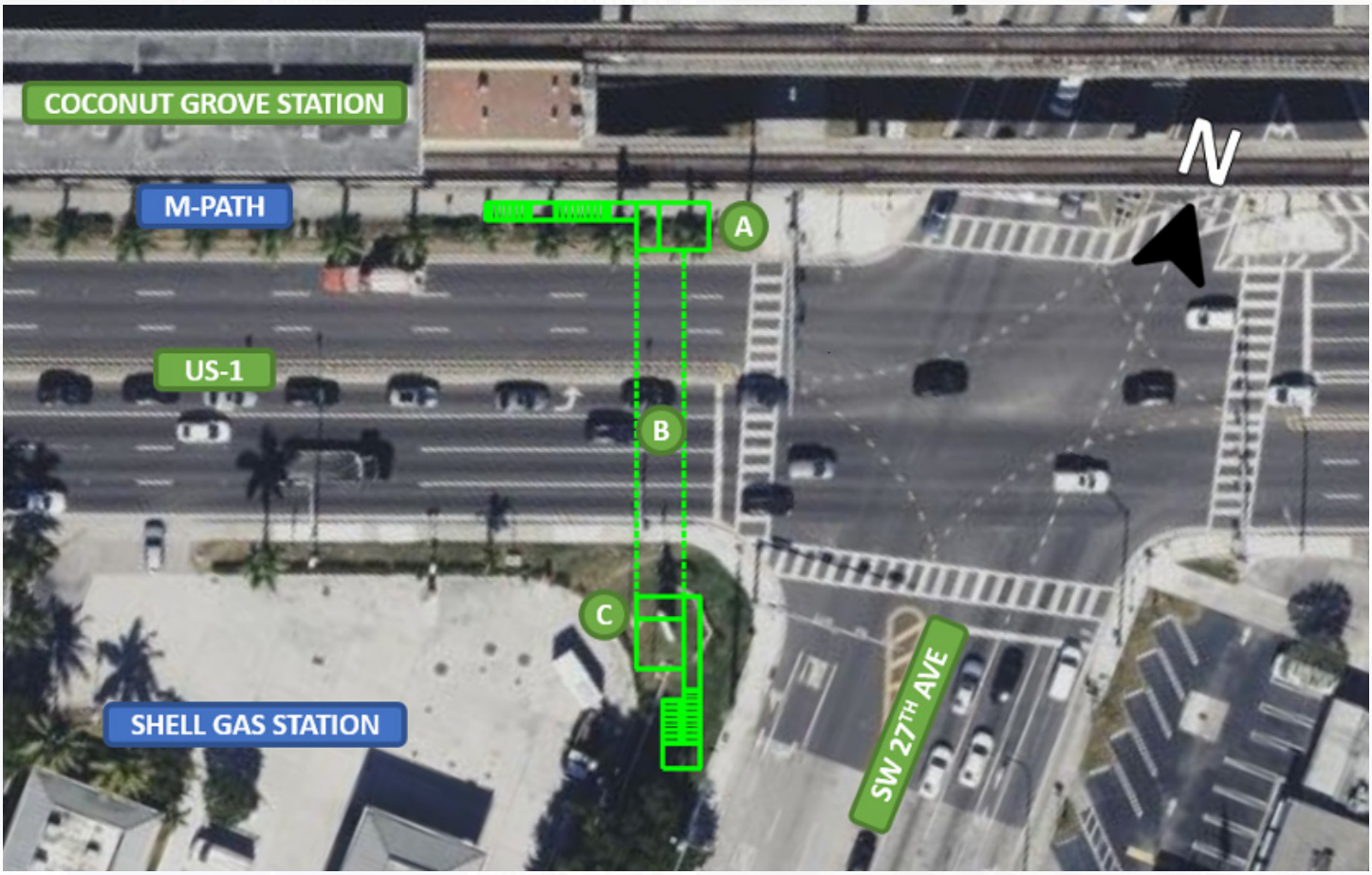


Figure 5-3: Coconut Grove Metrorail Station Alternative 1 Bridge Location

Proposed Bridge

Considering the need for safety, connectivity, and to minimize impacts to existing conditions, the optimal location for a bicycle/pedestrian bridge for access to the Coconut Grove Metrorail Station is west of SW 27th Avenue over US-1. Refer to ***Figure 5-3: Coconut Grove Metrorail Station Alternative 1 Bridge Location***. The placement of the bridge shown allows for bicycle and pedestrian traffic to cross US-1 by entering the South Tower (C), crossing the approximately 102- ft. span bridge (B) to arrive at the North Tower (A), and exiting the North tower to arrive directly at the Coconut Grove Metrorail Station. Below are the proposed bridge characteristics:

- West Tower **(A)** located in front of Metrorail Station
- 102-ft. Bridge Span **(B)** to span over US-1
- East Tower **(C)**
- Tower Height = 40-ft.

Impacts

The following impacts have been identified for Alternative 1:

- Due to the confined area (Approx. 21.5 ft. from Southbound US-1's curb face to Metrorail superstructure) placement of the North Tower (A) will require alteration of the existing M-Path and future Underline 10 ft. bicycle path and the removal of the landscaping that is within the building and staircase footprint. The available length of 21.5 ft. allows for a 4 ft. clearance from face of curb to the North Tower, and a 4 ft. clearance from the North Tower to the Metrorail Superstructure. Refer to ***Figure 5-4: Proposed Underline Plan View at US-1 and 27th Avenue*** below:

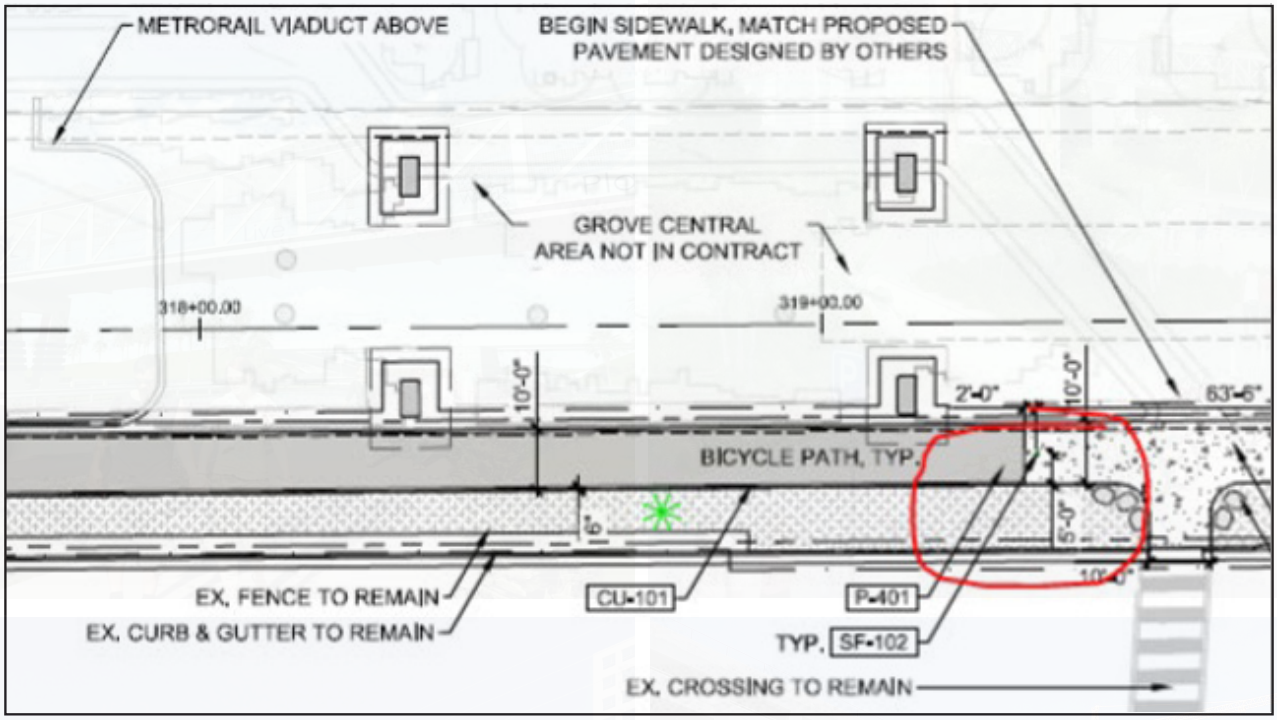


Figure 5-4: Proposed Underline Plan View at US-1 and 27th Avenue

- Placement of the South Tower **(C)** will require purchasing of approximately 1,800 square feet of right-of-way from the privately owned parcel occupied by the Shell Gas Station. Cost of ROW is approximately $200,000.
- The existing conditions are such that the placement of the South Tower on this parcel will allow the existing sidewalk to remain in place, and a minimum of 12 ft. will be maintained from curb face to the structure footprint.

Additional considerations for impacts caused by the placement of the bicycle/pedestrian bridge in the location shown are as follows:

- The structure will impact existing stopping sight distances and hinder drivers' line of sight to signalization for vehicular traffic travelling northbound on US-1.
- The placement of the South Tower **(C)** carries risk of conflict with underground utilities and facilities under use by the Shell gas station.

Alternative 1 is considered a viable long-term recommendation. It involves the construction of a second-level truss bridge over US-1, just west of SW 27th Avenue. Given the high volume of pedestrian crossings, the number of crashes, and existing safety concerns, along with feedback from the Project Working Group, further evaluation of this bridge option is strongly recommended for future planning.

Opinion of Probable Cost Range for Coconut Grove Metrorail Station Alternative 1: $5M-$10M

5.2.2 ALTERNATIVE 2 – THIRD LEVEL PEDESTRIAN BRIDGE OVER US-1 & SW 27TH AVENUE

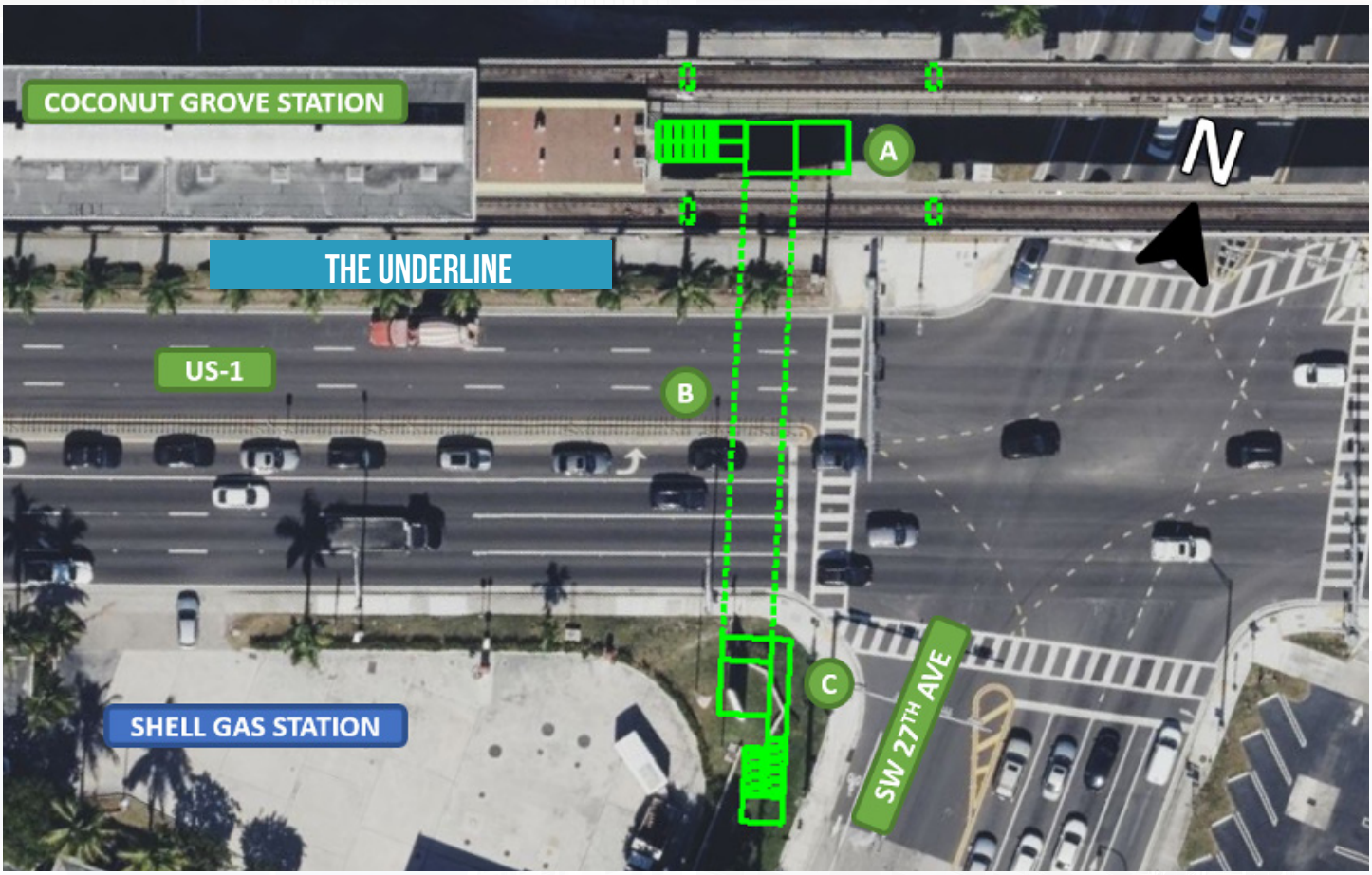


Figure 5-5: Coconut Grove Metrorail Station Alternative 2 Bridge Location

Proposed Bridge

The placement of the bridge shown in ***Figure 5-4: Coconut Grove Metrorail Station Alternative 2 Bridge Location*** is an additional alternative for cycle and pedestrian traffic to cross US-1 by entering the South Tower (C), crossing the approximately 135- ft. third level span bridge (B) to arrive at the North Tower (A), and exiting the North tower to arrive directly at the Coconut Grove Metrorail Station. Below are the proposed bridge characteristics:

- West Tower **(A)** located between rail tracks
- 135-ft. Bridge Span **(B)** to span over the Metrorail rail line.
- East Tower **(C)**
- Tower Height= 65-ft.

Upon reaching the West Tower (A), pedestrians will take one flight of stairs down, onto the Metrorail platform. Note that the tower height for this Alternative is 65-ft. compared to 40-ft. for the typical footprint in all proposed concepts.

Impacts

The following impacts have been identified for Alternative 2

- The East Tower (C) requires purchase of approximately 1,800 square feet of ROW from the Shell gas station lot. Cost of ROW is approximately $200,000.
- Risks present a conflict with underground utilities at the Shell gas station lot.
- Spanning over the Metrorail rail line will require coordination with DTPW and increase complexity and risks in construction.
- Proposed foundations for the bridge towers are in conflict with existing Metrorail Foundations.
- Proposed bridge footprint directly impacts the future Transit Oriented Development, Grove Central, as there is no available space to accommodate the proposed bridge.
- Stopping sight distances.
- Drivers' line of sight to signalization, is impacted.

Alternative 2 is feasible as a long-term recommendation. Like Alternative 1, it proposes a third-level truss bridge spanning US-1 just west of SW 27th Avenue, and is recommended for further study. Given the high volume of pedestrian crossings, the number of crashes, existing safety concerns, and input from the Project Working Group, a detailed evaluation of this bridge option is advised for future planning.

Opinion of Probable Cost Range for Coconut Grove Metrorail Station Alternative 2: $5M-$10M

5.2.3 ALTERNATIVE 3 – AT GRADE IMPROVEMENTS AT US-1 & SW 27TH AVENUE

Providing safe, convenient, and efficient options for bicycles and pedestrians to travel to and from all public transportation stations is vital to support a sustainable transportation network. Considering that Alternatives 1 and 2 were not feasible, further evaluations were considered. As such, at-grade improvements were identified through field visits, research, and review of the study area. Some of these improvements include potential improvement to signal timing, No Turn on Red for Southbound right turning movement, tightening the turning radii in the NW corner and EB median, providing high emphasis crosswalks, and moving the stop bar on the EB approach on US-1. A summary of the proposed recommendations over US-1 at SW 27th Avenue attempt to provide connectivity to the Coconut Grove Metrorail Station, and are listed below:

- Implement Leading Pedestrian Interval (LPI) at the intersection for the east and west leg crosswalks which provides head start to bikes-pedestrians in the east-west crosswalks and provides visibility of them to the vehicles.
- Install No Right Turn on Red (RTOR) blank out sign during AM and PM peak hours for the southbound right turning vehicles. With the implementation of No RTOR during peak hours, drivers tend to stop prior to the stop-bar, since southbound right turning vehicles do not have to look for the vehicles to their left side, and will not block bicyclists or pedestrians in the north leg crosswalk.
- Provide pedestrian refuge on the west leg crosswalk. This improvement may require auto turn analysis to confirm there are no issues for northbound left turning vehicles. In addition, it is recommended to review reducing the curb radius in the northwest corner in order to reduce the turning vehicle speeds of southbound right turning vehicles.
- Furthermore, based on the feedback from project working group (PWG), it is recommended to widen the west leg crosswalk to provide back-to-back crosswalks to separate bike and pedestrian paths.
- FDOT performed lighting retrofit improvements recently (based on FDOT's comment), hence no lighting improvements are proposed.

Alternative 3 is feasible for immediate implementation as a short-term improvement, though Alternatives 1 and 2 will not be dismissed and will undergo further evaluation in a future study. Due to the potential challenges faced by Alternatives 1 and 2, Alternative 3 is being prioritized at this time. Given the high pedestrian counts and the number of crashes at the intersection, this interim recommendation is necessary. The proposed improvements include wider, high-visibility crosswalks, expanded pedestrian curb ramps, a realigned median to accommodate the new crosswalk width, and the implementation of a No Right Turn on Red policy.

Opinion of Probable Cost Range for Coconut Grove Metrorail Station Alternative 3: $200K-$260K

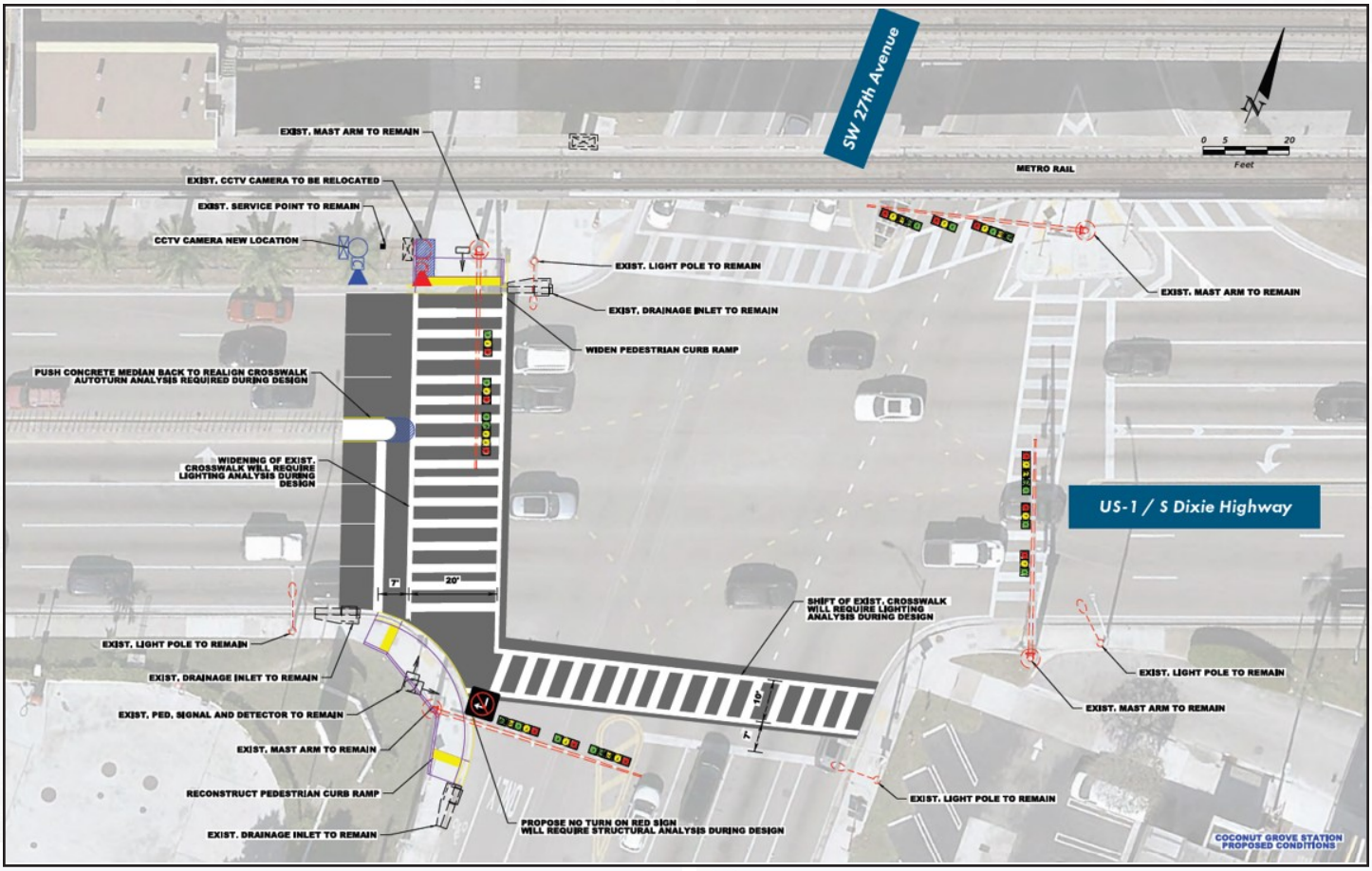


Figure 5-6: Coconut Grove Metrorail Station Alternative 3 At-Grade Improvements

5.3 DADELAND NORTH STATION ALTERNATIVES

Based on the goals and objectives supporting the Purpose and Need of this Feasibility Study the following alternatives have been identified at the Dadeland North Metrorail Station:

1. **Alternative 1** - Pedestrian Bridge west of SW 84th Street
2. **Alternative 2** - Pedestrian Bridge west of SW 84th Street Modified
3. **Alternative 3** - Pedestrian Bridge east of SW 70th Avenue SW 84th Street
4. **Alternative 4** -At-Grade Improvements across US-1 between SW 68th Court and SW 84th Street at landing adjacent to Snapper Creek Canal and Bomnin Chevrolet.

5.3.1 ALTERNATIVE 1 – PEDESTRIAN BRIDGE WEST OF SW 84TH STREET

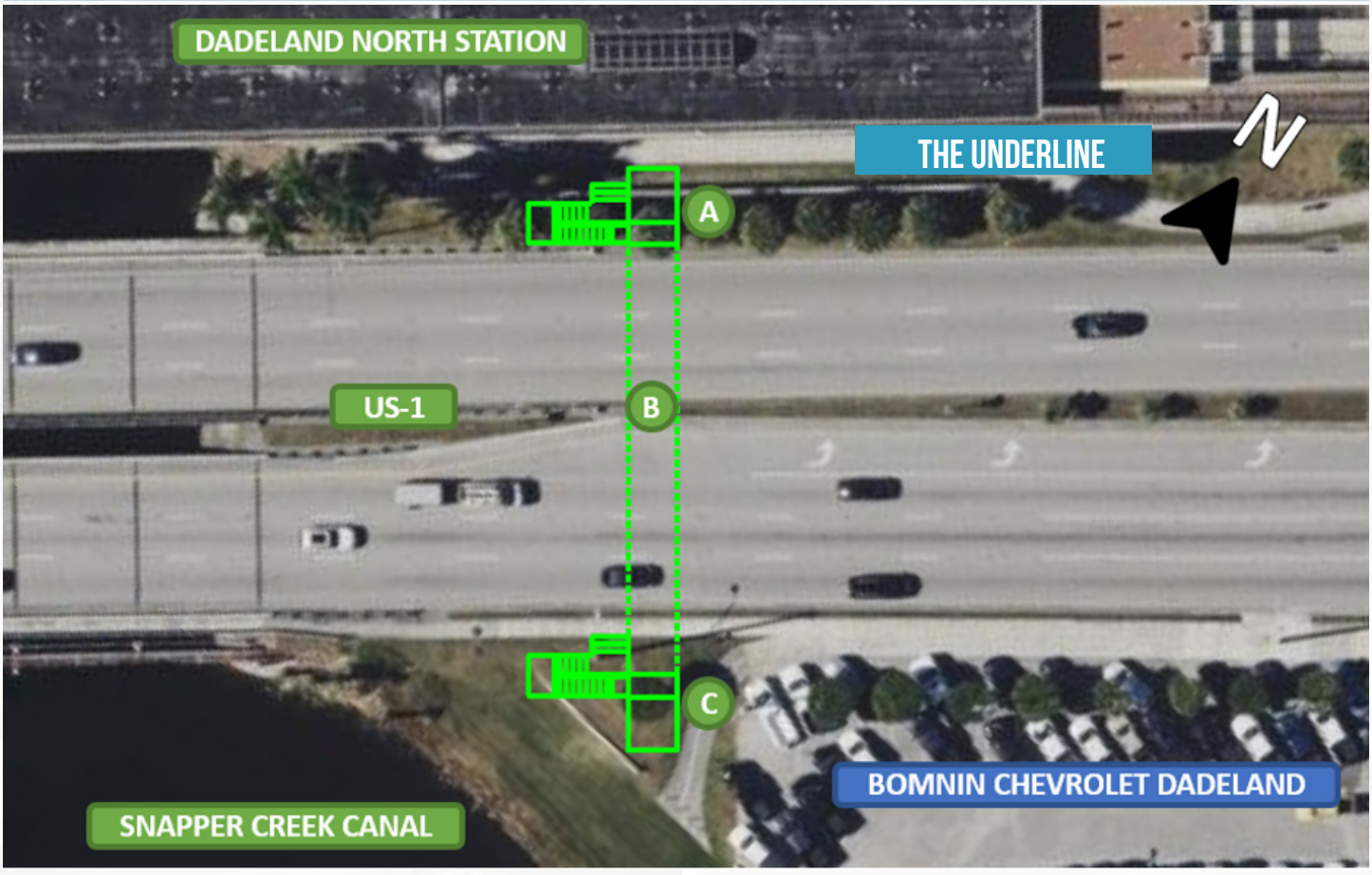


Figure 5-7: Dadeland North Metrorail Station Alternative 1 Bridge Location

Proposed Bridge

Considering the need for safety, connectivity, and to minimize impacts to existing conditions, the optimal location for a bicycle/pedestrian bridge for access to the Dadeland North Metrorail Station is shown above. Refer to ***Figure 5-7: Dadeland North Metrorail Station Alternative 1 Bridge Location***. The placement shown allows for bicycle and pedestrian traffic to cross US-1. Below are the proposed bridge characteristics:

- West Tower **(A)** at the Dadeland North Metrorail Station
- 129-ft. span bridge **(B)** over US-1
- East Tower **(C)** adjacent to Bomnin Chevrolet Dadeland

Impacts

The following impacts have been identified for Alternative 1 at the Dadeland North Metrorail Station:

- Placement of the West Tower (A) will require removal of the landscaping and glass fencing that is within the building and staircase footprint. The available length of 33-ft. from face of curb to the Metrorail superstructure allows for a 4-ft. clearance from face of curb to the West Tower, and an 8-ft. clearance from the West Tower to the Metrorail superstructure. Further, the available length will allow for the existing M-Path to remain in place.
- Placement of the East Tower (C) will require purchasing of approximately 2,200 square feet of right-of-way from the privately owned parcel occupied by the Bomnin Chevrolet Dadeland business. This ROW acquisition is approximately $240,000. The existing conditions are such that placement of the East Tower on this parcel will allow the existing sidewalk to remain in place and connect directly to the staircase that provides access to the bridge.
- As this location is near the Snapper Creek Canal, coordination with the South Florida Water Management District will be required. In terms of constructability, placement of the East Tower in this location will require the construction of a bulkhead wall to support the soil beneath the structure beside the Snapper Creek Canal.
- The structure will impact existing stopping sight distances. As the structure will be located approximately 360 ft. from the nearest traffic signal for Northbound vehicular traffic, placement at this location will have lesser impacts on driver visibility to signalization.
- Placement of the East Tower (C) carries risk of conflict with underground utilities shown attached to the Northbound bridge crossing the Snapper Creek Canal, and the drainage systems that outfall into the canal.

Alternative 1 is feasible, but it falls short of fulfilling the study's goals to enhance safety, mobility, and accessibility for pedestrians and bicyclists crossing US-1. Because the proposed bridge location is distant from where most pedestrian crossings occur, it is recommended that after implementing the short-term improvements, a Tier 2 Planning Study be conducted at this site to assess and improve the existing bike network. This study would aim to establish a connected bicycle route in front of the station, as complete and integrated bike networks are known to boost transit ridership and enhance safety for all road users. To create a seamless and comfortable bicycle network, it will be essential for the community—including Miami-Dade County and the Village of Pinecrest—to evaluate the current network quality and set future goals.

Opinion of Probable CostRangefor Dadeland North Metrorail Station Alternative 1:$7M-$10M

5.3.2 ALTERNATIVE 2 – PEDESTRIAN BRIDGE WEST OF SW 84TH STREET (MODIFIED)

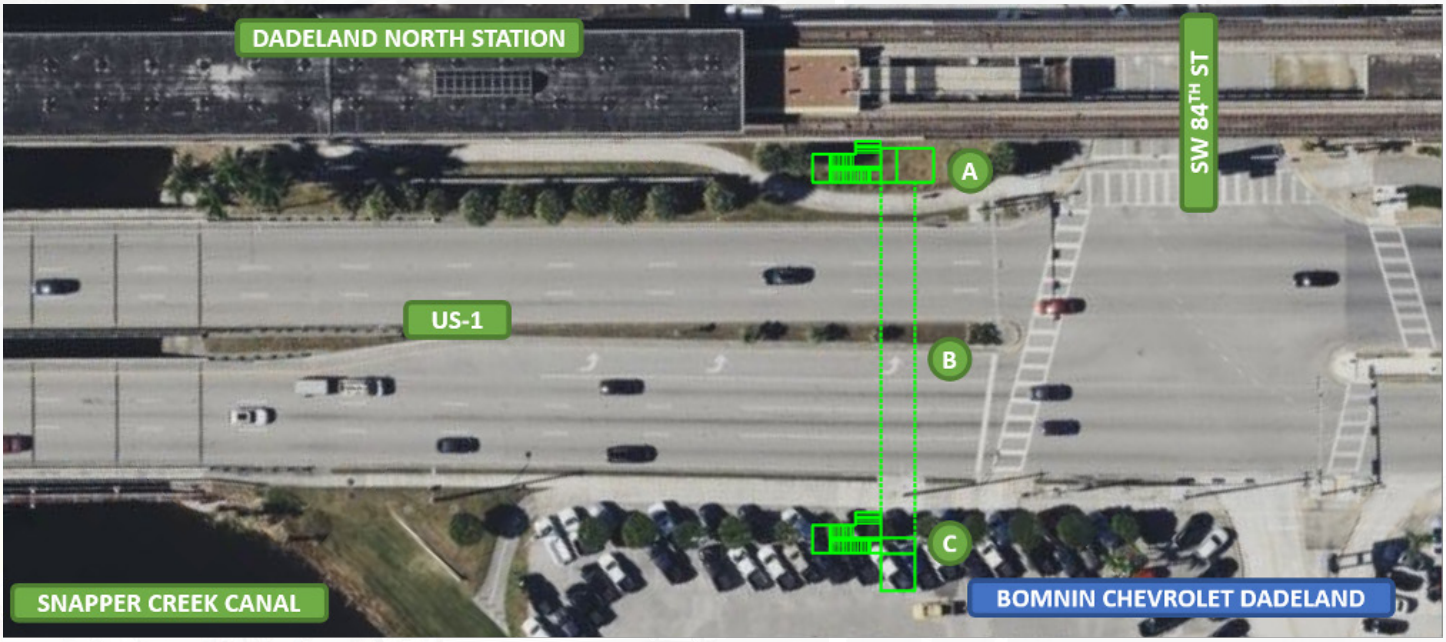


Figure 5-8: Dadeland North Metrorail Station Alternative 2 Bridge Location

Alternative 2 is at the same location as Alternative 1, however the bridge lands further north to avoid impacting The Underline. ***Refer to Figure 5-8: Dadeland North Metrorail Station Alternative 2 Bridge Location***. Therefore, the bridge span is longer, and one of the landing towers lands closer to the elevated railway on one side going over the 11-ft. wide Underline path with the other side of the bridge landing in the Bomnin Chevrolet Dadeland's parking lot on the other side of US-1. Glass block wall along the width of station needs to be coordinated with Alternative 2. Below are the proposed bridge characteristics:

- West Tower **(A)** at the Dadeland North Metrorail Station over the proposed Underline closer to the elevated railway
- 152-ft. span bridge **(B)** over US-1
- East Tower **(C)** adjacent to Bomnin Chevrolet Dadeland

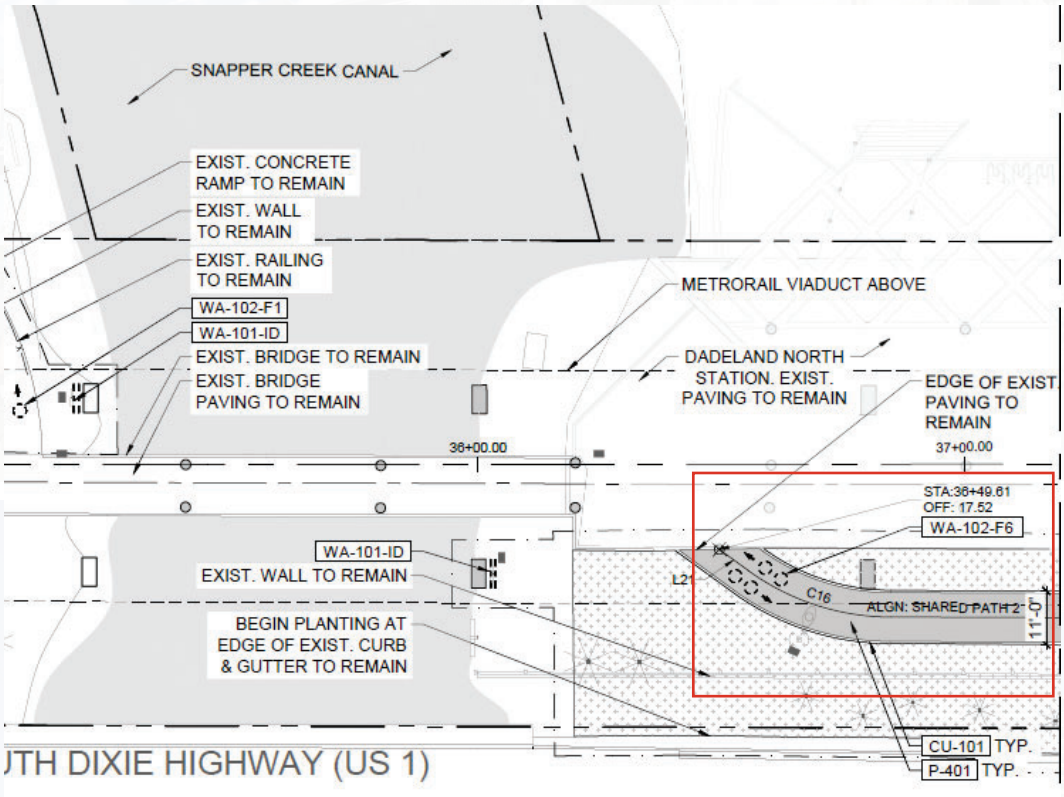


Figure 5-9: Proposed Underline and Existing Glass Wall Location

The impacts of Alternative 2 are similar to the impacts identified for Alternative 1. ROW acquisition costs are the same as alternative 1 , approximately $240,000.

Alternative 2 is feasible and has fewer impacts than Alternative 1; however, it still does not fully meet the study's objectives to enhance safety, mobility, and accessibility for pedestrians and bicyclists crossing US-1. Because the bridge would be located away from the primary pedestrian crossings, it is recommended that, after implementing the short-term improvements, a Tier 2 Planning Study be conducted at this site. The goal of this study would be to assess and improve the existing bike network, ensuring a connected bicycle route in front of the station. Such a complete and integrated bike network is essential for increasing transit ridership and enhancing safety for all road users. To achieve a seamless and comfortable bicycle network, the community—comprising Miami-Dade County and the Village of Pinecrest—will need to evaluate the current network quality and set future goals accordingly.

Opinion of Probable Cost Range for Dadeland North Metrorail Station Alternative 2: $7M-$10M

5.3.3 ALTERNATIVE 3 – PEDESTRIAN BRIDGE EAST OF SW 70TH AVENUE SW 84TH STREET

Figure 5-10: Dadeland North Metrorail Station Alternative 3 Bridge Location

Proposed Bridge

The placement of the bridge shown in ***Figure 5-10: Dadeland North Metrorail Station Alternative 3 Bridge Location*** encourages cyclist and pedestrian traffic to cross US-1 by entering the South Tower **(C)** located east of SW 70th Avenue intersection, crossing the approximately 148- ft. span bridge (B) to arrive at the North Tower (A), and exiting the North tower to arrive directly at the Dadeland North Metrorail Station. Below are the proposed bridge characteristics:

- West Tower (A) located west of the Metrorail Station
- 148-ft. Bridge Span (B) spanning over US-1
- East Tower (C) that lands at the Ross Shopping Plaza

Upon reaching (A), pedestrians will continue to Dadeland North Metrorail Station. Approximately a 525-ft. walk.

Impacts

The following impacts have been identified for Alternative 3 at the Dadeland North Metrorail Station:

- The East Tower (C) requires purchase of approximately 1,800 square feet of ROW from the Ross Shopping Plaza lot. ROW acquisition costs are approximately $385,000.
- Stopping sight distance impacts
- Drivers' line of sight to signalization are impacted

Alternative 3 is feasible; however, given the current at-grade infrastructure, including the mid-block crossings, the addition of a pedestrian bridge is not recommended at this time. Instead, it is advised that following the implementation of short-term improvements, a Tier 2 Planning Study be conducted at this location. This study should focus on assessing and enhancing the existing bike network to establish a connected bicycle route in front of the station. Comprehensive and integrated bike networks are crucial for boosting transit ridership and improving safety for all transportation modes. To develop a well-connected and comfortable bicycle network, the community—consisting of Miami-Dade County and the Village of Pinecrest—will need to evaluate the current network quality and set future objectives.

Opinion of Probable Cost Range for Dadeland North Metrorail Station Alternative 3: $7M-$10M

5.3.4 ALTERNATIVE 4 – AT-GRADE IMPROVEMENTS

ACROSS US-1 BETWEEN SW 68TH COURT AND SW 84TH STREET AT LANDING ADJACENT TO SNAPPER CREEK CANAL AND BOMNIN CHEVROLET.

Considering that Alternatives 1 and 2 were not feasible, further evaluations were considered. As such, at -grade Improvements were identified through field visits, research, and review of the study area. Some of these improvements include potential improvement to landscaping, lighting, widen sidewallks, No Right Turns on Red, and implementing leading pedestrian intervals. A summary of the proposed recommendations at the Dadeland North Metrorail Station are listed below:

- Improvements at SW 68th Court mid-block crossing include:
  - Provide landscaping as a barrier within the available median between SW 68th Court and SW 70th Avenue in order to restrict people to cross away from the available mid-block crossing,
  - Improve lighting at this location,
  - Widen the existing crosswalk.

- Improvements at SW 84th Street include:
  - Provide No Right Turn on Red for the southbound right turning vehicles,
  - Provide pedestrian refuge on the west leg crosswalk,
  - Implement leading pedestrian interval for the east and west leg crosswalks.

Similar to the SW 27th Avenue intersection, the traffic operations were reviewed at the intersection of SW 84th Street using the County's Underline Phase 3 Study. County proposed the following improvements as part of the study:

- Leading pedestrian interval for the east and west leg crosswalks,
- No Right Turn on Red for the southbound right turning vehicles (SW 84th Street southbound to US-1 westbound),
- No Right Turn on Red for the southwest bound right turning vehicles (from US-1 west to SW 84th Street north),
- Conversion of left-turn phasing from protected-permissive to protected only phase for the US-1 northeast bound to SW 84th Street.

This feasibility study is proposing the first two improvements and no changes to the:

- US-1 westbound right turning vehicles and
- Eastbound left-turn phasing at the intersection since no crashes occurred in a way where left-turn vehicles from US-1 northeast bound did not collide with bikes-pedestrians during the permissive phase.

The results from this study showed that the intersection is projected to operate at level of service 'C' and 'D' in the AM and PM peak hours after implementing the proposed improvements. In the PM peak hour, the delay increases by 50% but still operates at LOS 'D' which is acceptable. In addition, since this feasibility study does not propose the conversion of left-turn phase and no RTOR for westbound vehicles from US-1 to SW 84th Street, the delay will remain closer to the existing conditions. So, the proposed improvements of LPI and No RTOR along with signal timing optimization will be feasible operationally. ***Refer to Figure 5-11 and 5-12 for Dadeland North Metrorail Station At-Grade Improvements.***

Alternative 4 is feasible and will be implemented as an interim improvement. The evaluation of the Dadeland North Station included two intersections: US-1 at SW 68th Court and SW 84th Street. Traffic data revealed a high volume of pedestrian crossings over US-1. To enhance safety at this location, the following interim at-grade improvements will be introduced: new pedestrian signals, upgraded pedestrian curb ramps, a new pedestrian refuge area in the median, combined high-visibility crosswalks with bicycle crossings, enhanced pavement markings, a No Turn on Red signal, and improved lighting.

Opinion of Probable Cost Range for Dadeland North Metrorail Station Alternative 4: $420K-$546K

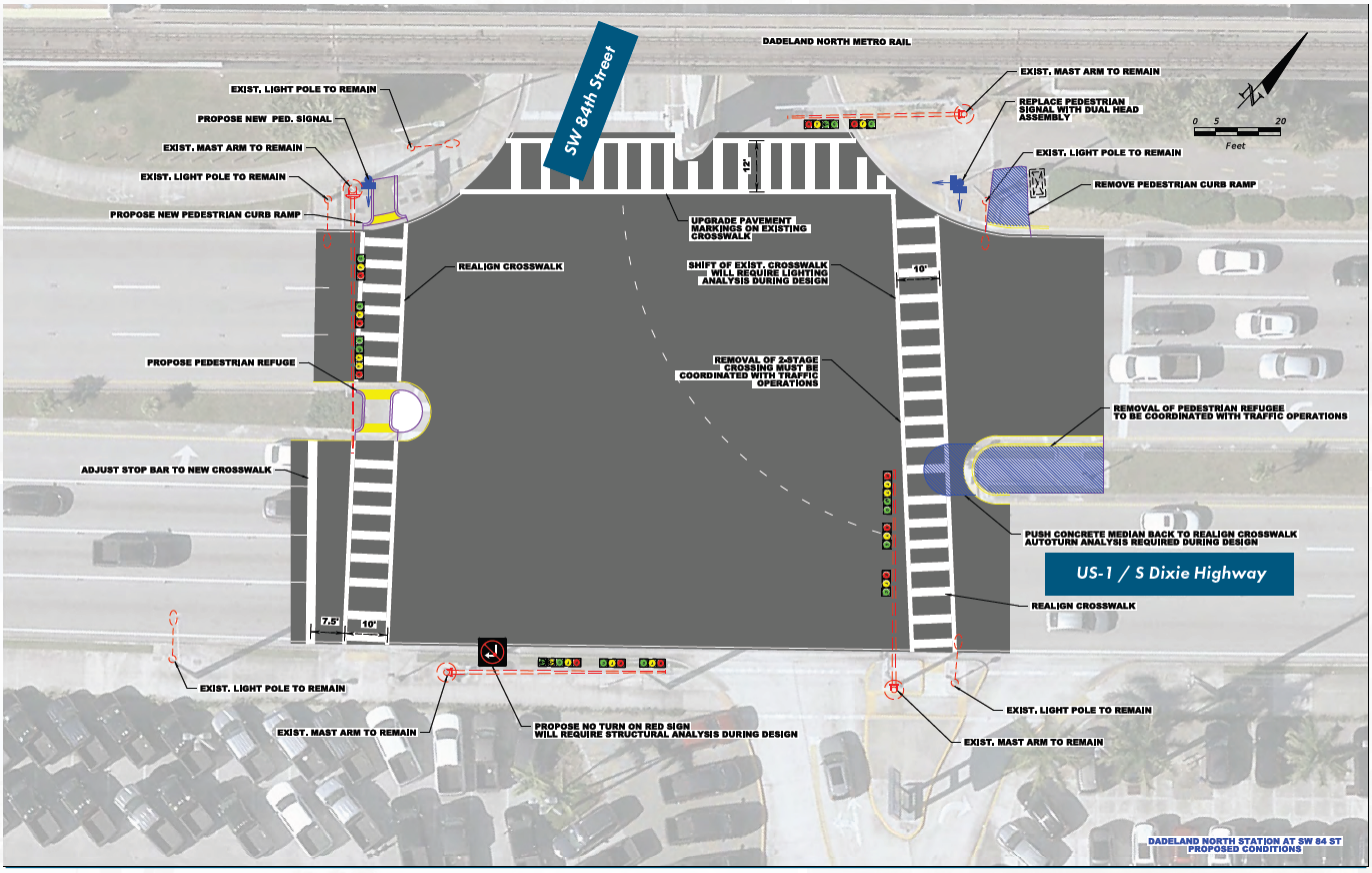


Figure 5-11: Dadeland North Metrorail Station Alternative 4: At-Grade Improvements at SW 84th Street

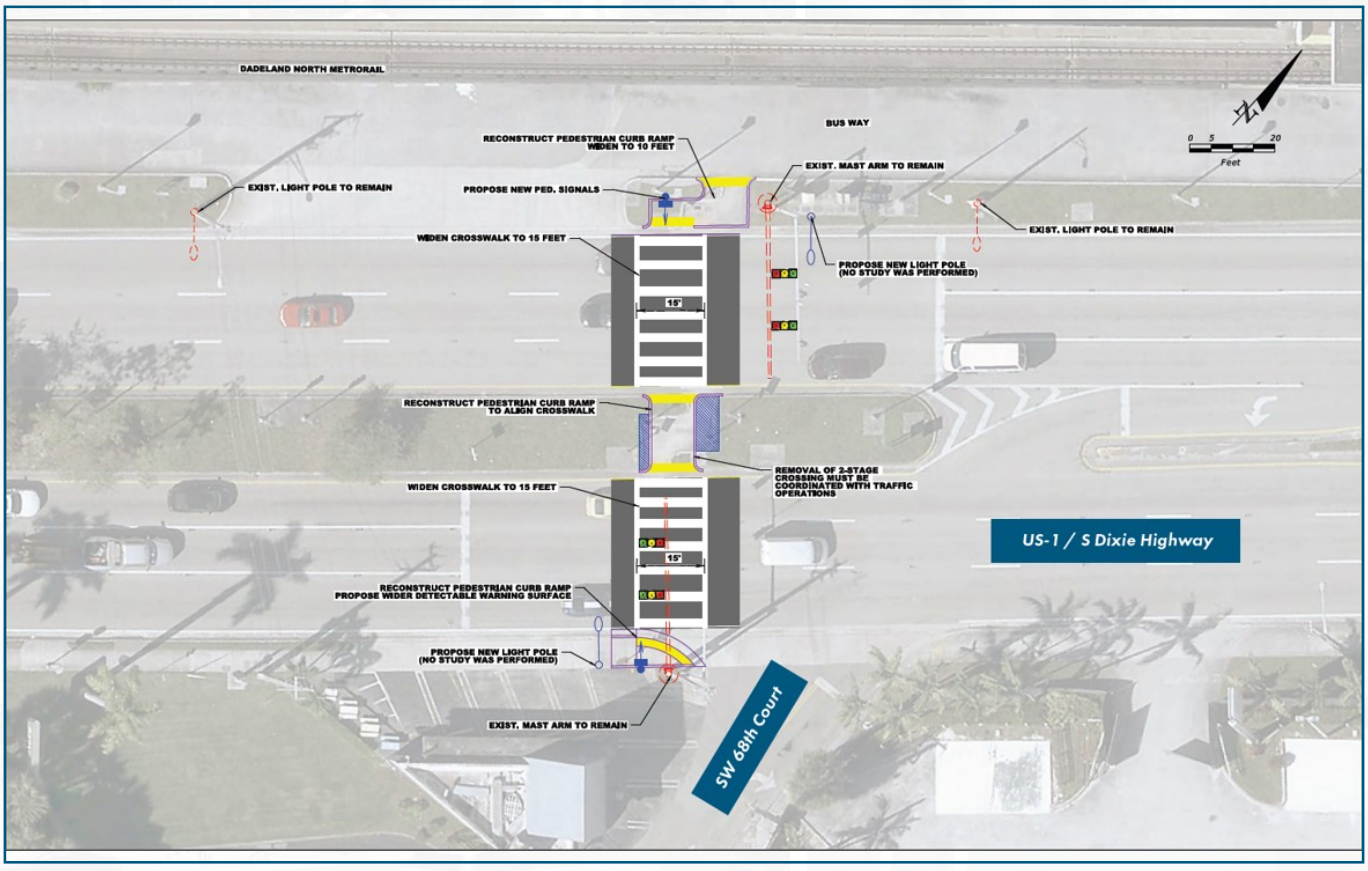


Figure 5-12: Dadeland North Metrorail Station Alternative 4: At-Grade Improvements at SW 68th Street

5.4 DADELAND SOUTH METRORAIL STATION ALTERNATIVES

Based on the goals and objectives supporting the Purpose and Need of this Feasibility Study the following alternatives have been identified at the Dadeland South Metrorail Station:

1. **Alternative 1** – Pedestrian Bridge a Dadeland Boulevard
2. **Alternative 2** – Pedestrian Bridge west of Datran Drive
3. **Alternative 3A** – Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ - Bridge Connection directly into South Tower of proposed development.
4. **Alternative 3B** – Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ- Bridge Connection West of South Tower of proposed development.
5. **Alternative 4** – At-Grade Improvements

5.4.1 ALTERNATIVE 1 – PEDESTRIAN BRIDGE A DADELAND BOULEVARD

Figure 5-13: Dadeland South Metrorail Station Alternative 1: Pedestrian Bridge a Dadeland Boulevard

Proposed Bridge

Considering conditions for safety and connectivity, the optimal location for a bicycle/pedestrian bridge for access to the Dadeland South Metrorail Station is shown above. The placement shown allows for bicycle and pedestrian traffic to cross US-1 by entering the East Tower **(C)**, crossing the approximately 138' span bridge **(B)** to arrive at the West Tower **(A)**, and exiting the West tower to walk approximately 170', crossing the South Miami-Dade Busway, to arrive at the Dadeland South Metrorail Station. Below are the proposed bridge Characteristics:

- West Tower **(A)** located east of Dadeland Boulevard and west of the Auto Perfection
- 38-ft. Bridge Span **(B)** spanning over US-1
- East Tower **(C)** that lands at the Burger King

Impacts

The following impacts have been identified:

- Placement of the West Tower (A) will require purchasing of approximately 1,400 square feet of right-of-way from the privately owned parcel occupied by the Auto Perfection business, this right-of-way acquisition is approximately $330,000. The existing conditions are such that placement of the West Tower on this parcel will allow the existing sidewalk to remain in place and a minimum of 8-ft. will be maintained from curb face to the structure footprint.
- Placement of the East Tower (C) will require purchasing of approximately 2,400 square feet of right-of-way from the privately owned parcel occupied by the Burger King, this right-of-way acquisition is approximately $590,000. The existing conditions are such that placement of the South Tower on this parcel will allow the existing sidewalk to remain in place and a minimum of 13.5ft. will be maintained from curb face to the structure footprint.
- The structure will impact existing stopping sight distances and hinder drivers' line of sight to signalization for vehicular traffic travelling southbound on US-1.

The location for Alternative 1 is not feasible, as it does not offer the safest crossing to optimize safety, mobility, and accessibility for pedestrians and bicyclists crossing US-1. The current connectivity to the Dadeland South Metrorail Station is congested and may not provide the safest conditions for pedestrian crossings. Implementing this alternative will require coordination with landowners and adjacent business owners to secure the necessary right-of-way--For more details, please refer to Table 5-13, which covers the Dadeland South Metrorail Station Alternative 1 - Pedestrian Bridge at Dadeland Boulevard.

With a proposed development planned in the near future, it is recommended to consider constructing a pedestrian bridge over US-1 at the site of the new development. The existing streets lack safe pedestrian crossings, and based on this evaluation, anticipated post-construction conditions, and input from the Project Working Group, it is advisable to explore the option of a pedestrian bridge that directly connects to the new development. Two different alternatives will be further evaluated during the design phase.

Opinion of Probable Cost Range for Dadeland South Metrorail Station Alternative 1: $8M-$10M

5.4.2 ALTERNATIVE 2 – PEDESTRIAN BRIDGE WEST OF DATRAN DRIVE

Figure 5-14: Dadeland South Metrorail Station Alternative 2: Pedestrian Bridge at Datran Drive

Proposed Bridge

Considering the need to minimize impacts to existing conditions, the alternative location for a bicycle/pedestrian bridge for access to the Dadeland South Metrorail Station is shown above. The placement shown allows for bicycle and pedestrian traffic to cross US-1. Details of the proposed bridge include:

- East Tower **(C)** on the South Side
- A bridge Span of 133-ft. **(B)** over US-1
- West Tower **(A)** on the North Side

Upon crossing US-1 and exiting the West tower users will walk approximately 713-ft. crossing Datran Drive and the South Miami-Dade Busway, to arrive at the Dadeland South Metrorail Station.

Impacts

The following impacts were identified for Alternative 2:

- Placement of the West Tower (A) will require purchasing approximately 2,300 square feet of right-of-way from the privately owned parcel occupied by the 9350 Building, this right-of-way acquisition is approximately $492,000. The existing conditions are such that placement of the West Tower on this parcel will allow the existing sidewalk to remain in place and a minimum of 13' will be maintained from curb face to the structure footprint.
- Placement of the East Tower (C) will require purchasing of approximately 2,000 square feet of right-of-way from the privately owned parcel occupied by the Dadeland Plaza, this right-of-way acquisition is approximately $250,000. The existing conditions are such that placement of the South Tower on this parcel will allow the existing sidewalk to remain in place and a minimum of 16' will be maintained from curb face to the structure footprint.
- **The structure will impact existing stopping sight distances and hinder drivers' line of sight to signalization for vehicular traffic traveling northbound on US-1.**

Similar to Alternative 1, the location for Alternative 2 is also not feasible as it does not offer the safest crossing to enhance safety, mobility, and accessibility for pedestrians and bicyclists crossing US-1. The current conditions for connecting to the Dadeland South Metrorail Station are congested, making it less than ideal for pedestrian crossings. To prioritize and mitigate impacts on the existing conditions, this alternative offers less value than Alternative 1 in terms of connectivity and safety. Additionally, Alternative 2 involves more crossings and results in a longer walk for cyclists and pedestrians accessing the station--For detailed information, refer to Table 5-14, which covers the Dadeland South Metrorail Station Alternative 2 - Pedestrian Bridge at Datran Drive.

Given that a new development is expected in the near future, it is recommended to consider constructing a pedestrian bridge over US-1 at the location of the new development. The existing streets currently lack safe pedestrian crossings, and based on this evaluation, the new conditions post-construction, and input from the Project Working Group, it is advised that a pedestrian bridge directly connecting to the new development be explored. Two different alternatives for this bridge will be further assessed during the design phase.

Opinion of Probable Cost Range for Dadeland South Metrorail Station Alternative 2: $8M-$10M

5.4.3 ALTERNATIVE 3A – PEDESTRIAN BRIDGE

TO ACCOMMODATE NEW DEVELOPMENT AT 9300 PLAZA & SHORTY'S BBQ – BRIDGE CONNECTION DIRECTLY INTO SOUTH TOWER

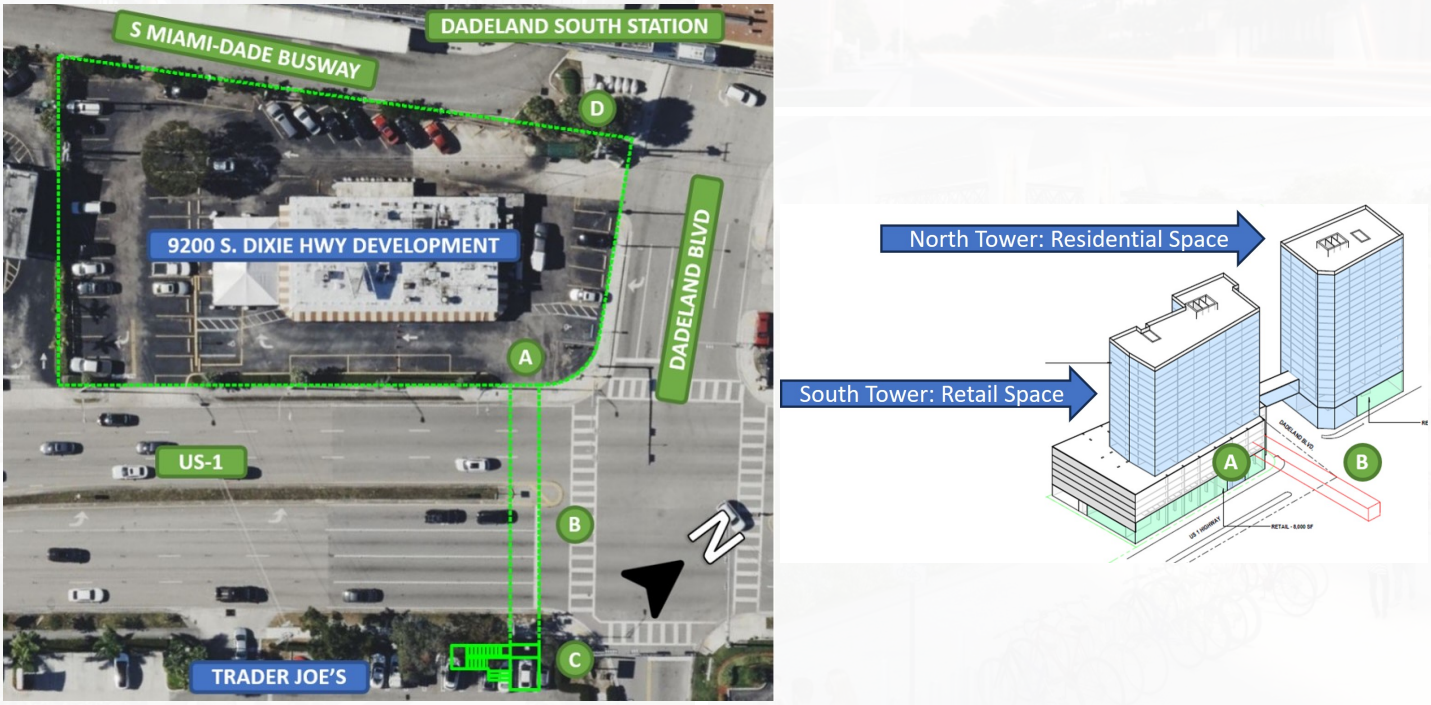


Figure 5-15: Dadeland South Metrorail Station Alternative 3A: Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into South Tower

Proposed Bridge

While evaluating surroundings to minimize impacts to existing conditions, another alternative location for a bicycle/pedestrian bridge for access to the Dadeland South Metrorail Station is shown above. The placement shown allows for bicycle and pedestrian traffic to cross US-1 directly into the South Tower. Details of the proposed bridge include:

- Bridge Connection **(A)** to South Tower of Development
- 132' Bridge Span **(B)**
- East Tower **(C)**
- Pedestrian Access Opening **(D)**

Upon reaching **(A)**, pedestrians will need immediate access to exit the South Tower property limits and continue to **(D)**. Approximately 136-ft. walk. Refer to ***Figure 5-14: Dadeland South Metrorail Station Alternative 3A: Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into South Tower***.

Impacts

The following impacts were identified for Alternative 3A:

- East Tower **(C)** requires purchase of approximately 1,800 SF of ROW from the Trader Joe's lot. ROW acquisition costs are approximately $405,000.
- Bridge Connection to South Tower of Development (A) requires coordination with the developer of the lot as well as the need for pedestrians to have access to building exits. This will impact garage and retail space of the south tower. If connection is desired to the north tower, this will impact residential space. We estimate that ROW acquisition at the connection to the south tower is approximately 3600 SF. The assumption is conservatively assuming we will acquire some ROW at two levels of the development. ROW acquisition costs are approximately $810,000.
- Stopping sight distances impacts Drivers' line of sight to signalization are impacted as well.

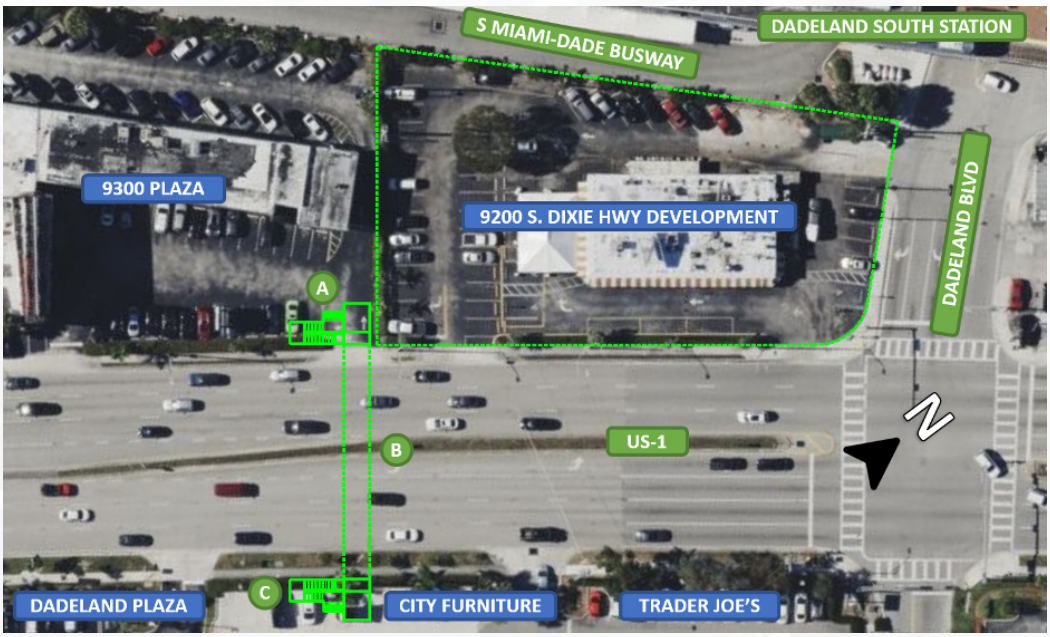
Alternative 3A is identified as a feasible solution for long-term improvements, though its implementation will require ongoing collaboration with developers. In light of the upcoming development planned for the near future, constructing a pedestrian bridge over US-1 at the new site is strongly recommended.

Currently, the surrounding streets lack safe crossing options for pedestrians, and based on this evaluation, anticipated post-construction conditions, and feedback from the Project Working Group, establishing a pedestrian bridge that directly connects to the new development would significantly enhance safety and accessibility. During the design phase, both Alternative 3A and 3B will be examined to determine the most effective approach.

Opinion of Probable Cost Range for Dadeland South Metrorail Station Alternative 3A: $8M-$10M

5.4.4 ALTERNATIVE 3B – PEDESTRIAN BRIDGE

TO ACCOMMODATE NEW DEVELOPMENT AT 9300 PLAZA & SHORTY'S BBQ – BRIDGE CONNECTION WEST OF SOUTH TOWER



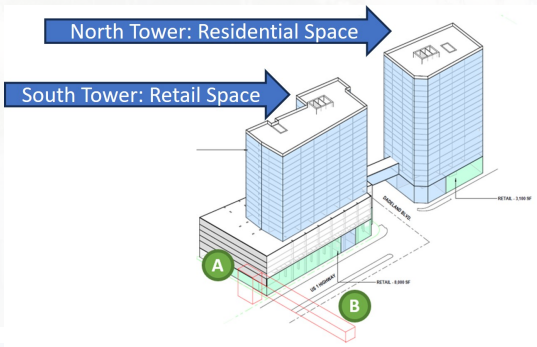


Figure 5-16: Dadeland South Metrorail Station Alternative 3B: Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into West of the South Tower

Proposed Bridge

An alternate location for a bicycle/pedestrian bridge for access to the Dadeland South Metrorail Station is shown above. The placement shown allows for bicycle and pedestrian traffic to cross US-1 an exit west of South Tower. Details of the proposed bridge include:

- West Tower **(A)**
- 132' Bridge Span **(B)**
- East Tower **(C)**
- Pedestrian Access Opening **(D)**

Upon reaching **(A)**, pedestrians will continue to **(D)**, which is approximately a 380-ft. walk. Refer to ***Figure 5-16: Dadeland South Metrorail Station Alternative 3B: Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection West of the South Tower***.

Impacts

- East Tower (A) requires purchase of approximately 1,600 square feet of ROW from the 9300 Plaza lot. ROW acquisition is approximately $342,000.
- East Tower (C) requires purchase of approximately 1,600 square feet of ROW for City Furniture lot. ROW acquisition is approximately $342,000.
- Pedestrians and bicycle traffic will have a longer path to the Pedestrian Access Opening.
- Stopping site distances impacts.
- Drivers' line of sight signalization is impacted as well.

Alternative 3B is also considered a viable option for long-term improvement. However, future coordination with developers will be necessary to determine the optimal location for the proposed bridge. Given the upcoming development in the area, it is advisable to construct a pedestrian bridge over US-1 at the new development site. The existing streets currently lack safe pedestrian crossings, and based on this evaluation, anticipated post-construction conditions, and feedback from the Project Working Group, a pedestrian bridge that directly connects to the new development is recommended. Both Alternative 3A and 3B will be further evaluated during the design phase to identify the best solution.

Opinion of Probable CostRangefor Dadeland South Metrorail Station Alternative 3B: $8M-$10M

5.4.5 ALTERNATIVE 4

AT-GRADE IMPROVEMENTS AT DADELAND BOULEVARD AND DATRAN DRIVE

Considering that Alternatives 1 through 3 are not feasible at this moment, further evaluations were considered. As such, at -grade Improvements were identified through field visits, research, and review of the study area. A summary of the proposed recommendations near the Dadeland South Metrorail Station are listed below:

At Datran Drive:

- Improve pavement markings,
- Install curb ramps (ADA compliant),
- Additional improvement for consideration - Close the box (install the crosswalk on south leg to cross US-1).

Refer to ***Figure 5-17: Dadeland South Metrorail Station Alternative 4: At Grade Improvements at Datran Drive.***

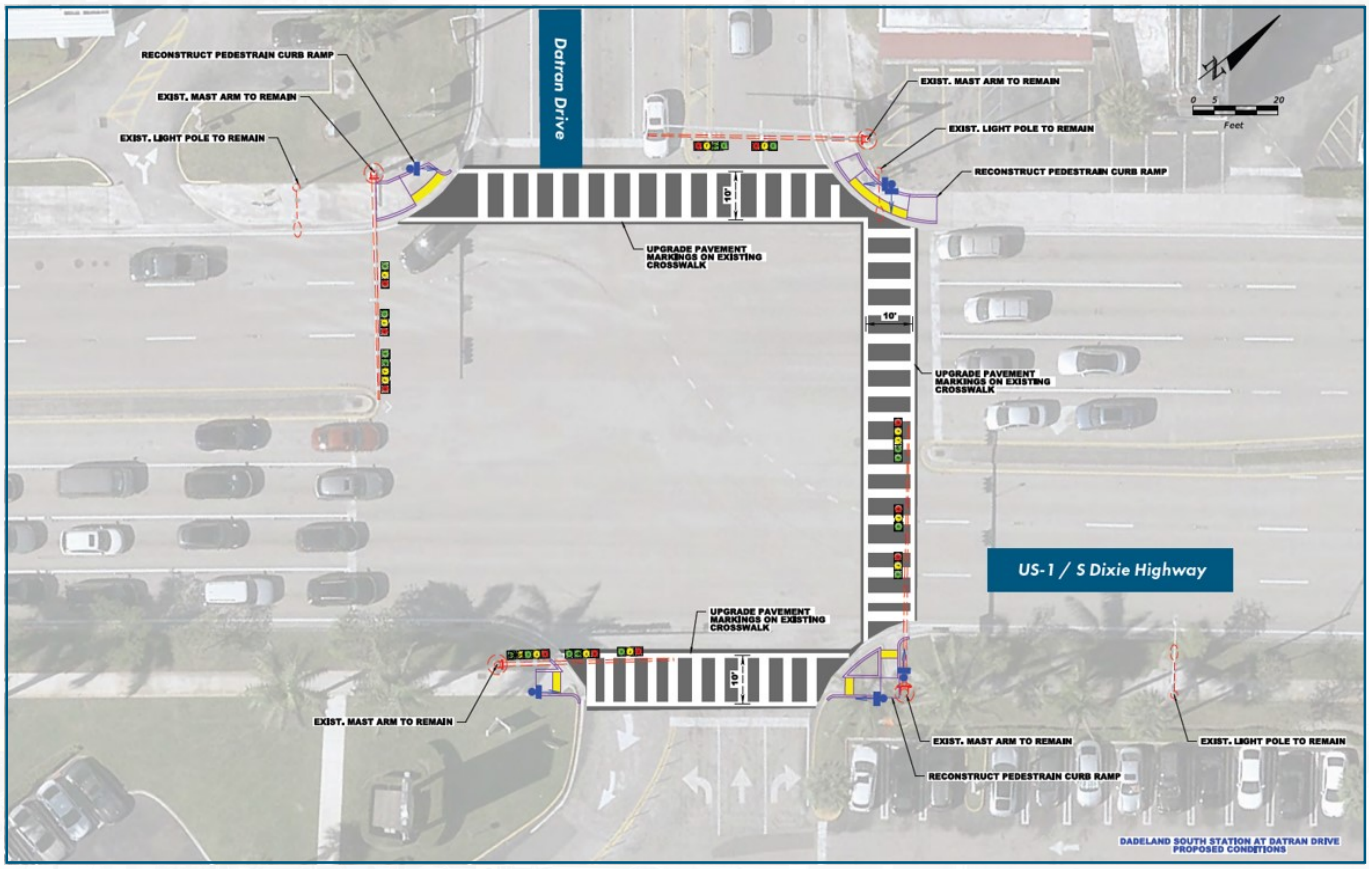


Figure 5-17: Dadeland South Metrorail Station Alternative 4: At Grade Improvements at Datran Drive

Proposed recommendations at Dadeland Boulevard include the following:

- "Use Crosswalk" signs at the intersection,
- Review lighting conditions and improve as needed.

Refer to ***Figure 5-18: Dadeland South Metrorail Station Alternative 4: At Grade Improvements at Dadeland Boulevard***

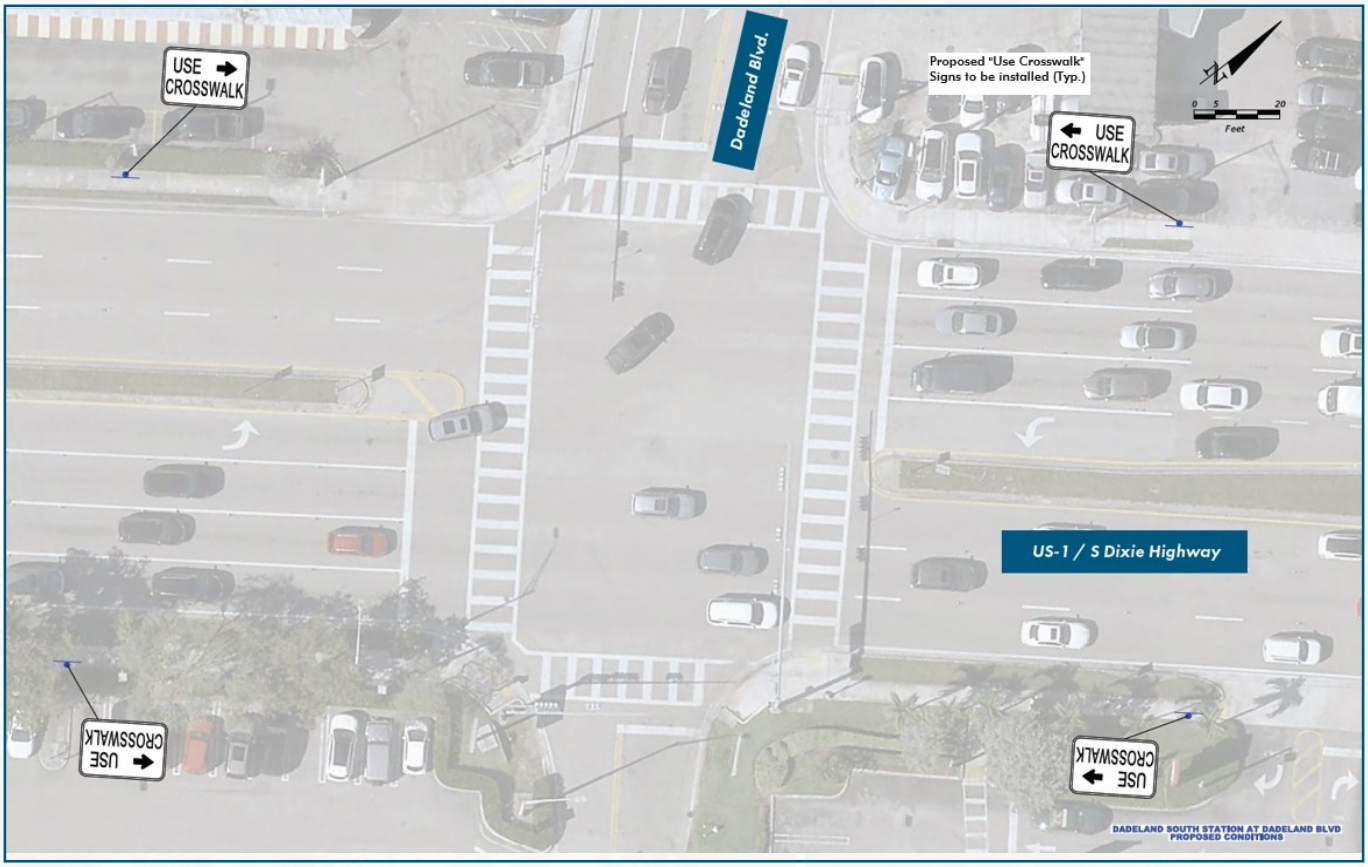


Figure 5-18: Dadeland South Metrorail Station Alternative 4: At Grade Improvements at Dadeland Boulevard

Alternative 4 is feasible and recommended as a short-term improvement. The Dadeland South Metrorail Station spans two key intersections: Datran Drive and Dadeland Boulevard at US-1. Pedestrian counts and crash data support the future construction of a pedestrian bridge at this location, particularly after the new Ocean Dadeland, LLC development, which includes two mixed-use towers at the current Shorty's BBQ site, is completed. In the interim, it is recommended to implement upgrades such as enhanced pavement markings, reconstructed ADA-compliant pedestrian curb ramps, and "Use Crosswalk" signs.

Opinion of Probable Cost Range for Dadeland South Metrorail Station Alternative 4: $100K - $130K

5.4 COST ESTIMATES

Opinions of Probable Costs were prepared for the bridge alternatives based on the University Pedestrian Bridge Construction Cost. Factors were applied to adjust for inflation. The Actual Cost value is based on a dollar value from the year of completion of the Pedestrian Bridge at University Station. Inflation must be calculated from 2017 (Base Dollar Value = $1.00) to 2023 (Dollar Equivalent = $1.23) Cost Estimates include costs for ROW, construction, permitting and scheduling associated with construction adjacent to a Metrorail Station. In Table 5-1, there is a summary of all the Cost Range estimates or each proposed alternative developed:

Source: https://www.usinflationcalculator.com/)

Alternative No.	Alternative Description	Opinion of Probable Cost
Coconut Grove Station		
1	Second Level Pedestrian Bridge Over US-1 & SW 27th Avenue	$5M-$10M
2	Third Level Pedestrian Bridge Over US-1 & SW 27th Avenue	$5M-$10M
3	At Grade Improvements at US-1 & SW 27th Avenue	$200K-$260K
Dadeland North Station		
1	Pedestrian Bridge west of SW 84th Street	$7M-$10M
2	Pedestrian Bridge west of SW 84th Street Modified	$7M-$10M
3	Pedestrian Bridge east of SW 70th Avenue	$7M-$10M
4	At-Grade Improvements across US-1 between SW 68th Court and SW 84th Street at landing adjacent to Snapper Creek Canal and Bomnin Chevrolet.	$420K-$546K
Dadeland South Station		
1	Pedestrian Bridge a Dadeland Boulevard	$8M-$10M
2	Pedestrian Bridge west of Datran Drive	$8M-$10M
3A	Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into South Tower	$8M-$10M
3B	Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection west of South Tower	$8M-$10M
4	At-Grade Improvements at Dadeland Blvd and Datran Drive.	$100K - $130K

***Table 5-1:* Summary of all the Cost Range estimates for proposed alternatives**

TECHNICAL MEMORANDUM NO. 4

RECOMMENDATIONS

Miami-Dade Transportation
Planning Organization

6.0 RECOMMENDATIONS

The Public Outreach activities along with the engineering analysis performed helped compare and contrast the performance of each alternative in meeting the needs of the study, and identifying any impacts to the existing infrastructure for the proposed improvements. After comparing the alternatives, costs, impacts, and the extent to which alternative met the need of the study, the feasible alternatives were selected for each station and are listed below:

Station No. 1: Coconut Grove Metrorail Station

- **Alternative 1-**Second Level Pedestrian Bridge Over US-1 & SW 27th Avenue
- **Alternative 2-**Third Level Pedestrian Bridge Over US-1 & SW 27th Avenue
- **Alternative 3-**At-Grade Improvements at US-1 and SW 27th Avenue

Station No.2 : Dadeland North Metrorail Station

- **Alternative 3-** Pedestrian Bridge east of SW 70th Avenue
- **Alternative 4-** At-Grade Improvements across US-1 between SW 68th Court and SW 84th Street at landing adjacent to Snapper Creek Canal and Bomnin Chevrolet Dadeland.

Station No. 3: Dadeland South Metrorail Station

- **Alternative 3A-** Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into South Tower
- **Alternative 3B-** Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection west of South Tower
- **Alternative 4-** At-Grade Improvements at Dadeland Boulevard and Datran Drive

1. COCONUT GROVE METRORAIL STATION:

Based on the review of the crash data, below are the recommended potential short-term countermeasures proposed at the Coconut Grove Metrorail Station at the intersection of US-1 and SW 27th Avenue:

- Implement Leading Pedestrian Interval (LPI) at the intersection for the east and west leg crosswalks, which provides a head start to bikes and pedestrians in the east-west crosswalks and visibility of them to the vehicles,
- Install No right turn on red (RTOR) blank out sign during AM and PM peak hours for the southbound right turning vehicles. With the implementation of No RTOR during peak hours, drivers tend to stop prior to the stop-bar, since southbound right turning vehicles do not have to look for the vehicles to their left side, and will not block bicyclists or pedestrians in the north leg crosswalk,
- Provide pedestrian refuge on the west leg crosswalk. This improvement may require auto turn analysis to confirm there are no issues for northbound left turning vehicles,
- In addition, it is recommended to review reducing the curb radius in the northwest corner in order to reduce the turning vehicle speeds of southbound right turning vehicles,
- Furthermore, based on the feedback from project working group (PWG), it is recommended to widen the west leg crosswalk to provide back-to-back crosswalks to separate bike and pedestrian paths,
- FDOT performed lighting retrofit improvements recently (based on FDOT's comment), hence no lighting improvements are proposed.

It has to be noted that the proposed improvements of LPI and No RTOR will have operational impacts at the subject intersection of US-1 at SW 27th Avenue. Although operational analysis was not part of the scope of services of this feasibility study, the preliminary operational analysis performed by County as part of their Underline Phase 3 was reviewed. The County proposed the following improvements as part of the study:

- Leading pedestrian interval for the east and west leg crosswalks,
- No right turn on red for the southbound right turning vehicles (southbound SW 27th Avenue to westbound US-1),
- Conversion of left-turn phasing from protected-permissive to protected only phase for the northeast bound of US-1 to SW 27th Avenue.

This feasibility study proposes the first two improvements but no changes to the left-turn phasing at the intersection since no crashes occurred in a way where left-turn vehicles from northeast bound of US-1 did not collide with bikes and pedestrians during the permissive phase.

The results from the County's Underline Phase 3 study showed that the intersection is projected to operate at level of service (LOS) 'D' and 'E' in the AM and PM peak hours after implementing the proposed improvements. In the PM peak hour, the delay increases by 5% but the LOS remains 'E' in both the existing and proposed conditions. Since the conversion of the left-turn phase from a protected-permissive to a protected only phase for the northeast bound left turning vehicles was not proposed, the delay should remain closer to the existing conditions. So, the proposed improvements of LPI and No RTOR along with signal timing optimization may be feasible operationally.

Although there may be a slight increase in delay during the PM peak hour, it has to be acknowledged that the implementation of leading pedestrian interval will reduce the vehicle _Ib pedestrian crashes by 19% based on the Crash Modification Factor clearing house database.

Refer to Appendix B for Conceptual Design Plans

2. DADELAND NORTH METRORAIL STATION:

Based on the review of the crash data, below are the recommended potential short-term countermeasures proposed at the Dadeland North Metrorail Station:

- **At SW 68th Court mid-block crossing:**
  - Provide landscaping as a barrier within the available median between SW 68th Court and SW 70th Avenue in order to restrict people to cross at the available mid-block crossing
  - Improve lighting at this location,
  - Widen the existing crosswalk.
- **At SW 84th Street:**
  - Provide No right turn on red for the southbound right turning vehicles,
  - Provide pedestrian refuge on the west leg crosswalk,
  - Implement leading pedestrian interval for the east and west leg crosswalks.

Similar to the SW 27th Avenue intersection, the traffic operations were reviewed at the intersection of SW 84th Street and US-1, using the County's Underline Phase 3 study. The County proposed the following improvements as part of the study:

- Leading pedestrian interval for the east and west leg crosswalks,
- No right turn on red for the southbound right turning vehicles (southbound SW 84th Street to westbound US-1),
- No right turn on red for the southwest bound right turning vehicles (from westbound US-1 to northbound SW 84th Street),
- Conversion of left-turn phasing from protected-permissive to protected only phase for the northeast bound of US-1 to SW 84th Street.

This feasibility study is proposing the first two improvements and no changes to the:

- Westbound US-1 right turning vehicles and
- Eastbound left-turn phasing at the intersection since no crashes occurred in a way where left-turn vehicles from northeast bound of US-1 did not collide with bikes and pedestrians during the permissive phase.

The results from this study showed the intersection is projected to operate at level of service 'C' and 'D' in the AM and PM peak hours after implementing the proposed improvements. In the PM peak hour, the delay increases by 50% but still operates at LOS 'D' which is acceptable. In addition, since this feasibility study does not propose the conversion of left-turn phase and no RTOR for westbound vehicles from US-1 to SW 84th Street, the delay will remain closer to the existing conditions. So, the proposed improvements of LPI and No RTOR along with signal timing optimization will be feasible operationally.

3. DADELAND SOUTH METRORAIL STATION:

Based on the review of the crash data, below are the recommended potential short-term countermeasures proposed at the Dadeland South Metrorail Station:

- **At Datran Drive:**
  - Improve pavement markings,
  - Install curb ramps (ADA compliant),
  - Close the box which involves installing the crosswalk on the south leg to cross US-1.
- **Dadeland Boulevard:**
  - "Use Crosswalk" sign at the intersection,
  - Review lighting and improve as needed.

4. IMPLEMENTATION STRATEGY:

This feasibility study was conducted pursuant to a TPO Governing Board Resolution #08-2022, to create a framework for implementing bicycle and pedestrian bridges across US-1 at the Coconut Grove, Dadeland North, and Dadeland South Metrorail Stations in collaboration with the Florida Department of Transportation (FDOT), Miami-Dade County Department of Transportation and Public Works (DTPW), area municipalities, and private developers.

The implementation plan developed for the US-1 Bicycle and Pedestrian Bridge Feasibility Study is to provide at-grade improvements as short-term Improvements at the three Metrorail station locations. These alternatives were identified as the best options to improve connectivity as quickly and affordably as possible while still maintaining an urban environment. The short-term improvements are recommended within the next three to five years to provide fast solutions for improved safety and connectivity. The placement of bicycle/pedestrian improvements at these three stations along the US-1 corridor will provide pedestrians and bicyclists with safer mobility options.

All other pedestrian bridge alternatives are recommended as long-term improvements and are recommended to be further evaluated in the future. The following is the general recommended framework for the further development and implementation of these improvements:

- **Miami-Dade 2045 LRTP** – The Miami-Dade 2045 Long Range Transportation Plan (LRTP) has specific sources of funding which can be utilized for projects within its planning process. The LRTP includes $105 million in set aside funding for bicycle and pedestrian projects for the next 21 years (2025-2045).
- **Additional Stakeholder Coordination and project sponsors** – It is recommended that additional coordination is conducted with the appropriate agencies and developers within the area to identify project sponsors who can take the recommendations identified in this study, and further develop them through the identification of potential funding sources for the design and ultimate construction of these improvements.
- **Project Prioritization** – Once the relevant Project Sponsors are identified, improvements identified in this study can then be prioritized as part of the development of the Transportation Improvement Plan (TIP) List of Program Priorities (LOPP) for federal funding opportunities. The LOPP cycle for their inclusion will depend on various factors, including the timing of the coordination with the various sponsors and the extent of the available funding anticipated.
- **Additional Design and Public Outreach** - Once the projects have been programmed in the work programs of the respective project sponsors, additional design of these improvements will need to be conducted to quantify constraints, and mitigate potential impacts in preparation for implementation. Early public outreach is recommended as part of this phase to ensure that the feedback from likely affected constituents is appropriately considered as part of the design of the improvements.

7.0 STUDY COORDINATION OVERVIEW

Throughout the course of the feasibility study, the Project Team conducted several meetings describing the alternatives of the project. The purpose of the meetings was to share project information with agencies and stakeholders to collect feedback in regard to the proposed improvements and determine how best to advance this project. In cooperation with the TPO, a Project Working Group was formed to provide guidance to the study team as concepts were developed. The US-1 Bicycle and Pedestrian Feasibility Study involved coordination with several agencies and stakeholders through the participation of three (3) Project Working Group Meetings. The following agencies and municipalities actively participated throughout this study:

- Miami-Dade County Transportation Planning Organization (TPO)
- Florida Department of Transportation (FDOT)
- Miami-Dade County Department of Transportation and Public Works (DTPW)
- Miami-Dade County Parks Recreation and Open Spaces (PROS)
- Miami-Dade County Regulatory and Economic Resources (RER) Planning Department
- The Village of Pinecrest
- The City of South Miami

The Project Team also participated in one (1) FDOT Workshop, (1) Bicycle and Pedestrian Advisory Committee (BPAC) Meeting and one (1) Transportation Aesthetics Review Committee (TARC) Meeting to discuss the feasibility study and proposed improvements.

Based on the feedback received, the most prevalent alternatives were considered, analyzed and selected for each of the three Metrorail stations. Refer to ***Appendix C: Public Meeting Information*** for all public involvement presentations and meeting minutes.

Key recommendations and preferences were made at each meeting that provided significant direction towards the concept development at each of the Metrorail Stations. The following summarizes the observations and comments made at each of the meetings:

7.1 PROJECT WORKING GROUP MEETING NO. 1

Project Working Group Meeting No. 1 was held on May 4, 2023. During Project Working Group Meeting No. 1, the Project Team provided background information regarding the three study areas, as well as a briefing on previous studies and trends. The Project Team highlighted field review findings as well as the crash data findings. The traffic issues and critical points for each station were identified and feedback was received from the Project Working Group. It was concluded that US-1 was a vulnerable crossing at all proposed locations for pedestrians and cyclists and that any proposed improvements needed to address some specific traffic trends. Vision Zero locations were also discussed and included as part of this study.

7.2 PROJECT WORKING GROUP MEETING NO. 2

Project Working Group Meeting No. 2 was held on September 7, 2023. During this meeting the Project Team discussed the Project Need, Connectivity Assessment, Concept Development, Project Schedule, and next steps. Preliminary concepts were discussed, and alternative graphics were presented. The following feedback was received:

- At the Coconut Grove Metrorail Station, the PWG emphasized that they would like to see No Turn on Red at this location, eliminate the center island, suggested bringing the crossings as close as possible to US-1, include flashing beacons, and additional signage.
- At the Dadeland North Metrorail Station, the PWG stated that The Underline, which is a shared use path of 11 ft., is proposed near the proposed bridge landing. The Project Team is to consider the
  11-ft., width and a glass block wall along the width of station when refining concepts. It was suggested by DTPW to move the bridge further North. If the bridge is moved towards SW 84th Street, there is some more space for the bridge landing. However, this will impact ROW and should be clearly stated.
- At the Dadeland South Metrorail Station, DTPW awarded a contract for a Design Builder to remodel and enhance Dadeland South Metrorail Station. The Underline ends at the northern end of the kiss-and-ride facility and there is a South Dade Trail bicycle connection to South Miami-Dade Busway. DTPW also suggested that the Project Team evaluate the new development at the Dadeland South Metrorail Station where Shorty's is currently located. Shorty's BBQ and the 9300 Plaza business area are being developed, and two mixed-use towers will be constructed.

7.3 PROJECT WORKING GROUP MEETING NO. 3

Project Working Group Meeting No. 3 was held on November 1, 2023. During this meeting the Project Team reviewed the connectivity assessment and crash data for each Metrorail station. All following alternatives were presented and discussed briefly:

- **Coconut Grove Metrorail Station:**
  - Alternative 1 - Second Level Pedestrian Bridge Over US-1 & SW 27th Avenue
  - Alternative 2 – At Grade Improvements at US-1 & SW 27th Avenue

The PWG recommended that a third level bridge be evaluated at the Coconut Grove Metrorail Station landing between the Metrorail rail lines. Project Team agreed to evaluate this alternative.

- **Dadeland North Metrorail Station:**
  - Alternative 1 - Pedestrian Bridge West of SW 84th Street
  - Alternative 2 – Pedestrian Bridge West of SW 84th Street (Modified)
  - Alternative 3 – At-Grade Improvements

The PWG recommended that a pedestrian bridge be evaluated closer to SW 70th Avenue, landing in the ROSS Shopping Plaza west of US-1.

- **Dadeland South Metrorail Station:**
  - Alternative 1 – Pedestrian Bridge a Dadeland Boulevard
  - Alternative 2 – Pedestrian Bridge West of Datran Drive
  - Alternative 3A – Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into South Tower
  - Alternative 3B – Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection West of South Tower
  - Alternative 4 – At-Grade Improvements

7.4 FDOT WORKSHOP

The FDOT Workshop was held on November 7, 2023. This workshop was to brief the FDOT on the proposed At-Grade Improvements that will be provided at the Metrorail Stations. In general, FDOT provided feedback on the designs provided, which includes the following:

- Lighting Analysis was performed at Coconut Grove Metrorail location, however it has not been provided at the other two Metrorail station locations.
- Wider sidewalks are to be evaluated.
- Signal timing to be reviewed.
- All proposed improvements shall be coordinated with traffic operations.

7.5 BICYCLE PEDESTRIAN ADVISORY COMMITTEE (BPAC) MEETING

The BPAC was held on November 7, 2023. During this meeting, the Project Manager briefed the committee on the proposed Improvements. The following feedback was received:

- At Coconut Grove Metrorail Station, user activity is high and the crossings can be improved. BPAC does prefer to keep users at ground level. They would like to see enhanced signage in the area.
- Project Team to review crosswalk criteria for Improvements.
- The committee is in favor of an active urban environment. They are in favor of non-bridge improvements.
- Dadeland South Metrorail Station is the only location where a proposed bridge may be feasible.
- Dadeland South Metrorail Stations proposed bridge can be coordinated with Developers to help finance the project.
- Resolution was to propose At-Grade Improvements.

7.6 TRANSPORTATION AESTHETICS REVIEW COMMITTEE (TARC) MEETING

The TARC Meeting was held on November 15, 2023. During this meeting, the Project Manager briefed the committee on the proposed Improvement alternatives. The presentation demonstrated the Pedestrian Bridge Alternatives and At Grade Improvements for each station.

8.0 CONCLUSION

The primary focus for the US-1 Bicycle and Pedestrian Bridge Feasibility Study is to improve safety crossings along US-1 near the Metrorail Stations. After identifying this area, high pedestrian and traffic fatality cases and severe injuries in recent years, several alternatives were evaluated. It is a priority to implement pedestrian infrastructure and connectivity improvements. To provide these improvements as soon as possible, short-term improvements were selected. The total cost for short-term improvements is approximately half of million dollars. Other alternatives, which can be considered as long-term Improvements have been identified and can be studied further in the future. Table 8-1 shows a summary of all the alternatives evaluated divided into short-term and long-term improvements:

Alternative No.	Alternative Description	Opinion of Probable Cost
Short-term Improvements		
Coconut Grove Station		
3	At Grade Improvements at US-1 & SW 27th Avenue	$200K-$260K
Dadeland North Station		
4	At-Grade Improvements across US-1 between SW 68th Court and SW 84th Street at landing adjacent to Snapper Creek Canal and Bomnin Chevrolet.	$420K-$546K
Dadeland South Station		
4	At-Grade Improvements at Dadeland Blvd and Datran Drive.	$100K - $130K
Long-term Improvements		
Coconut Grove Station		
1	Second Level Pedestrian Bridge Over US-1 & SW 27th Avenue	$5M-$10M
2	Third Level Pedestrian Bridge Over US-1 & SW 27th Avenue	$5M-$10M
Dadeland North Station		
1	Pedestrian Bridge west of SW 84th Street	$7M-$10M
2	Pedestrian Bridge west of SW 84th Street Modified	$7M-$10M
3	Pedestrian Bridge east of SW 70th Avenue	$7M-$10M
Dadeland South Station		
1	Pedestrian Bridge a Dadeland Boulevard	$8M-$10M
2	Pedestrian Bridge west of Datran Drive	$8M-$10M
3A	Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection directly into South Tower	$8M-$10M
3B	Pedestrian Bridge to accommodate new development at 9300 Plaza & Shorty's BBQ – Bridge Connection west of South Tower	$8M-$10M

Table 8-1: Summary for All Alternatives.

APPENDICES

Miami-Dade Transportation
Planning Organization

APPENDIX A

TRAFFIC DATA SHEETS

Miami-Dade Transportation Planning Organization

APPENDIX A

Coconut Grove Metrorail Station Traffic Data

File Name: TMC-1 US-1 at SW 27th Avenue
Start Date: 3/9/2023
Start Time: 6:00:00 AM

	US-1 North Leg		US-1 South Leg		SW 27th Avenue East Leg		SW 27th Avenue West Leg	
Start Time	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes
6:00:00 AM	0	1	21	5	2	0	0	2
6:15:00 AM	0	0	17	7	0	0	0	2
6:30:00 AM	1	0	26	0	1	0	2	0
6:45:00 AM	4	1	21	6	2	0	0	1
7:00:00 AM	0	1	26	4	0	1	0	1
7:15:00 AM	2	1	24	1	2	0	0	0
7:30:00 AM	0	1	37	3	2	0	1	1
7:45:00 AM	2	0	46	2	3	0	5	1
8:00:00 AM	2	0	30	2	2	0	3	5
8:15:00 AM	2	0	33	4	4	0	1	1
8:30:00 AM	3	0	24	4	0	0	2	0
8:45:00 AM	7	1	33	7	3	3	5	0
1:00:00 PM	2	0	6	1	0	1	2	0
1:15:00 PM	0	0	11	0	1	0	2	2
1:30:00 PM	1	0	13	1	0	0	0	1
1:45:00 PM	4	0	28	2	2	0	0	2
4:00:00 PM	7	0	35	5	2	0	9	0
4:15:00 PM	4	0	21	2	2	0	0	1
4:30:00 PM	1	1	39	6	4	0	1	0
4:45:00 PM	1	5	38	0	7	0	2	1
5:00:00 PM	2	2	29	0	2	2	1	1
5:15:00 PM	8	1	22	2	0	0	4	3
5:30:00 PM	8	1	44	3	3	0	4	2
5:45:00 PM	2	2	22	2	0	0	5	3
6:00:00 PM	1	1	26	2	0	1	2	3
6:15:00 PM	2	2	32	1	3	1	2	2
6:30:00 PM	5	0	33	1	4	0	0	2
6:45:00 PM	5	0	32	1	2	0	1	1
9:00:00 PM	0	0	13	3	0	0	0	0
9:15:00 PM	2	1	6	2	0	1	0	0
9:30:00 PM	0	0	5	1	0	0	1	0
9:45:00 PM	0	0	12	0	0	0	3	0

Coconut Grove Metrorail Station Traffic Data

	US-1 and SW 27TH Ave Summary		
Time	Direction	Pedestrian count	Bikes count
Peak A.M	From 6 am- 8:45 am		
	North Leg	23	6
	South Leg	338	45
	East Leg	21	21
	West Leg	19	14
Mid-day	From 1:00 pm-1:45pm		
	North Leg	7	0
	South Leg	58	4
	East Leg	3	1
	West Leg	4	5
Peak P.M	From 4:00 pm-6:45 pm		
	North Leg	46	15
	South Leg	373	25
	East Leg	29	4
	West Leg	31	19
Nighttime	From 9:00 pm-9:45 pm		
	North Leg	2	1
	South Leg	36	6
	East Leg	0	1
	West Leg	4	0

APPENDIX A

Dadeland North Metrorail Station Traffic Data

File Name: TMC-3 US-1 at SW 84th Street
Start Date: 3/9/2023
Start Time: 6:00:00 AM

	US-1 North Leg		US-1 South Leg		SW 84th Street East Leg		SW 84th Street West Leg	
Start Time	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes
6:00:00 AM	0	0	0	0	1	1	1	0
6:15:00 AM	0	0	1	0	2	0	1	1
6:30:00 AM	7	0	0	0	1	0	1	0
6:45:00 AM	2	0	0	0	0	0	3	3
7:00:00 AM	10	0	1	1	0	1	1	0
7:15:00 AM	4	0	1	0	1	0	4	0
7:30:00 AM	8	0	0	0	1	1	3	2
7:45:00 AM	4	0	0	0	0	2	0	0
8:00:00 AM	8	0	1	0	1	0	2	0
8:15:00 AM	7	0	2	0	0	0	1	1
8:30:00 AM	12	0	1	0	0	1	1	1
8:45:00 AM	17	0	0	0	0	0	1	4
1:00:00 PM	5	0	0	0	1	1	6	3
1:15:00 PM	1	0	1	0	3	1	2	1
1:30:00 PM	4	0	0	0	3	0	3	1
1:45:00 PM	5	0	0	0	3	0	2	0
4:00:00 PM	15	0	0	0	4	0	3	3
4:15:00 PM	5	0	0	0	1	0	2	1
4:30:00 PM	4	0	0	0	1	0	2	2
4:45:00 PM	1	0	0	0	2	0	5	1
5:00:00 PM	8	0	0	0	0	1	1	2
5:15:00 PM	5	1	2	1	2	1	1	3
5:30:00 PM	5	0	1	0	1	0	2	1
5:45:00 PM	6	0	2	1	2	0	2	0
6:00:00 PM	5	0	0	0	0	1	3	2
6:15:00 PM	2	0	1	1	0	0	4	3
6:30:00 PM	9	0	0	1	2	1	6	1
6:45:00 PM	7	0	2	1	4	1	0	1
9:00:00 PM	9	0	0	0	2	1	0	0
9:15:00 PM	3	0	0	0	0	0	1	1
9:30:00 PM	5	0	0	0	0	0	1	0
9:45:00 PM	2	0	0	0	1	0	1	0

Dadeland North Metrorail Station Traffic Data

	US-1 and SW 84th St Summary		
Time	Direction	Pedestrian count	Bikes count
Peak A.M	From 6 am- 8:45 am		
	North Leg	79	0
	South Leg	7	1
	East Leg	7	6
	West Leg	19	12
Mid-day	From 1:00 pm-1:45pm		
	North Leg	15	0
	South Leg	1	0
	East Leg	10	2
	West Leg	13	5
Peak P.M	From 4:00 pm-6:45 pm		
	North Leg	72	1
	South Leg	8	5
	East Leg	19	5
	West Leg	31	20
Nighttime	From 9:00 pm-9:45 pm		
	North Leg	19	0
	South Leg	0	0
	East Leg	3	1
	West Leg	3	1

APPENDIX A

Dadeland North Metrorail Station Traffic Data

File Name: TMC-4 US-1 at SW 88th Street
Start Date: 3/9/2023
Start Time: 6:00:00 AM

	US-1 North Leg		US-1 South Leg		SW 69th Ct South Leg		SW 88th Street East Leg		SW 88th Street West Leg	
Start Time	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes
6:00:00 AM	1	1	0	0	1	0	1	0	1	2
6:15:00 AM	0	0	0	0	0	0	0	0	0	0
6:30:00 AM	0	0	2	0	3	0	4	0	0	1
6:45:00 AM	0	0	2	0	2	0	2	0	1	4
7:00:00 AM	0	1	0	0	1	0	1	0	0	0
7:15:00 AM	0	1	1	0	1	0	0	0	1	0
7:30:00 AM	0	0	1	0	1	0	4	0	2	0
7:45:00 AM	0	0	1	1	2	2	0	1	0	1
8:00:00 AM	0	0	1	1	3	0	2	0	0	0
8:15:00 AM	0	0	0	0	0	0	0	0	1	0
8:30:00 AM	0	0	1	2	1	3	1	0	0	1
8:45:00 AM	0	0	1	0	1	0	1	0	5	1
1:00:00 PM	0	0	1	1	3	1	1	1	0	0
1:15:00 PM	0	0	1	0	2	0	4	0	2	1
1:30:00 PM	0	0	1	0	2	0	2	0	3	0
1:45:00 PM	0	0	0	0	1	0	1	1	0	0
4:00:00 PM	0	0	3	0	4	0	4	0	2	1
4:15:00 PM	0	0	4	0	2	0	2	0	5	0
4:30:00 PM	2	0	3	1	4	0	4	0	2	2
4:45:00 PM	0	0	1	0	5	0	2	0	3	0
5:00:00 PM	0	0	3	0	5	0	2	0	2	1
5:15:00 PM	1	0	3	1	5	1	3	1	3	3
5:30:00 PM	0	0	1	2	1	0	2	0	1	1
5:45:00 PM	0	0	3	1	3	1	2	1	4	3
6:00:00 PM	0	0	1	0	2	0	2	0	1	0
6:15:00 PM	0	0	1	0	2	0	2	0	2	0
6:30:00 PM	0	0	0	0	1	0	2	0	1	1
6:45:00 PM	0	0	0	0	2	0	4	0	2	0
9:00:00 PM	0	0	0	0	5	0	4	1	0	0
9:15:00 PM	0	0	2	0	3	0	1	0	0	0
9:30:00 PM	1	0	1	0	1	0	0	0	0	1
9:45:00 PM	0	0	0	0	0	0	0	0	0	0

Dadeland North Metrorail Station Traffic Data

	US-1 and SW 88th St Summary		
Time	Direction	Pedestrian count	Bikes count
Peak A.M	From 6 am- 8:45 am		
	North Leg	1	3
	South Leg	10	4
	East Leg	16	1
	West Leg	11	10
Mid-day	From 1:00 pm-1:45pm		
	North Leg	0	0
	South Leg	3	1
	East Leg	8	2
	West Leg	5	1
Peak P.M	From 4:00 pm-6:45 pm		
	North Leg	3	0
	South Leg	23	5
	East Leg	31	2
	West Leg	28	12
Nighttime	From 9:00 pm-9:45 pm		
	North Leg	1	0
	South Leg	3	0
	East Leg	5	1
	West Leg	0	1

APPENDIX A

Dadeland North Metrorail Station Traffic Data

File Name: TMC-2 US-1 at SW 68th Ct
Start Date: 3/9/2023
Start Time: 6:00:00 AM

	US-1 North Leg		US-1 South Leg		SW 68th Ct East Leg		SW 68th Ct (Drive Way) West Leg	
Start Time	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes
6:00:00 AM	0	1	5	1	1	0	0	0
6:15:00 AM	0	0	2	0	1	0	0	0
6:30:00 AM	0	0	6	1	0	0	0	0
6:45:00 AM	0	0	7	0	0	0	0	0
7:00:00 AM	0	0	16	1	0	0	0	0
7:15:00 AM	0	0	12	1	0	0	0	0
7:30:00 AM	0	0	15	1	2	0	0	0
7:45:00 AM	0	0	13	2	0	2	0	0
8:00:00 AM	0	0	10	0	1	1	0	0
8:15:00 AM	0	0	18	1	0	0	0	0
8:30:00 AM	1	0	19	0	0	0	0	0
8:45:00 AM	1	0	23	2	0	0	0	0
1:00:00 PM	0	0	5	2	0	1	0	0
1:15:00 PM	0	0	10	1	3	0	0	0
1:30:00 PM	0	0	7	1	4	0	0	0
1:45:00 PM	0	0	6	1	0	0	0	0
4:00:00 PM	0	0	18	3	2	0	1	0
4:15:00 PM	0	0	15	1	0	0	0	0
4:30:00 PM	0	0	21	1	2	0	0	0
4:45:00 PM	0	0	31	2	1	0	2	0
5:00:00 PM	0	0	18	2	0	1	0	0
5:15:00 PM	0	0	18	1	0	1	1	0
5:30:00 PM	0	0	19	0	1	1	0	0
5:45:00 PM	1	0	26	0	3	1	0	0
6:00:00 PM	0	0	18	1	1	1	0	0
6:15:00 PM	0	0	18	1	5	0	1	0
6:30:00 PM	0	0	14	0	1	1	0	0
6:45:00 PM	0	0	25	0	0	1	1	0
9:00:00 PM	0	0	2	0	1	1	0	0
9:15:00 PM	0	0	3	1	0	0	0	0
9:30:00 PM	0	0	3	0	0	0	0	0
9:45:00 PM	0	0	4	1	1	1	0	0

Dadeland North Metrorail Station Traffic Data

	US-1 and SW 68th Ct Summary		
Time	Direction	Pedestrian count	Bikes count
Peak A.M	From 6 am- 8:45 am		
	North Leg	2	1
	South Leg	146	10
	East Leg	5	3
	West Leg	0	0
Mid-day	From 1:00 pm-1:45pm		
	North Leg	0	0
	South Leg	28	5
	East Leg	7	1
	West Leg	0	0
Peak P.M	From 4:00 pm-6:45 pm		
	North Leg	1	0
	South Leg	241	12
	East Leg	16	7
	West Leg	6	0
Nighttime	From 9:00 pm-9:45 pm		
	North Leg	0	0
	South Leg	12	2
	East Leg	2	2
	West Leg	0	0

APPENDIX A

Dadeland South Metrorail Station Traffic Data

File Name: TMC-6 US-1 at Datran Drive
Start Date: 3/9/2023
Start Time: 6:00:00 AM

	US-1 North Leg		US-1 South Leg		Datran Drive East Leg		Datran Drive West Leg	
Start Time	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes
6:00:00 AM	0	0	0	0	0	0	0	0
6:15:00 AM	0	0	0	0	1	0	4	0
6:30:00 AM	0	0	0	0	0	0	0	0
6:45:00 AM	1	0	0	0	0	0	0	0
7:00:00 AM	0	0	0	0	0	0	0	0
7:15:00 AM	2	0	0	0	0	0	0	0
7:30:00 AM	0	1	0	0	1	0	0	0
7:45:00 AM	3	0	0	0	1	1	2	0
8:00:00 AM	2	1	0	0	0	1	1	0
8:15:00 AM	2	0	0	0	1	0	1	0
8:30:00 AM	3	0	0	0	0	0	0	0
8:45:00 AM	1	0	0	0	0	0	1	0
1:00:00 PM	9	0	3	0	1	1	5	1
1:15:00 PM	18	0	0	0	1	1	4	0
1:30:00 PM	12	0	0	0	3	1	8	0
1:45:00 PM	2	0	1	0	0	0	0	0
4:00:00 PM	6	0	0	0	3	0	1	0
4:15:00 PM	4	0	0	0	1	0	2	0
4:30:00 PM	2	0	0	0	0	0	1	0
4:45:00 PM	10	0	0	0	1	1	3	0
5:00:00 PM	4	0	0	0	3	1	3	0
5:15:00 PM	2	0	0	0	1	0	2	0
5:30:00 PM	3	0	0	0	3	0	1	0
5:45:00 PM	2	0	2	0	1	1	1	0
6:00:00 PM	2	0	0	0	0	0	1	0
6:15:00 PM	1	0	0	0	0	1	0	0
6:30:00 PM	2	0	0	0	1	0	0	0
6:45:00 PM	1	0	0	0	1	1	1	0
9:00:00 PM	1	0	0	0	0	0	1	0
9:15:00 PM	2	1	0	0	0	0	0	0
9:30:00 PM	1	1	1	0	0	0	0	0
9:45:00 PM	2	0	0	0	0	0	0	0

Dadeland South Metrorail Station Traffic Data

File Name: TMC-5 US-1 at SW 72nd Ct (Dadeland Blvd)
Start Date: 3/9/2023
Start Time: 6:00:00 AM

	US-1 North Leg		US-1 South Leg		SW 72nd Ct East Leg		SW 72nd Ct West Leg	
Start Time	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes
6:00:00 AM	3	0	3	0	1	0	0	0
6:15:00 AM	7	0	1	0	0	0	0	0
6:30:00 AM	3	0	2	0	2	0	0	0
6:45:00 AM	19	1	1	0	1	0	0	0
7:00:00 AM	4	0	2	0	1	0	0	1
7:15:00 AM	1	0	4	0	1	0	0	0
7:30:00 AM	6	2	3	0	2	0	0	0
7:45:00 AM	5	0	3	0	3	0	0	0
8:00:00 AM	4	1	5	0	7	0	0	0
8:15:00 AM	3	0	12	1	1	1	0	0
8:30:00 AM	3	3	3	0	2	1	0	0
8:45:00 AM	1	0	4	0	1	0	0	0
1:00:00 PM	9	0	7	0	3	1	3	0
1:15:00 PM	2	0	6	0	4	0	0	0
1:30:00 PM	6	0	4	0	1	0	0	0
1:45:00 PM	7	0	5	0	0	0	1	0
4:00:00 PM	10	0	8	0	3	0	2	0
4:15:00 PM	4	0	2	1	2	0	2	0
4:30:00 PM	5	0	4	0	2	0	2	0
4:45:00 PM	8	0	5	0	0	0	0	1
5:00:00 PM	7	0	2	0	0	1	1	1
5:15:00 PM	7	0	6	0	1	0	0	0
5:30:00 PM	1	0	7	0	3	1	0	0
5:45:00 PM	3	0	8	1	0	0	0	0
6:00:00 PM	11	0	8	0	3	0	1	0
6:15:00 PM	1	0	8	0	1	1	0	0
6:30:00 PM	4	0	7	0	0	0	3	0
6:45:00 PM	9	0	9	0	8	0	6	0
9:00:00 PM	2	0	4	0	0	0	0	0
9:15:00 PM	1	1	0	0	2	0	1	0
9:30:00 PM	5	0	0	0	0	0	0	0
9:45:00 PM	1	0	2	0	0	0	1	0

APPENDIX A

Dadeland South Metrorail Station Traffic Data

Dadeland South Count Summary		US-1 and Datran Drive		US-1 and Dadeland Boulevard	
Time	Direction	Pedestrian Count	Bikes Count	Pedestrian Count	Bikes Count
Peak A.M	**From 6 am - 8:45 am**				
	North Leg	14	2	59	7
	South Leg	0	0	43	1
	East Leg	4	2	22	2
	West Leg	9	0	0	1
Mid-day	**From 1:00 pm-1:45pm**				
	North Leg	41	0	24	0
	South Leg	4	0	22	0
	East Leg	5	3	8	1
	West Leg	17	1	4	0
Peak P.M	**From 4:00 pm-6:45 pm**				
	North Leg	39	0	70	0
	South Leg	2	0	74	2
	East Leg	15	5	23	3
	West Leg	16	0	17	2
Night Time	**From 9:00 pm-9:45 pm**				
	North Leg	6	2	9	1
	South Leg	1	0	6	0
	East Leg	0	0	2	0
	West Leg	1	0	2	0

FDOT DISTRICT 6
EXPECTED VALUES ANALYSIS

US-1 and SW 27th Ave		Number of Crashes Year					5 Year Total Crashes	Mean Crashes Per Year	%
		2018	2019	2020	2021	2022			
Total Crashes		**1**	**6**	**4**	**2**	**2**	**15**	**3**	-
CRASH TYPE	Rear End	0	0	0	1	0	1	0	7%
	Angle	0	0	0	0	0	0	0	0%
	Left Turn	1	1	0	0	0	2	0	13%
	Sideswipe	0	0	0	0	0	0	0	0%
	Right Turn	0	1	2	0	1	4	1	27%
	Head On	0	0	0	0	0	0	0	0%
	Off Road	0	1	0	0	0	1	0	7%
	Pedestrian	1	2	1	0	2	6	1	40%
	Bicycle	0	4	3	2	0	9	2	60%
	Other	0	0	0	0	0	0	0	0%
SEVERITY	PDO/Possible Injury	1	6	2	1	1	11	2	73%
	Serious Injury	0	0	2	1	1	4	1	27%
	Fatality	0	0	0	0	0	0	0	0%
LIGHTING CONDITIONS	Dawn	0	0	0	0	0	0	0	0%
	Daylight	0	3	1	2	2	8	2	53%
	Dusk	0	0	0	0	0	0	0	0%
	Dark - Lighted	1	0	3	0	0	4	1	27%
	Dark - Not Lighted	0	0	0	0	0	0	0	0%
	Dark - Unknown Lighting	0	0	0	0	0	0	0	0%
SURFACE CONDITIONS	Dry	1	4	3	2	2	12	2	80%
	Wet	0	2	1	0	0	3	1	20%
	Other	0	0	0	0	0	0	0	0%

APPENDIX A

FDOT DISTRICT 6
EXPECTED VALUES ANALYSIS

US-1 and SW 84th St		2019	5 Year Total Crashes	Mean Crashes Per Year	%
Total Crashes		**3**	**3**	**3**	-
CRASH TYPE	Rear End	0	0	0	0%
	Angle	1	1	1	33%
	Left Turn	0	0	0	0%
	Sideswipe	0	0	0	0%
	Right Turn	1	1	1	33%
	Head On	0	0	0	0%
	Off Road	0	0	0	0%
	Pedestrian	2	2	2	67%
	Bicycle	1	1	1	33%
	Other	0	0	0	0%
SEVERITY	PDO/Possible Injury	1	1	1	33%
	Serious Injury	0	0	0	0%
	Fatality	0	0	0	0%
LIGHTING CONDITIONS	Dawn	0	0	0	0%
	Daylight	3	3	3	100%
	Dusk	0	0	0	0%
	Dark - Lighted	0	0	0	0%
	Dark - Not Lighted	0	0	0	0%
	Dark - Unknown Lighting	0	0	0	0%
SURFACE CONDITIONS	Dry	3	3	3	100%
	Wet	0	0	0	0%
	Other	0	0	0	0%

FDOT DISTRICT 6
EXPECTED VALUES ANALYSIS

US-1 and Dadeland Boulevard		Number of Crashes Year 2018	5 Year Total Crashes	Mean Crashes Per Year	%
Total Crashes		**2**	**2**	**2**	-
CRASH TYPE	Rear End	0	0	0	0%
	Angle	0	0	0	0%
	Left Turn	1	1	1	50%
	Sideswipe	0	0	0	0%
	Right Turn	0	0	0	0%
	Head On	0	0	0	0%
	Off Road	0	0	0	0%
	Pedestrian	2	2	2	100%
	Bicycle	0	0	0	0%
	Other	0	0	0	0%
SEVERITY	PDO/Possible Injury	2	2	2	100%
	Serious Injury	0	0	0	0%
	Fatality	0	0	0	0%
LIGHTING CONDITIONS	Dawn	0	0	0	0%
	Daylight	1	1	1	50%
	Dusk	0	0	0	0%
	Dark - Lighted	1	1	1	50%
	Dark - Not Lighted	0	0	0	0%
	Dark - Unknown Lighting	0	0	0	0%
SURFACE CONDITIONS	Dry	2	2	2	100%
	Wet	0	0	0	0%
	Other	0	0	0	0%

APPENDIX A

FDOT DISTRICT 6
EXPECTED VALUES ANALYSIS

US-1 and Datran Drive		2018	2019	5 Year Total Crashes	Mean Crashes Per Year	%
Total Crashes		**1**	**1**	**2**	**1**	-
CRASH TYPE	Rear End	0	0	0	0	0%
	Angle	0	0	0	0	0%
	Left Turn	0	0	0	0	0%
	Sideswipe	0	0	0	0	0%
	Right Turn	1	0	1	1	50%
	Head On	0	0	0	0	0%
	Off Road	0	0	0	0	0%
	Pedestrian	1	1	2	1	100%
	Bicycle	0	0	0	0	0%
	Other	0	0	0	0	0%
SEVERITY	PDO/Possible Injury	1	1	2	1	100%
	Serious Injury	0	0	0	0	0%
	Fatality	0	0	0	0	0%
LIGHTING CONDITIONS	Dawn	0	0	0	0	0%
	Daylight	0	1	1	1	50%
	Dusk	0	0	0	0	0%
	Dark - Lighted	1	0	1	1	50%
	Dark - Not Lighted	0	0	0	0	0%
	Dark - Unknown Lighting	0	0	0	0	0%
SURFACE CONDITIONS	Dry	1	1	2	1	100%
	Wet	0	0	0	0	0%
	Other	0	0	0	0	0%

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5201 - SR 5/US-1, 200' N SW 27 AV/SR 9

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	83500 C	N 43000	S 40500	9.00	55.00	2.90
2020	22000 C	N 11000	S 11000	9.00	56.00	2.90
2019	83500 C	N 41500	S 42000	9.00	56.00	2.40
2018	81500 C	N 40500	S 41000	9.00	54.30	2.30
2017	88500 C	N 44500	S 44000	9.00	54.00	2.00
2016	89500 C	N 45500	S 44000	9.00	56.10	2.90
2015	85500 C	N 44000	S 41500	9.00	57.40	3.70
2014	82500 C	N 43000	S 39500	9.00	59.30	3.40
2013	83000 C	N 44500	S 38500	9.00	58.90	5.00
2012	98000 C	N 48500	S 49500	9.00	59.70	5.10
2011	89000 C	N 44500	S 44500	9.00	58.20	3.90
2010	96500 C	N 50500	S 46000	7.87	58.27	4.30
2009	97000 C	N 47000	S 50000	7.98	59.96	4.90
2008	106500 C	N 55000	S 51500	8.07	66.31	3.70
2007	100500 C	N 52000	S 48500	7.90	63.12	3.50
2006	92500 C	N 49000	S 43500	7.39	58.66	8.00

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

APPENDIX A

COUNTY: 87
STATION: 5201
DESCRIPTION: SR 5/US-1, 200' N SW 27 AV/SR 9
START DATE: 06/22/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	167	133	116	107	523	213	200	191	190	794	1317
0100	98	82	66	63	309	152	141	102	104	499	808
0200	60	60	48	47	215	87	92	73	63	315	530
0300	44	46	53	48	191	85	78	70	63	296	487
0400	59	57	77	78	271	58	75	75	92	300	571
0500	129	176	275	280	860	73	92	145	225	535	1395
0600	330	475	622	633	2060	250	258	369	534	1411	3471
0700	552	679	691	711	2633	468	548	536	638	2190	4823
0800	722	690	712	682	2806	603	566	580	561	2310	5116
0900	612	690	604	629	2535	550	418	543	516	2027	4562
1000	560	597	621	523	2301	495	543	585	567	2190	4491
1100	512	565	584	588	2249	555	485	531	584	2155	4404
1200	601	563	620	597	2381	563	537	506	549	2155	4536
1300	552	622	597	610	2381	534	552	594	536	2216	4597
1400	589	608	624	593	2414	579	571	574	577	2301	4715
1500	561	591	611	603	2366	559	618	630	614	2421	4787
1600	616	610	666	630	2522	659	606	607	631	2503	5025
1700	627	641	635	652	2555	625	640	648	655	2568	5123
1800	601	624	590	587	2402	660	593	640	605	2498	4900
1900	541	554	488	442	2025	474	561	482	478	1995	4020
2000	397	412	359	335	1503	411	451	477	413	1752	3255
2100	361	328	338	305	1332	422	365	372	307	1466	2798
2200	292	313	296	280	1181	327	364	324	296	1311	2492
2300	212	227	194	157	790	324	313	253	242	1132	1922
24-HOUR TOTALS:					40805					39340	80145

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	745	2835	745	2387	745	5222
P.M.	1630	2564	1715	2603	1715	5132
DAILY	745	2835	1715	2603	745	5222

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 5201
DESCRIPTION: SR 5/US-1, 200' N SW 27 AV/SR 9
START DATE: 06/23/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	144	109	95	75	423	201	162	179	140	682	1105
0100	68	53	75	52	248	100	86	94	70	350	598
0200	39	31	35	37	142	55	63	60	49	227	369
0300	27	33	32	42	134	39	38	43	44	164	298
0400	40	50	64	85	239	45	44	53	53	195	434
0500	136	196	276	314	922	68	104	139	231	542	1464
0600	378	491	624	621	2114	257	327	445	497	1526	3640
0700	620	737	760	725	2842	443	522	579	476	2020	4862
0800	717	717	651	688	2773	569	559	522	628	2278	5051
0900	721	619	669	620	2629	580	551	578	638	2347	4976
1000	607	620	591	566	2384	486	550	579	602	2217	4601
1100	594	597	633	618	2442	562	594	588	605	2349	4791
1200	629	602	622	599	2452	563	582	574	543	2262	4714
1300	623	636	578	593	2430	544	573	573	598	2288	4718
1400	628	637	625	619	2509	551	592	573	567	2283	4792
1500	612	630	654	669	2565	575	630	631	623	2459	5024
1600	621	643	611	587	2462	651	605	578	609	2443	4905
1700	655	709	601	637	2602	673	681	677	628	2659	5261
1800	742	697	596	544	2579	591	564	651	672	2478	5057
1900	569	566	522	450	2107	480	547	500	473	2000	4107
2000	430	403	381	357	1571	454	454	457	387	1752	3323
2100	310	344	301	302	1257	393	403	409	393	1598	2855
2200	286	288	307	281	1162	326	388	343	314	1371	2533
2300	234	221	196	151	802	309	312	299	283	1203	2005
24-HOUR TOTALS:					41790					39693	81483

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	715	2939	845	2337	730	5102
P.M.	1715	2689	1700	2659	1715	5266
DAILY	715	2939	1700	2659	1715	5266

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 5201
DESCRIPTION: SR 5/US-1, 200' N SW 27 AV/SR 9
START DATE: 06/24/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	134	141	92	83	450	220	187	154	119	680	1130
0100	84	77	67	61	289	108	108	105	80	401	690
0200	34	46	41	27	148	82	70	48	62	262	410
0300	39	49	36	50	174	61	65	55	42	223	397
0400	42	56	78	91	267	44	27	45	54	170	437
0500	112	182	292	299	885	59	104	133	228	524	1409
0600	343	502	583	579	2007	237	335	424	484	1480	3487
0700	623	720	763	715	2821	505	521	524	599	2149	4970
0800	703	716	719	693	2831	560	597	546	525	2228	5059
0900	691	686	692	645	2714	494	508	488	487	1977	4691
1000	566	577	569	537	2249	464	506	485	509	1964	4213
1100	575	576	585	549	2285	482	486	553	545	2066	4351
1200	576	609	564	595	2344	535	533	556	566	2190	4534
1300	530	619	565	572	2286	556	610	568	569	2303	4589
1400	605	625	622	594	2446	535	564	571	522	2192	4638
1500	594	599	674	629	2496	509	573	601	628	2311	4807
1600	624	633	597	627	2481	682	608	587	656	2533	5014
1700	620	667	671	647	2605	657	644	627	668	2596	5201
1800	613	589	568	589	2359	656	630	602	590	2478	4837
1900	561	524	517	446	2048	494	523	456	489	1962	4010
2000	415	406	387	342	1550	464	450	434	450	1798	3348
2100	385	333	306	325	1349	431	353	314	235	1333	2682
2200	318	296	340	322	1276	330	407	313	344	1394	2670
2300	249	239	190	177	855	285	361	277	270	1193	2048
24-HOUR TOTALS:					41215					38407	79622

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	715	2901	745	2302	730	5177
P.M.	1700	2605	1700	2596	1700	5201
DAILY	715	2901	1700	2596	1700	5201

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 5120
DESCRIPTION: SR 9/SW/NW 27 AV, 200' N SR 5/US-1
START DATE: 07/27/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	55	29	37	32	153	30	44	21	24	119	272
0100	24	16	30	24	94	23	19	16	18	76	170
0200	15	14	14	13	56	13	11	11	9	44	100
0300	11	18	14	8	51	8	6	5	6	25	76
0400	12	14	22	20	68	8	14	24	36	82	150
0500	23	39	58	50	170	19	32	40	58	149	319
0600	64	82	110	112	368	78	102	118	126	424	792
0700	133	152	147	181	613	163	170	197	223	753	1366
0800	159	197	206	213	775	222	236	213	248	919	1694
0900	186	187	170	184	727	227	216	195	192	830	1557
1000	176	191	160	186	713	172	190	178	189	729	1442
1100	169	165	169	182	685	168	182	172	189	711	1396
1200	184	160	180	183	707	194	196	210	208	808	1515
1300	190	180	174	201	745	199	185	210	184	778	1523
1400	174	178	194	147	693	217	207	210	177	811	1504
1500	185	181	178	166	710	199	227	207	237	870	1580
1600	161	183	202	218	764	244	219	217	234	914	1678
1700	199	211	215	194	819	260	246	255	234	995	1814
1800	198	196	169	181	744	258	244	222	224	948	1692
1900	181	135	144	165	625	202	178	160	142	682	1307
2000	158	129	130	120	537	181	151	138	151	621	1158
2100	119	113	89	88	409	145	131	104	99	479	888
2200	102	84	74	68	328	90	83	96	58	327	655
2300	74	66	57	43	240	60	65	64	50	239	479
24-HOUR TOTALS:					11794					13333	25127

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	815	802	815	924	815	1726
P.M.	1645	843	1645	995	1645	1838
DAILY	1645	843	1645	995	1645	1838

TRUCK PERCENTAGE	26.72	8.72	17.16

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	11	5761	2869	409	2656	19	2	37	19	8	0	0	1	0	2	3151	11794
S	16	10158	1997	68	270	135	161	356	122	42	0	0	8	0	0	1162	13333

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 5120
DESCRIPTION: SR 9/SW/NW 27 AV, 200' N SR 5/US-1
START DATE: 07/28/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	57	42	26	22	147	47	41	26	26	140	287
0100	32	23	22	14	91	19	17	11	13	60	151
0200	15	9	12	10	46	11	14	10	12	47	93
0300	13	11	6	11	41	11	11	11	10	43	84
0400	19	13	19	23	74	17	19	27	30	93	167
0500	26	34	52	47	159	27	36	49	55	167	326
0600	47	79	102	112	340	84	94	119	125	422	762
0700	127	144	152	192	615	163	197	213	237	810	1425
0800	200	212	207	189	808	206	239	235	242	922	1730
0900	178	174	192	178	722	214	190	205	232	841	1563
1000	170	154	164	207	695	213	231	212	196	852	1547
1100	176	156	160	197	689	224	189	218	182	813	1502
1200	176	196	182	186	740	197	208	211	210	826	1566
1300	158	198	164	185	705	192	185	196	188	761	1466
1400	176	173	208	189	746	204	207	241	207	859	1605
1500	184	157	186	149	676	219	220	248	229	916	1592
1600	190	184	219	198	791	225	216	248	233	922	1713
1700	180	173	193	175	721	225	273	238	214	950	1671
1800	199	178	211	177	765	274	228	218	224	944	1709
1900	157	169	167	135	628	213	205	206	160	784	1412
2000	162	149	119	145	575	186	151	151	159	647	1222
2100	126	107	100	104	437	132	146	140	114	532	969
2200	96	83	77	90	346	99	80	78	84	341	687
2300	95	64	57	44	260	72	63	62	50	247	507
24-HOUR TOTALS:					11817					13939	25756

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	745	811	815	930	800	1730
P.M.	1600	791	1715	999	1630	1749
DAILY	745	811	1715	999	1630	1749

TRUCK PERCENTAGE 27.38 7.05 16.38

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	13	5734	2816	422	2703	19	6	54	24	5	0	0	2	0	19	3235	11817
S	29	10752	2173	75	272	112	104	332	69	17	0	0	2	0	2	983	13939

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 5120
DESCRIPTION: SR 9/SW/NW 27 AV, 200' N SR 5/US-1
START DATE: 07/29/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	64	52	39	26	181	54	52	20	31	157	338
0100	24	37	27	21	109	30	26	18	26	100	209
0200	22	18	11	17	68	31	21	15	6	73	141
0300	11	8	12	9	40	10	8	12	19	49	89
0400	15	13	11	21	60	9	13	25	20	67	127
0500	26	47	49	53	175	21	38	51	58	168	343
0600	61	73	103	102	339	48	86	120	145	399	738
0700	129	154	166	173	622	168	190	169	212	739	1361
0800	169	196	181	213	759	220	211	229	227	887	1646
0900	190	172	161	168	691	230	245	206	202	883	1574
1000	178	181	167	188	714	188	209	202	187	786	1500
1100	197	184	172	192	745	180	164	203	213	760	1505
1200	198	193	175	188	754	197	217	239	222	875	1629
1300	201	185	165	169	720	203	212	216	199	830	1550
1400	169	176	176	170	691	193	195	213	167	768	1459
1500	224	176	184	172	756	202	220	227	219	868	1624
1600	180	227	209	216	832	245	235	228	240	948	1780
1700	215	191	218	223	847	210	237	270	229	946	1793
1800	183	177	175	178	713	258	227	213	208	906	1619
1900	166	172	171	155	664	213	184	158	146	701	1365
2000	147	145	127	125	544	153	139	145	129	566	1110
2100	119	119	104	94	436	132	114	112	116	474	910
2200	108	81	81	65	335	94	78	77	70	319	654
2300	96	55	60	40	251	60	52	56	48	216	467
24-HOUR TOTALS:					12046					13485	25531

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	815	780	830	931	830	1687
P.M.	1615	867	1715	994	1715	1809
DAILY	1615	867	1715	994	1715	1809

TRUCK PERCENTAGE 26.56 8.94 17.25

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	16	5974	2838	448	2628	27	1	53	35	8	0	0	0	0	18	3200	12046
S	18	10197	2057	71	286	113	155	324	177	62	0	1	16	0	8	1205	13485

GENERATED BY SPS 5.0.57P

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5120 - SR 9/SW/NW 27 AV, 200' N SR 5/US-1

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	25500 C	N 12000	S 13500	9.00	55.00	16.90
2020	19100 C	N 9100	S 10000	9.00	56.00	6.00
2019	32000 C	N 14000	S 18000	9.00	56.00	4.40
2018	28000 C	N 14500	S 13500	9.00	54.30	6.50
2017	31000 C	N 15000	S 16000	9.00	54.00	3.50
2016	34500 C	N 15500	S 19000	9.00	56.10	8.30
2015	30500 C	N 14500	S 16000	9.00	57.40	4.10
2014	29500 C	N 14500	S 15000	9.00	59.30	4.90
2013	28500 C	N 14500	S 14000	9.00	58.90	4.80
2012	24000 C	N 11000	S 13000	9.00	59.70	4.40
2011	27000 C	N 14000	S 13000	9.00	58.20	3.30
2010	24000 C	N 12000	S 12000	7.87	58.27	3.30
2009	27000 C	N 13500	S 13500	7.98	59.96	3.10
2008	23500 C	N 11500	S 12000	8.07	66.31	3.10
2007	22000 C	N 11500	S 10500	7.90	63.12	5.10
2006	20800 C	N 11000	S 9800	7.39	58.66	8.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8134 - GRAPELAND BLVD/27TH AVE, 200' SOUTH OF US-1

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	16800 C	N 8800	S 8000	9.00	55.00	17.50
2020	14000 T	N 7100	S 6900	9.00	56.00	10.40
2019	15700 S	N 8000	S 7700	9.00	56.00	11.00
2018	15900 F	N 8100	S 7800	9.00	54.30	12.10
2017	17800 C	N 9100	S 8700	9.00	55.70	12.60
2016	18300 F	N 9600	S 8700	9.00	56.10	13.50
2015	18600 C	N 9800	S 8800	9.00	57.40	13.70
2014	15400 S	N 8300	S 7100	9.00	59.30	17.40
2013	15500 F	N 8400	S 7100	9.00	58.90	16.20
2012	15500 C	N 8400	S 7100	9.00	59.70	16.00

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

APPENDIX A

COUNTY: 87
STATION: 8134
DESCRIPTION: GRAPELAND BLVD/27TH AVE, 200' SOUTH OF US-1
START DATE: 11/04/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	34	28	25	26	113	31	26	17	18	92	205
0100	15	18	14	8	55	11	9	9	10	39	94
0200	11	14	12	4	41	11	2	5	5	23	64
0300	13	10	10	7	40	3	7	5	7	22	62
0400	3	10	5	11	29	5	8	9	8	30	59
0500	9	20	23	34	86	17	19	22	27	85	171
0600	38	29	54	85	206	48	50	88	115	301	507
0700	75	105	120	146	446	119	120	139	146	524	970
0800	177	154	148	152	631	143	182	181	218	724	1355
0900	133	138	157	140	568	216	175	127	134	652	1220
1000	155	147	149	113	564	141	110	116	134	501	1065
1100	144	140	194	133	611	149	147	145	138	579	1190
1200	169	168	170	158	665	137	131	135	142	545	1210
1300	171	153	191	159	674	141	142	171	158	612	1286
1400	187	196	201	187	771	105	165	158	146	574	1345
1500	193	194	189	209	785	151	158	164	142	615	1400
1600	199	164	179	183	725	148	152	134	148	582	1307
1700	169	169	153	172	663	152	156	133	150	591	1254
1800	164	178	170	155	667	148	162	147	162	619	1286
1900	194	141	130	128	593	159	135	130	117	541	1134
2000	117	115	109	96	437	108	101	85	71	365	802
2100	92	90	91	80	353	82	88	64	83	317	670
2200	76	98	75	77	326	58	60	54	63	235	561
2300	105	61	44	49	259	58	38	41	42	179	438
24-HOUR TOTALS:					10308					9347	19655

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	800	631	815	797	815	1384
P.M.	1515	791	1415	620	1515	1403
DAILY	1515	791	815	797	1515	1403

GENERATED BY SPS 5.0.57P

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5200 - SR 5/US-1, 200' S SW 27 AV/SR 9

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	80500 C	N 39500	S 41000	9.00	55.00	2.90
2020	16000 C	N 8600	S 7400	9.00	56.00	2.90
2019	83500 C	N 41000	S 42500	9.00	56.00	2.40
2018	78000 C	N 35500	S 42500	9.00	54.30	2.30
2017	89000 C	N 45000	S 44000	9.00	54.00	2.00
2016	91000 C	N 46500	S 44500	9.00	56.10	2.90
2015	73000 C	N 34500	S 38500	9.00	57.40	3.70
2014	88000 C	N 47000	S 41000	9.00	59.30	3.40
2013	87500 C	N 47000	S 40500	9.00	58.90	5.00
2012	99500 C	N 49500	S 50000	9.00	59.70	5.10
2011	89500 C	N 45000	S 44500	9.00	58.20	3.90
2010	97000 C	N 50500	S 46500	7.87	58.27	4.30
2009	92500 C	N 47500	S 45000	7.98	59.96	4.90
2008	78500 C	N 39500	S 39000	8.07	66.31	3.70
2007	94500 C	N 50000	S 44500	7.90	63.12	3.50
2006	89500 C	N 47500	S 42000	7.39	58.66	8.00

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

APPENDIX A

COUNTY: 87
STATION: 5200
DESCRIPTION: SR 5/US-1, 200' S SW 27 AV/SR 9
START DATE: 06/08/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	151	146	113	98	508	232	231	192	156	811	1319
0100	79	62	58	62	261	150	135	116	129	530	791
0200	65	48	46	41	200	110	74	83	88	355	555
0300	44	33	36	51	164	75	60	79	84	298	462
0400	41	49	68	79	237	62	50	70	82	264	501
0500	91	157	253	279	780	66	104	160	198	528	1308
0600	374	448	564	534	1920	259	352	439	475	1525	3445
0700	503	602	643	645	2393	436	498	577	563	2074	4467
0800	625	640	663	599	2527	546	514	562	544	2166	4693
0900	604	595	610	618	2427	580	568	569	560	2277	4704
1000	521	563	565	567	2216	568	517	553	540	2178	4394
1100	548	522	508	523	2101	511	559	556	507	2133	4234
1200	518	536	537	558	2149	557	562	569	565	2253	4402
1300	523	548	541	521	2133	564	582	583	581	2310	4443
1400	537	555	531	545	2168	527	596	595	600	2318	4486
1500	551	569	503	521	2144	611	610	621	601	2443	4587
1600	549	516	491	517	2073	627	657	661	623	2568	4641
1700	500	603	577	523	2203	693	682	673	630	2678	4881
1800	517	537	516	521	2091	678	653	612	627	2570	4661
1900	522	481	503	434	1940	445	540	501	427	1913	3853
2000	367	399	316	339	1421	417	451	398	349	1615	3036
2100	307	301	340	336	1284	369	342	311	338	1360	2644
2200	327	271	283	274	1155	301	336	302	290	1229	2384
2300	226	164	173	163	726	292	305	243	216	1056	1782
24-HOUR TOTALS:					37221					39452	76673

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	745	2573	845	2261	745	4758
P.M.	1715	2220	1700	2678	1715	4883
DAILY	745	2573	1700	2678	1715	4883

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 5200
DESCRIPTION: SR 5/US-1, 200' S SW 27 AV/SR 9
START DATE: 06/09/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	114	111	74	68	367	197	202	154	117	670	1037
0100	54	63	61	55	233	123	84	90	77	374	607
0200	40	36	32	33	141	71	60	53	57	241	382
0300	30	27	36	35	128	63	38	49	36	186	314
0400	48	72	77	77	274	48	46	50	71	215	489
0500	112	165	283	349	909	92	110	141	217	560	1469
0600	357	520	647	623	2147	272	367	496	500	1635	3782
0700	635	669	672	634	2610	515	530	586	605	2236	4846
0800	664	629	615	618	2526	657	646	601	528	2432	4958
0900	609	593	608	672	2482	601	576	604	575	2356	4838
1000	488	559	541	529	2117	570	529	579	560	2238	4355
1100	538	518	543	535	2134	506	544	545	520	2115	4249
1200	539	564	558	562	2223	514	513	622	561	2210	4433
1300	559	548	561	539	2207	562	591	527	523	2203	4410
1400	572	557	573	589	2291	519	592	564	531	2206	4497
1500	549	594	554	609	2306	566	657	620	627	2470	4776
1600	505	538	542	553	2138	672	632	635	656	2595	4733
1700	568	588	534	562	2252	641	647	693	684	2665	4917
1800	516	568	515	550	2149	630	660	666	635	2591	4740
1900	464	534	501	410	1909	524	558	520	483	2085	3994
2000	407	388	395	368	1558	434	444	461	450	1789	3347
2100	329	306	328	345	1308	376	350	340	355	1421	2729
2200	326	322	300	250	1198	314	365	376	306	1361	2559
2300	215	200	182	163	760	317	334	254	246	1151	1911
24-HOUR TOTALS:					38367					40005	78372

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	2639	745	2509	730	5093
P.M.	1500	2306	1730	2667	1700	4917
DAILY	715	2639	1730	2667	730	5093

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 5200
DESCRIPTION: SR 5/US-1, 200' S SW 27 AV/SR 9
START DATE: 06/10/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	126	101	112	74	413	198	176	177	143	694	1107
0100	77	64	59	56	256	126	99	89	87	401	657
0200	43	45	35	38	161	65	68	71	69	273	434
0300	29	38	42	44	153	72	45	54	48	219	372
0400	34	58	71	71	234	45	46	64	50	205	439
0500	124	142	235	302	803	66	90	156	222	534	1337
0600	376	453	591	601	2021	260	335	455	471	1521	3542
0700	625	643	656	645	2569	433	574	609	565	2181	4750
0800	648	598	602	617	2465	566	572	602	574	2314	4779
0900	593	646	623	646	2508	595	541	605	598	2339	4847
1000	547	564	538	557	2206	566	509	566	528	2169	4375
1100	549	559	525	535	2168	539	570	538	532	2179	4347
1200	537	540	549	555	2181	527	554	571	555	2207	4388
1300	534	555	539	489	2117	558	508	540	522	2128	4245
1400	536	533	557	494	2120	523	505	490	446	1964	4084
1500	521	583	529	549	2182	482	546	598	625	2251	4433
1600	517	435	546	517	2015	656	631	629	649	2565	4580
1700	532	597	531	521	2181	448	389	333	346	1516	3697
1800	461	534	557	488	2040	336	345	349	527	1557	3597
1900	463	509	533	412	1917	540	483	494	451	1968	3885
2000	426	405	366	343	1540	456	453	466	409	1784	3324
2100	355	311	333	295	1294	382	409	346	332	1469	2763
2200	358	319	313	277	1267	345	372	386	331	1434	2701
2300	275	250	220	182	927	325	285	287	298	1195	2122
24-HOUR TOTALS:					37738					37067	74805

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	715	2592	815	2343	715	4906
P.M.	1230	2193	1600	2565	1515	4603
DAILY	715	2592	1600	2565	715	4906

GENERATED BY SPS 5.0.57P

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0163 - SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	40500 C	N 22500	S 18000	9.00	55.00	2.90
2020	41000 C	N 19500	S 21500	9.00	56.00	2.90
2019	53500 C	N 25500	S 28000	9.00	56.00	2.40
2018	47500 C	N 26000	S 21500	9.00	54.30	2.30
2017	55000 C	N 27000	S 28000	9.00	54.00	2.00
2016	53500 C	N 28000	S 25500	9.00	56.10	2.90
2015	52000 C	N 23000	S 29000	9.00	57.40	3.70
2014	52000 C	N 26000	S 26000	9.00	59.30	3.40
2013	51000 C	N 21500	S 29500	9.00	58.90	5.00
2012	67000 C	N 33500	S 33500	9.00	59.70	5.10
2011	64000 C	N 33500	S 30500	9.00	58.20	3.90
2010	58000 C	N 29500	S 28500	7.87	58.27	4.30
2009	53000 C	N 26000	S 27000	7.98	59.96	4.90
2008	56000 C	N 27500	S 28500	8.07	66.31	3.70
2007	56500 C	N 28500	S 28000	7.90	63.12	3.50
2006	53500 C	N 26000	S 27500	7.39	58.66	8.00

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

APPENDIX A

COUNTY: 87
STATION: 0163
DESCRIPTION: SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY
START DATE: 10/26/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	38	42	31	26	137	59	57	38	45	199	336
0100	21	27	18	20	86	29	39	30	23	121	207
0200	19	19	21	21	80	26	24	18	19	87	167
0300	24	19	19	28	90	14	15	10	13	52	142
0400	27	44	56	101	228	13	14	17	25	69	297
0500	103	178	202	250	733	32	44	47	68	191	924
0600	343	398	432	428	1601	100	109	134	155	498	2099
0700	450	217	210	261	1138	173	196	255	250	874	2012
0800	354	403	410	369	1536	239	273	308	308	1128	2664
0900	459	383	361	391	1594	299	255	260	269	1083	2677
1000	342	370	370	344	1426	287	274	290	321	1172	2598
1100	353	421	377	419	1570	302	346	324	383	1355	2925
1200	389	408	395	462	1654	368	373	334	355	1430	3084
1300	380	396	366	442	1584	324	327	322	326	1299	2883
1400	376	421	396	431	1624	348	306	347	383	1384	3008
1500	411	423	380	383	1597	378	374	357	377	1486	3083
1600	323	393	352	332	1400	302	382	384	334	1402	2802
1700	359	399	352	379	1489	337	318	369	376	1400	2889
1800	351	321	361	332	1365	339	382	373	362	1456	2821
1900	330	332	338	282	1282	282	328	285	256	1151	2433
2000	297	278	232	221	1028	209	228	192	157	786	1814
2100	209	187	177	157	730	148	190	126	130	594	1324
2200	141	129	117	85	472	111	99	104	85	399	871
2300	79	71	51	52	253	98	95	81	77	351	604
24-HOUR TOTALS:					24697					19967	44664

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	815	1641	815	1188	815	2829
P.M.	1430	1661	1445	1492	1430	3143
DAILY	615	1708	1445	1492	1430	3143

GENERATED BY SPS 5.0.55P

COUNTY: 87
STATION: 0163
DESCRIPTION: SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY
START DATE: 10/27/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	40	37	23	25	125	62	72	41	36	211	336
0100	34	30	21	30	115	38	40	19	22	119	234
0200	14	13	20	13	60	17	13	11	15	56	116
0300	18	13	22	27	80	17	7	12	19	55	135
0400	42	38	61	90	231	13	14	19	16	62	293
0500	107	180	217	226	730	29	35	46	66	176	906
0600	362	417	430	474	1683	90	112	128	128	458	2141
0700	487	460	375	407	1729	143	199	187	162	691	2420
0800	449	372	342	285	1448	169	226	223	225	843	2291
0900	422	427	403	369	1621	217	208	196	217	838	2459
1000	342	385	370	395	1492	220	219	284	241	964	2456
1100	399	391	266	285	1341	260	254	255	270	1039	2380
1200	438	327	405	405	1575	275	278	292	283	1128	2703
1300	415	398	420	414	1647	278	275	283	267	1103	2750
1400	363	402	414	422	1601	290	294	293	321	1198	2799
1500	374	377	332	329	1412	323	314	322	307	1266	2678
1600	334	348	360	357	1399	299	296	337	330	1262	2661
1700	347	391	395	385	1518	292	291	322	324	1229	2747
1800	357	394	338	371	1460	314	333	352	302	1301	2761
1900	346	352	349	290	1337	290	262	277	247	1076	2413
2000	293	284	260	234	1071	233	145	197	175	750	1821
2100	211	184	199	164	758	128	140	112	121	501	1259
2200	152	146	107	97	502	86	120	86	97	389	891
2300	103	77	62	67	309	93	87	79	68	327	636
24-HOUR TOTALS:					25244					17042	42286

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	645	1796	815	891	645	2453
P.M.	1300	1647	1745	1323	1415	2843
DAILY	630	1851	1745	1323	1415	2843

GENERATED BY SPS 5.0.55P

APPENDIX A

COUNTY: 87
STATION: 0163
DESCRIPTION: SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY
START DATE: 10/28/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	45	45	34	36	160	55	54	40	34	183	343
0100	23	25	35	28	111	38	21	25	19	103	214
0200	16	19	18	26	79	33	18	21	17	89	168
0300	23	21	21	23	88	7	12	10	11	40	128
0400	28	35	58	107	228	14	11	21	14	60	288
0500	101	152	204	258	715	22	28	40	50	140	855
0600	346	400	455	476	1677	57	88	102	124	371	2048
0700	440	474	368	399	1681	126	158	209	160	653	2334
0800	342	367	372	379	1460	157	156	192	189	694	2154
0900	363	419	356	370	1508	163	184	195	188	730	2238
1000	350	401	365	379	1495	228	217	183	218	846	2341
1100	381	409	257	301	1348	224	319	330	326	1199	2547
1200	352	386	373	385	1496	355	347	369	370	1441	2937
1300	375	410	404	373	1562	367	357	356	389	1469	3031
1400	355	401	369	418	1543	341	380	383	365	1469	3012
1500	391	380	334	381	1486	383	437	422	452	1694	3180
1600	348	363	327	344	1382	367	425	394	385	1571	2953
1700	349	390	392	343	1474	408	389	397	385	1579	3053
1800	356	351	344	310	1361	386	377	392	404	1559	2920
1900	295	333	336	252	1216	285	306	284	266	1141	2357
2000	259	262	205	208	934	234	270	224	151	879	1813
2100	214	145	151	134	644	179	173	146	141	639	1283
2200	130	107	94	74	405	129	129	98	103	459	864
2300	62	51	54	70	237	139	90	106	68	403	640
24-HOUR TOTALS:					24290					19411	43701

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	645	1758	845	731	645	2375
P.M.	1415	1579	1500	1694	1500	3180
DAILY	630	1845	1500	1694	1500	3180

GENERATED BY SPS 5.0.55P

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2002 - SR 878/SNAPPER CRK EXPWY, 500' W SR 5/US-1

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	24000 C	E 12000	W 12000	9.00	65.00	2.60
2020	26500 C	E 12000	W 14500	9.00	63.60	2.70
2019	25000 C	E 11500	W 13500	9.00	66.00	3.10
2018	27500 C	E 12500	W 15000	9.00	64.80	2.50
2017	25000 C	E 12000	W 13000	9.00	76.00	2.90
2016	27000 C	E 12500	W 14500	9.00	66.10	2.60
2015	27000 C	E 12500	W 14500	9.00	66.80	2.90
2014	25500 C	E 11500	W 14000	9.00	65.30	2.70
2013	24500 C	E 12500	W 12000	9.00	63.90	2.30
2012	31000 C	E 15000	W 16000	9.00	78.20	2.50
2011	24500 C	E 11000	W 13500	9.00	76.00	2.30
2010	25500 C	E 11500	W 14000	11.38	74.34	2.00
2009	31000 C	E 14500	W 16500	10.18	74.76	3.40
2008	30500 C	E 13500	W 17000	10.31	74.73	3.60
2007	31000 C	E 13500	W 17500	10.02	74.90	3.30
2006	30500 C	E 13000	W 17500	10.06	56.25	1.50

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

APPENDIX A

COUNTY: 87
STATION: 2002
DESCRIPTION: SR 878/SNAPPER CRK EXPWY, 500' W SR 5/US-1
START DATE: 03/09/2021
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	17	6	12	5	40	29	34	33	20	116	156
0100	5	5	2	4	16	16	10	13	7	46	62
0200	1	4	7	1	13	11	12	8	5	36	49
0300	2	5	5	4	16	7	4	10	4	25	41
0400	4	7	5	19	35	5	8	8	8	29	64
0500	28	40	32	76	176	16	19	13	22	70	246
0600	146	169	232	284	831	34	64	76	94	268	1099
0700	311	380	352	356	1399	112	132	166	178	588	1987
0800	329	311	329	332	1301	174	173	145	163	655	1956
0900	268	257	246	266	1037	180	143	154	137	614	1651
1000	251	216	222	227	916	151	133	169	157	610	1526
1100	210	186	198	179	773	149	127	136	138	550	1323
1200	197	187	172	184	740	150	151	163	178	642	1382
1300	152	167	184	176	679	158	179	184	166	687	1366
1400	215	182	205	197	799	185	185	229	234	833	1632
1500	218	174	158	192	742	229	286	245	311	1071	1813
1600	172	169	145	155	641	271	266	319	310	1166	1807
1700	172	138	161	176	647	314	311	326	315	1266	1913
1800	176	139	166	152	633	254	277	298	271	1100	1733
1900	115	83	90	74	362	224	161	169	162	716	1078
2000	98	82	64	64	308	123	123	124	97	467	775
2100	56	38	28	49	171	88	99	91	74	352	523
2200	24	32	19	24	99	70	71	41	47	229	328
2300	19	28	18	17	82	34	35	46	47	162	244
24-HOUR TOTALS:					12456					12298	24754

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	1417	730	691	715	2067
P.M.	1415	802	1700	1266	1700	1913
DAILY	715	1417	1700	1266	715	2067

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 2002
DESCRIPTION: SR 878/SNAPPER CRK EXPWY, 500' W SR 5/US-1
START DATE: 03/10/2021
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	10	7	10	6	33	34	29	24	31	118	151
0100	4	5	1	4	14	28	23	12	18	81	95
0200	2	2	5	1	10	11	13	13	8	45	55
0300	6	4	7	6	23	8	10	8	5	31	54
0400	11	5	7	28	51	10	10	8	8	36	87
0500	34	37	47	88	206	13	17	17	29	76	282
0600	110	154	227	306	797	35	46	67	98	246	1043
0700	302	362	323	324	1311	98	115	133	188	534	1845
0800	304	336	283	344	1267	161	145	142	166	614	1881
0900	275	257	276	270	1078	140	114	136	158	548	1626
1000	262	235	241	228	966	139	149	154	164	606	1572
1100	236	181	188	169	774	150	133	149	155	587	1361
1200	192	182	180	178	732	125	175	174	160	634	1366
1300	187	172	176	214	749	185	182	187	176	730	1479
1400	212	206	188	216	822	208	201	229	236	874	1696
1500	172	160	168	192	692	207	250	292	310	1059	1751
1600	173	163	148	161	645	278	278	346	314	1216	1861
1700	173	152	149	155	629	307	320	325	310	1262	1891
1800	155	143	133	150	581	279	263	244	237	1023	1604
1900	109	97	100	95	401	230	174	164	175	743	1144
2000	101	70	66	55	292	151	125	123	99	498	790
2100	40	52	50	35	177	98	95	85	67	345	522
2200	41	40	24	31	136	65	65	72	62	264	400
2300	26	25	14	19	84	43	53	47	41	184	268
24-HOUR TOTALS:					12470					12354	24824

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	1313	745	636	730	1914
P.M.	1400	822	1630	1287	1630	1921
DAILY	715	1313	1630	1287	1630	1921

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 2002
DESCRIPTION: SR 878/SNAPPER CRK EXPWY, 500' W SR 5/US-1
START DATE: 03/11/2021
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	10	7	7	14	38	45	33	26	25	129	167
0100	11	5	8	4	28	23	14	13	5	55	83
0200	4	0	5	5	14	13	5	11	4	33	47
0300	4	4	4	6	18	7	4	7	6	24	42
0400	10	5	7	19	41	6	6	10	6	28	69
0500	34	30	44	98	206	11	15	22	31	79	285
0600	103	160	222	260	745	40	47	70	102	259	1004
0700	294	330	302	302	1228	146	131	148	188	613	1841
0800	288	266	246	252	1052	207	109	158	168	642	1694
0900	266	282	214	240	1002	180	151	145	146	622	1624
1000	232	179	211	240	862	143	148	159	154	604	1466
1100	200	167	126	179	672	143	158	143	166	610	1282
1200	181	166	140	184	671	177	172	162	180	691	1362
1300	148	132	148	191	619	167	158	172	174	671	1290
1400	156	188	228	212	784	169	192	212	216	789	1573
1500	228	180	190	187	785	247	211	259	278	995	1780
1600	184	157	157	160	658	288	244	295	262	1089	1747
1700	151	136	167	160	614	280	257	270	299	1106	1720
1800	136	134	178	145	593	278	278	238	230	1024	1617
1900	120	95	114	82	411	180	151	185	158	674	1085
2000	76	76	37	47	236	132	106	95	98	431	667
2100	35	36	38	38	147	77	79	62	72	290	437
2200	31	23	25	29	108	77	55	68	61	261	369
2300	22	22	11	10	65	41	36	43	39	159	224
24-HOUR TOTALS:					11597					11878	23475

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	700	1228	715	674	715	1896
P.M.	1415	856	1730	1125	1545	1790
DAILY	700	1228	1730	1125	715	1896

GENERATED BY SPS 5.0.57P

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8660 - SW 88TH STREET, 200' WEST OF SW 57 AVE(2011 OFFSYSTEM CYCLE, CL:636)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	7100 F	E 3600	W 3500	9.00	55.00	3.50
2020	7500 C	E 3800	W 3700	9.00	56.00	2.40
2019	7200 T	E 3100	W 4100	9.00	56.00	2.90
2018	7400 S	E 3200	W 4200	9.00	54.30	2.90
2017	8300 F	E 3600	W 4700	9.00	59.30	2.70
2016	8500 C	E 3700	W 4800	9.00	56.10	3.30
2015	9500 T	0	0	9.00	57.40	5.30
2014	9600 S			9.00	59.30	7.50
2013	9700 F	0	0	9.00	58.90	16.20
2012	9800 C	E 0	W 0	9.00	59.70	16.00

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

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0163 - SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	40500 C	N 22500	S 18000	9.00	55.00	2.90
2020	41000 C	N 19500	S 21500	9.00	56.00	2.90
2019	53500 C	N 25500	S 28000	9.00	56.00	2.40
2018	47500 C	N 26000	S 21500	9.00	54.30	2.30
2017	55000 C	N 27000	S 28000	9.00	54.00	2.00
2016	53500 C	N 28000	S 25500	9.00	56.10	2.90
2015	52000 C	N 23000	S 29000	9.00	57.40	3.70
2014	52000 C	N 26000	S 26000	9.00	59.30	3.40
2013	51000 C	N 21500	S 29500	9.00	58.90	5.00
2012	67000 C	N 33500	S 33500	9.00	59.70	5.10
2011	64000 C	N 33500	S 30500	9.00	58.20	3.90
2010	58000 C	N 29500	S 28500	7.87	58.27	4.30
2009	53000 C	N 26000	S 27000	7.98	59.96	4.90
2008	56000 C	N 27500	S 28500	8.07	66.31	3.70
2007	56500 C	N 28500	S 28000	7.90	63.12	3.50
2006	53500 C	N 26000	S 27500	7.39	58.66	8.00

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

COUNTY: 87
STATION: 0163
DESCRIPTION: SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY
START DATE: 10/26/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	38	42	31	26	137	59	57	38	45	199	336
0100	21	27	18	20	86	29	39	30	23	121	207
0200	19	19	21	21	80	26	24	18	19	87	167
0300	24	19	19	28	90	14	15	10	13	52	142
0400	27	44	56	101	228	13	14	17	25	69	297
0500	103	178	202	250	733	32	44	47	68	191	924
0600	343	398	432	428	1601	100	109	134	155	498	2099
0700	450	217	210	261	1138	173	196	255	250	874	2012
0800	354	403	410	369	1536	239	273	308	308	1128	2664
0900	459	383	361	391	1594	299	255	260	269	1083	2677
1000	342	370	370	344	1426	287	274	290	321	1172	2598
1100	353	421	377	419	1570	302	346	324	383	1355	2925
1200	389	408	395	462	1654	368	373	334	355	1430	3084
1300	380	396	366	442	1584	324	327	322	326	1299	2883
1400	376	421	396	431	1624	348	306	347	383	1384	3008
1500	411	423	380	383	1597	378	374	357	377	1486	3083
1600	323	393	352	332	1400	302	382	384	334	1402	2802
1700	359	399	352	379	1489	337	318	369	376	1400	2889
1800	351	321	361	332	1365	339	382	373	362	1456	2821
1900	330	332	338	282	1282	282	328	285	256	1151	2433
2000	297	278	232	221	1028	209	228	192	157	786	1814
2100	209	187	177	157	730	148	190	126	130	594	1324
2200	141	129	117	85	472	111	99	104	85	399	871
2300	79	71	51	52	253	98	95	81	77	351	604
24-HOUR TOTALS:					24697					19967	44664

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	815	1641	815	1188	815	2829
P.M.	1430	1661	1445	1492	1430	3143
DAILY	615	1708	1445	1492	1430	3143

GENERATED BY SPS 5.0.55P

APPENDIX A

COUNTY: 87
STATION: 0163
DESCRIPTION: SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY
START DATE: 10/27/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	40	37	23	25	125	62	72	41	36	211	336
0100	34	30	21	30	115	38	40	19	22	119	234
0200	14	13	20	13	60	17	13	11	15	56	116
0300	18	13	22	27	80	17	7	12	19	55	135
0400	42	38	61	90	231	13	14	19	16	62	293
0500	107	180	217	226	730	29	35	46	66	176	906
0600	362	417	430	474	1683	90	112	128	128	458	2141
0700	487	460	375	407	1729	143	199	187	162	691	2420
0800	449	372	342	285	1448	169	226	223	225	843	2291
0900	422	427	403	369	1621	217	208	196	217	838	2459
1000	342	385	370	395	1492	220	219	284	241	964	2456
1100	399	391	266	285	1341	260	254	255	270	1039	2380
1200	438	327	405	405	1575	275	278	292	283	1128	2703
1300	415	398	420	414	1647	278	275	283	267	1103	2750
1400	363	402	414	422	1601	290	294	293	321	1198	2799
1500	374	377	332	329	1412	323	314	322	307	1266	2678
1600	334	348	360	357	1399	299	296	337	330	1262	2661
1700	347	391	395	385	1518	292	291	322	324	1229	2747
1800	357	394	338	371	1460	314	333	352	302	1301	2761
1900	346	352	349	290	1337	290	262	277	247	1076	2413
2000	293	284	260	234	1071	233	145	197	175	750	1821
2100	211	184	199	164	758	128	140	112	121	501	1259
2200	152	146	107	97	502	86	120	86	97	389	891
2300	103	77	62	67	309	93	87	79	68	327	636
24-HOUR TOTALS:					25244					17042	42286

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	645	1796	815	891	645	2453
P.M.	1300	1647	1745	1323	1415	2843
DAILY	630	1851	1745	1323	1415	2843

GENERATED BY SPS 5.0.55P

COUNTY: 87
STATION: 0163
DESCRIPTION: SR 5/US-1, 200' S SR 878/SNAPPER CREEK EXPWY
START DATE: 10/28/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	45	45	34	36	160	55	54	40	34	183	343
0100	23	25	35	28	111	38	21	25	19	103	214
0200	16	19	18	26	79	33	18	21	17	89	168
0300	23	21	21	23	88	7	12	10	11	40	128
0400	28	35	58	107	228	14	11	21	14	60	288
0500	101	152	204	258	715	22	28	40	50	140	855
0600	346	400	455	476	1677	57	88	102	124	371	2048
0700	440	474	368	399	1681	126	158	209	160	653	2334
0800	342	367	372	379	1460	157	156	192	189	694	2154
0900	363	419	356	370	1508	163	184	195	188	730	2238
1000	350	401	365	379	1495	228	217	183	218	846	2341
1100	381	409	257	301	1348	224	319	330	326	1199	2547
1200	352	386	373	385	1496	355	347	369	370	1441	2937
1300	375	410	404	373	1562	367	357	356	389	1469	3031
1400	355	401	369	418	1543	341	380	383	365	1469	3012
1500	391	380	334	381	1486	383	437	422	452	1694	3180
1600	348	363	327	344	1382	367	425	394	385	1571	2953
1700	349	390	392	343	1474	408	389	397	385	1579	3053
1800	356	351	344	310	1361	386	377	392	404	1559	2920
1900	295	333	336	252	1216	285	306	284	266	1141	2357
2000	259	262	205	208	934	234	270	224	151	879	1813
2100	214	145	151	134	644	179	173	146	141	639	1283
2200	130	107	94	74	405	129	129	98	103	459	864
2300	62	51	54	70	237	139	90	106	68	403	640
24-HOUR TOTALS:					24290					19411	43701

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	645	1758	845	731	645	2375
P.M.	1415	1579	1500	1694	1500	3180
DAILY	630	1845	1500	1694	1500	3180

GENERATED BY SPS 5.0.55P

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2532 - SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	42500 C	N 20000	S 22500	9.00	55.00	5.50
2020	38500 C	N 19000	S 19500	9.00	56.00	5.10
2019	45500 C	N 21500	S 24000	9.00	56.00	2.60
2018	45500 C	N 21500	S 24000	9.00	54.30	2.80
2017	47500 C	N 23000	S 24500	9.00	54.00	4.20
2016	48500 C	N 24500	S 24000	9.00	56.10	4.30
2015	48000 C	N 22500	S 25500	9.00	57.40	5.30
2014	46500 C	N 23500	S 23000	9.00	59.30	5.90
2013	53500 F	N 26500	S 27000	9.00	58.90	4.70
2012	53500 C	N 26500	S 27000	9.00	59.70	4.70
2011	50000 C	N 25000	S 25000	9.00	58.20	4.70
2010	54500 C	N 27000	S 27500	7.87	58.27	4.70
2009	48500 C	N 25000	S 23500	7.98	59.96	3.60
2008	52000 C	N 24500	S 27500	8.07	66.31	4.80
2007	51500 C	N 24500	S 27000	7.90	63.12	4.40
2006	53000 C	N 25000	S 28000	7.39	58.66	4.00

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

COUNTY: 87
STATION: 2532
DESCRIPTION: SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST
START DATE: 06/29/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	30	30	25	15	100	72	55	41	52	220	320
0100	16	14	15	17	62	35	32	26	27	120	182
0200	10	7	9	3	29	20	35	26	18	99	128
0300	13	15	9	16	53	11	28	22	22	83	136
0400	18	29	35	61	143	27	45	29	45	146	289
0500	80	163	222	236	701	52	74	68	77	271	972
0600	262	259	323	288	1132	82	104	139	171	496	1628
0700	286	308	307	330	1231	164	183	208	285	840	2071
0800	291	281	281	269	1122	263	296	248	294	1101	2223
0900	310	271	274	283	1138	299	314	294	318	1225	2363
1000	253	272	287	300	1112	291	320	358	390	1359	2471
1100	282	269	234	304	1089	367	403	409	405	1584	2673
1200	281	259	249	264	1053	390	420	426	414	1650	2703
1300	266	263	298	287	1114	404	417	415	439	1675	2789
1400	296	266	264	267	1093	417	469	475	485	1846	2939
1500	268	283	283	309	1143	464	497	425	479	1865	3008
1600	272	316	306	311	1205	484	488	381	409	1762	2967
1700	318	294	246	285	1143	406	347	349	311	1413	2556
1800	310	259	267	263	1099	295	318	318	273	1204	2303
1900	229	223	230	211	893	288	294	274	219	1075	1968
2000	178	160	159	152	649	219	200	216	159	794	1443
2100	140	127	117	95	479	148	158	137	131	574	1053
2200	134	85	83	89	391	130	127	128	103	488	879
2300	76	39	54	43	212	104	90	79	74	347	559
24-HOUR TOTALS:					18386					22237	40623

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	1236	845	1201	845	2325
P.M.	1615	1251	1430	1921	1530	3056
DAILY	1615	1251	1430	1921	1530	3056

TRUCK PERCENTAGE 7.41 3.54 5.29

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	128	14705	2184	233	679	97	6	249	63	24	0	0	12	0	6	1363	18386
S	74	19220	2156	61	265	152	39	94	56	109	0	1	10	0	0	787	22237

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 2532
DESCRIPTION: SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST
START DATE: 06/30/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	26	23	25	23	97	50	51	41	32	174	271
0100	13	17	13	10	53	26	30	20	23	99	152
0200	8	5	5	5	23	23	17	11	18	69	92
0300	11	10	12	20	53	16	16	12	16	60	113
0400	32	32	59	76	199	29	33	33	53	148	347
0500	98	155	189	222	664	70	80	95	104	349	1013
0600	274	286	303	291	1154	106	140	205	199	650	1804
0700	315	304	330	321	1270	193	225	253	292	963	2233
0800	305	322	314	311	1252	265	246	272	240	1023	2275
0900	303	292	299	308	1202	286	297	341	302	1226	2428
1000	288	264	280	315	1147	306	333	342	340	1321	2468
1100	258	274	260	269	1061	364	420	399	395	1578	2639
1200	237	260	251	246	994	404	411	411	411	1637	2631
1300	249	263	313	264	1089	424	417	385	377	1603	2692
1400	283	263	279	265	1090	418	421	462	485	1786	2876
1500	242	276	288	313	1119	456	384	432	423	1695	2814
1600	296	285	317	308	1206	450	472	513	498	1933	3139
1700	327	313	292	291	1223	471	472	457	314	1714	2937
1800	271	276	294	246	1087	328	346	329	275	1278	2365
1900	240	255	262	237	994	280	264	286	209	1039	2033
2000	234	222	175	158	789	226	197	174	159	756	1545
2100	165	141	145	143	594	145	138	137	108	528	1122
2200	121	93	96	95	405	123	107	130	96	456	861
2300	87	65	45	74	271	94	82	71	51	298	569
24-HOUR TOTALS:					19036					22383	41419

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	1278	845	1164	845	2369
P.M.	1630	1265	1615	1954	1630	3219
DAILY	730	1278	1615	1954	1630	3219
TRUCK PERCENTAGE	8.15		3.47		5.62	

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	165	15101	2217	197	760	171	3	282	82	39	0	0	17	0	2	1551	19036
S	74	19151	2377	59	335	110	55	70	55	74	0	0	19	0	4	777	22381

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 2532
DESCRIPTION: SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST
START DATE: 07/01/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	45	48	37	28	158	63	39	34	37	173	331
0100	20	24	18	24	86	27	28	26	19	100	186
0200	18	20	26	20	84	25	15	15	20	75	159
0300	16	23	25	28	92	12	19	20	20	71	163
0400	36	33	51	70	190	17	32	27	48	124	314
0500	101	134	185	217	637	43	72	83	87	285	922
0600	280	314	275	257	1126	100	108	135	148	491	1617
0700	304	306	326	319	1255	210	192	269	270	941	2196
0800	309	343	288	321	1261	289	275	303	295	1162	2423
0900	311	287	299	284	1181	303	305	291	274	1173	2354
1000	281	297	278	305	1161	270	218	263	272	1023	2184
1100	307	270	310	290	1177	256	254	300	327	1137	2314
1200	302	288	297	305	1192	292	309	344	339	1284	2476
1300	303	323	312	302	1240	371	380	411	401	1563	2803
1400	308	283	290	259	1140	386	382	347	327	1442	2582
1500	276	287	292	305	1160	389	334	348	402	1473	2633
1600	304	281	290	274	1149	454	514	405	432	1805	2954
1700	304	294	291	309	1198	449	375	392	319	1535	2733
1800	285	290	268	272	1115	286	352	414	396	1448	2563
1900	249	255	244	184	932	301	254	270	226	1051	1983
2000	203	196	195	176	770	206	200	191	196	793	1563
2100	161	152	143	148	604	165	153	132	118	568	1172
2200	159	117	110	64	450	130	129	106	116	481	931
2300	55	61	43	40	199	86	95	83	65	329	528
24-HOUR TOTALS:					19557					20527	40084

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	1297	830	1206	815	2439
P.M.	1315	1245	1600	1805	1545	2955
DAILY	730	1297	1600	1805	1545	2955
TRUCK PERCENTAGE	7.24		3.86		5.51	

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	144	15781	2213	203	724	130	2	244	57	43	0	0	13	0	3	1416	19557
S	52	17521	2159	45	273	128	35	66	84	139	0	0	23	0	2	793	20527

GENERATED BY SPS 5.0.57P

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0683 - SR 94/KENDALL DR, 200' W DADELAND BLVD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	36500 C	E 17500	W 19000	9.00	55.00	7.70
2020	34000 C	E 17000	W 17000	9.00	56.00	3.90
2019	44000 C	E 23000	W 21000	9.00	56.00	2.90
2018	47000 C	E 23500	W 23500	9.00	54.30	2.20
2017	45500 C	E 22500	W 23000	9.00	54.00	2.10
2016	49000 C	E 23000	W 26000	9.00	56.10	5.10
2015	43500 C	E 21000	W 22500	9.00	57.40	3.90
2014	42500 C	E 21500	W 21000	9.00	59.30	7.80
2013	44500 F	E 21000	W 23500	9.00	58.90	6.20
2012	44500 C	E 21000	W 23500	9.00	59.70	6.20
2011	37000 C	E 22000	W 15000	9.00	58.20	7.80
2010	34000 C	E 20500	W 13500	7.87	58.27	7.90
2009	33000 C	E 19000	W 14000	7.98	59.96	7.40
2008	45000 C	E 23500	W 21500	8.07	66.31	8.50
2007	42500 C	E 21500	W 21000	7.90	63.12	6.60
2006	44000 C	E 22500	W 21500	7.39	58.66	4.20

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

COUNTY: 87
STATION: 0683
DESCRIPTION: SR 94/KENDALL DR, 200' W DADELAND BLVD
START DATE: 08/24/2021
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	79	58	41	37	215	38	51	29	28	146	361
0100	23	26	24	38	111	23	22	21	14	80	191
0200	19	26	23	12	80	11	12	15	10	48	128
0300	11	14	13	10	48	15	10	11	13	49	97
0400	14	16	26	34	90	10	13	12	17	52	142
0500	25	40	54	94	213	16	28	35	29	108	321
0600	110	116	188	280	694	46	86	89	100	321	1015
0700	255	235	285	237	1012	139	160	195	203	697	1709
0800	211	264	288	278	1041	202	214	224	218	858	1899
0900	288	226	262	245	1021	223	193	216	203	835	1856
1000	267	236	279	295	1077	229	232	197	271	929	2006
1100	285	264	301	316	1166	198	256	249	251	954	2120
1200	339	335	303	359	1336	317	265	291	344	1217	2553
1300	303	317	291	327	1238	330	299	311	337	1277	2515
1400	326	327	338	327	1318	286	353	359	348	1346	2664
1500	292	308	307	320	1227	386	377	384	349	1496	2723
1600	323	303	308	291	1225	384	422	387	451	1644	2869
1700	315	297	309	306	1227	488	530	493	426	1937	3164
1800	274	320	300	273	1167	407	395	369	319	1490	2657
1900	259	246	253	228	986	353	307	301	321	1282	2268
2000	204	222	167	176	769	242	286	244	205	977	1746
2100	153	140	141	127	561	224	202	161	152	739	1300
2200	154	139	107	112	512	114	117	118	128	477	989
2300	90	86	84	64	324	73	68	55	57	253	577
24-HOUR TOTALS:					18658					19212	37870

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	815	1118	815	879	815	1997
P.M.	1200	1336	1645	1962	1645	3174
DAILY	1200	1336	1645	1962	1645	3174

TRUCK PERCENTAGE 4.16 12.95 8.62

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	0	15283	2598	215	443	36	14	42	27	0	0	0	0	0	0	777	18658
W	14	14784	1927	243	492	554	14	952	159	73	0	0	0	0	0	2487	19212

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 0683
DESCRIPTION: SR 94/KENDALL DR, 200' W DADELAND BLVD
START DATE: 08/25/2021
START TIME: 0000

TIME	DIRECTION: E 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: W 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	60	53	61	50	224	38	51	19	32	140	364
0100	33	35	31	41	140	17	19	18	5	59	199
0200	17	23	22	20	82	8	15	13	9	45	127
0300	16	25	13	15	69	17	5	6	7	35	104
0400	14	17	17	32	80	8	10	7	11	36	116
0500	28	39	70	91	228	21	26	24	40	111	339
0600	110	161	224	271	766	58	71	109	111	349	1115
0700	276	274	283	305	1138	138	141	223	197	699	1837
0800	254	310	312	308	1184	217	218	210	216	861	2045
0900	305	266	287	282	1140	222	208	222	201	853	1993
1000	259	265	300	256	1080	201	205	208	255	869	1949
1100	328	285	349	393	1355	229	288	254	248	1019	2374
1200	346	353	359	377	1435	325	334	321	323	1303	2738
1300	304	325	315	336	1280	310	324	345	350	1329	2609
1400	350	318	340	319	1327	320	339	357	328	1344	2671
1500	350	358	334	321	1363	363	349	387	392	1491	2854
1600	313	326	295	294	1228	344	396	444	481	1665	2893
1700	339	302	304	343	1288	462	519	455	455	1891	3179
1800	261	303	259	271	1094	430	446	348	344	1568	2662
1900	261	267	249	250	1027	354	288	313	262	1217	2244
2000	232	209	156	204	801	292	353	247	211	1103	1904
2100	158	153	138	146	595	228	236	165	169	798	1393
2200	127	122	122	89	460	134	123	112	112	481	941
2300	120	92	86	83	381	116	74	60	60	310	691
24-HOUR TOTALS:					19765					19576	39341

PEAK VOLUME INFORMATION

	DIRECTION: E HOUR	VOLUME	DIRECTION: W HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	815	1235	845	868	815	2101
P.M.	1200	1435	1645	1917	1700	3179
DAILY	1145	1451	1645	1917	1700	3179

TRUCK PERCENTAGE 3.87 9.93 6.89

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	0	16168	2832	215	417	44	17	46	26	0	0	0	0	0	0	765	19765
W	13	15479	2140	222	538	437	20	505	140	82	0	0	0	0	0	1944	19576

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 0683
DESCRIPTION: SR 94/KENDALL DR, 200' W DADELAND BLVD
START DATE: 08/26/2021
START TIME: 0000

TIME	DIRECTION: E 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: W 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	70	57	61	52	240	42	37	45	33	157	397
0100	46	37	19	19	121	19	24	18	15	76	197
0200	31	35	15	22	103	17	11	6	14	48	151
0300	25	10	17	11	63	7	7	12	11	37	100
0400	11	13	26	28	78	10	8	20	11	49	127
0500	29	60	74	83	246	14	28	34	33	109	355
0600	104	142	189	289	724	47	67	97	110	321	1045
0700	285	297	347	324	1253	147	146	206	229	728	1981
0800	258	292	291	293	1134	224	236	219	241	920	2054
0900	254	225	258	243	980	220	184	180	201	785	1765
1000	229	200	217	249	895	208	199	237	242	886	1781
1100	225	242	257	225	949	227	247	263	252	989	1938
1200	207	285	273	248	1013	277	283	305	293	1158	2171
1300	252	253	254	263	1022	335	316	310	380	1341	2363
1400	284	219	264	255	1022	337	362	351	327	1377	2399
1500	254	238	218	298	1008	380	340	355	381	1456	2464
1600	267	241	238	188	934	411	423	412	451	1697	2631
1700	303	249	218	203	973	435	526	483	431	1875	2848
1800	232	218	209	200	859	398	457	341	331	1527	2386
1900	225	208	178	150	761	344	350	310	275	1279	2040
2000	143	154	108	100	505	300	319	263	249	1131	1636
2100	97	90	72	52	311	233	229	183	196	841	1152
2200	56	63	50	42	211	181	151	160	132	624	835
2300	34	42	30	22	128	91	88	77	71	327	455
24-HOUR TOTALS:					15533					19738	35271

PEAK VOLUME INFORMATION

	DIRECTION: E HOUR	VOLUME	DIRECTION: W HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	700	1253	800	920	730	2116
P.M.	1215	1058	1645	1895	1645	2853
DAILY	700	1253	1645	1895	1645	2853

TRUCK PERCENTAGE 5.06 9.48 7.53

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	0	11906	2841	227	427	44	11	45	32	0	0	0	0	0	0	786	15533
W	12	15507	2348	286	516	338	16	471	144	100	0	0	0	0	0	1871	19738

GENERATED BY SPS 5.0.57P

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2532 - SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	42500 C	N 20000	S 22500	9.00	55.00	5.50
2020	38500 C	N 19000	S 19500	9.00	56.00	5.10
2019	45500 C	N 21500	S 24000	9.00	56.00	2.60
2018	45500 C	N 21500	S 24000	9.00	54.30	2.80
2017	47500 C	N 23000	S 24500	9.00	54.00	4.20
2016	48500 C	N 24500	S 24000	9.00	56.10	4.30
2015	48000 C	N 22500	S 25500	9.00	57.40	5.30
2014	46500 C	N 23500	S 23000	9.00	59.30	5.90
2013	53500 F	N 26500	S 27000	9.00	58.90	4.70
2012	53500 C	N 26500	S 27000	9.00	59.70	4.70
2011	50000 C	N 25000	S 25000	9.00	58.20	4.70
2010	54500 C	N 27000	S 27500	7.87	58.27	4.70
2009	48500 C	N 25000	S 23500	7.98	59.96	3.60
2008	52000 C	N 24500	S 27500	8.07	66.31	4.80
2007	51500 C	N 24500	S 27000	7.90	63.12	4.40
2006	53000 C	N 25000	S 28000	7.39	58.66	4.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0110 - SR 5/US-1, 100' S SR 826/PALMETTO EXPWY

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	92500 C	N 45500	S 47000	9.00	55.00	4.90
2020	78000 C	N 41500	S 36500	9.00	56.00	5.10
2019	104500 C	N 54000	S 50500	9.00	56.00	4.60
2018	87500 C	N 44000	S 43500	9.00	54.30	4.80
2017	91500 C	N 45500	S 46000	9.00	54.00	5.40
2016	95000 C	N 46500	S 48500	9.00	56.10	4.70
2015	91500 C	N 45500	S 46000	9.00	57.40	5.20
2014	99500 C	N 50500	S 49000	9.00	59.30	5.80
2013	92000 E	N 46000	S 46000	9.00	58.90	5.40
2012	91000 C	N 45500	S 45500	9.00	59.70	5.70
2011	92000 C	N 45000	S 47000	9.00	58.20	6.10
2010	91500 C	N 46500	S 45000	7.87	58.27	6.90
2009	91000 C	N 45500	S 45500	7.98	59.96	6.30
2008	96000 C	N 48000	S 48000	8.07	66.31	7.10
2007	93000 C	N 46500	S 46500	7.90	63.12	8.00
2006	89000 C	N 45000	S 44000	7.39	58.66	6.10

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

APPENDIX A

COUNTY: 87
STATION: 0110
DESCRIPTION: SR 5/US-1, 100' S SR 826/PALMETTO EXPWY
START DATE: 07/13/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	96	74	85	63	318	172	146	134	90	542	860
0100	52	51	58	48	209	79	74	65	48	266	475
0200	30	42	44	35	151	64	51	46	44	205	356
0300	44	48	43	63	198	46	51	45	48	190	388
0400	63	101	159	168	491	44	59	58	96	257	748
0500	226	301	423	456	1406	131	139	184	205	659	2065
0600	603	733	642	621	2599	315	375	458	449	1597	4196
0700	756	677	756	850	3039	496	535	586	636	2253	5292
0800	737	725	734	819	3015	591	699	757	631	2678	5693
0900	652	584	582	589	2407	628	624	659	597	2508	4915
1000	593	483	621	652	2349	593	607	643	626	2469	4818
1100	795	690	670	625	2780	684	653	668	702	2707	5487
1200	616	721	701	709	2747	686	734	724	699	2843	5590
1300	744	668	687	666	2765	567	445	425	444	1881	4646
1400	923	711	711	587	2932	573	525	565	583	2246	5178
1500	573	547	640	645	2405	659	632	626	653	2570	4975
1600	548	573	581	682	2384	647	615	634	654	2550	4934
1700	650	624	589	591	2454	661	692	792	771	2916	5370
1800	598	672	525	595	2390	740	799	769	711	3019	5409
1900	544	515	456	389	1904	447	458	516	522	1943	3847
2000	379	345	400	358	1482	462	445	388	394	1689	3171
2100	325	334	288	255	1202	372	369	316	281	1338	2540
2200	304	280	261	222	1067	300	287	238	212	1037	2104
2300	188	164	125	184	661	270	277	236	188	971	1632
24-HOUR TOTALS:					43355					41334	84689

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	3068	815	2715	745	5729
P.M.	1345	3011	1730	3102	1215	5599
DAILY	730	3068	1730	3102	745	5729

TRUCK PERCENTAGE 5.84 5.05 5.46

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	155	35576	5081	527	858	169	67	409	337	137	17	0	11	0	11	2532	43355
S	141	32104	6968	135	987	292	16	297	210	104	0	0	48	0	32	2089	41334

GENERATED BY SPS 5.0.55P

COUNTY: 87
STATION: 0110
DESCRIPTION: SR 5/US-1, 100' S SR 826/PALMETTO EXPWY
START DATE: 07/14/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	99	59	74	76	308	193	158	96	91	538	846
0100	64	50	42	34	190	97	63	57	59	276	466
0200	38	39	25	28	130	61	50	43	29	183	313
0300	27	69	58	66	220	36	46	43	48	173	393
0400	98	100	129	197	524	47	67	65	94	273	797
0500	242	308	442	484	1476	86	156	182	226	650	2126
0600	628	781	709	827	2945	303	415	451	444	1613	4558
0700	832	799	902	923	3456	503	545	648	597	2293	5749
0800	941	857	959	953	3710	599	668	682	624	2573	6283
0900	812	826	739	733	3110	646	620	642	607	2515	5625
1000	744	734	712	756	2946	615	643	657	653	2568	5514
1100	709	726	696	795	2926	670	661	692	697	2720	5646
1200	710	729	758	745	2942	715	705	730	762	2912	5854
1300	713	666	682	663	2724	694	725	761	806	2986	5710
1400	587	614	597	696	2494	791	825	905	858	3379	5873
1500	750	663	569	555	2537	850	901	949	865	3565	6102
1600	537	637	704	636	2514	822	886	870	853	3431	5945
1700	591	578	538	522	2229	867	877	886	887	3517	5746
1800	510	562	523	480	2075	872	835	840	846	3393	5468
1900	477	474	527	483	1961	715	708	655	589	2667	4628
2000	367	411	325	371	1474	615	586	481	537	2219	3693
2100	354	324	326	270	1274	447	489	424	416	1776	3050
2200	219	219	191	169	798	431	354	368	322	1475	2273
2300	170	141	131	110	552	300	276	220	215	1011	1563
24-HOUR TOTALS:					45515					48706	94221

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	800	3710	815	2620	800	6283
P.M.	1215	2945	1500	3565	1445	6236
DAILY	800	3710	1500	3565	800	6283

TRUCK PERCENTAGE 4.69 4.83 4.76

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	84	38585	4712	406	585	183	81	383	329	152	10	1	3	0	1	2133	45515
S	256	37030	9008	212	1423	126	30	264	167	56	2	0	71	0	61	2351	48706

GENERATED BY SPS 5.0.55P

APPENDIX A

COUNTY: 87
STATION: 0110
DESCRIPTION: SR 5/US-1, 100' S SR 826/PALMETTO EXPWY
START DATE: 07/15/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	85	62	73	62	282	235	161	130	114	640	922
0100	42	35	46	50	173	106	84	63	69	322	495
0200	35	36	33	37	141	66	59	49	59	233	374
0300	35	65	57	54	211	52	48	56	40	196	407
0400	83	125	194	263	665	43	79	65	92	279	944
0500	271	412	475	529	1687	106	146	167	204	623	2310
0600	641	634	804	778	2857	306	403	424	451	1584	4441
0700	697	815	829	775	3116	489	547	624	648	2308	5424
0800	883	884	738	783	3288	653	674	626	641	2594	5882
0900	688	716	724	703	2831	644	690	650	624	2608	5439
1000	751	691	657	691	2790	641	631	631	623	2526	5316
1100	636	662	664	698	2660	668	702	712	696	2778	5438
1200	659	657	684	627	2627	674	729	734	739	2876	5503
1300	704	661	596	633	2594	774	746	701	694	2915	5509
1400	676	678	622	631	2607	758	764	761	682	2965	5572
1500	624	621	726	794	2765	787	883	911	891	3472	6237
1600	662	616	669	687	2634	914	889	924	875	3602	6236
1700	647	675	615	612	2549	861	848	903	879	3491	6040
1800	557	560	577	537	2231	829	859	838	772	3298	5529
1900	572	513	416	413	1914	714	709	661	633	2717	4631
2000	429	356	424	450	1659	599	579	567	482	2227	3886
2100	390	267	281	254	1192	454	480	435	429	1798	2990
2200	210	203	185	150	748	461	390	336	347	1534	2282
2300	140	155	141	112	548	325	290	265	248	1128	1676
24-HOUR TOTALS:					44769					48714	93483

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	3371	845	2625	730	5970
P.M.	1515	2803	1545	3618	1530	6403
DAILY	730	3371	1545	3618	1530	6403
TRUCK PERCENTAGE	4.11		4.82		4.48	

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	110	37894	4915	182	489	419	126	200	262	145	3	0	14	0	10	1840	44769
S	217	37146	8941	216	1390	187	16	250	162	71	0	0	54	0	64	2346	48714

GENERATED BY SPS 5.0.55P

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8573 - S DADELAND BLVD, 100 FT E OF SW 73RD PL, KENDALL

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2021	5600 S	N	2800	S	2800	9.00	55.00	2.40
2020	5800 F	N	2900	S	2900	9.00	56.00	3.10
2019	6500 C	N	3300	S	3200	9.00	56.00	3.50
2018	5400 T	N	3100	S	2300	9.00	54.30	3.10
2017	6100 S	N	3500	S	2600	9.00	59.30	3.40
2016	6200 F	N	3600	S	2600	9.00	56.10	3.00
2015	6300 C	N	3700	S	2600	9.00	57.40	3.40
2014	6500 S	N	3300	S	3200	9.00	59.30	4.40
2013	6500 F	N	3300	S	3200	9.00	58.90	16.20
2012	6500 C	N	3300	S	3200	9.00	59.70	16.00

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

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2532 - SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	42500 C	N 20000	S 22500	9.00	55.00	5.50
2020	38500 C	N 19000	S 19500	9.00	56.00	5.10
2019	45500 C	N 21500	S 24000	9.00	56.00	2.60
2018	45500 C	N 21500	S 24000	9.00	54.30	2.80
2017	47500 C	N 23000	S 24500	9.00	54.00	4.20
2016	48500 C	N 24500	S 24000	9.00	56.10	4.30
2015	48000 C	N 22500	S 25500	9.00	57.40	5.30
2014	46500 C	N 23500	S 23000	9.00	59.30	5.90
2013	53500 F	N 26500	S 27000	9.00	58.90	4.70
2012	53500 C	N 26500	S 27000	9.00	59.70	4.70
2011	50000 C	N 25000	S 25000	9.00	58.20	4.70
2010	54500 C	N 27000	S 27500	7.87	58.27	4.70
2009	48500 C	N 25000	S 23500	7.98	59.96	3.60
2008	52000 C	N 24500	S 27500	8.07	66.31	4.80
2007	51500 C	N 24500	S 27000	7.90	63.12	4.40
2006	53000 C	N 25000	S 28000	7.39	58.66	4.00

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

COUNTY: 87
STATION: 2532
DESCRIPTION: SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST
START DATE: 06/29/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	30	30	25	15	100	72	55	41	52	220	320
0100	16	14	15	17	62	35	32	26	27	120	182
0200	10	7	9	3	29	20	35	26	18	99	128
0300	13	15	9	16	53	11	28	22	22	83	136
0400	18	29	35	61	143	27	45	29	45	146	289
0500	80	163	222	236	701	52	74	68	77	271	972
0600	262	259	323	288	1132	82	104	139	171	496	1628
0700	286	308	307	330	1231	164	183	208	285	840	2071
0800	291	281	281	269	1122	263	296	248	294	1101	2223
0900	310	271	274	283	1138	299	314	294	318	1225	2363
1000	253	272	287	300	1112	291	320	358	390	1359	2471
1100	282	269	234	304	1089	367	403	409	405	1584	2673
1200	281	259	249	264	1053	390	420	426	414	1650	2703
1300	266	263	298	287	1114	404	417	415	439	1675	2789
1400	296	266	264	267	1093	417	469	475	485	1846	2939
1500	268	283	283	309	1143	464	497	425	479	1865	3008
1600	272	316	306	311	1205	484	488	381	409	1762	2967
1700	318	294	246	285	1143	406	347	349	311	1413	2556
1800	310	259	267	263	1099	295	318	318	273	1204	2303
1900	229	223	230	211	893	288	294	274	219	1075	1968
2000	178	160	159	152	649	219	200	216	159	794	1443
2100	140	127	117	95	479	148	158	137	131	574	1053
2200	134	85	83	89	391	130	127	128	103	488	879
2300	76	39	54	43	212	104	90	79	74	347	559
24-HOUR TOTALS:					18386					22237	40623

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	1236	845	1201	845	2325
P.M.	1615	1251	1430	1921	1530	3056
DAILY	1615	1251	1430	1921	1530	3056
TRUCK PERCENTAGE	7.41		3.54		5.29	

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	128	14705	2184	233	679	97	6	249	63	24	0	0	12	0	6	1363	18386
S	74	19220	2156	61	265	152	39	94	56	109	0	1	10	0	0	787	22237

GENERATED BY SPS 5.0.57P

APPENDIX A

COUNTY: 87
STATION: 2532
DESCRIPTION: SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST
START DATE: 06/30/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	26	23	25	23	97	50	51	41	32	174	271
0100	13	17	13	10	53	26	30	20	23	99	152
0200	8	5	5	5	23	23	17	11	18	69	92
0300	11	10	12	20	53	16	16	12	16	60	113
0400	32	32	59	76	199	29	33	33	53	148	347
0500	98	155	189	222	664	70	80	95	104	349	1013
0600	274	286	303	291	1154	106	140	205	199	650	1804
0700	315	304	330	321	1270	193	225	253	292	963	2233
0800	305	322	314	311	1252	265	246	272	240	1023	2275
0900	303	292	299	308	1202	286	297	341	302	1226	2428
1000	288	264	280	315	1147	306	333	342	340	1321	2468
1100	258	274	260	269	1061	364	420	399	395	1578	2639
1200	237	260	251	246	994	404	411	411	411	1637	2631
1300	249	263	313	264	1089	424	417	385	377	1603	2692
1400	283	263	279	265	1090	418	421	462	485	1786	2876
1500	242	276	288	313	1119	456	384	432	423	1695	2814
1600	296	285	317	308	1206	450	472	513	498	1933	3139
1700	327	313	292	291	1223	471	472	457	314	1714	2937
1800	271	276	294	246	1087	328	346	329	275	1278	2365
1900	240	255	262	237	994	280	264	286	209	1039	2033
2000	234	222	175	158	789	226	197	174	159	756	1545
2100	165	141	145	143	594	145	138	137	108	528	1122
2200	121	93	96	95	405	123	107	130	96	456	861
2300	87	65	45	74	271	94	82	71	51	298	569
24-HOUR TOTALS:					19036					22383	41419

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	1278	845	1164	845	2369
P.M.	1630	1265	1615	1954	1630	3219
DAILY	730	1278	1615	1954	1630	3219

TRUCK PERCENTAGE 8.15 3.47 5.62

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	165	15101	2217	197	760	171	3	282	82	39	0	0	17	0	2	1551	19036
S	74	19151	2377	59	335	110	55	70	55	74	0	0	19	0	4	777	22383

GENERATED BY SPS 5.0.57P

COUNTY: 87
STATION: 2532
DESCRIPTION: SR 5/US-1, 200' S SR 94/KENDALL DR/SW 88 ST
START DATE: 07/01/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	45	48	37	28	158	63	39	34	37	173	331
0100	20	24	18	24	86	27	28	26	19	100	186
0200	18	20	26	20	84	25	15	15	20	75	159
0300	16	23	25	28	92	12	19	20	20	71	163
0400	36	33	51	70	190	17	32	27	48	124	314
0500	101	134	185	217	637	43	72	83	87	285	922
0600	280	314	275	257	1126	100	108	135	148	491	1617
0700	304	306	326	319	1255	210	192	269	270	941	2196
0800	309	343	288	321	1261	289	275	303	295	1162	2423
0900	311	287	299	284	1181	303	305	291	274	1173	2354
1000	281	297	278	305	1161	270	218	263	272	1023	2184
1100	307	270	310	290	1177	256	254	300	327	1137	2314
1200	302	288	297	305	1192	292	309	344	339	1284	2476
1300	303	323	312	302	1240	371	380	411	401	1563	2803
1400	308	283	290	259	1140	386	382	347	327	1442	2582
1500	276	287	292	305	1160	389	334	348	402	1473	2633
1600	304	281	290	274	1149	454	514	405	432	1805	2954
1700	304	294	291	309	1198	449	375	392	319	1535	2733
1800	285	290	268	272	1115	286	352	414	396	1448	2563
1900	249	255	244	184	932	301	254	270	226	1051	1983
2000	203	196	195	176	770	206	200	191	196	793	1563
2100	161	152	143	148	604	165	153	132	118	568	1172
2200	159	117	110	64	450	130	129	106	116	481	931
2300	55	61	43	40	199	86	95	83	65	329	528
24-HOUR TOTALS:					19557					20527	40084

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	1297	830	1206	815	2439
P.M.	1315	1245	1600	1805	1545	2955
DAILY	730	1297	1600	1805	1545	2955

TRUCK PERCENTAGE 7.24 3.86 5.51

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	144	15781	2213	203	724	130	2	244	57	43	0	0	13	0	3	1416	19557
S	52	17521	2159	45	273	128	35	66	84	139	0	0	23	0	2	793	20527

GENERATED BY SPS 5.0.57P

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0110 - SR 5/US-1, 100' S SR 826/PALMETTO EXPWY

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	92500 C	N 45500	S 47000	9.00	55.00	4.90
2020	78000 C	N 41500	S 36500	9.00	56.00	5.10
2019	104500 C	N 54000	S 50500	9.00	56.00	4.60
2018	87500 C	N 44000	S 43500	9.00	54.30	4.80
2017	91500 C	N 45500	S 46000	9.00	54.00	5.40
2016	95000 C	N 46500	S 48500	9.00	56.10	4.70
2015	91500 C	N 45500	S 46000	9.00	57.40	5.20
2014	99500 C	N 50500	S 49000	9.00	59.30	5.80
2013	92000 E	N 46000	S 46000	9.00	58.90	5.40
2012	91000 C	N 45500	S 45500	9.00	59.70	5.70
2011	92000 C	N 45000	S 47000	9.00	58.20	6.10
2010	91500 C	N 46500	S 45000	7.87	58.27	6.90
2009	91000 C	N 45500	S 45500	7.98	59.96	6.30
2008	96000 C	N 48000	S 48000	8.07	66.31	7.10
2007	93000 C	N 46500	S 46500	7.90	63.12	8.00
2006	89000 C	N 45000	S 44000	7.39	58.66	6.10

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

COUNTY: 87
STATION: 0110
DESCRIPTION: SR 5/US-1, 100' S SR 826/PALMETTO EXPWY
START DATE: 07/13/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	96	74	85	63	318	172	146	134	90	542	860
0100	52	51	58	48	209	79	74	65	48	266	475
0200	30	42	44	35	151	64	51	46	44	205	356
0300	44	48	43	63	198	46	51	45	48	190	388
0400	63	101	159	168	491	44	59	58	96	257	748
0500	226	301	423	456	1406	131	139	184	205	659	2065
0600	603	733	642	621	2599	315	375	458	449	1597	4196
0700	756	677	756	850	3039	496	535	586	636	2253	5292
0800	737	725	734	819	3015	591	699	757	631	2678	5693
0900	652	584	582	589	2407	628	624	659	597	2508	4915
1000	593	483	621	652	2349	593	607	643	626	2469	4818
1100	795	690	670	625	2780	684	653	668	702	2707	5487
1200	616	721	701	709	2747	686	734	724	699	2843	5590
1300	744	668	687	666	2765	567	445	425	444	1881	4646
1400	923	711	711	587	2932	573	525	565	583	2246	5178
1500	573	547	640	645	2405	659	632	626	653	2570	4975
1600	548	573	581	682	2384	647	615	634	654	2550	4934
1700	650	624	589	591	2454	661	692	792	771	2916	5370
1800	598	672	525	595	2390	740	799	769	711	3019	5409
1900	544	515	456	389	1904	447	458	516	522	1943	3847
2000	379	345	400	358	1482	462	445	388	394	1689	3171
2100	325	334	288	255	1202	372	369	316	281	1338	2540
2200	304	280	261	222	1067	300	287	238	212	1037	2104
2300	188	164	125	184	661	270	277	236	188	971	1632
24-HOUR TOTALS:					43355					41334	84689

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	3068	815	2715	745	5729
P.M.	1345	3011	1730	3102	1215	5599
DAILY	730	3068	1730	3102	745	5729
TRUCK PERCENTAGE	5.84		5.05		5.46	

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	155	35576	5081	527	858	169	67	409	337	137	17	0	11	0	11	2532	43355
S	141	32104	6968	135	987	292	16	297	210	104	0	0	48	0	32	2089	41334

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APPENDIX A

COUNTY: 87
STATION: 0110
DESCRIPTION: SR 5/US-1, 100' S SR 826/PALMETTO EXPWY
START DATE: 07/14/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	99	59	74	76	308	193	158	96	91	538	846
0100	64	50	42	34	190	97	63	57	59	276	466
0200	38	39	25	28	130	61	50	43	29	183	313
0300	27	69	58	66	220	36	46	43	48	173	393
0400	98	100	129	197	524	47	67	65	94	273	797
0500	242	308	442	484	1476	86	156	182	226	650	2126
0600	628	781	709	827	2945	303	415	451	444	1613	4558
0700	832	799	902	923	3456	503	545	648	597	2293	5749
0800	941	857	959	953	3710	599	668	682	624	2573	6283
0900	812	826	739	733	3110	646	620	642	607	2515	5625
1000	744	734	712	756	2946	615	643	657	653	2568	5514
1100	709	726	696	795	2926	670	661	692	697	2720	5646
1200	710	729	758	745	2942	715	705	730	762	2912	5854
1300	713	666	682	663	2724	694	725	761	806	2986	5710
1400	587	614	597	696	2494	791	825	905	858	3379	5873
1500	750	663	569	555	2537	850	901	949	865	3565	6102
1600	537	637	704	636	2514	822	886	870	853	3431	5945
1700	591	578	538	522	2229	867	877	886	887	3517	5746
1800	510	562	523	480	2075	872	835	840	846	3393	5468
1900	477	474	527	483	1961	715	708	655	589	2667	4628
2000	367	411	325	371	1474	615	586	481	537	2219	3693
2100	354	324	326	270	1274	447	489	424	416	1776	3050
2200	219	219	191	169	798	431	354	368	322	1475	2273
2300	170	141	131	110	552	300	276	220	215	1011	1563
24-HOUR TOTALS:					45515					48706	94221

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	800	3710	815	2620	800	6283
P.M.	1215	2945	1500	3565	1445	6236
DAILY	800	3710	1500	3565	800	6283

TRUCK PERCENTAGE 4.69 4.83 4.76

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	84	38585	4712	406	585	183	81	383	329	152	10	1	3	0	1	2133	45515
S	256	37030	9008	212	1423	126	30	264	167	56	2	0	71	0	61	2351	48706

GENERATED BY SPS 5.0.55P

COUNTY: 87
STATION: 0110
DESCRIPTION: SR 5/US-1, 100' S SR 826/PALMETTO EXPWY
START DATE: 07/15/2021
START TIME: 0000

TIME	DIRECTION: N 1ST	2ND	3RD	4TH	TOTAL	DIRECTION: S 1ST	2ND	3RD	4TH	TOTAL	COMBINED TOTAL
0000	85	62	73	62	282	235	161	130	114	640	922
0100	42	35	46	50	173	106	84	63	69	322	495
0200	35	36	33	37	141	66	59	49	59	233	374
0300	35	65	57	54	211	52	48	56	40	196	407
0400	83	125	194	263	665	43	79	65	92	279	944
0500	271	412	475	529	1687	106	146	167	204	623	2310
0600	641	634	804	778	2857	306	403	424	451	1584	4441
0700	697	815	829	775	3116	489	547	624	648	2308	5424
0800	883	884	738	783	3288	653	674	626	641	2594	5882
0900	688	716	724	703	2831	644	690	650	624	2608	5439
1000	751	691	657	691	2790	641	631	631	623	2526	5316
1100	636	662	664	698	2660	668	702	712	696	2778	5438
1200	659	657	684	627	2627	674	729	734	739	2876	5503
1300	704	661	596	633	2594	774	746	701	694	2915	5509
1400	676	678	622	631	2607	758	764	761	682	2965	5572
1500	624	621	726	794	2765	787	883	911	891	3472	6237
1600	662	616	669	687	2634	914	889	924	875	3602	6236
1700	647	675	615	612	2549	861	848	903	879	3491	6040
1800	557	560	577	537	2231	829	859	838	772	3298	5529
1900	572	513	416	413	1914	714	709	661	633	2717	4631
2000	429	356	424	450	1659	599	579	567	482	2227	3886
2100	390	267	281	254	1192	454	480	435	429	1798	2990
2200	210	203	185	150	748	461	390	336	347	1534	2282
2300	140	155	141	112	548	325	290	265	248	1128	1676
24-HOUR TOTALS:					44769					48714	93483

PEAK VOLUME INFORMATION

	DIRECTION: N HOUR	VOLUME	DIRECTION: S HOUR	VOLUME	COMBINED DIRECTIONS HOUR	VOLUME
A.M.	730	3371	845	2625	730	5970
P.M.	1515	2803	1545	3618	1530	6403
DAILY	730	3371	1545	3618	1530	6403

TRUCK PERCENTAGE 4.11 4.82 4.48

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	110	37894	4915	182	489	419	126	200	262	145	3	0	14	0	10	1840	44769
S	217	37146	8941	216	1390	187	16	250	162	71	0	0	54	0	64	2346	48714

GENERATED BY SPS 5.0.55P

APPENDIX A

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8241 - DADELAND BLVD, 200' SOUTH OF KENDALL DR

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	10200 S	N 5100	S 5100	9.00	55.00	17.50
2020	10800 F	N 5400	S 5400	9.00	56.00	10.40
2019	12000 C	N 6000	S 6000	9.00	56.00	11.00
2018	12000 S	N 6700	S 5300	9.00	54.30	12.10
2017	13400 F	N 7500	S 5900	9.00	59.30	12.60
2016	13600 C	N 7600	S 6000	9.00	56.10	13.50
2015	8600 T	N 4300	S 4300	9.00	57.40	13.70
2014	8600 S	N 4300	S 4300	9.00	59.30	17.40
2013	8600 F	N 4300	S 4300	9.00	58.90	16.20
2012	8600 C	N 4300	S 4300	9.00	59.70	16.00

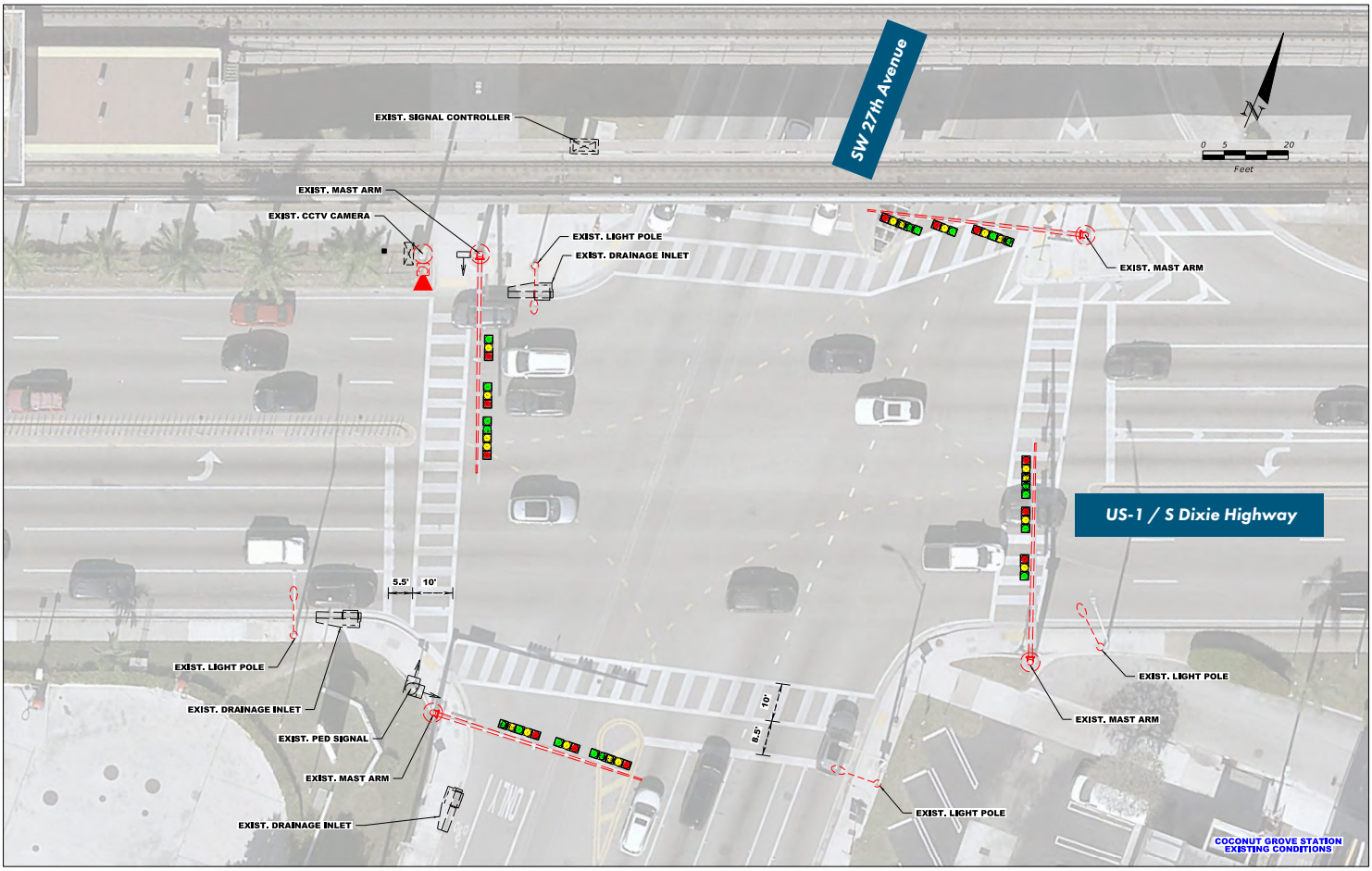
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

APPENDIX B

CONCEPTUAL DESIGN FOR SHORT TERM IMPROVEMENTS

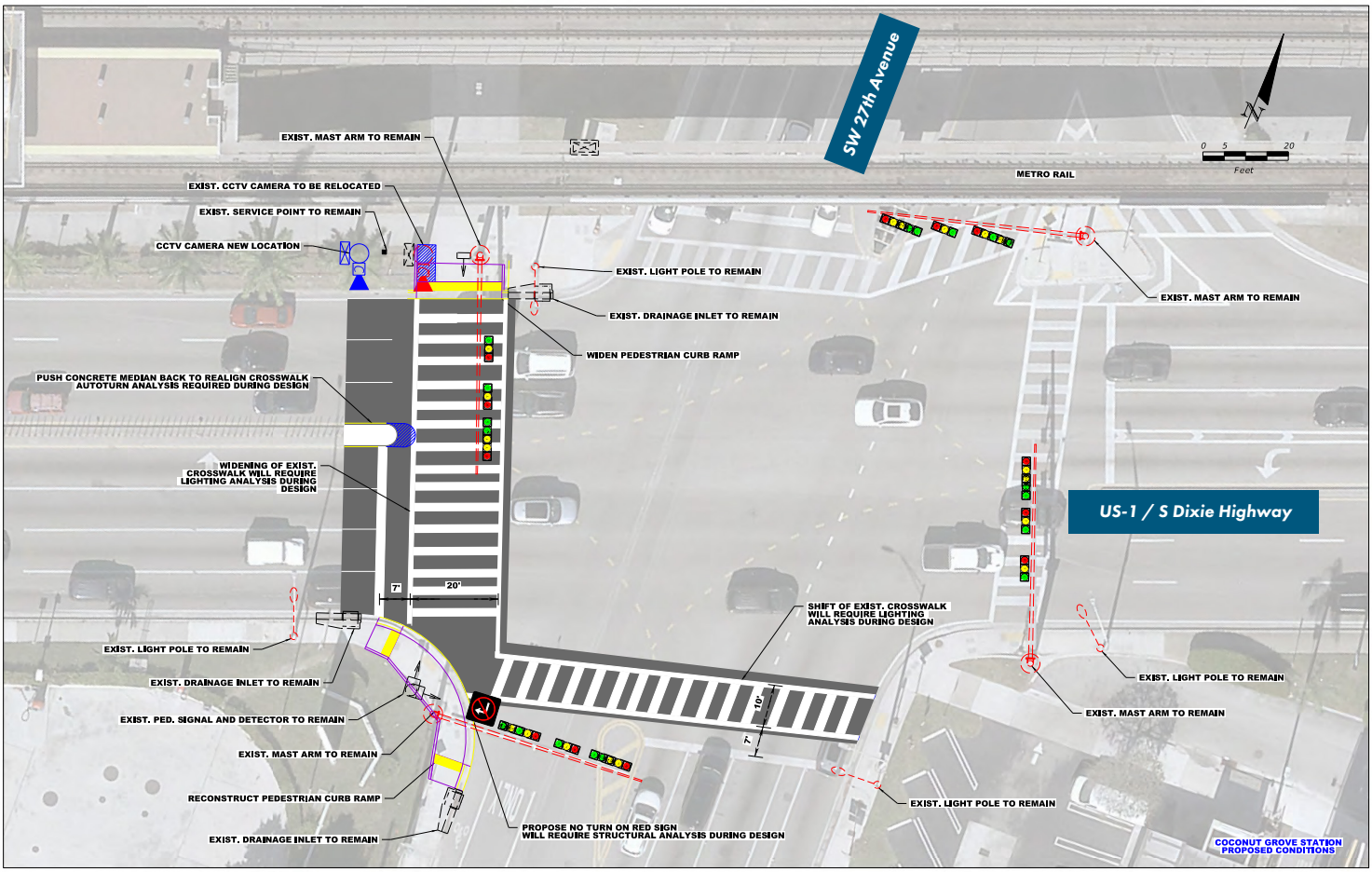
Miami-Dade Transportation Planning Organization

APPENDIX B



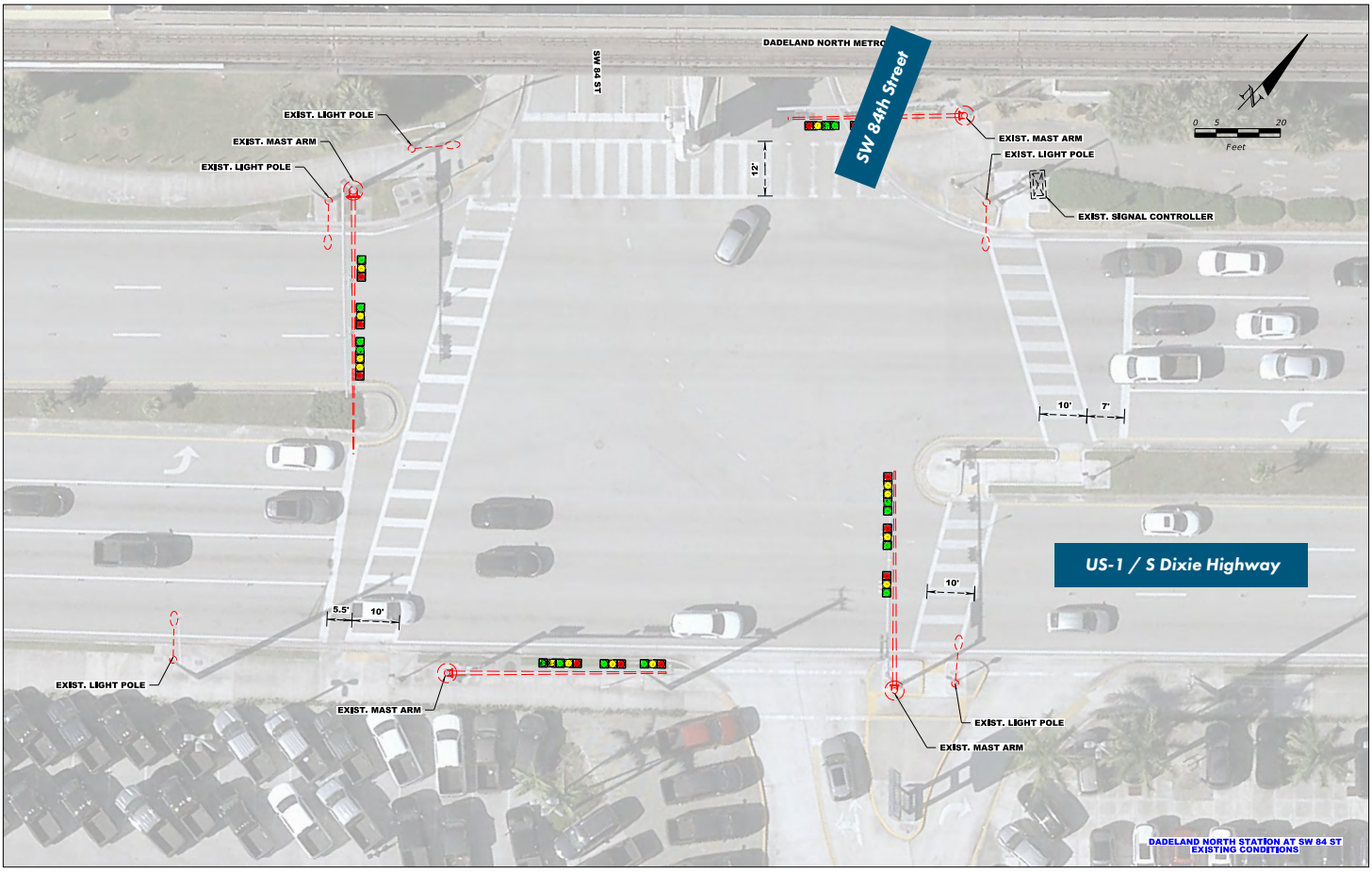
Coconut Grove Metrorail Station
Existing Conditions

APPENDIX B



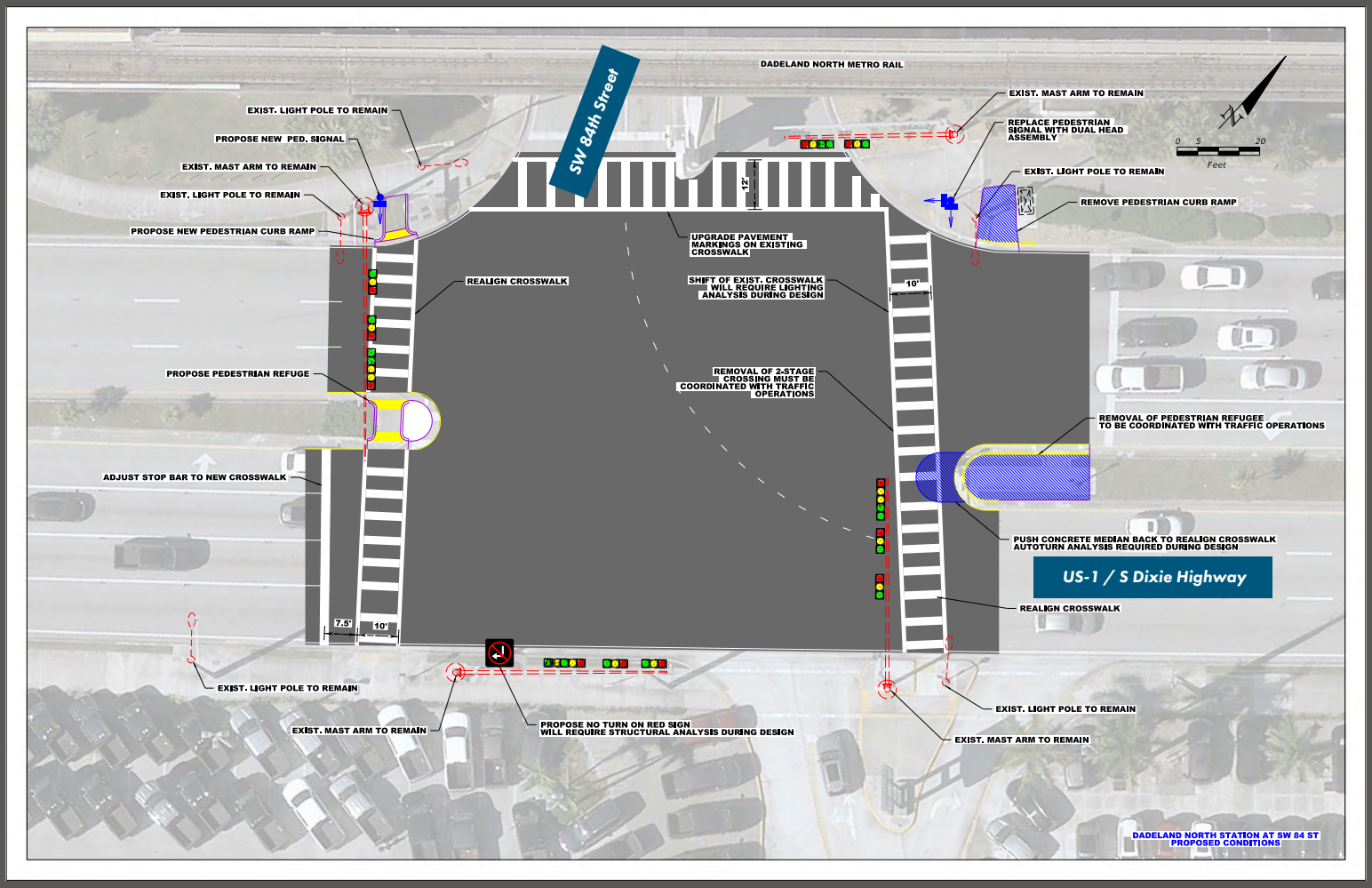
Coconut Grove Metrorail Station
Proposed Conditions

APPENDIX B



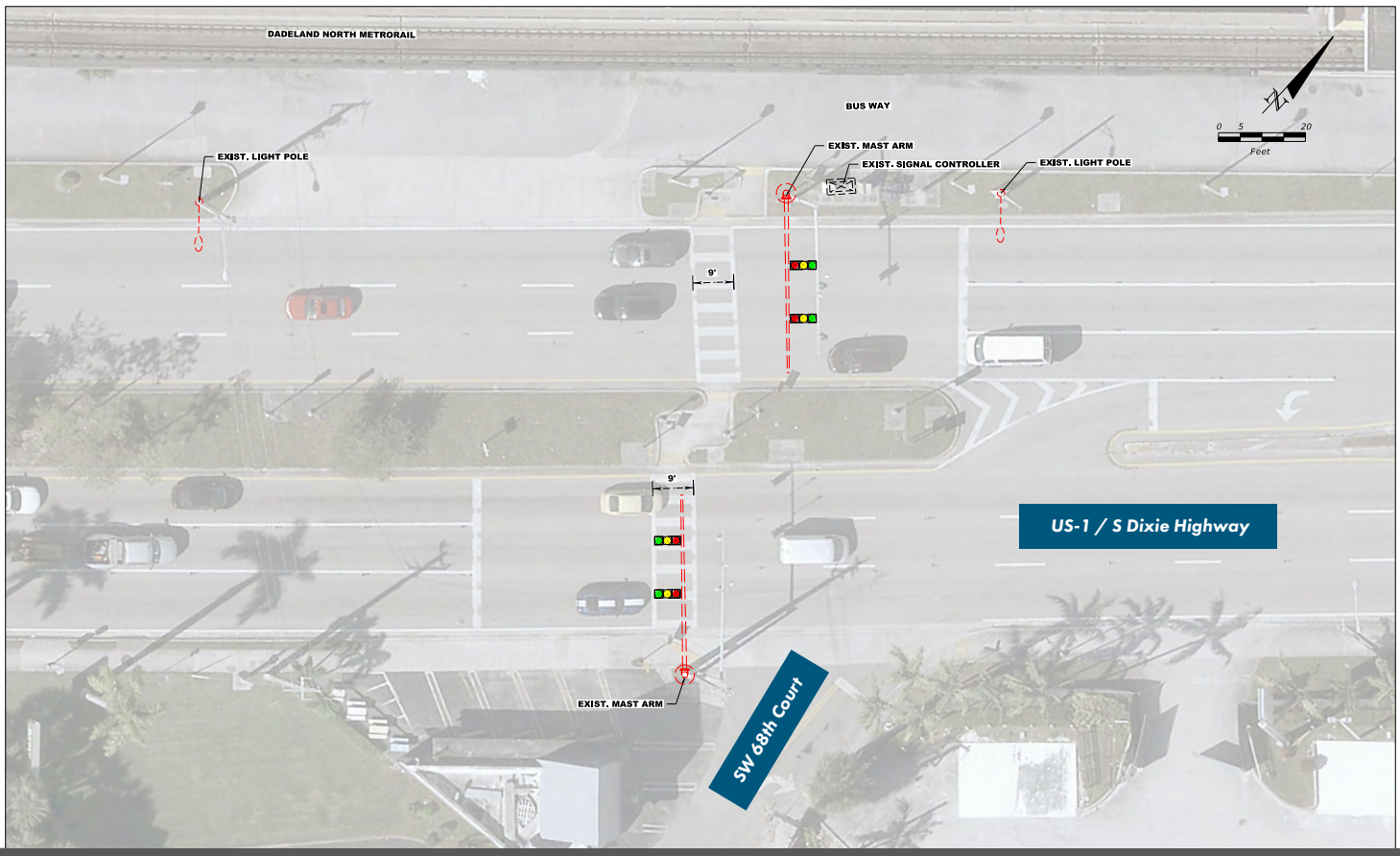
Dadeland North Metrorail Station at SW 84th Street
Existing Conditions

APPENDIX B



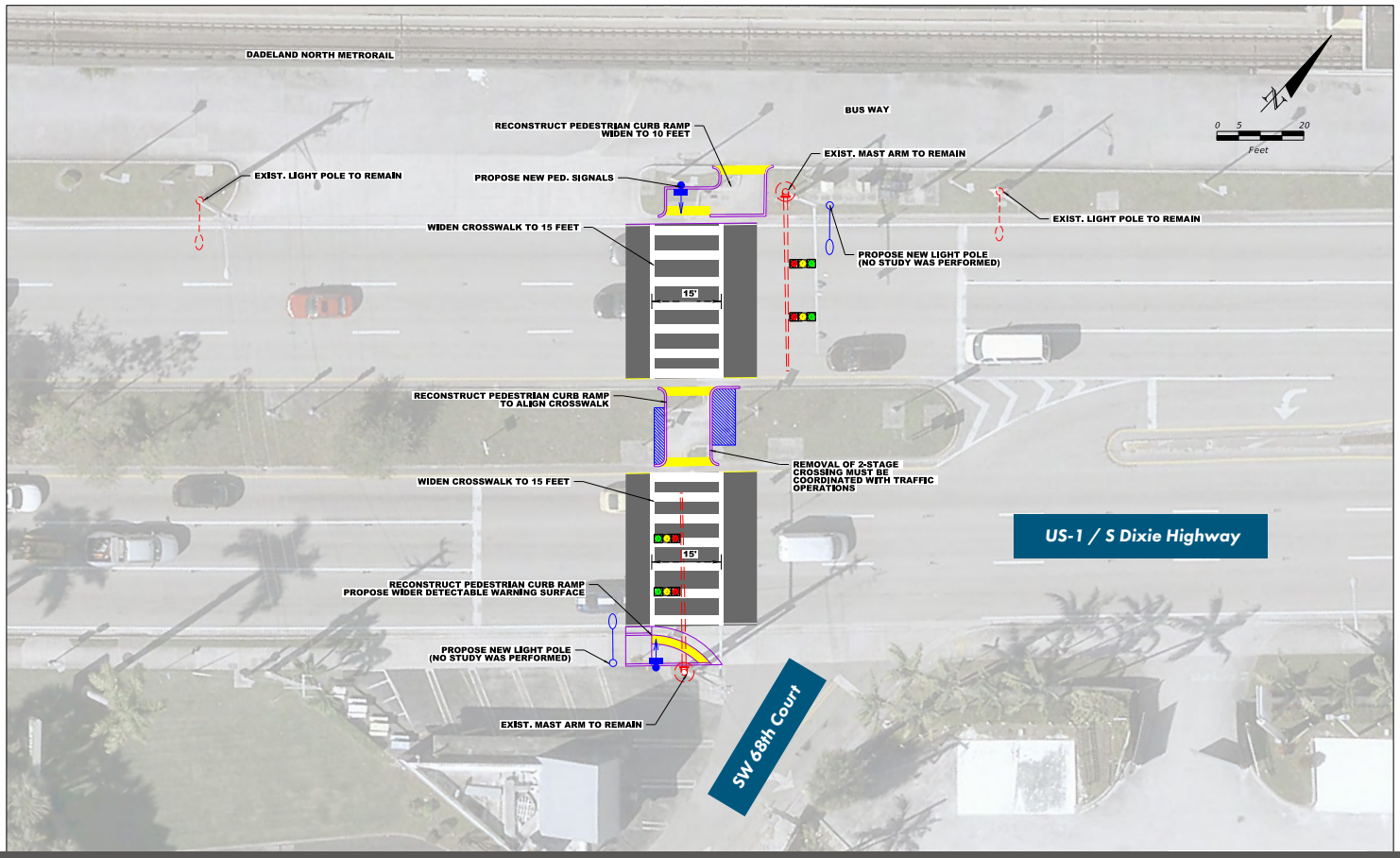
Dadeland North Metrorail Station at SW 84th Street
Proposed Conditions

APPENDIX B



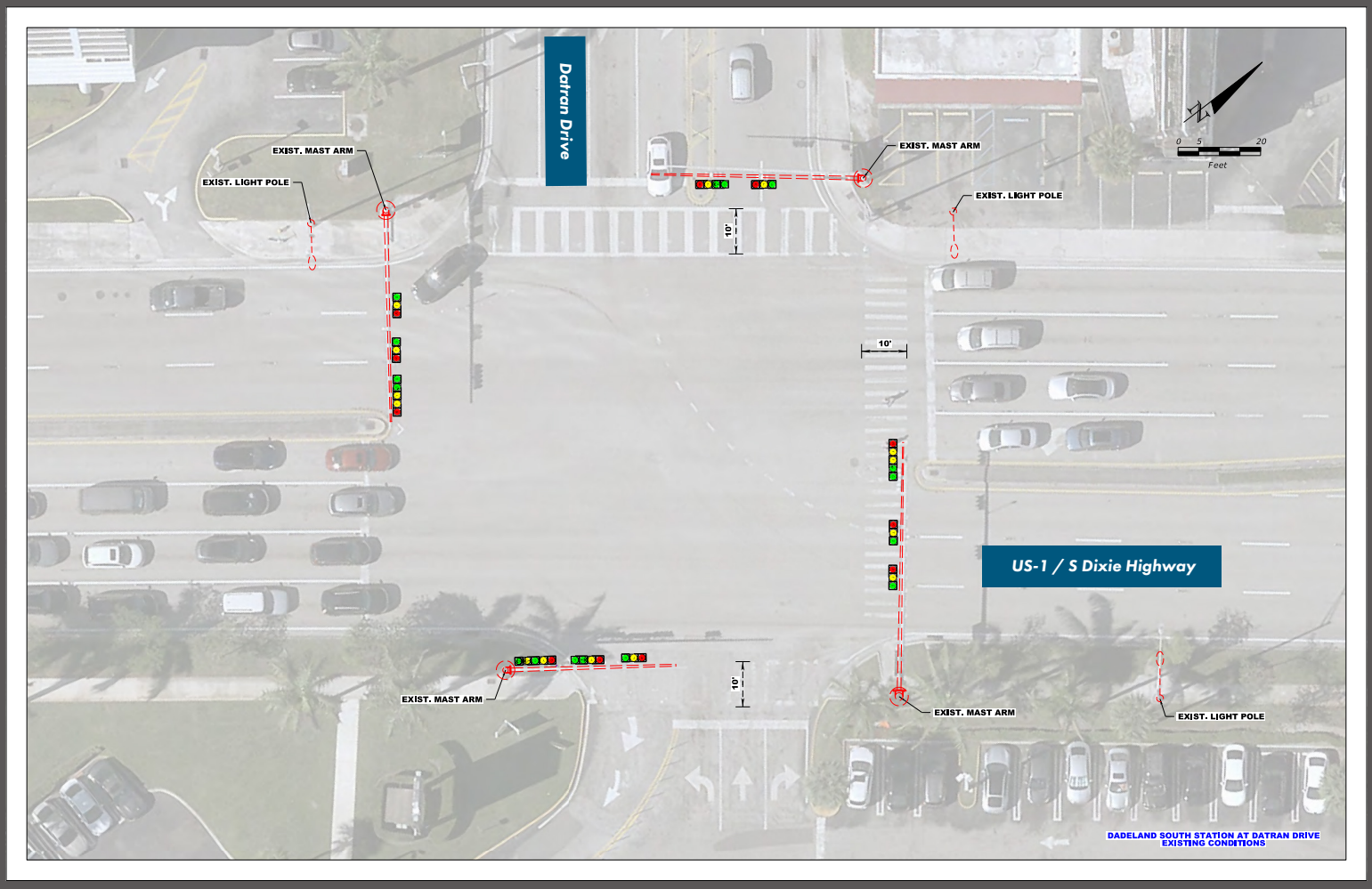
Dadeland North Metrorail Station at SW 68th Court
Existing Conditions

APPENDIX B



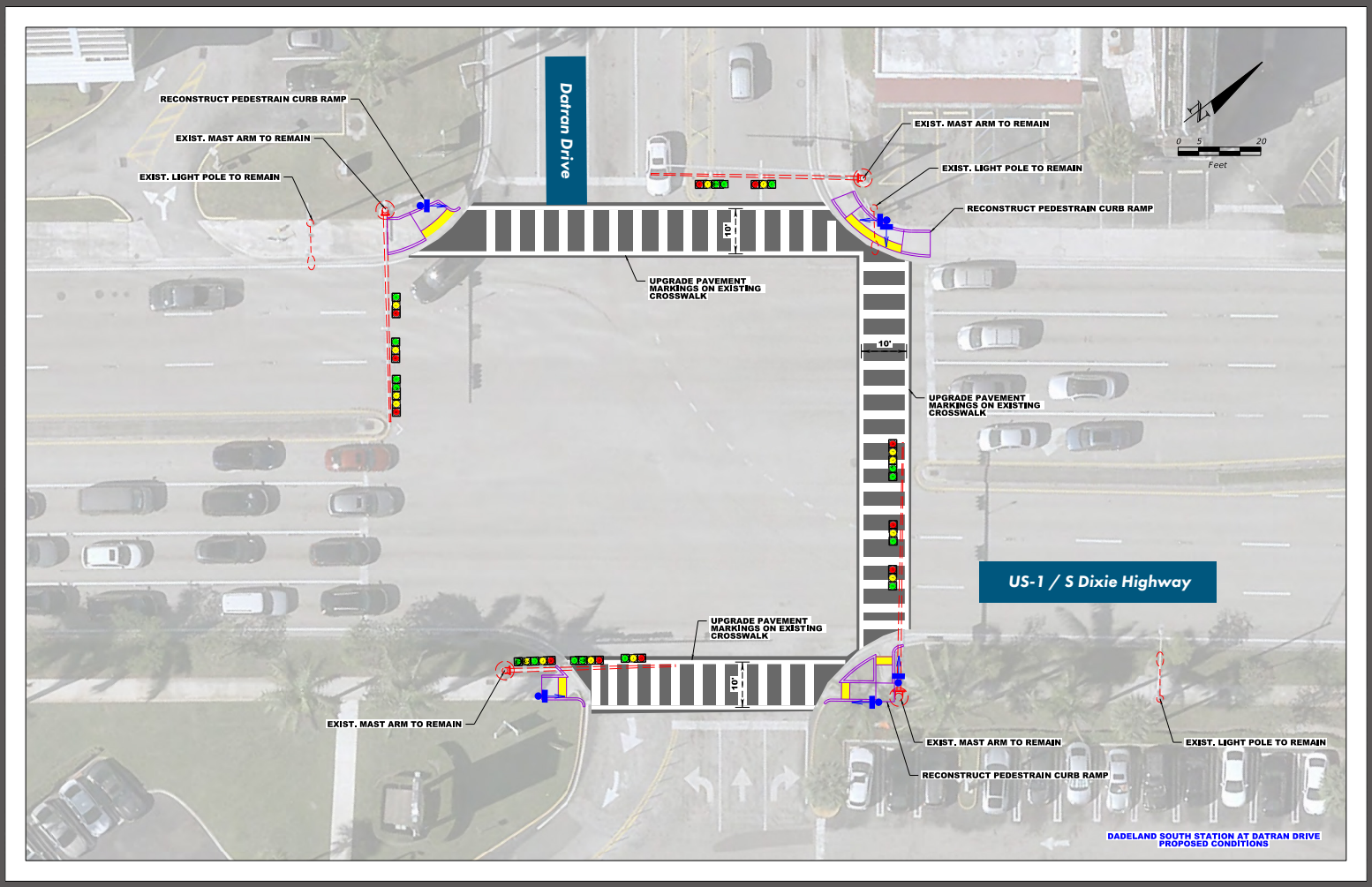
Dadeland North Metrorail Station at SW 68th Court
Proposed Conditions

APPENDIX B



Dadeland South Metrorail Station at Datran Drive
Existing Conditions

APPENDIX B

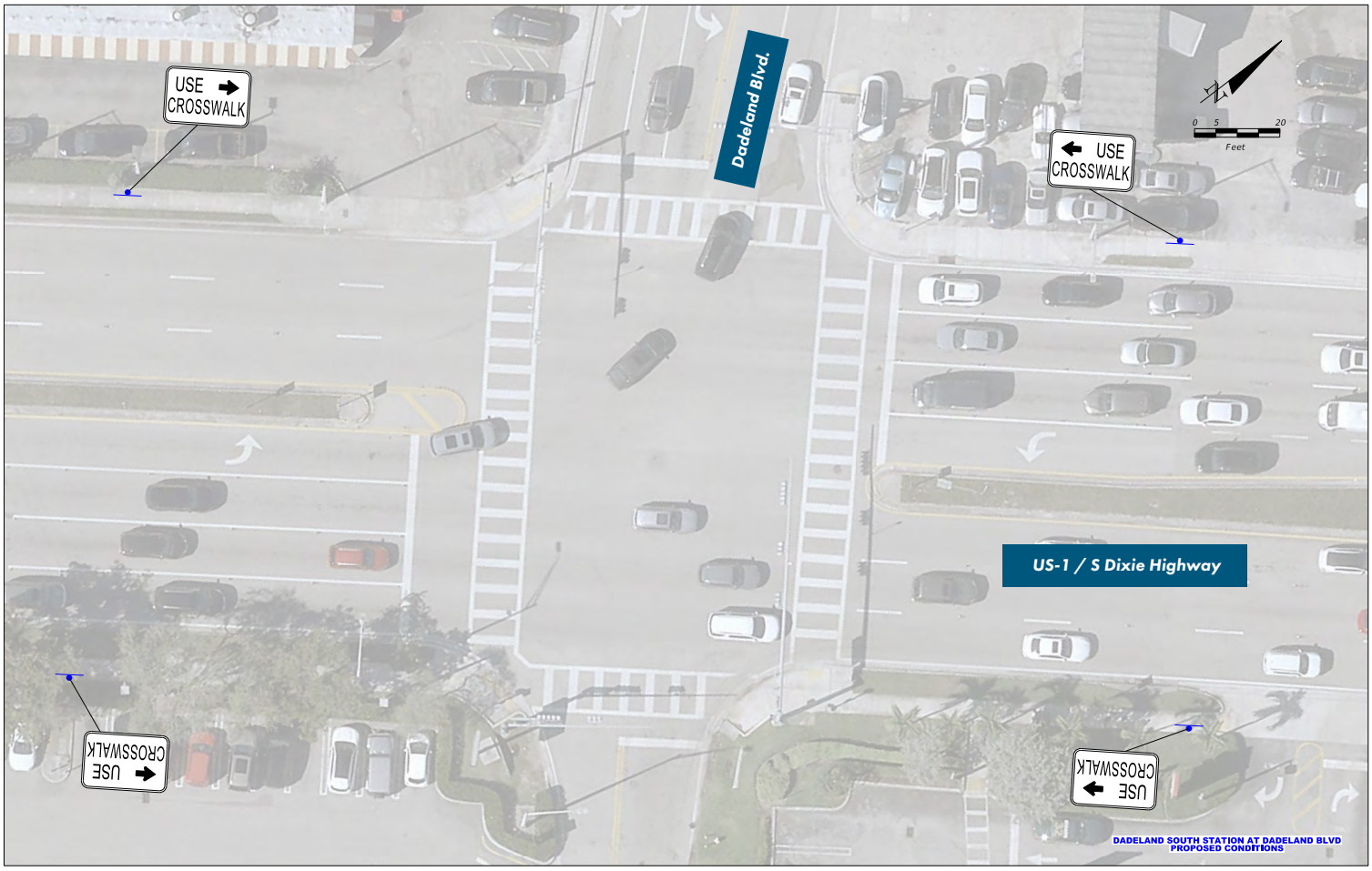


Dadeland South Metrorail Station at Datran Drive
Proposed Conditions

APPENDIX B

Dadeland South Metrorail Station at Dadeland Blvd.
Existing Conditions

APPENDIX B



Dadeland South Metrorail Station at Dadeland Blvd.
Proposed Conditions

APPENDIX C

PUBLIC MEETING INFORMATION

Miami-Dade Transportation Planning Organization

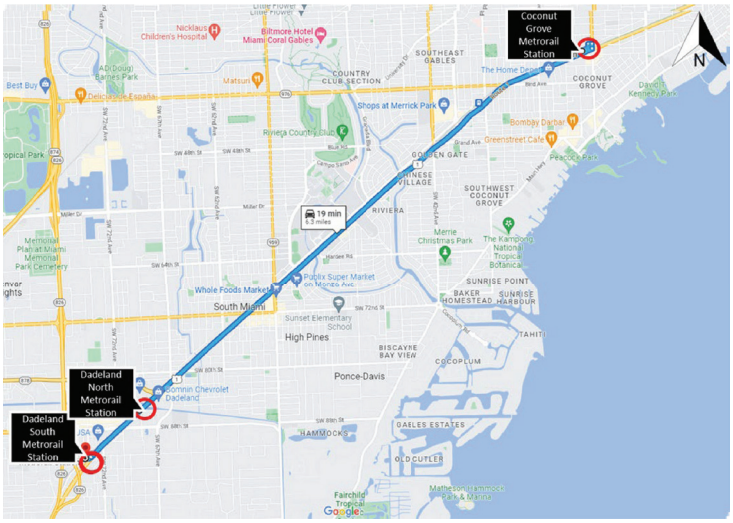
AGENDA

- Project Information
- Literature Review
- Data Collection Info
- Summary of Findings
- Project Needs
- Project Schedule
- Next Steps

2

PROJECT INFORMATION

- **Feasibility Study Scope**
  - Coconut Grove Station
  - Dadeland North Station
  - Dadeland South Station
- **US 1 Characteristics**
  - High vehicular volume
  - 6-lane corridor
  - Considerable congestion
- **Bike/Ped Bridges**
  - Safer mobility
  - Promote transit use and accessibility to Metrorail system and to the Underline

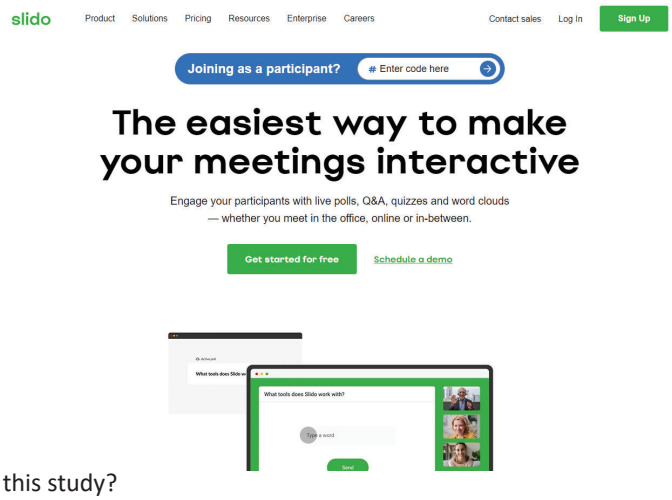


3

APPENDIX C

PROJECT WORKING GROUP FEEDBACK

- Join at slido.com
- Poll Code # 393611



Question No. 1:

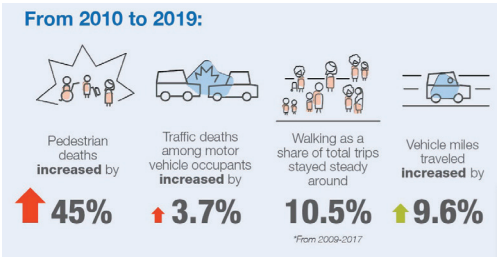
Do you use any of the 3 Metrorail Stations under this study?

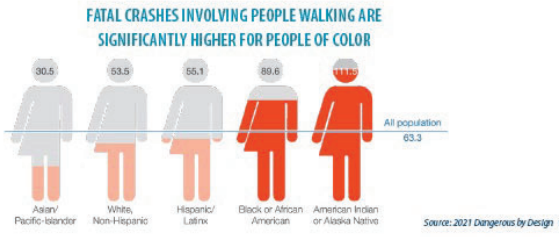
4

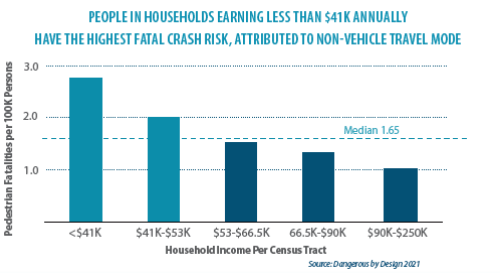
LITERATURE REVIEW

Findings:

1. **High pedestrian and traffic fatalities cases and severe injuries in recent years**
2. **Prioritizing vulnerable communities:**
   - ❖ Minorities
   - ❖ Low-income communities
   - ❖ Older adults
     - 2018 survey from National Aging and Disability Transportation Center
   - ❖ Teen Drivers





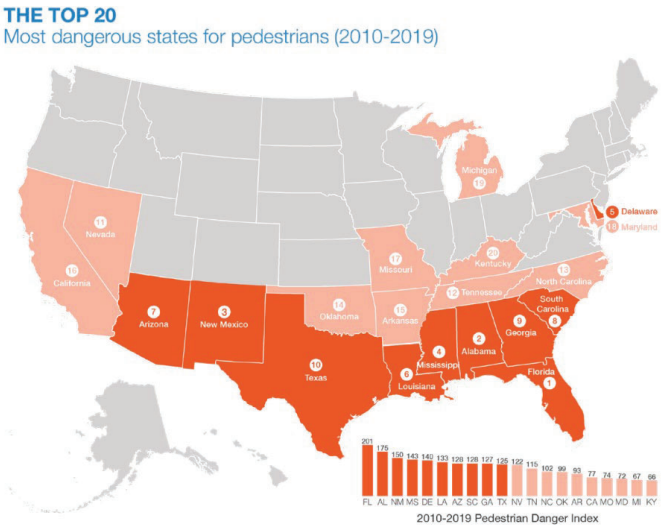


5

LITERATURE REVIEW

Needs:

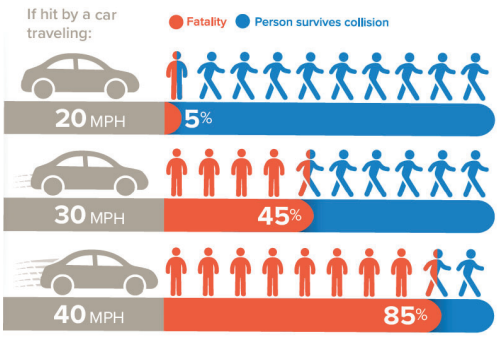
- **Improving bicycle/pedestrian routes around major roadways**
  - Florida is the most dangerous state for Pedestrians (*Dangerous By Design 2021*)
- **Lack of Pedestrian infrastructure and connectivity to public transportation**



LITERATURE REVIEW

Safety Hazards:

1. **High Speed/Aggressive Drivers**
2. **Dangerous Roadway Designs**
3. **Traffic congestion**
4. **Driver behavior: Distracted & Aggressive**



National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: https://www.ntsb.gov/safety/safety-studies/Documents/SS1701.pdf

PLANS/PROPOSALS:

1. Equity and Complete Streets Proposal
2. Vision Zero
3. The Underline
4. The SMART plan

PROJECT WORKING GROUP FEEDBACK

- Join at **slido.com**
- **Poll Code # 393611**

Question No. 2:

If you use any of the Metrorail stations, do you cross US-1 to access the stations?

What issues have you had crossing US-1 and at which locations? What are your main concerns regarding ped/bike safety along this corridor?

8

THREE STATIONS – TRAFFIC & SAFETY REVIEW

Station	Intersection No.	Intersection	AADT (Vehicles per day) Intersection Leg			
			West	East	North	South
Coconut Grove Metrorail Station	1	SW 27th Avenue and US-1	80500	83500	25500	16800
Dadeland North Metrorail	2	US-1 and SW 68th Court	N/A	N/A	40500	N/A
	3	US-1 and SW 84th Street	N/A	N/A	78000	40500
	4	US-1 and SW 88th Street	36500	7100	40500	42500
Dadeland South Metrorail	5	US-1 and Dadeland Blvd./ SW 72nd Court	10200	N/A	42500	N/A
	6	US-1 and Datran Drive	5600	N/A	42500	N/A

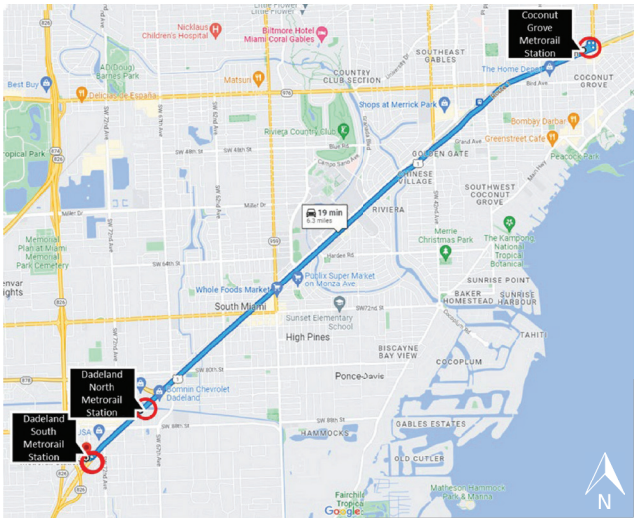
AADT Volume table from FDOT LOS handbook

(C4-Urban General)

	B	C	D	E
2 Lane	*	*	17,600	24,000
4 Lane	*	24,400	36,100	40,800
6 Lane	*	44,700	56,800	60,400
8 Lane	*	52,300	66,900	70,900

(C5-Urban Center)

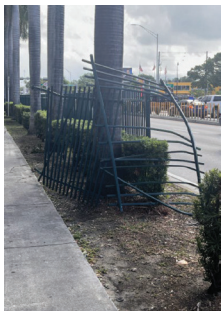
	B	C	D	E
2 Lane	*	*	13,900	21,800
4 Lane	*	26,100	38,300	43,000
6 Lane	*	28,400	53,900	62,800
8 Lane	*	58,800	71,900	73,600



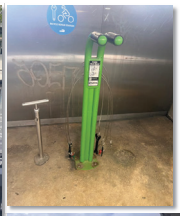
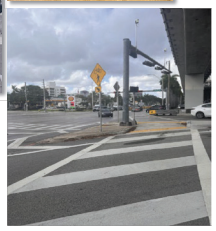
Coconut Grove (Intersection 1) Dadeland North (Intersection 3) Dadeland South (intersection 5)

9

COCONUT GROVE STATION – FINDINGS






Speed limit: 45 mph
Driver's behavior: fast/ aggressive
Traffic generators: Cafes, parks, hotels, school, church, home depot & restaurants.

Amenities:

1. **Security Features/Hazards:** Traffic congestion, adjacent construction and staging areas (Grove Central); no push button or security booth available, broken fencing along US-1
2. **Lighting:** Lack of lighting in walkway in front of Metrorail station.
3. **Bike/ped facilities:** Bicycle repair station and elevator access inside station (ADA) available, minimal parking near station, no dedicated bike lanes or trail, a total of 9 bike racks; no bicycle lockers or bike lids available. No scooters' station available.
4. **Bus pick up area:** A lot of cracks in the sidewalks

Figure A: Bike Racks and Bike repair station located on West of Station*

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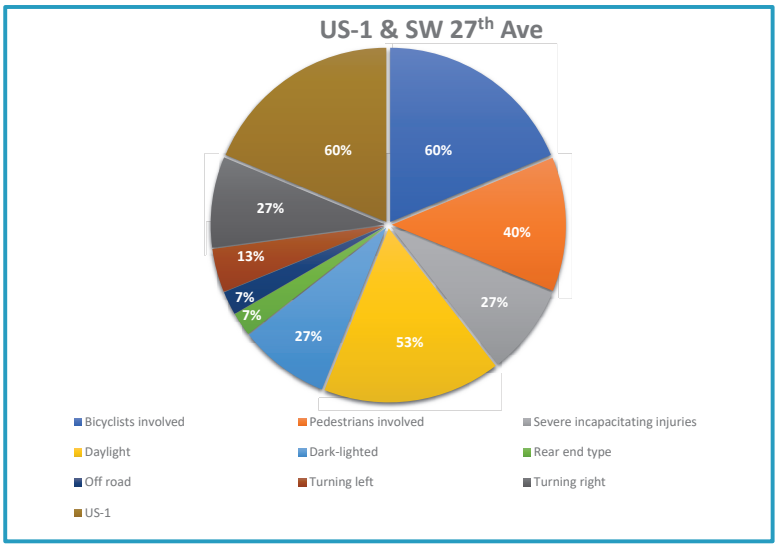
COCONUT GROVE STATION – FINDINGS

COCONUT GROVE STATION – CRASH DATA



https://signal4analytics.com/

US-1 & SW 27TH AVE. OBSERVATIONS:

- 15 crashes during the five-year period
- Average of 3 crashes yearly
- Total crashes per year:
  - **2018**: 1
  - **2019:** 6
  - **2020:** 4
  - **2021**: 2
  - **2022:** 2

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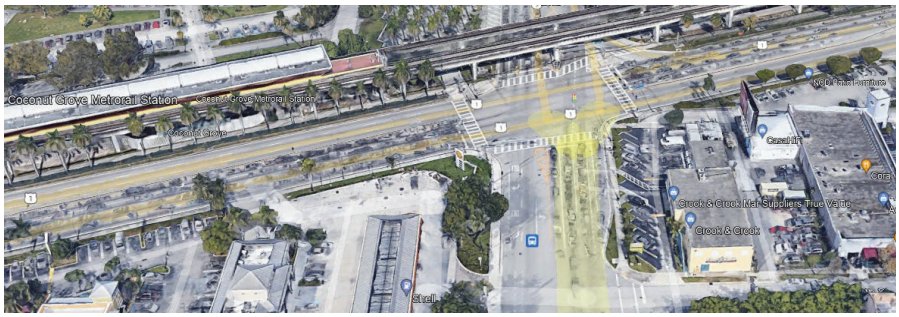
PROJECT WORKING GROUP FEEDBACK

- Join at **slido.com**
- **Poll Code # 393611**



Question No. 3:

Providing a Pedestrian Bridge at the Coconut Grove Metrorail Station location may require ROW acquisition that will be further evaluated during the study. . Identify recommendations that you suggest can be implemented to improve safety in the corridor. (Mid-Block Crossings, Special Crosswalks, etc.)

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DADELAND NORTH STATION – FINDINGS

Speed limit: 45 mph
Driver's behavior: slow/patient
Traffic generators: mall & shopping center, hotels, a school &restaurants.

Figure B: Bike rack 1 located on the East Side of Station. Bike rack 2 located on the West side*

Amenities:

1. **Lighting:** Streetlights and Station lights present. Some lights around station are not working.
2. **Security features/hazards:** The need for dedicated bike lanes and crosswalks , the need to cross over US-1, no push button.
   Bike/ped facilities: No motorcycle/scooters parking, no bicycle lockers or bike lids available. micro mobility, pedestrian ramps, bike trail/ path, bicycle dismount and bike racks available.
3. **Bus pick up area:** Drop-off pick up zone available.
4. **Future improvements** on additional elevators.

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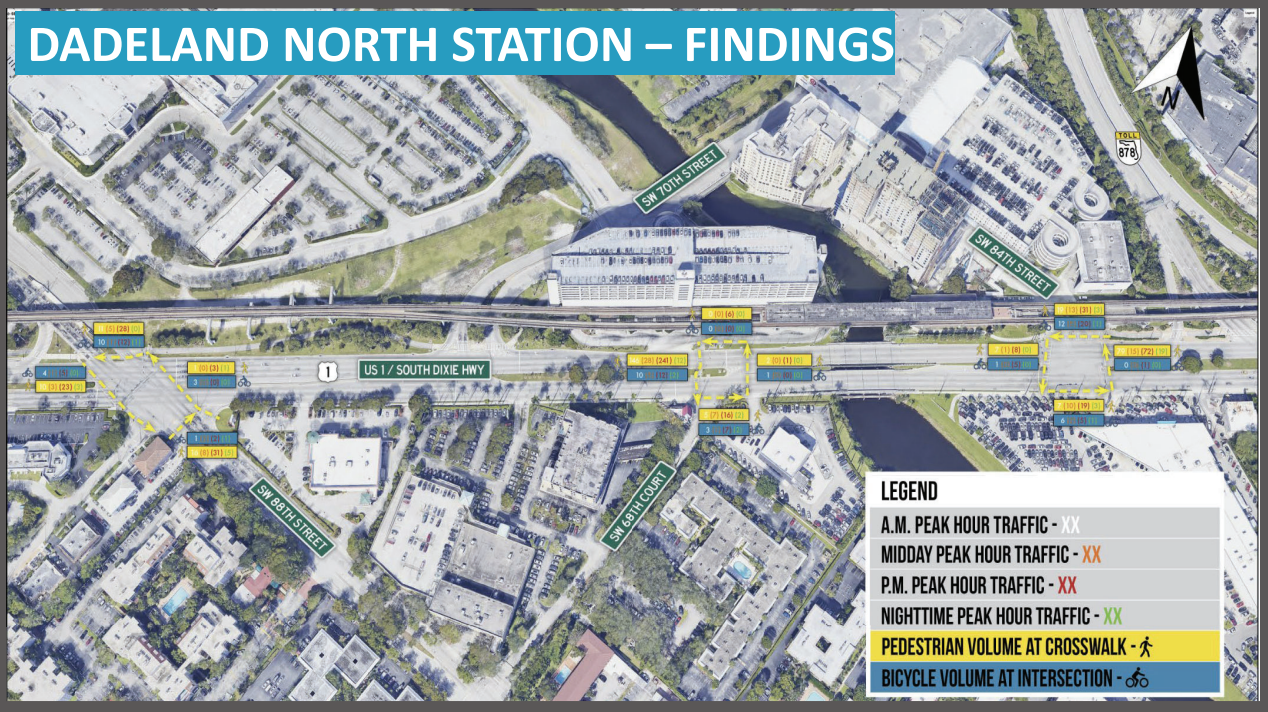
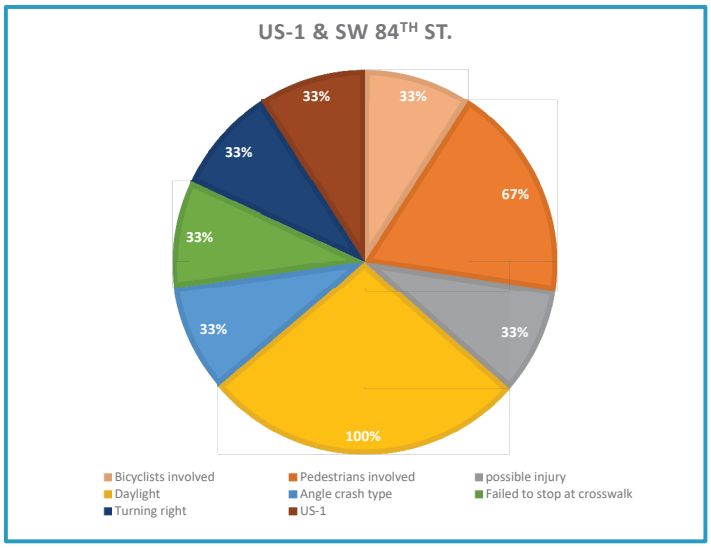
DADELAND NORTH STATION – FINDINGS



DADELAND NORTH STATION – CRASH DATA



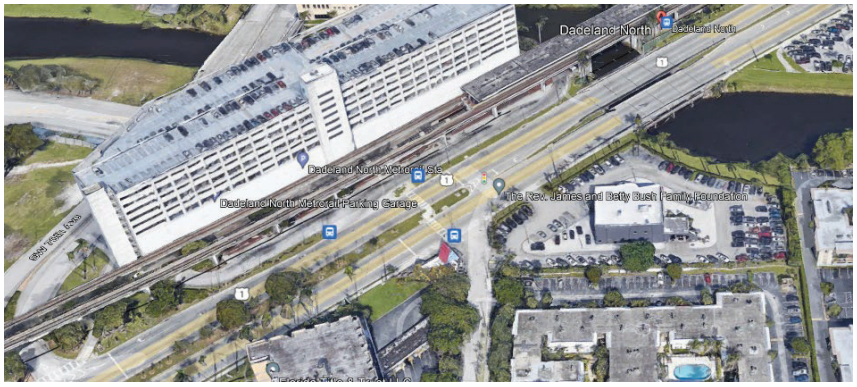
US-1 & SW 84th St OBSERVATIONS:

- 3 crashes in total during the five-year period.
- Total crashes per year:
  2019: 3

https://signal4analytics.com/

PROJECT WORKING GROUP FEEDBACK

- Join at **slido.com**
- **Poll Code # 393611**



Question No. 4:

Providing a Pedestrian Bridge at the Dadeland North Metrorail Station location may require ROW acquisition that will be further evaluated during the study. The Dadeland North Metrorail Station location currently has midblock crossings. Identify recommendations that you suggest can be implemented to improve safety in the corridor.

DADELAND SOUTH STATION – FINDINGS

Speed limit: N/A
Driver's behavior: Fast/ aggressive
Traffic generators: a hospital, schools, a bank, salons, hotel, supermarket & gym.

Figure C: Bike racks and bike lids located on West side of Station*

Amenities:

1. **Lighting:** Streetlights and Station lights present. Some lights around station are not working.
2. **Security features/hazards:** Parking entrance needs pedestrian signs for cars to yield. No speed limit signs visible. Push button present and crosswalks need maintenance
3. **Bike/ped facilities:** No bicycle lockers or bike racks available. micro mobility, pedestrian ramps, bike trail, bicycle dismount and 6 bike lids available.
4. **Bus pick up area:** Drop-off pick up zone available.

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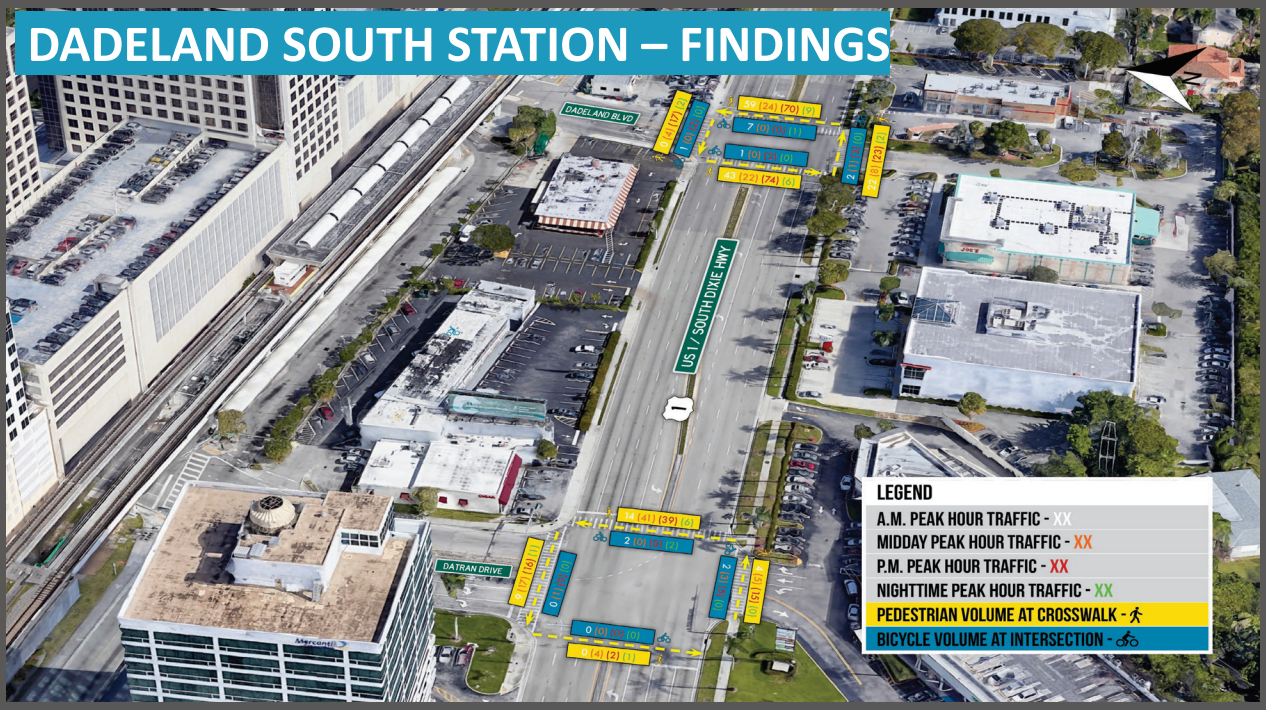
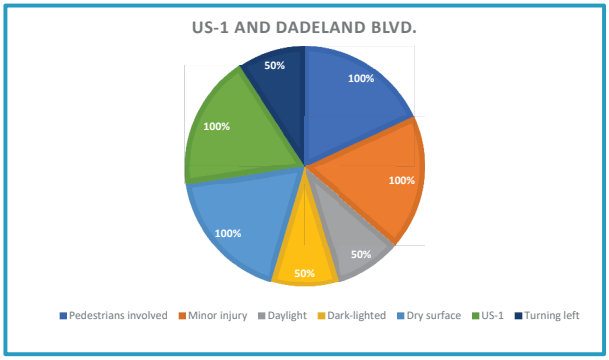
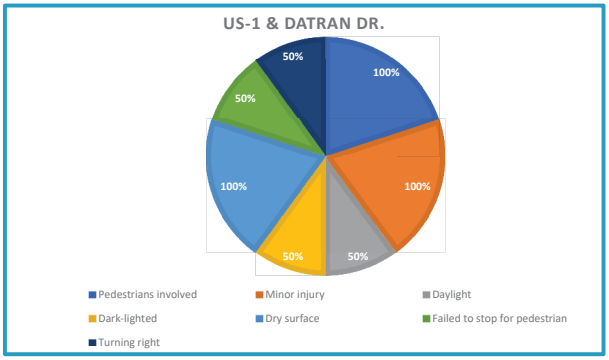
DADELAND SOUTH STATION – FINDINGS



DADELAND SOUTH STATION – CRASH DATA





US-1 & DADELAND BLVD:

- 2 crashes during the five-year period
- Total crashes per year:
  2018: 1
  2019: 1

US-1 & DATRAN DR:

- 2 crashes during the five-year period
- Total crashes per year:
  2018: 2

https://signal4analytics.com/

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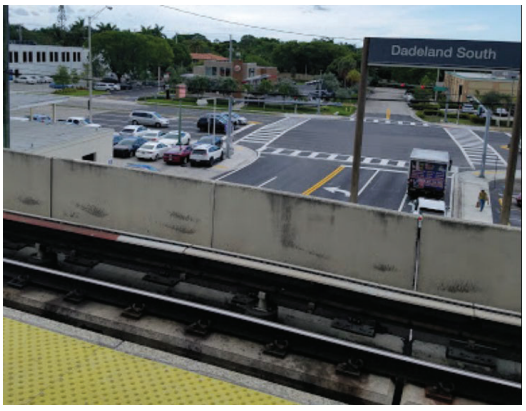
PROJECT WORKING GROUP FEEDBACK

- Join at **slido.com**
- **Poll Code # 393611**



Question No. 5:

Providing a Pedestrian Bridge at the Dadeland South Metrorail Station location may require ROW acquisition that will be further evaluated during the study. Identify recommendations that you suggest can be implemented to improve safety in the corridor.

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PROJECT NEEDS

- **Implement pedestrian and bicyclist access across U.S. 1 at the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations**
- **Purpose**: to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.

Figure : University Metrorail Station Pedestrian Bridge over US-1

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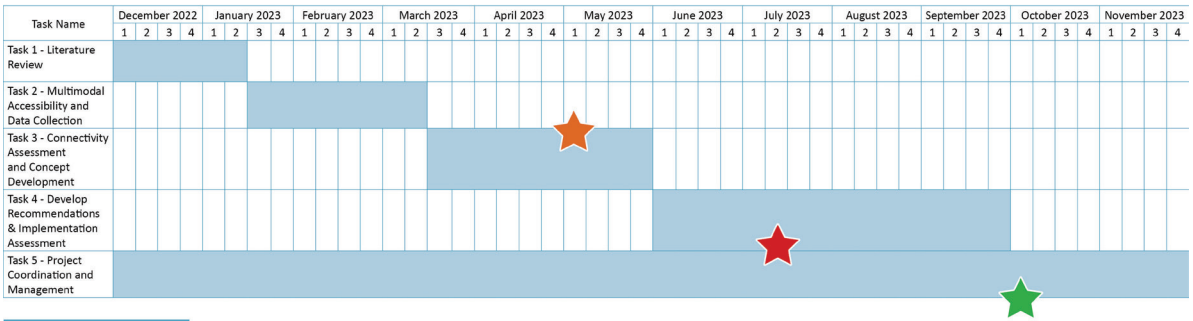
PROJECT SCHEDULE



LEGEND

- PWG No. 1
- PWG No.2
- PWG No.3

Estimated Total Duration

23

NEXT STEPS

1. Connectivity Accessibility & Concept Development
2. Develop Recommendations and Implementation Assessment
3. Project Working Group Meeting No. 2
4. Implement Revisions and finalize recommendations
5. Project Working Group Meeting No. 3
6. Approval/Endorsement of Recommendations

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QUESTIONS

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APPENDIX C

Meeting Minutes

GPC VIII – Work Order No. 34

US-1 Bicycle and Pedestrian Bridge Feasibility Study

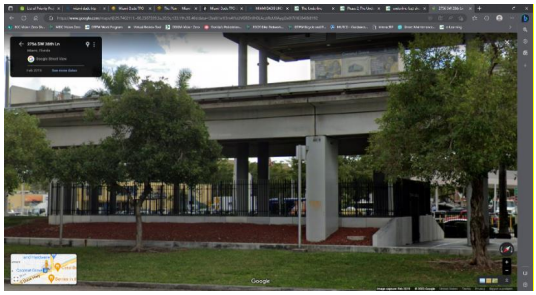
Location: Teams Meeting
Date and Time: May 4, 2023; 1:30 pm – 3:00pm

Attendees:

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Megan Echols	Florida Department of Transportation (FDOT)	present	Megan.Echols@dot.state.fl.us

1. Kevin Walford (TPO), the project manager, introduced this study's presentation with Stephanie Romero as his consultant Project Manager from BCC. Jesus Fuentes (TPO) will also be assisting the TPO in this project.
2. The project Team discussed the following items about the Pedestrian Bridge Feasibility Study:
   a. **Project information**
   b. **Literature Review**
   c. **Data Collection Information**
   d. **Summary of Findings**
   e. **Project Needs**
   f. **Project Schedule**
   g. **Next Steps**
3. The study will concentrate on providing Pedestrian Bridges at the Coconut Grove, Dadeland South, and Dadeland North Metrorail Stations. These are high vehicular volume areas, especially during peak hours. They are composed of a 6-lane corridor and are considered congested.

4. As per the FDOT Guidelines, a Participation Survey is recommended to estimate the number of meeting participants. The Project Team will send out a survey regarding the Feasibility Study to assess the number of attendees and evaluate the public's preferences.
5. Poll questions were performed throughout different parts of the presentation. Some questions included their involvement with the pedestrian and cyclists' facilities and their opinion about adding a new Pedestrian Bridge. See attached Q&A interaction between Stephanie and the attendees.
6. After Project Manager Stephanie Romero introduced Literature Review graphics stating that Florida is the most dangerous state for Pedestrians (illustrations taken from Dangerous by Design pdf), Sandanasamy Vinod, Miami-Dade County ER, asked, "Stephanie, when you say Florida is #1, are you saying based on per capita basis or the number of accidents?" Stephanie clarified the number of accidents but will get back to him if more information is available.
7. Stephanie Romero mentioned some of the findings for Coconut Grove Station, including traffic generators, such as the new construction of Grove Central, security features, and bike-ped facilities. Then, Kevin Walford (TPO) pointed out that Coconut Grove station and the underline are part of underlying phase three and are expected to be completed in 2026. Then Ivan Jimenez TPO added: "There is currently a bicycle enclosure area in the station that will be removed by the underlying project so that those features will be reassessed and re-evaluated.



8. During Project working group feedback, Jesus Fuentes made the following recommendations to Stephanie:
    a. Make sure the proposal was not proposed before.
    b. Have information on that project because if there are more improvements in the same area (ongoing projects), connecting the underline and bridge might be hard.
    c. Coordinate more and put projects together for funding.
    d. Combine ideas with ongoing projects. Short-term and long-term proposals
9. After the Signal Four Data presentation, Collin Worth (Miami Dade County) mentioned, "A lot more crashes than identified. (Dadeland South: Around 100 crashes)". "This is a 5-year look in Signal 4 at this corridor," Stephanie said she will review Signal 4 Data since we are considering crashes in specific intersections such as **Us-1 & SW 27th Ave, US-1 & SW 84th St., US-1 and Dadeland Blvd. and US-1 & Datran Dr.**

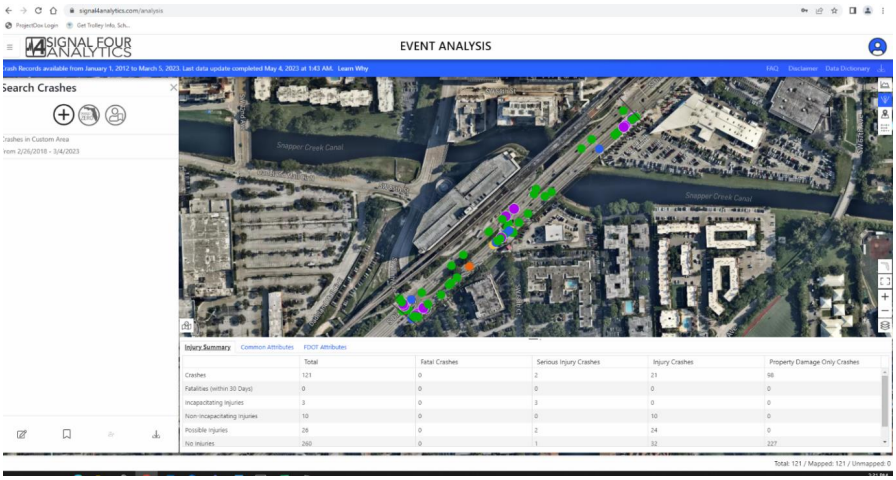


Figure 2: Picture provided by Collin Worth when sharing screen

10. Ivan Jimenez (DTPW) mentioned that US-1 and Dadeland Boulevard is more congested than US-1 and Datran Dr. because of restaurants, mall, and entertainment after A.M and P.M traffic was shown for both Metrorail Stations.
11. Jesus Fuentes asked Ivan the following:
    a. Are you going to update the vision zero documents? The last data is from 2021.
    b. Please send the most updated data for vision zero from 2022
    c. Stephanie to provide help with collection.
12. Jesus said they could also provide extra information to Stephanie to help complete this study.

Action Items:

ITEM	DESCRIPTION	ASSIGNED TO	DUE	STATUS
1	Elaborate more on how Florida is the most Dangerous state for pedestrians	Stephanie	N/A	Open
2	Confirm that proposal was not proposed before and find out about ongoing projects and further coordination.	Stephanie	N/A	Open
3	Confirm that Signal Four data is correct and the amount of crashes are accurate	Stephanie	N/A	Open
4	Update Vision Zero document. Last data is from 2021	Ivan	N/A	Open
5	Provide extra information to complete study	Jesus	N/A	Open

If anyone has a conflict with the accuracy of the information contained in these minutes, please contact the author within 5 business days of the submittal date.

APPENDICES:

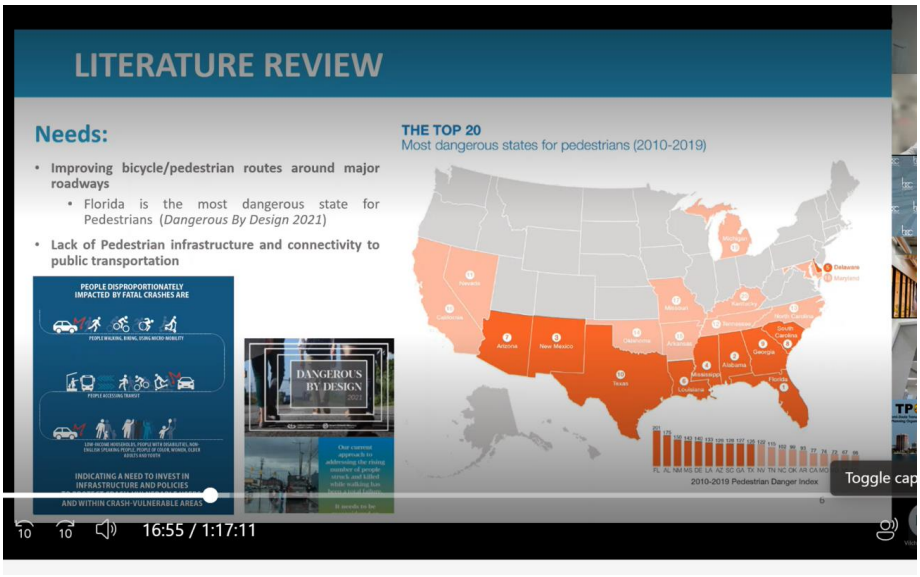


Table of contents

Open text poll

Do you use any of the 3 Metrorail Stations under this study? 0 0 7

- No
- Coconut Grove
- Yes.... dadeland north
- Yes
- Yes
- No
- No

Open text poll

If you use any of the Metrorail stations, do you cross US-1 to access the stations? What issues have you had crossing US-1 and at which locations? What are your main concerns regarding ped/bike safety along this corridor? (1/2)

0 0 8

- I use the Dadeland North and University stations. I do not cross US-1. I see people using the midblock crossing at Adadeland North and bridge at University with regular frequency.
- No. Some issues include traffic and aggressive drivers along US-1, especially Dadeland South and Coconut Grove. I think there are not a lot of facilities for pedestrians and cyclists, and congestion and noise wouldn't let ped/ cyclists feel safe and comfortable.
- Theissue crossing US 1i s the length that folks have to travle and all of the turning traffic issues associated
- The signals take a long time to activate for pedestrians and you can spend

Open text poll

If you use any of the Metrorail stations, do you cross US-1 to access the stations? What issues have you had crossing US-1 and at which locations? What are your main concerns regarding ped/bike safety along this corridor? (2/2)

0 0 8

a long time waiting in the elements. US-1 feels hostile to cross.

- N/A
- Yes, mainly for Coconut Grove Station. Long wait times lead to guessing if and when it will be safe to cross and encourages people to walk without crossing signs. Fast right turns from drivers who are not minding pedestrians
- Yes. Issues are drivers making left turns from US-1 not looking out for pedestrians
- I don't cross US-1
- yes dadeland north

Open text poll

Providing a Pedestrian Bridge at the Coconut Grove Metrorail Station location may require ROW acquisition that will be further evaluated during the study. . Identify recommendations that you suggest can be implemented to improve safety in the corridor.
(1/2)

0 0 7

- 1. Improving crosswalks and sidewalks 2. Improving signalized intersections 3. A pedestrian bridge would allow pedestrians and cyclists to feel safer.
- larger islands in road; traveling north, this road leads into the highway, south of the intersection the road is more constricted with tree canopy, at the intersection it opens up, which naturally encourages speeding up
- Ped Bridge will be very useful Education/signs is important
- Adjust timing for crossing / add lighting / enhance cross-walk painting
- Improvements need to be coordinated with FDOT and DTPW

Providing a Pedestrian Bridge at the Coconut Grove Metrorail Station location may require ROW acquisition that will be further evaluated during the study. . Identify recommendations that you suggest can be implemented to improve safety in the corridor.
(2/2)

0 0 7

including the TOD developer and The Underline. May consider going into the TOD building but may be limited due to height and length of trip.

- Pedestrian bridge would be great, I don't believe it needs to occur at the intersection as long as it is safe and convenient.
- no recommendations other than a bridge

..... bold solutions are needed

Open text poll

Providing a Pedestrian Bridge at the Dadeland North Metrorail Station location may require ROW acquisition that will be further evaluated during the study. Identify recommendations that you suggest can be implemented to improve safety in the corridor.

0 0 5

- May be a longshot but raise road over waterway and provide pedestrian access underneath. Alternately improve midblock crossing. Crash data seems really low for the location.
- Ped Bridge would be a useful and safe infrastructure Have more Green time for Ped crossing
- Adjust timing / enhanced cross-walk painting / current information provided does not seem to support the need for a bike/ped bridge
- The Village of Pinecrest is considering purchase of the Dairy queen property on the east side of us 1 across from the station. Perhaps a JPA with the County would be feasible
- better lighting.

APPENDIX C

Open text poll

Providing a Pedestrian Bridge at the Dadeland South Metrorail Station location may require ROW acquisition that will be further evaluated during the study. Identify recommendations that you suggest can be implemented to improve safety in the corridor.
(1/2)

0 0 4

- this part of US-1 feels very wide and open, ped bridge seems like the only option outside of making the road narrower
- i would suggest contacting the different mall owners regarding having a bridge abutment in their parking lot .... i think many would be willing to participate to have patrons droped on their proerties in exchange for a reduction ofparking space requirmente, et al.
- For a six lane road, Ped bridge should be kind of essential for safety
- Adjust timing / enhanced crosswalk painting /

Open text poll

Providing a Pedestrian Bridge at the Dadeland South Metrorail Station location may require ROW acquisition that will be further evaluated during the study. Identify recommendations that you suggest can be implemented to improve safety in the corridor.
(2/2)

0 0 4

information provided does not support bike/ped bridge need - more bike amenities at the Station could support more bike use.

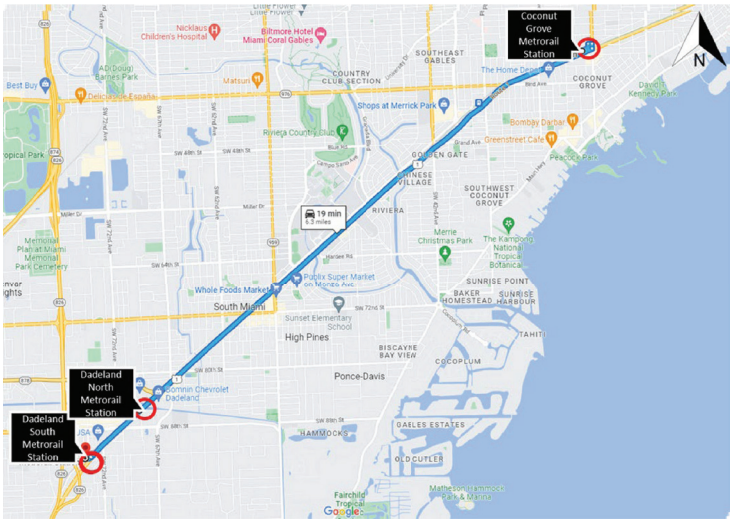
AGENDA

- Project Information
- Project Need
- Connectivity Assessment
- Concept Development
- Project Schedule
- Next Steps

2

PROJECT INFORMATION

- **Feasibility Study Scope**
  - Coconut Grove Station
  - Dadeland North Station
  - Dadeland South Station
- **US 1 Characteristics**
  - High vehicular volume
  - 6-lane corridor
  - Considerable congestion
- **Bike/Ped Bridges**
  - Safer mobility
  - Promote transit use and accessibility to Metrorail system and to the Underline



3

PROJECT NEED

- **Implement pedestrian and bicyclist access across U.S. 1 at the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations**
- **Purpose**: to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.

Figure : University Metrorail Station Pedestrian Bridge over US-1

4

CONNECTIVITY ASSESSMENT

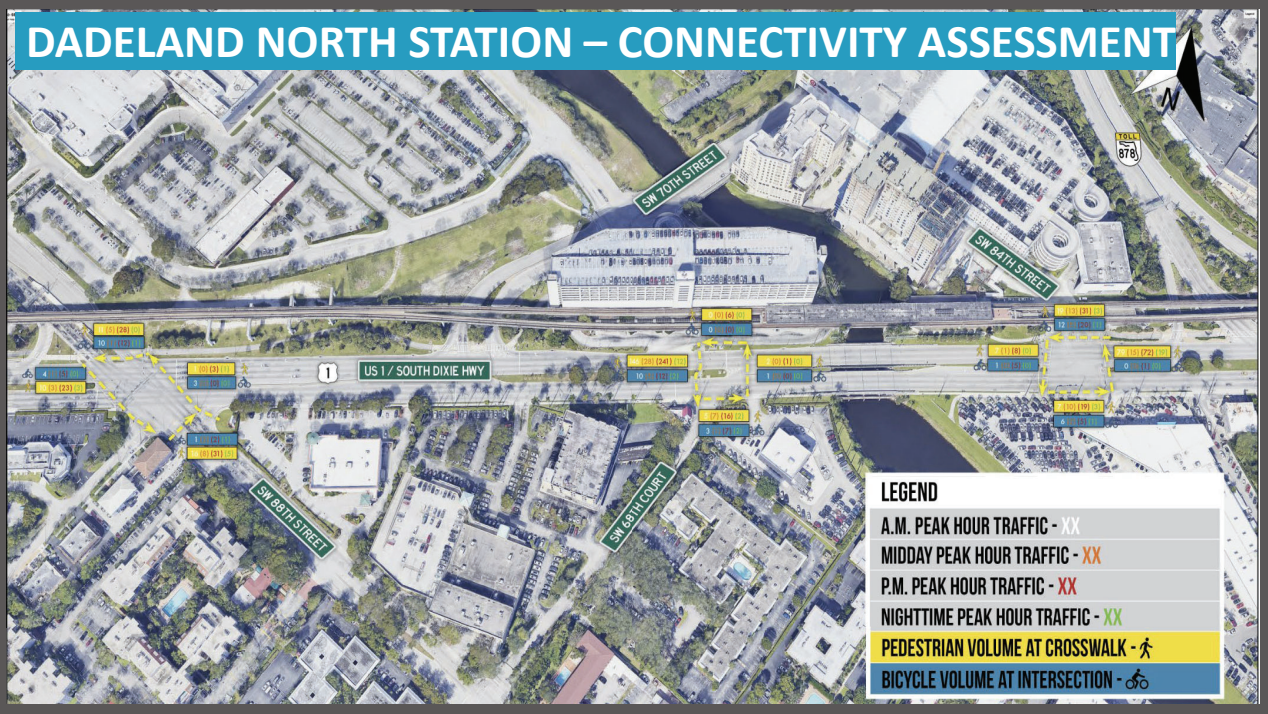
- Assessed Study Area
- Determined the best bicycle and pedestrian connection points
- Established travel volumes and connection points
- Identified existing bicycle and pedestrian access facilities
- Developed preliminary concepts for the bicycle/pedestrian overpasses
- Identified potential impacts to Parcels

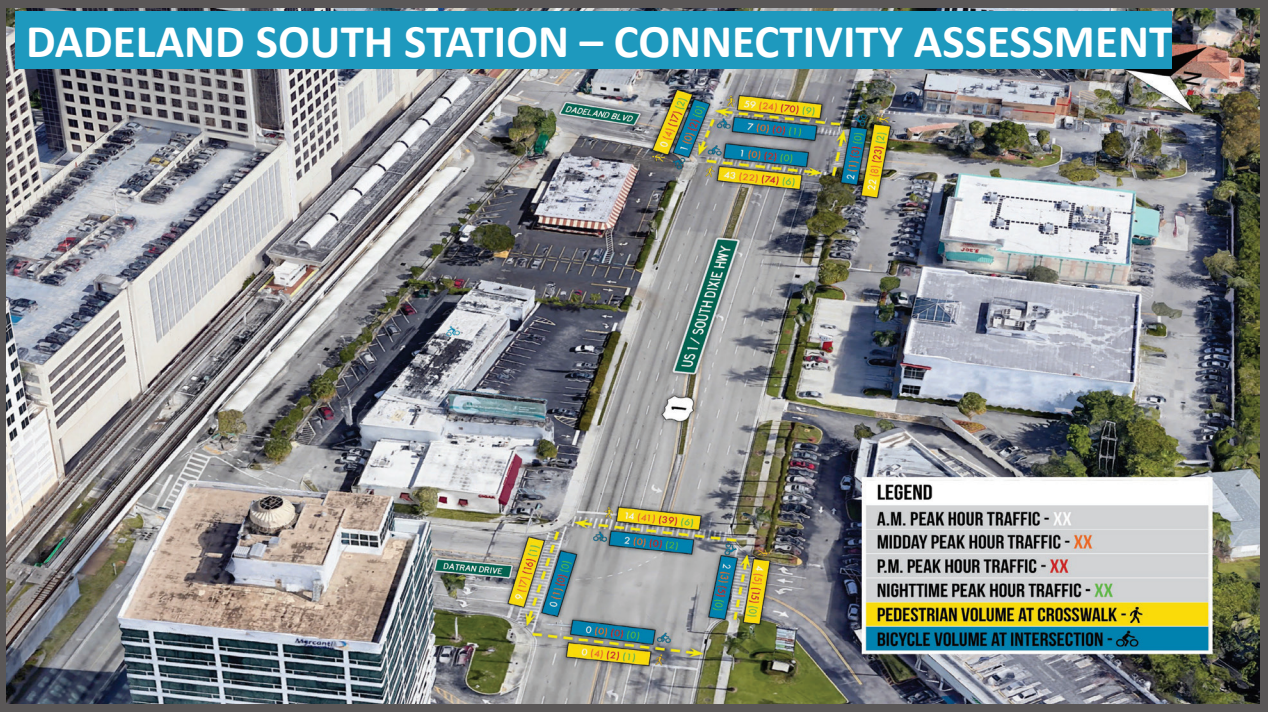
Station	Intersection	Intersection
Coconut Grove Metrorail Station	1	SW 27th Avenue and US-1
Dadeland North Metrorail Station	2	US-1 and SW 68th Court
	3	US-1 and SW 84th Street
	4	US-1 and SW 88th Street
Dadeland South Metrorail Station	5	US-1 and Dadeland Blvd/ SW 72nd Court
	6	US-1 and Datran Drive

5

COCONUT GROVE STATION – CONNECTIVITY ASSESSMENT

APPENDIX C


DADELAND NORTH STATION – CONNECTIVITY ASSESSMENT
SW 70TH STREET
SW 84TH STREET
US 1 / SOUTH DIXIE HWY
SW 88TH STREET
SW 59TH COURT
LEGEND
A.M. PEAK HOUR TRAFFIC - XX
MIDDAY PEAK HOUR TRAFFIC - XX
P.M. PEAK HOUR TRAFFIC - XX
NIGHTTIME PEAK HOUR TRAFFIC - XX
PEDESTRIAN VOLUME AT CROSSWALK -
BICYCLE VOLUME AT INTERSECTION -


DADELAND SOUTH STATION – CONNECTIVITY ASSESSMENT
DADELAND BLVD
US 1 / SOUTH DIXIE HWY
DATRAN DRIVE
LEGEND
A.M. PEAK HOUR TRAFFIC - XX
MIDDAY PEAK HOUR TRAFFIC - XX
P.M. PEAK HOUR TRAFFIC - XX
NIGHTTIME PEAK HOUR TRAFFIC - XX
PEDESTRIAN VOLUME AT CROSSWALK -
BICYCLE VOLUME AT INTERSECTION -

CONCEPT DEVELOPMENT – BRIDGE CRITERIA

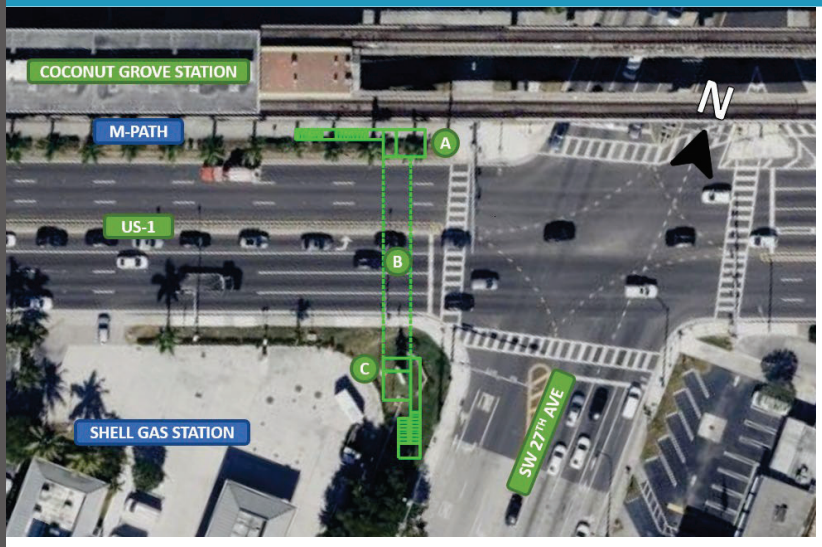
Existing Bridge Footprint Criteria:

- Two (2) Towers = 275 SF
- Staircase = 5’ Wide
- Bike/Ped Bridge = 13’-4” Wide

Figure : University Metrorail Station Pedestrian Bridge over US-1

9

COCONUT GROVE STATION – PROPOSED BRIDGE



Proposed Bridge:

- (A) North Tower
- (B) 102’ Bridge Span
- (C) South Tower
- Distance from staircase and building = 21.5’
- Clearance from North Tower to Metrorail Superstructure = 4’

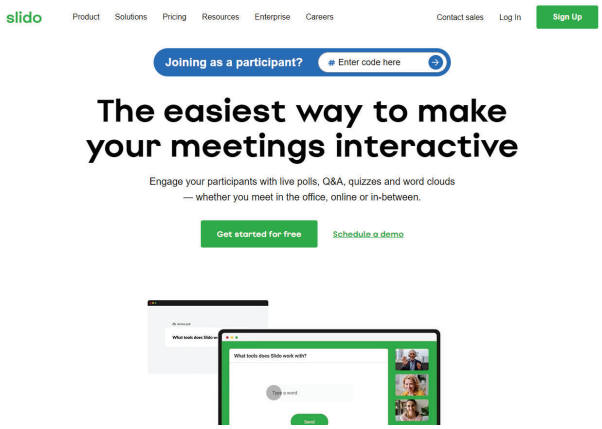
Impacts:

- M-Path
- Removal of Landscaping
- Purchasing 1,800 sf of ROW from Shell Gas Station (Approximately $200k)
- Stopping Sight Distances
- Driver’s line of Sight to signalization for NB on US-1
- Underground utilities by the Shell Gas Station

10

PROJECT WORKING GROUP FEEDBACK

- Join at slido.com
- Poll Code #9588217

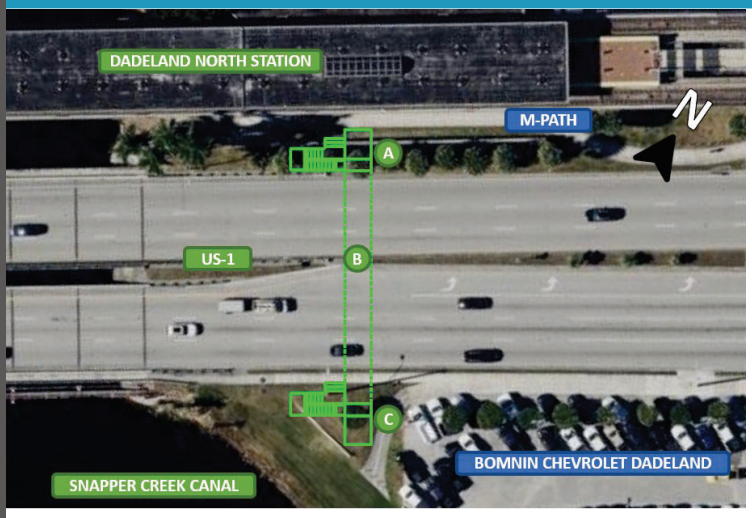


Question No. 1:

The proposed Bridge at the Coconut Grove Station will have impacts to the Underline that is currently being constructed and may not be feasible. Any suggestions on how to improve? Any preferences?

11

DADELAND NORTH STATION – PROPOSED BRIDGE



Proposed Bridge:

- (A) West Tower
- (B) 129' Bridge Span
- (C) East Tower
- Distance from face of curb to Metrorail superstructure = 33'
- No Impacts to M-Path

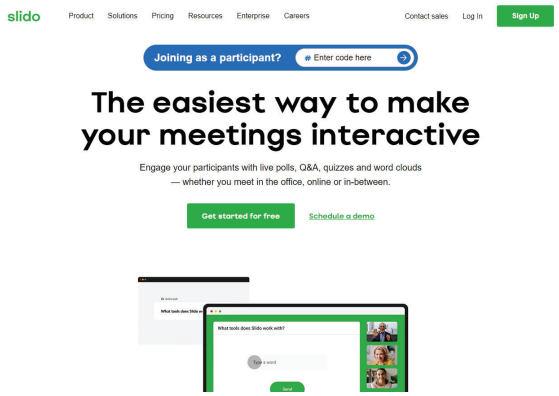
Impacts:

- Removal of landscaping and glass fencing at West Tower (A)
- Clearance from face of curb to West Tower (A) = 4 ft.
- Clearance from West Tower (A) to Metrorail Superstructure = 8'
- East Tower (C) requires 2200 sf of ROW from Bomnin Chevrolet Dadeland (Approximately $240K)
- Coordination with SFWMD – Snapper Creek Canal
- Construction of Bulkhead for Canal
- Impacts to Sight distance
- Impacts to underground utilities and drainage Systems

12

PROJECT WORKING GROUP FEEDBACK

- Join at slido.com
- Poll Code #9588217

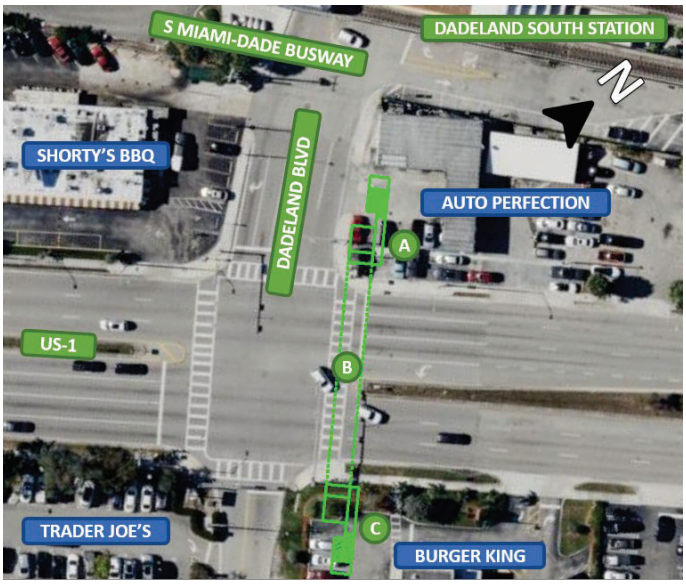


Question No. 2:

The proposed Bridge at the Dadeland North Metrorail Station will have impacts and may not be feasible. What are your main concerns regarding the proposed bike/ped bridge at this Station? Any Improvements/ suggestions? Additional impacts not currently considered?

13

DADELAND SOUTH STATION – PROPOSED BRIDGE (A)



Proposed Bridge:

- (A) West Tower
- (B) 138' Bridge Span
- (C) East Tower
- West Tower (A) to walk 173' Crossing, to S Miami-Dade Busway to Station

Impacts:

- West Tower (A) placement requires purchase of 1400 sf of ROW to Auto Perfection (Approximately $330k)
- East Tower (C) requires purchasing of 2400 sf of ROW from Burger King (Approximately $590k)
- Stopping Sight Distances
- Driver's line of Sight to signalization
- Connectivity to Dadeland South Station are congested
- Coordination with landowners and adjacent businesses to obtain ROW

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DADELAND SOUTH STATION – PROPOSED BRIDGE (B)

Proposed Bridge:

- (A) West Tower
- (B) 133' Bridge Span
- (C) East Tower
- West Tower (A) to walk 173' Crossing Datran Road and S Miami-Dade Busway

Impacts:

- West Tower (A) placement requires purchase of 2300 sf of ROW by 9350 Building (Approximately $1.7M)
- East Tower (C) requires purchasing of 2000 sf of ROW from Dadeland Plaza (Approximately $250K)
- Stopping Sight Distances
- Driver's line of Sight to signalization
- Connectivity to Dadeland South Station are congested
- Bicycle and Pedestrians will need to cross more roads with this option

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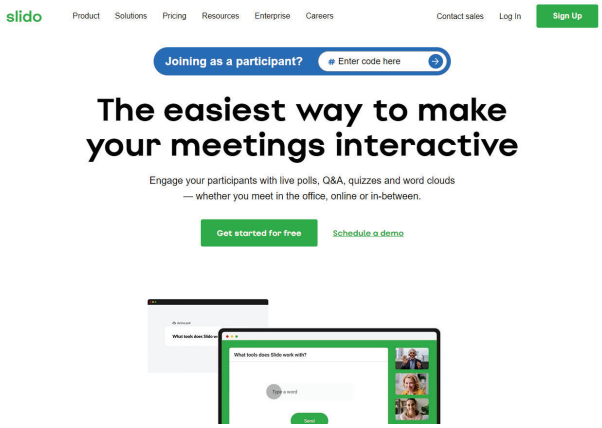
PROJECT WORKING GROUP FEEDBACK

- Join at slido.com
- Poll Code #9588217



Question No. 3:

What are your main concerns regarding proposed bike/ped bridge at Dadeland South Station? Any preference Options? Any Improvements/ suggestions? Additional impacts?

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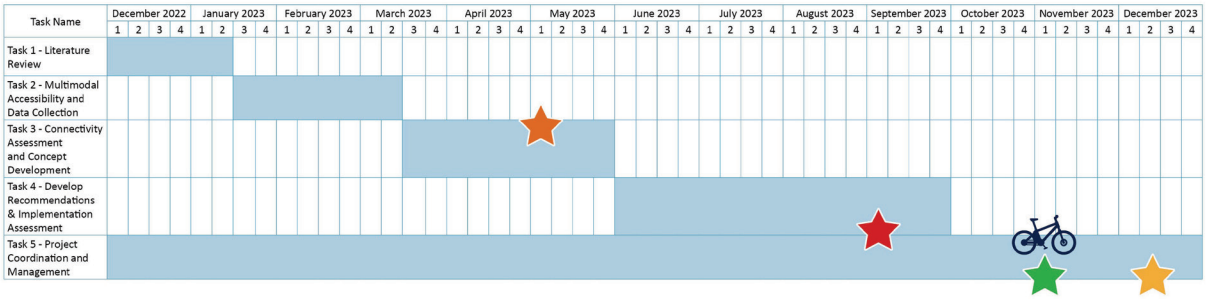
PROJECT SCHEDULE



Milestones

PWG Meeting No. 1 - May 4, 2023
PWG Meeting No. 2 - September 7, 2023
PWG Meeting No. 3 - November 1, 2023
Bicycle Pedestrian Advisory Committee (BPAC) Meeting - November 7, 2023
TWO Completed - December 15, 2023

Estimated Total Duration

17

NEXT STEPS

1. Finalize Connectivity Accessibility & Concept Development including Cost Estimates for ROW Parcels
2. Develop Recommendations and Implementation Assessment
3. Project Working Group Meeting No. 3
4. Finalize Recommendations
5. Approval/Endorsement of Recommendations

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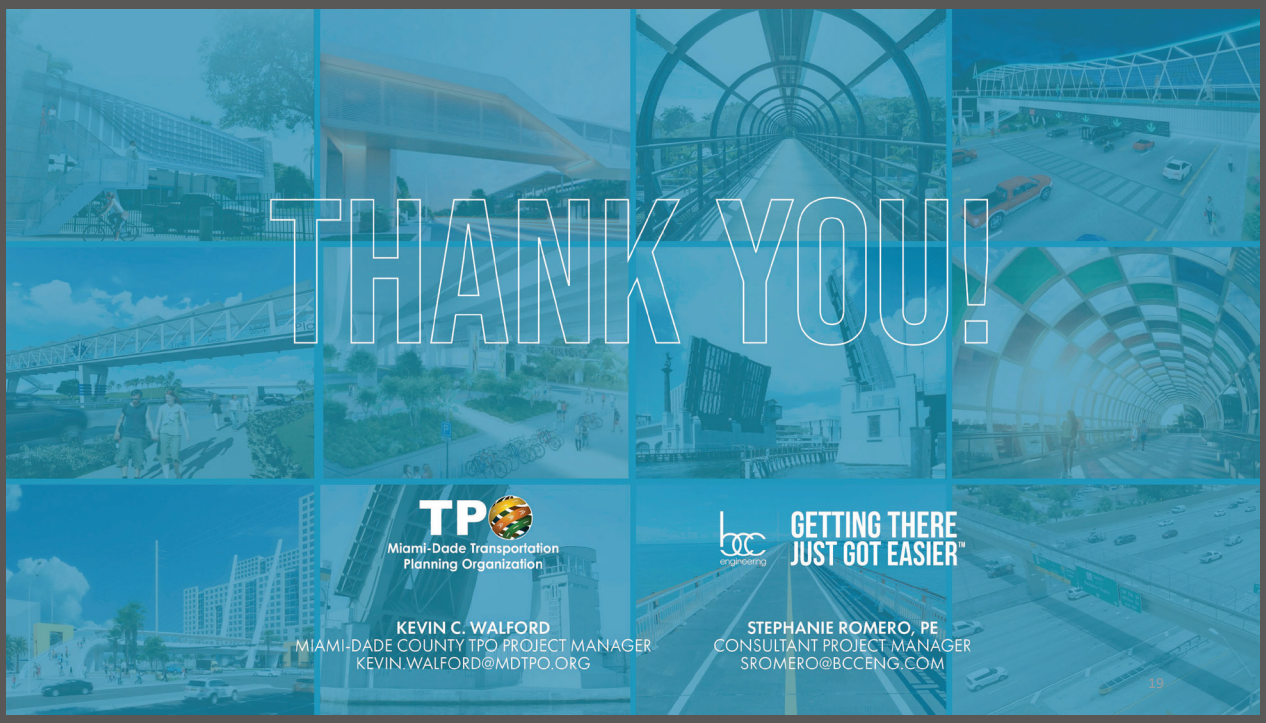

QUESTIONS

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Meeting Minutes

GPC VIII – Work Order No. 34

US-1 Bicycle and Pedestrian Bridge Feasibility Study

Location: Teams Meeting
Date and Time: September 7, 2023; 10:30 am – 11:30am

Attendees:

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Kevin C. Walford	Miami-Dade County TPO Project Manager	305-375-2642	Kevin.Walford@miamidade.gov
Jesus Fuentes	Miami-Dade County TPO Deputy Project Manager	954-495-6341	jesus.fuentes@exp.com
Stephanie Romero, PE	BCC Engineering, LLC Consultant Project Manager	954-736-0177	sromero@bcceng.com
Joan de La Rosa	BCC Engineering, LLC Structural Engineer	305-670-2350	jdelarosa@bcceng.com
Joel Sotolongo, EI	BCC Engineering, LLC Structural Engineer	305-670-2350	jsotolongo@bcceng.com
Irene Hegedus, Architect	Department of Transportation and Public Works (DTPW) –Coordinator for Underline and South Dade Trail	786-469-5395	Irene.Hegedus@miamidade.gov
Raymond Freeman	Florida Department of Transportation (FDOT) D6 – Multimodal Office	305-470-5255	Raymond.Freeman@dot.state.fl.us
Nelson Gomez	City of South Miami – Public Works & Engineering	305-403-2078	ngomez@southmiamifl.gov
Vinod Sandanasamy, AICP	Miami-Dade County RER Planning Department	present	Vinod.Sandanasamy@miamidade.gov
Jeannine Gaslonde	Miami-Dade County TPO Chief of Mobility Management and Implementation		Jeannine.gaslonde@miamidade.gov
Dany (On behalf of David J. Mendez, PE)	Village of Pinecrest Public Works Director	305-669-6916	dmendez@pinecrest-fl.gov
Paola Baez, PE	Miami-Dade County Department of Transportation and Public Works	786-469-5204	Paola.Baez@miamidade.gov

Author: Stephanie Romero, P.E.

6401 SW 87th Avenue, Suite 200, Miami, FL 33173

Purpose: The purpose of this meeting was to inform the Project Working Group (PWG) of the Progress of the feasibility study and request any feedback on the preliminary concepts. The following was discussed:

Kevin Walford (TPO), the project manager, introduced this study's presentation with Stephanie Romero as his consultant Project Manager from BCC. The Presentation Agenda includes the following discussion items: Project information, Project Need, Connectivity Assessment, Concept Development, Project Schedule, and next steps.

1. **Project Information** – This feasibility study is to implement safer pedestrian and bicyclist access over US1 at the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations.
2. **Connectivity Assessment** – The project team assessed the study area and determined the best bicycle and pedestrian connection points. Travel volumes were established at several locations. Preliminary concepts and potential impacts to parcels were evaluated based on this data and analysis. The following intersections were evaluated:

Station	Intersection	Intersection
Coconut Grove Metrorail Station	1	SW 27th Avenue and US-1
Dadeland North Metrorail Station	2	US-1 and SW 68th Court
	3	US-1 and SW 84th Street
	4	US-1 and SW 88th Street
Dadeland South Metrorail Station	5	US-1 and Dadeland Blvd/ SW 72nd Court
	6	US-1 and Datran Drive

3. **Preliminary Concepts** – The Project Team discussed the preliminary concepts at the three specific Metrorail locations as follows:
    a. ***Coconut Grove Station –*** A 102 ft. span bridge was proposed with a north and south tower. The north tower lands near the M-path and the south tower lands near the Shell gas station. The proposed bridge is not feasible at this location. The Project Team identified an alternate location further south on SW 28th Terrace behind an existing structure where M-Path turns in. The underline will be built along this location and is possibly impacted. Project Team to evaluate the limits of the Underline. FDOT is key at this intersection location. Through the Underline Project, traffic studies were performed. Project Team to evaluate these traffic studies. An intersection analysis was also performed. Signalization is currently 3 to 7 seconds, and the improvements are trying to improve the timing to 10 seconds. There are no flashing beacons at this location, there is minimal signage, including signage for the trail crossing. DTPW stated they would like to see No - Turn on red at this location. They would also like to eliminate the center island. They also suggested bringing the crossings as close as possible to US-1 so that lack of visibility is eliminated, and safety is addressed adequately. Improvements overall should include: Flashing Beacons, additional Signage, No-turn on red,

eliminating central Island, new crossing locations closer to US-1, and improved pedestrian Intervals for signalization. DTPW submitted 60% of the Underline documents for review to FDOT. Irene will send comments for the team to evaluate.

i. A poll was provided for comments and suggestions on how to improve this intersection from the Project Working Group (PWG) and is attached to the meeting minutes. *Refer to* ***Attachment A – Slido.com results.*** At this location, Project Team will evaluate how easy it is to get back to 27th from US-1. They will look at connectivity between landing and 27th on the other side of US-1.

b. Dadeland North Station – A 129 ft. span bridge was proposed. This proposed bridge will require the removal of landscaping and fencing near the proposed West Tower. There is r/w acquisition costs for this alternative. Coordination with South Florida Water Management District (SFWMD) will be required to discuss any impacts to the Snapper Creek Canal. Irene discussed the following items regarding the Underline at this location:

i. A shared use path of 11 ft. is proposed near where the preliminary concept proposes the bridge landing near Snapper Creek. Project Team to consider the 11 ft. width and glass block wall along the width of station when refining concepts.

ii. Irene suggested moving bridge further North. If bridge is moved towards 84th Street, there is some space for the landing. However, this will impact r/w and should be clearly stated.

iii. A poll was provided for comments and suggestions on how to improve this intersection from the Project Working Group (PWG) and is attached to the meeting minutes. *Refer to* ***Attachment B – Slido.com results.***

c. ***Dadeland South Station –*** A pedestrian bridge could not be provided on the same block as the station. Two alternatives were developed as follows:

i. **Alternative A –** A 138 ft. span bridge was proposed at Dadeland Blvd. Bridge tower landings would impact the Burger King and Auto Perfection parcels. This alternative results in r/w impacts and some r/w acquisition costs, impacts to business operations, impacts to stopping sight distances, and drivers line of sight to signalization.

ii. **Alternative B –** A 133 ft. span bridge is proposed west of Datran Drive. This bridge would not impact business operations so heavily. This alternative does require the purchase of r/w.

d. Irene stated that the DTPW awarded a contract for a Design Builder to remodel and enhance Dadeland South Station. The Underline ends at the northern end of

kiss and ride and there is a South Dade Trail bicycle connection to S Miami-Dade Busway. Irene also suggested the Project Team evaluate the new development at the Dadeland South Station where Shorty's is currently located. Shorty's BBQ and 9300 Plaza business area is being developed and a big tower will be constructed. In the future, this development will drive more pedestrians to the area. AECOM prepared Dadeland South Intermodal Station Project which needs to be coordinated with our proposed concepts. The proposed bridge may be coordinated with the new development.

e. Project Team to coordinate with Lorin and include all Vision Zero locations in the area.

4. **Project Schedule** – Next Project Working Group Meeting No. 3 will be on November 1, 2023. The Project Team will revise the concepts and discuss during this meeting.

5. **Next Steps** – The Project Team will finalize concepts, provide preliminary cost estimates, recommendations and have approval of recommendations for the beginning of November.

ACTION ITEMS

ITEM	DESCRIPTION	ASSIGNED TO	DUE	STATUS
1.	Provide additional documentation to Project Team regarding: - AECOM Plans for Intermodal Station Project, - NV2/ Stantec's DB project for the improvements to the station.	Irene	10/01	~~Closed~~
2.	Project Consultant Team to reevaluate improvements at the coconut grove station as a bridge is not feasible.	Revanth	10/01	Open
3.	Project Consultant Team to reevaluate proposed bridge location at the Dadeland North based om the proposed underline improvements. Improvements will also be evaluated.	Joel/Joan/ Revanth	10/07	Open
4.	Project Consultant Team to reevaluate proposed bridge location based on improvements to station and new development at Shorty's. Improvements will also be evaluated.	Joel/Joan/ Revanth	10/07	Open

APPENDIX C

AGENDA

- Project Information
- Project Need
- Coconut Grove Station Analysis
- Dadeland North Station Analysis
- Dadeland South Station Analysis
- Project Schedule
- Next Steps

PROJECT NEED

- **Implement pedestrian and bicyclist access across U.S. 1 at the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations**
- **Purpose**: To maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.
- This feasibility study is a request from TPO Board Member Raquel Regalado

Figure : University Metrorail Station Pedestrian Bridge over US-1

3

COCONUT GROVE STATION - CONNECTIVITY ASSESSMENT

Crosswalk Leg	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	23	7	46	2
	Bicycle Count	6	0	5	1
West leg	Pedestrian Count	338	58	373	36
	Bicycle Count	45	4	25	6
North leg	Pedestrian Count	19	4	31	4
	Bicycle Count	14	5	19	0
South leg	Pedestrian Count	21	3	29	0
	Bicycle Count	21	1	4	1

COCONUT GROVE STATION – CRASH DATA

CRASH DATA SUMMARY:
A total of 15 bike-pedestrian crashes were observed within the last five (5) years.

Based on the safety analysis, below are some of the findings:

- Most of the crashes occurred with bike-pedestrians not yielding to vehicles during 7 out of 15 crashes
  - 2 of these crashes were serious bodily injuries (SBIs),
  - In the additional 2 crashes, it was unknown who had the ROW.

- One of the SBI occurred with southbound left-turn vehicle (did not yield) colliding with bicycle on the east leg crosswalk,

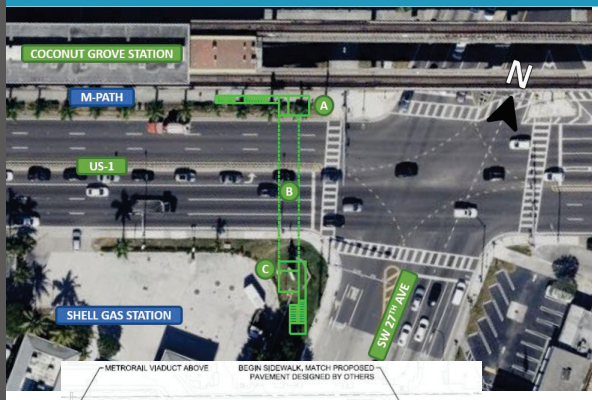
- 7 out of 15 crashes (47%) occurred during dark and lighted conditions, which is higher than the Districtwide average of 27%

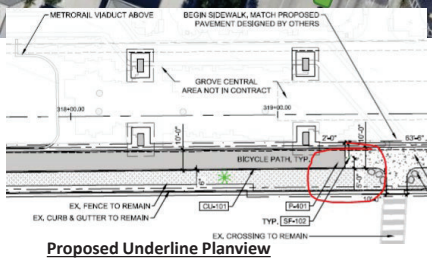
Condition	Districtwide (2018 – 2022)	Miami-Dade County (2018 – 2022)	Monroe County (2018 – 2022)
Nighttime	27%	27%	22%
Wet Pavement	11%	11%	7%

- 3 out of 15 crashes involved southbound right-turning vehicles colliding with bicyclists during Right Turn on Red (RTOR).

5

COCONUT GROVE STATION ALT. 1: PED. BRIDGE OVER US-1 & SW 27TH AVENUE





Proposed Underline Planview

Proposed Bridge:

- (A) North Tower
- (B) 102' Bridge Span
- (C) South Tower
- Distance from staircase and building = 21.5'
- Clearance from North Tower to Metrorail Superstructure = 4'

Impacts:

- Directly impact existing M-Path/future Underline – Placing Bridge Tower would be obstructing the 10' Bicycle Path
- Purchasing 1,800 sf of ROW from Shell Gas Station (Approximately $200k)
- Impact Stopping Sight Distance
- Impact Driver's line of Sight to signalization for NB on US-1
- Impact to underground utilities by the Shell Gas Station

Alternative 1 is not feasible.

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COCONUT GROVE STATION ALT. 2: AT GRADE IMPROVEMENTS

Proposed At Grade Improvements:

- Potential improvement to signal timing (such as increase the walk time or FDW for pedestrians, Leading Pedestrian Intervals etc.),

Intersection #1 (Asset #2182) = US-1/S Dixie Hwy at SW 27th Avenue

Variables

$S_{pedestrian}$	=	3.5 fps
Buffer Interval	=	3 s

Crosswalks	Crossing Distance		
West Leg	C_{WEST}	=	88 ft
East Leg	C_{EAST}	=	85 ft
North Leg	C_{NORTH}	=	101 ft
South Leg	C_{SOUTH}	=	102 ft

Pedestrian Walk & FDW Intervals	Crossing Legs	Controller Phase	Current		Calculated FDW		Substandard Checks			Recommended (if not cleared)		Notes
			WALK	FDW	Scenario 1 FDW	Scenario 2 FDW	Walk	FDW Scenario 1	FDW Scenario 2	Walk	FDW	
	West Leg	4,8	7	25	26.0	23.0	Clear	Check	Clear	-	26	Increase FDW by 1 sec to 26 sec
	East Leg		7	25	25.0	22.0	Clear	Clear	Clear	-		
	North Leg	2,6	7	29	29.0	26.0	Clear	Clear	Clear	-	30	Increase FDW by 1 sec to 30 sec
	South Leg		7	29	30.0	27.0	Clear	Check	Clear	-		

- Improve lighting in the area
- No Right Turn on Red (RTOR) for southbound right turning movement
- Tighten the turning radii in the NW corner and EB median – hardened centerline (Auto Turn analysis required).
- Include High Emphasis Crosswalk.
- Move the stop-bar on the EB approach as far back as possible (distance between stop bar and signal should be less than 180 feet).

✓ Alternative 2 is feasible.

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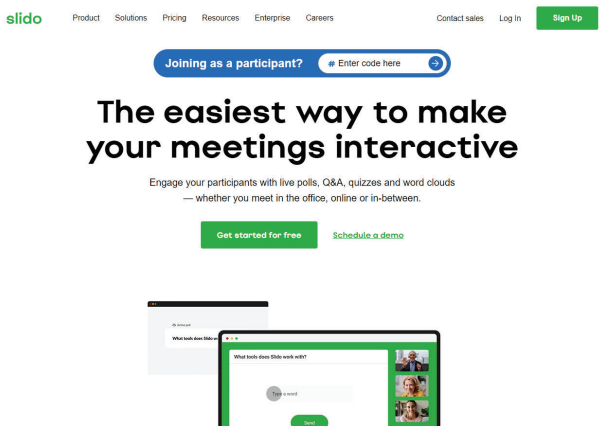
PROJECT WORKING GROUP FEEDBACK

- Join at **slido.com**
- **Poll Code #1524130**



PWG Feedback Comment No. 1:

Please provide comments on proposed at grade improvements for the Coconut Grove Metrorail Station.

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APPENDIX C

DADELAND NORTH STATION - CONNECTIVITY ASSESSMENT

Crosswalk Leg – SW 84th St.	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	79	15	72	19
	Bicycle Count	0	0	1	0
West leg	Pedestrian Count	7	1	8	0
	Bicycle Count	1	0	5	0
North leg	Pedestrian Count	19	13	31	3
	Bicycle Count	12	5	20	1
South leg	Pedestrian Count	7	10	19	3
	Bicycle Count	6	2	5	1

Crosswalk Leg – SW 68th Ct.	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	2	0	1	0
	Bicycle Count	1	0	0	0
West leg	Pedestrian Count	146	28	241	12
	Bicycle Count	10	5	12	2
North leg	Pedestrian Count	0	0	6	0
	Bicycle Count	0	0	0	0
South leg	Pedestrian Count	5	7	16	2
	Bicycle Count	3	1	7	2

DADELAND NORTH STATION – CRASH DATA

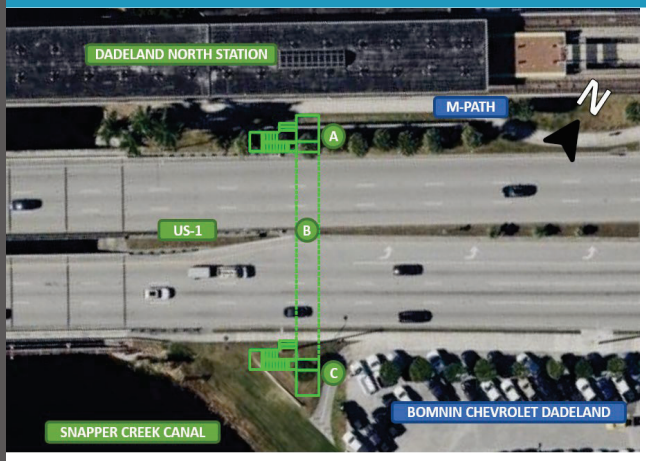
CRASH DATA SUMMARY:
A total of 4 crashes were observed within the last five (5) years.

Based on the safety analysis, below are some of the findings:

- 3 crashes were observed at SW 84th Street
  - EBT vehicle hitting SB biker on west leg crosswalk (vehicle did not yield)
  - SBR vehicle hitting the skater on west leg crosswalk (vehicle did not yield)
  - Worker hit by a vehicle within the station area
- 0 crashes at mid-block crossing/SW 68th Court,
- 1 crash (SBI), 250 feet west of the available midblock crossing

APPENDIX C

DADELAND NORTH STATION – ALT. 1 PED. BRIDGE WEST OF SW 84TH St



Proposed Bridge:

- (A) West Tower
- (B) 129' Bridge Span
- (C) East Tower
- Distance from face of curb to Metrorail superstructure = 33'
- No Impacts to M-Path

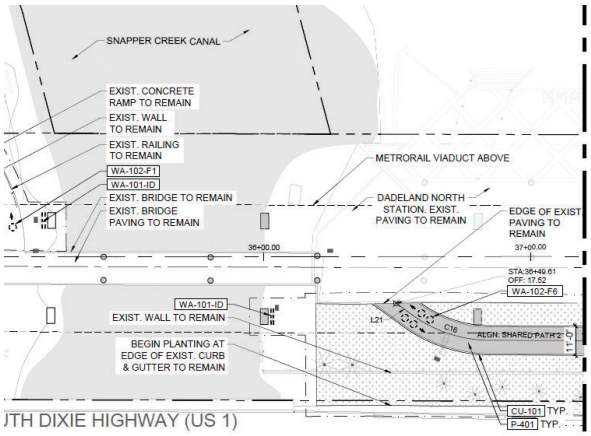
Impacts:

- Removal of landscaping and glass fencing at West Tower (A)
- Clearance from face of curb to West Tower (A) = 4 ft.
- Clearance from West Tower (A) to Metrorail Superstructure = 8 ft.
- East Tower (C) requires 2200 sf of ROW from Bomnin Chevrolet Dadeland (Approximately $240K)
- Coordination with SFWMD – Snapper Creek Canal
- Construction of Bulkhead for Canal
- Impacts to Sight distance
- Impacts to underground utilities and drainage Systems

Alternative 1 is feasible however it **does not meet** the purpose of the study to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.

11

DADELAND NORTH STATION – ALT. 2 PED. BRIDGE WEST OF SW 84TH St



Proposed Bridge:

- **Location:** Propose Pedestrian bridge further North
- Coordination with Underline Path
  - A shared use path of 11 ft. is proposed near where the preliminary concept proposes the bridge landing near Snapper Creek.
- Project Team to consider the 11 ft. wide Underline Path
- Glass block wall along the width of station to be coordinated with Alternative 2.

Alternative 2 is feasible, and provides less impacts than Alternative 1, however it **does not meet** the purpose of the study to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.

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DADELAND NORTH STATION ALT. 3: AT GRADE IMPROVEMENTS

Proposed At Grade Improvements:

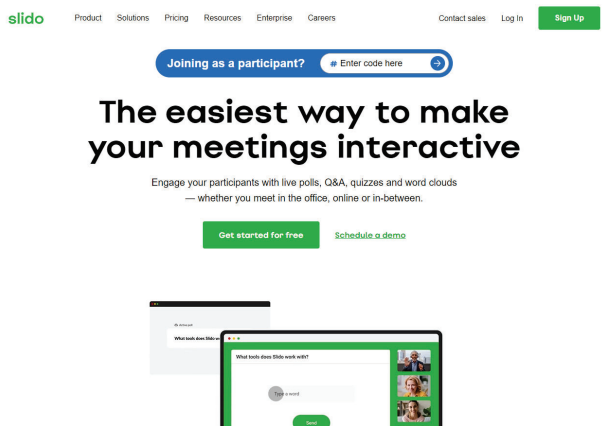
- At SW 84th Street:
  - Move the stop bar on the EB approach (looks too close on outside lane),
  - No RTOR on SBR approach.
- Provide pedestrian channelization barrier or landscaping so that people cannot wait and cross using the median (between SW 68th Ct and SW 70th Ave).
- Improve the crosswalk width at midblock crossing on SW 68th Ct
- Improve Lighting in the area
- Village of Pinecrest may purchase Dairy Queen on the east side of US-1 near SW 68th Ct and this provides opportunity to improve midblock crossing

✓ Alternative 3 meets the purpose of the study and is feasible.

13

PROJECT WORKING GROUP FEEDBACK

- Join at slido.com
- Poll Code #1524130



PWG Feedback Comment No. 2:

Please provide comments on proposed at grade improvements for the Dadeland North Metrorail Station.

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APPENDIX C

DADELAND SOUTH STATION - CONNECTIVITY ASSESSMENT

Crosswalk Leg	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	22	8	23	2
	Bicycle Count	2	1	3	0
West leg	Pedestrian Count	0	4	17	2
	Bicycle Count	1	0	2	0
North leg	Pedestrian Count	59	24	70	9
	Bicycle Count	7	0	0	1
South leg	Pedestrian Count	43	22	74	6
	Bicycle Count	1	0	2	0

Crosswalk Leg	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	4	5	15	0
	Bicycle Count	2	3	5	0
West leg	Pedestrian Count	9	17	16	1
	Bicycle Count	0	1	0	0
North leg	Pedestrian Count	14	41	39	6
	Bicycle Count	2	0	0	2
South leg	Pedestrian Count	0	4	2	1
	Bicycle Count	0	0	0	0

LEGEND

- A.M. PEAK HOUR TRAFFIC - XX
- MIDDAY PEAK HOUR TRAFFIC - XX
- P.M. PEAK HOUR TRAFFIC - XX
- NIGHTTIME PEAK HOUR TRAFFIC - XX
- PEDESTRIAN VOLUME AT CROSSWALK -
- BICYCLE VOLUME AT INTERSECTION -

DADELAND SOUTH STATION – CRASH DATA

CRASH DATA SUMMARY:

A total of 4 crashes were observed within the last five (5) years.

Based on the safety analysis, below are some of the findings:

- Datran Drive – Two (2) pedestrian crashes with both of them crossing Datran Drive and vehicles not stopping in time.
- Dadeland Blvd – Two (2) pedestrian crashes
  - Southwest bound vehicle collided with bicyclist on the east leg crosswalk (bicyclist did not yield)
  - Southeast bound vehicle collided with a pedestrian walking on the east leg away from the available crosswalk crashes at mid-block crossing/SW 68th Court,

DADELAND SOUTH STATION – ALT. 1 PED BRIDGE AT DADELAND BLVD

Proposed Bridge:

- (A) West Tower
- (B) 138' Bridge Span
- (C) East Tower
- West Tower (A) to walk 173' Crossing, to S Miami-Dade Busway to Station

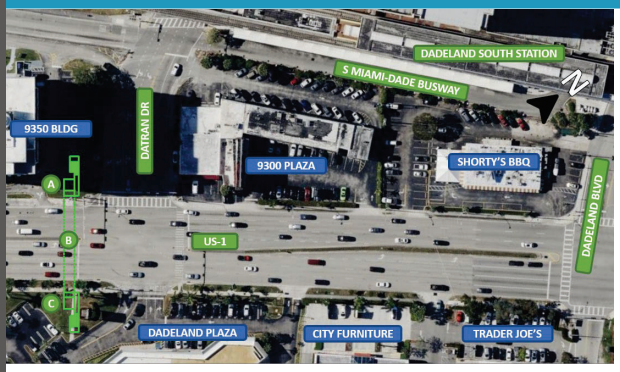
Impacts:

- West Tower (A) placement requires purchase of 1400 sf of ROW to Auto Perfection (Approximately $330k)
- East Tower (C) requires purchasing of 2400 sf of ROW from Burger King (Approximately $590k)
- Impacts Stopping Sight Distances
- Driver's line of Sight to signalization
- Connectivity to Dadeland South Station are congested
- Requires coordination with landowners and adjacent businesses to obtain ROW

Alternative 1 is feasible but impacts adjacent businesses and requires ROW purchase of $920K.

17

DADELAND SOUTH STATION – ALT. 2 PED BRIDGE WEST OF DATRAN DR



Proposed Bridge:

- (A) West Tower
- (B) 133' Bridge Span
- (C) East Tower
- West Tower (A) to walk 173' Crossing Datran Road and S Miami-Dade Busway

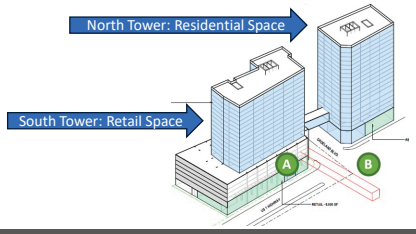
Impacts:

- West Tower (A) placement requires purchase of 2300 sf of ROW by 9350 Building (Approximately $492K)
- East Tower (C) requires purchasing of 2000 SF of ROW from Dadeland Plaza (Approximately $250K)
- Impacts Stopping Sight Distances
- Driver's line of Sight to signalization on US-1 and Datran Drive
- Connectivity to Dadeland South Station are congested
- Bicycle and Pedestrians will need to cross more roads with this option.

Alternative 2 is feasible however still impacts adjacent businesses and requires ROW purchase of $742K. This alternative **does not meet** the purpose of the study to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.

18

DADELAND SOUTH STATION – ALT. 3A PED BRIDGE TO ACCOMODATE NEW DEVELOPMENT AT 9300 PLAZA & SHORTY'S BBQ



Proposed Bridge:

- (A) Bridge Connection to South Tower of Development
- (B) 132' Bridge Span
- (C) East Tower
- (D) Pedestrian Access Opening
- Upon reaching (A), pedestrians will need immediate access to exit the South Tower property limits and continue to (D). Approximately 136' walk.

Impacts:

- East Tower (C) requires purchase of approximately 1600 SF of ROW from the Trader Joe's lot.
- Bridge Connection to South Tower of Development (A) requires coordination with the developer of the lot as well as the need for pedestrians to have access to building exits. This will impact garage and retail space of the south tower. If connection is desired to the north tower, this will impact residential space.
- Stopping sight distances
- Driver's line of sight to signalization

Alternative 3A is feasible however requires coordination with Developer. This alternative will also provide improvements to crossing over Datran Drive to meet the purpose of the study.

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DADELAND SOUTH STATION – ALT. 3B PED BRIDGE TO ACCOMODATE NEW DEVELOPMENT AT 9300 PLAZA & SHORTY'S BBQ

Proposed Bridge:

- (A) West Tower
- (B) 132' Bridge Span
- (C) East Tower
- (D) Pedestrian Access Opening
- Upon reaching (A), pedestrians will continue to (D) Approximately 380' walk.

Impacts:

- East Tower (A) requires purchase of approximately 1600 SF of ROW from the 9300 Plaza lot.
- East Tower (C) requires purchase of approximately 1600 SF of ROW from the City Furniture lot.
- Pedestrians and Bicycle traffic will have a longer path to the Pedestrian Access Opening.
- Stopping sight distances
- Driver's line of sight to signalization

Alternative 3A is feasible however requires coordination with Developer. This alternative will also provide improvements to crossing over Datran Drive to meet the purpose of the study.

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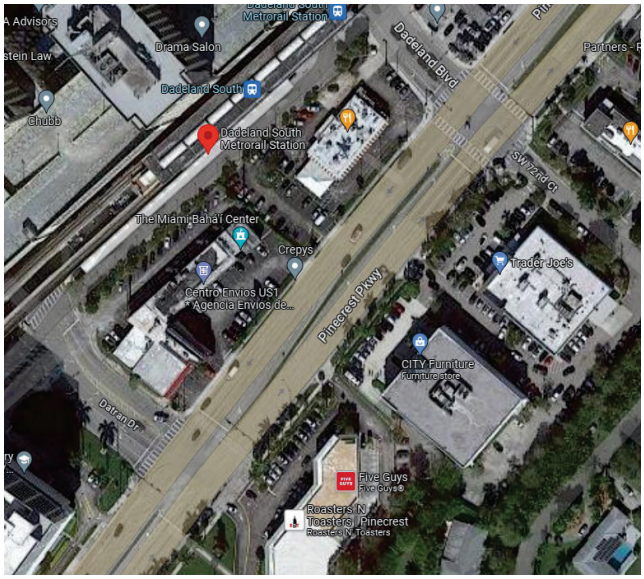
DADELAND SOUTH STATION – AT GRADE IMPROVEMENTS

Proposed At Grade Improvements:

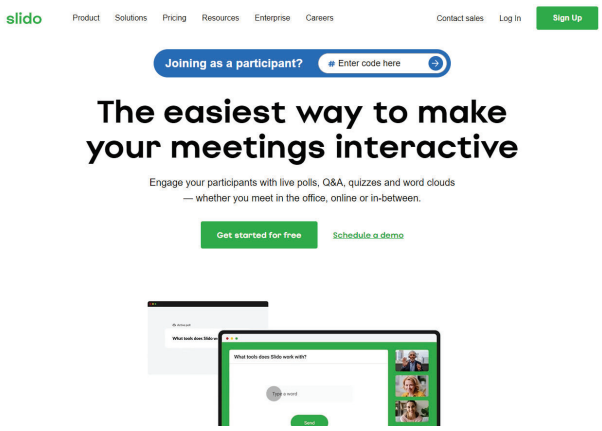
- Datran Drive
  - Improve pavement markings
  - STOP for pedestrians in crosswalk sign on southbound approach,
  - Install curb ramps (ADA compliant),
  - Close the box (install the crosswalk on south leg to cross US-1) = People were seen crossing based on demand.
- Dadeland Blvd – "Use Crosswalk" sign on the sidewalk within the intersection influence area.

These improvements will be provided with alternative 3A or 3B to meet the purpose of the study.



PROJECT WORKING GROUP FEEDBACK

- Join at slido.com
- Poll Code #1524130



PWG Feedback Comment No. 3:

Please provide comments on proposed at grade improvements for the Dadeland South Metrorail Station.

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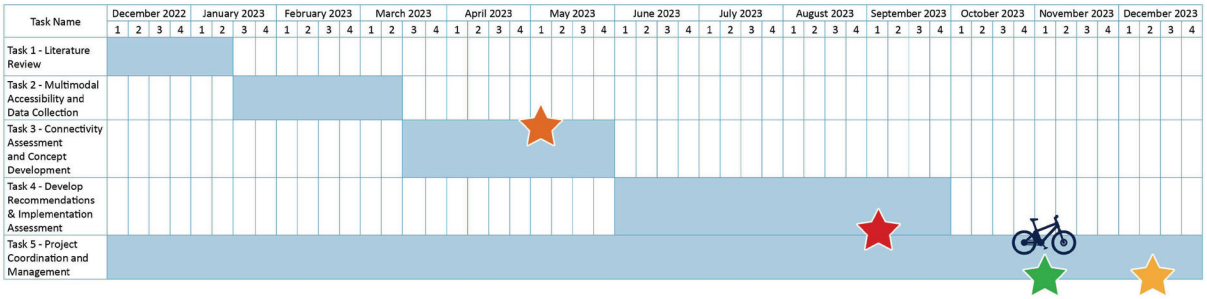
PROJECT SCHEDULE



Milestones

Bicycle Pedestrian Advisory Committee (BPAC) Meeting - November 7, 2023

TWO Completed - December 15, 2023

Estimated Total Duration

23

NEXT STEPS

1. Finalize Concept Development and Cost Estimates
2. Finalize Recommendations
3. Approval/Endorsement of Recommendations

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APPENDIX C


THANK YOU!
TPO
Miami-Dade Transportation
Planning Organization
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JUST GOT EASIER™
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25

Meeting Notes

GPC VIII – Work Order No. 34

US-1 Bicycle and Pedestrian Bridge Feasibility Study

Location: Teams Meeting
Date and Time: November 1, 2023; 10:30 am – 11:30am

Attendees:

NAME	ORGANIZATION	PHONE NUMBER	EMAIL
Kevin C. Walford	Miami-Dade County TPO Project Manager	305-375-2642	Kevin.Walford@miamidade.gov
Jesus Fuentes	Miami-Dade County TPO Deputy Project Manager	954-495-6341	jesus.fuentes@exp.com
Stephanie Romero, PE	BCC Engineering, LLC Consultant Project Manager	954-736-0177	sromero@bcceng.com
Joan de La Rosa	BCC Engineering, LLC Structural Engineer	305-670-2350	jdelarosa@bcceng.com
Joel Sotolongo, EI	BCC Engineering, LLC Structural Engineer	305-670-2350	jsotolongo@bcceng.com
Revanth Katta	BCC Engineering, LLC Traffic Engineer	305-670-2350	Rkatta@bcceng.com
Henderic Mendez	BCC Engineering, LLC Design Engineer	305-670-2350	hmendez@bcceng.com
Irene Hegedus, Architect	Department of Transportation and Public Works (DTPW) –Coordinator for Underline and South Dade Trail	786-469-5395	Irene.Hegedus@miamidade.gov
Carlos Cejas, PE	FDOT District 6 Design Consultant Reviewer Multimodal Development Office		ccejas@dot.state.fl.us
Edward Aparicio	Florida Department of Transportation (FDOT) D6 – PLEMO Office Gannet Fleming		eaparicio@dot.state.fl.us
Aurelio	City of South Miami – Public Works & Engineering	305-403-2078	ngomez@southmiamifl.gov
Ryan Benton	Miami Dade County PROS Greenway and Trails Planning Coordinator		rbenton@miamidade.gov
Vinod Sandanasamy, AICP	Miami-Dade County RER Planning Department	present	Vinod.Sandanasamy@miamidade.gov

Jeannine Gaslonde	Miami-Dade County TPO Chief of Mobility Management and Implementation		Jeannine.gaslonde@miamidade.gov
Dany (On behalf of David J. Mendez, PE)	Village of Pinecrest Public Works Director	305-669-6916	dmendez@pinecrest-fl.gov
Paola Baez, PE	Miami-Dade County Department of Transportation and Public Works	786-469-5204	Paola.Baez@miamidade.gov

Author: Stephanie Romero, P.E.

Purpose: The purpose of this meeting was to inform the Project Working Group (PWG) of the Progress of the feasibility study and request any feedback on the proposed concepts. The following was discussed:

Kevin Walford (TPO), the project manager, introduced this study's presentation with Stephanie Romero as his consultant Project Manager from BCC. The Presentation Agenda includes the following discussion items: Project information, Project Need, Coconut Grove Station Analysis, Dadeland North Station Analysis, Dadeland South Station Analysis, Project Schedule and next steps.

1. **Connectivity Assessment** – The project team assessed the study area and determined the best bicycle and pedestrian connection points. Travel volumes were established at several locations. Preliminary concepts and potential impacts to parcels were evaluated based on this data and analysis. The following intersections were evaluated:
2. **Analysis** – The Project Team discussed the concepts at the three specific Metrorail locations as follows:
    - ***a. Coconut Grove Station – 15 Bike Pedestrian Crashes***
        - i. **Alternative 1: Pedestrian Bridge Over US-1** was considered not feasible because the North Tower Landing would impact the current M-Path or future Underline. Right-of-Way Constraints are tight.
        - ii. **Alternative 2: *At-Grade Improvements*** *would improve lighting in the area, eliminating Right-Turn-On-Red, Turning the turning Radii, include high emphasis crosswalks and moving the stop bar as far back as possible. This alternative is feasible after coordinating with agencies and meeting with the Project Working Group.*
        - iii. The following feedback was received by the Project Working Group:
            1. FDOT Consultant provided the following:

a. A third level bridge that connects directly to the metro station platform should be evaluated. Another alternative was to span the bridge over the Metrorail. This alternative will require a separate fare station. DTPW is already adding new elevators in between rails at some stations. A third level bridge would require a 24 ft. clearance for electrical rail. If longer span is proposed, intermediate bents will need to be required. Project Team would have to investigate Truss bridges. Refer to Dadeland Skewed Bridge. This alternative may Impact the Underline.

b. Traffic counts to be separated by transit users vs. people walking down from the street breakdown. If we know split, it may help determine who will be using at-grade improvements.

c. Additional considerations: Refugee Islands, Speen Signs

b. Dadeland North Station – 4 Bike Pedestrian Crashes. *It was concluded that improvements were needed near SW 84th Street and west of the Midblock crossing.*

i. **Alternative 1: Pedestrian Bridge West of SW 84th Street** was considered however this alternative does not address the need. The most crossings were 68th Court. Maximum usage was at mid-block crossing.

ii. **Alternative 2: Pedestrian Bridge West of SW 84th Street (modified)** was considered and would span a little further north. This alternative still does not meet the purpose and need of the study.

iii. **Alternative 3: At- Grade Improvements** *will provide no RTOR, improve crosswalk width and lighting. This alternative seemed like the most feasible.*

iv. The following comments were provided:

1. Bridge should be provided at the location where most of the crossings are occurring was recommended, however this alternative has no room for landing without impacting the busway.

2. Propose another bridge further south. You can also acquire some ROW. East of US-1 you can fit it anywhere there. A lot of pedestrians are crossing from Dadeland Mall to Ross. If there is no building, things can be rearranged to have a proposed bridge lading and require some ROW acquisition. The Project Team would look at another alternative.

3. PROS stated that there are two proposed trails that may impact the proposed bridge locations:

    a. Snapper Creek Trail, a trail on the north side of the snapper creek canal will be constructed and possibly impact the bridge crossing over Bomnin Chevrolet.

    b. The Ludlam Trail, which ends at Southwest of near SW 80th Street. Private developers will construct the trail between SW 80TH Street and Snapper Creek Canal. Snapper Creek Trail plans are available. Ludlam Trail Plans are not available at this moment.

    c. DTPW – Senator Alexa Catayu encourages Departments to apply for Grants that connect pedestrians to trails.

c. ***Dadeland South Station – 4 Crashes***

i. **Alternative 1 – Pedestrian Bridge At Dadeland Blvd** was considered. This alternative requires ROW acquisition, connectivity to Dadeland is congested and requires coordination with adjacent business. This alternative provides impacts to adjacent businesses.

ii. **Alternative 2 – Pedestrian Bridge at Datran Drive** This alternative is feasible however it does not meet the purpose and need as it moves the pedestrians further from the station and the need to cross more roads therefore minimizing safety.

iii. **Alternative 3A – Pedestrian Bridge to Accommodate New Development at 9300 Plaza and Shorty's BBQ –** Pedestrian bridge that ties directly into South Tower. Some ROW is required from Trader Joes, as well we coordination with future developers. This alternative is feasible but requires coordination with the developer. This alternative can also be combined to include At-Grade Improvements as well.

iv. **Alternative 3B – Pedestrian Bridge to Accommodate New Development at 9300 Plaza and Shorty's BBQ (Modified) –** Pedestrian Bridge that ties west of the South Tower. Some ROW is required from Trader Joes and City Furniture, as well as coordination with developers. The footprint of the development will take the entire block. This alternative landing may impact right where improvements for bicycle and pedestrians are being proposed so may not be feasible.

v. **Alternative 4 – At Grade Improvement** provides Improved signage and crosswalks.

APPENDIX C


US-1 BICYCLE AND PEDESTRIAN BRIDGE FEASIBILITY STUDY
TPO & FDOT WORKSHOP
NOVEMBER 7, 2023
TPO
Miami-Dade Transportation Planning Organization

PROJECT NEED

- **Implement pedestrian and bicyclist access across U.S. 1 at the Coconut Grove, Dadeland North and Dadeland South Metrorail Stations**
- **Purpose**: To maximize safety, mobility and accessibility for pedestrians and bicyclists crossing U.S. 1.
- This feasibility study is a request from TPO Board Member Raquel Regalado

Figure : University Metrorail Station Pedestrian Bridge over US-1

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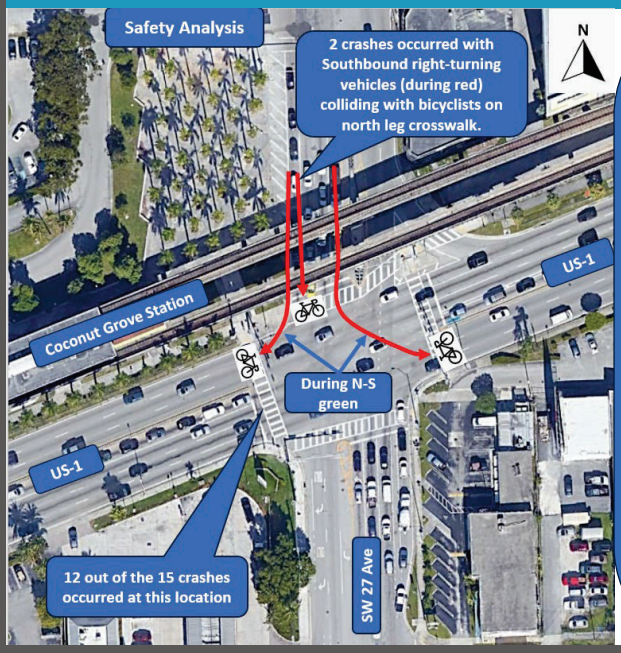
COCONUT GROVE STATION - CONNECTIVITY ASSESSMENT

Crosswalk Leg	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	23	7	46	2
	Bicycle Count	6	0	5	1
West leg	Pedestrian Count	338	58	373	36
	Bicycle Count	45	4	25	6
North leg	Pedestrian Count	19	4	31	4
	Bicycle Count	14	5	19	0
South leg	Pedestrian Count	21	3	29	0
	Bicycle Count	21	1	4	1

APPENDIX C

COCONUT GROVE STATION – SAFETY ANALYSIS



Issues:

1) Southbound right-turning vehicles (during red) unable to stop before the crosswalk,
2) 7 out of 12 crashes on the west leg crosswalk – Bikes/pedestrians did not yield to vehicles,
3) 2 crashes (during N-S green):
    1) Southbound left-turning vehicle did not yield to bicyclist on east leg crosswalk (Serious Bodily Injury),
    2) Southbound right-turning vehicle did not yield to bicyclist on the west leg crosswalk.
4) 7 out of 15 crashes occurred during dark and lighted conditions.

Potential Solutions:

1) No Right-Turn on Red (RTOR) blank out sign during AM and PM peak hours for the southbound right turning vehicles,
2) Widen the west leg crosswalk to provide separate paths for bicycle and pedestrians
    1) Provide pedestrian refuge in the west leg crosswalk (if possible – short term),
3) Leading pedestrian Interval for the east and west leg crosswalks and reduce the curb radius in the northwest corner (reduce the turning vehicle speeds),
4) Improve lighting.

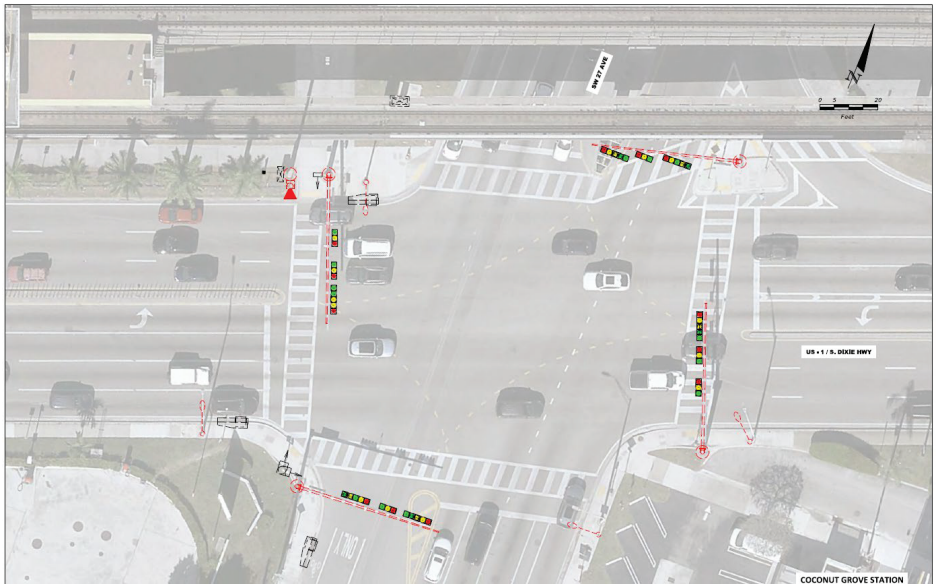
COCONUT GROVE STATION – OPERATION ANALYSIS

Preliminary Operational Results from Intersection Study (Underline Phase 3)

Proposed Improvements
Leading Pedestrian Interval (AM = 10 sec, PM = 3 sec)
No Right Turn on Red on Southbound Right approach
Conversion of Northbound Left-Turn Phase from Protected-Permissive to Protected only phase (Not proposed as part of the feasibility study)
Signal Timing Optimization

INTERSECTION	RESULT	EXISTING												PROPOSED									
		EASTBOUND (cross street)			WESTBOUND (cross street)			NORTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)			SOUTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)			EASTBOUND (cross street)			WESTBOUND (cross street)			NORTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)			SOUTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)		
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
#2 US-1/Dixie Hwy & SW 27th Ave	V/C Ratio	0.79	0.89	0.66	0.49	0.86	0.73	0.98	0.77		1.14	0.91		1	0.87	0.63	0.66	0.83	0.55	0.73	0.77		0.8	0.93	
	Movement Delay (s/veh) & LOS	96.2	111.2	84.6	80	110	91.5	145.8	59.2		166.3	32.6		185.1	108.1	75.5	97.3	105.5	76	108.3	17.7		69.3	43.6	
		F	F	F	E	F	F	F	E		F	C		F	F	E	F	F	E	F	B		E	D	
	Approach Delay (s/veh) & LOS	100.7			100.5			64.3			40.6			107.1			94			23.1			45.1		
		F			F			E			D			F			F			C			D		
	Intersection Delay (s/veh) & LOS	62.3												49.5											
		E												D											
#2 US-1/Dixie Hwy & SW 27th Ave	V/C Ratio	1.11	0.76	0.09	0.28	0.94	0.61	0.67	0.37		0.29	0.26		0.74	0.53	0.21	0.21	0.82	0.42	0.87	0.41		0.35	0.38	
	Movement Delay (s/veh) & LOS	177.4	94.1	67.8	78	122.2	88.1	34.1	31.2		14.5	16.9		75.9	74.8	39	76.5	100.2	78.1	101.2	37.7		41.3	44.4	
		F	F	E	E	F	F	C	C		B	B		E	E	D	E	F	E	F	D		D	D	
	Approach Delay (s/veh) & LOS	108.7			108.9			31.8			16.6			68.4			91.8			50.9			44		
		F			F			C			B			E			F			D			D		
	Intersection Delay (s/veh) & LOS	57.9												60.4											
		E												E											

COCONUT GROVE STATION – EXISTING CONDITIONS



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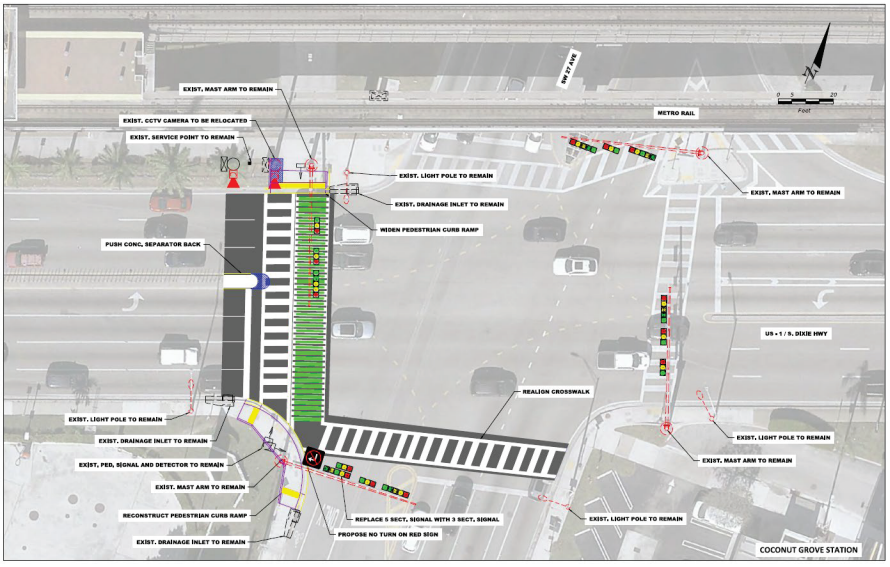
COCONUT GROVE STATION - ALT. 2: AT GRADE IMPROVEMENTS



***Proposed Improvements*:**

- No Right Turn on Red (RTOR) for southbound right turning movement
- Include High Emphasis Crosswalks
- New Curb Ramps
- Improve lighting in the area

7

APPENDIX C

DADELAND NORTH STATION - CONNECTIVITY ASSESSMENT

Crosswalk Leg – SW 84th St.	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	79	15	72	19
	Bicycle Count	0	0	1	0
West leg	Pedestrian Count	7	1	8	0
	Bicycle Count	1	0	5	0
North leg	Pedestrian Count	19	13	31	3
	Bicycle Count	12	5	20	1
South leg	Pedestrian Count	7	10	19	3
	Bicycle Count	6	2	5	1

Crosswalk Leg – SW 68th Ct.	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	2	0	1	0
	Bicycle Count	1	0	0	0
West leg	Pedestrian Count	146	28	241	12
	Bicycle Count	10	5	12	2
North leg	Pedestrian Count	0	0	6	0
	Bicycle Count	0	0	0	0
South leg	Pedestrian Count	5	7	16	2
	Bicycle Count	3	1	7	2

DADELAND NORTH STATION – SAFETY ANALYSIS

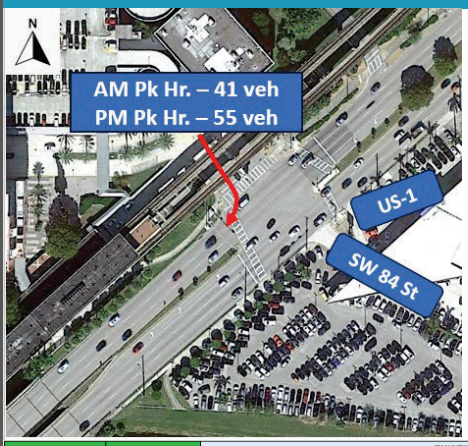
Issues:

1) Southbound through vehicle colliding with pedestrian crossing mid-block away from available crosswalk (serious bodily injury) - Nighttime,
2) At SW 84th Street:
   1) Southbound right-turning vehicle (during red) unable to stop before the crosswalk,
   2) During southbound green: Southbound right-turning vehicle did not yield to bicyclist on the west leg crosswalk.

Potential Solutions:

1) Provide landscaping within the available median between SW 70th Ave and available mid-block crossing at SW 68th Court
2) General - Improve lighting,
3) At SW 84th Street:
   1) No Right-Turn on Red (RTOR) blank out sign during AM and PM peak hours for the southbound right turning vehicles,
   2) Provide pedestrian refuge in the west leg crosswalk,
   3) Provide Leading pedestrian Interval for the east and west leg crosswalks.

DADELAND NORTH STATION – SAFETY ANALYSIS



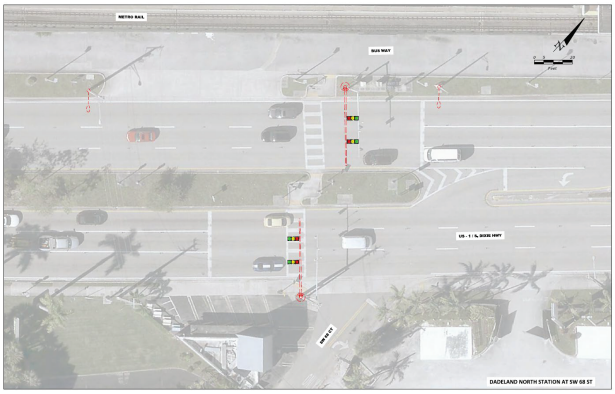
Preliminary Operational Results from Intersection Study (Underline Phase 3)

Proposed Improvements
Leading Pedestrian Interval (AM/PM = 9 sec)
No Right Turn on Red on Southbound Right approach (from SW 84 St)
No Right Turn on Red on Southwest bound Right approach (from US-1)
Conversion of Northbound Left-Turn Phase from Protected-Permissive to Protected only phase (Not proposed as part of the feasibility study)
Signal Timing Optimization

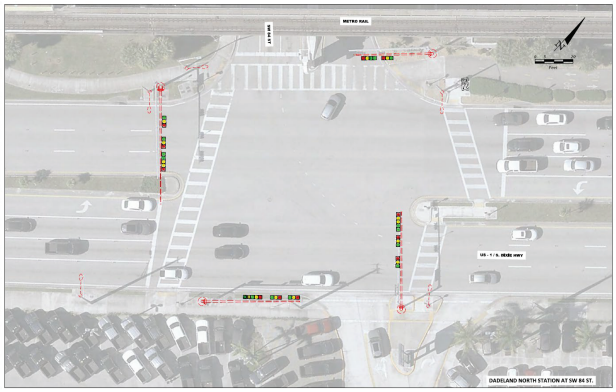
INTERSECTION	RESULT	EXISTING										PROPOSED									
		EASTBOUND (cross street)			WESTBOUND (cross street)		NORTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)		SOUTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)			EASTBOUND (cross street)			WESTBOUND (cross street)		NORTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)		SOUTHBOUND (US-1/Ponce De Leon Blvd/SW 37 Avenue)		
#18 US-1/Dixie Hwy & SW 84th Street	V/C Ratio	0.71	0.71	0.03	0.9	0	0.12	0.44	0.11	0.4		0.73	0.73	0.15	0.63	0.06	0.45	0.44	0.12	0.4	
	Movement Delay (s/veh) & LOS	102.1	102.1	81.2	254.1	97.6	6.2	8.6	6.9	18.4		104	104.4	76	131.4	95	113	15.6	9.8	13.5	
		F	F	F	F	F	A	A	A	B		F	F	E	F	F	F	B	A	B	
	Approach Delay (s/veh) & LOS	99.1			216.6		8.6		18.2			100.2			122.7		17.6		13.4		
		F			F		A		B			F			F		B		B		
	Intersection Delay (s/veh) & LOS	22.8										24.4									
		C										C									
#18 US-1/Dixie Hwy & SW 84th Street	V/C Ratio	0.17	0.15	0.04	1.22	0.01	0.72	0.41	0.13	0.71		0.17	0.15	0.25	1.18	0.08	0.64	0.47	0.15	0.86	
	Movement Delay (s/veh) & LOS	82.2	81.9	80.3	351.5	97.7	79.4	9	6.7	25.4		82.1	81.9	83.2	324.7	84.1	137.8	14	16.3	43.3	
		F	F	F	F	F	E	A	A	C		F	F	F	F	F	F	B	B	D	
	Approach Delay (s/veh) & LOS	81.2			272.2		12.6		25.1			82.6			249.5		20.3		42.9		
		F			F		B		C			F			F		C		D		
	Intersection Delay	25.3										38.4									

DADELAND NORTH STATION – EXISTING CONDITIONS

SW 68TH COURT

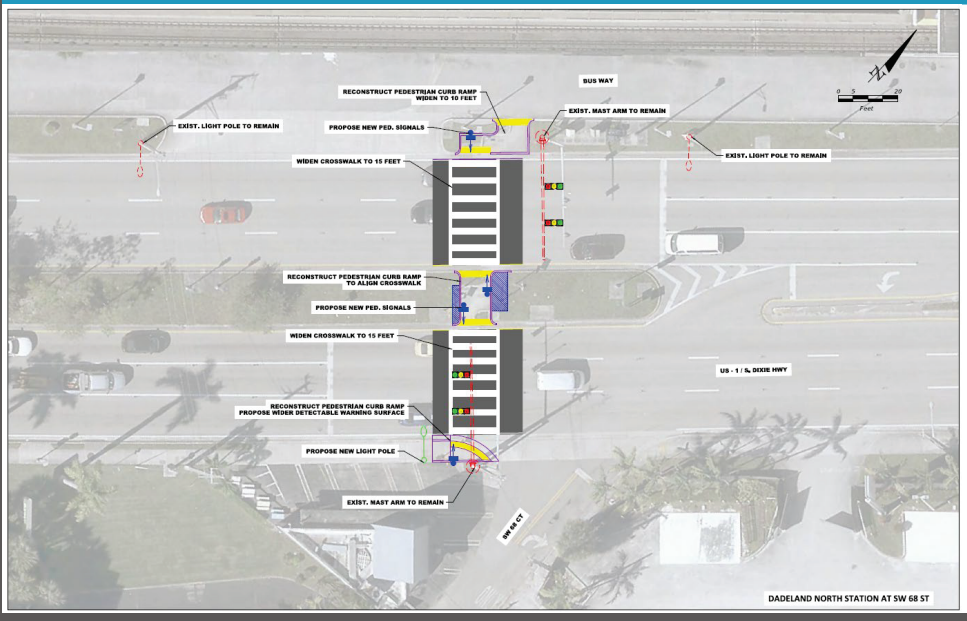


SW 84TH STREET



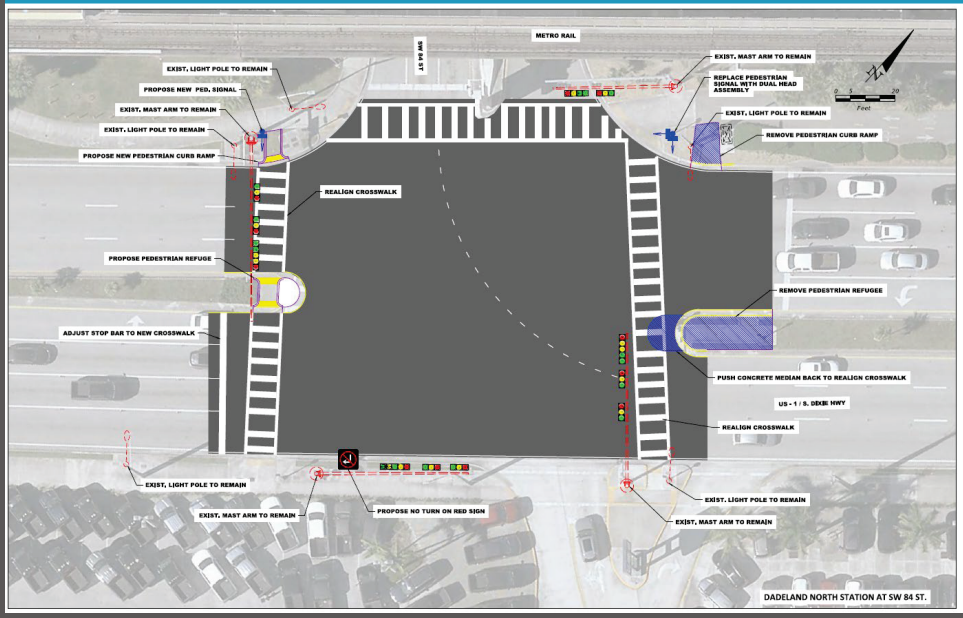
APPENDIX C

DADELAND NORTH STATION ALT. 4: AT GRADE IMPROVEMENTS



SW 68TH COURT

DADELAND NORTH STATION ALT. 4: AT GRADE IMPROVEMENTS



SW 84TH STREET

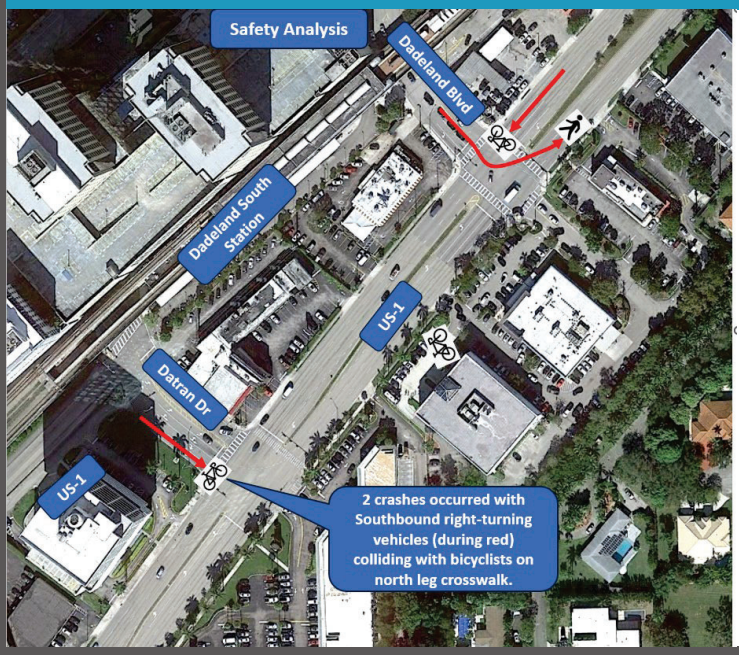
APPENDIX C

DADELAND SOUTH STATION - CONNECTIVITY ASSESSMENT

Crosswalk Leg	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	22	8	23	2
	Bicycle Count	2	1	3	0
West leg	Pedestrian Count	0	4	17	2
	Bicycle Count	1	0	2	0
North leg	Pedestrian Count	59	24	70	9
	Bicycle Count	7	0	0	1
South leg	Pedestrian Count	43	22	74	6
	Bicycle Count	1	0	2	0

Crosswalk Leg	Mode	AM Pk Hr	Midday Pk Hr	PM Pk Hr	Nighttime Pk Hr
East leg	Pedestrian Count	4	5	15	0
	Bicycle Count	2	3	5	0
West leg	Pedestrian Count	9	17	16	1
	Bicycle Count	0	1	0	0
North leg	Pedestrian Count	14	41	39	6
	Bicycle Count	2	0	0	2
South leg	Pedestrian Count	0	4	2	1
	Bicycle Count	0	0	0	0

DADELAND SOUTH STATION – SAFETY ANALYSIS



Issues:

1) At Datran Drive: Southbound right-turning vehicle (during red) unable to stop before the crosswalk,

1) At Dadeland Blvd: Bike-Pedestrians not yielding to vehicles/walking away from available crosswalk.

Potential Solutions:

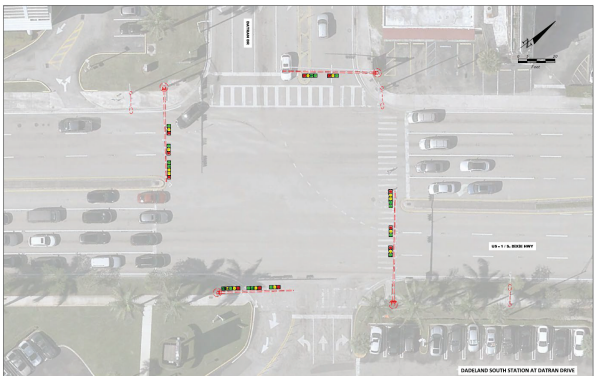
1) At Datran Drive:
   1) Improve pavement markings,
   2) Install curb ramps (ADA compliant),
   3) Additional improvement for consideration - Close the box (install the crosswalk on south leg to cross US-1) = People were seen crossing based on demand.

2) At Dadeland Blvd:
   1) Install "Use Crosswalk" sign.

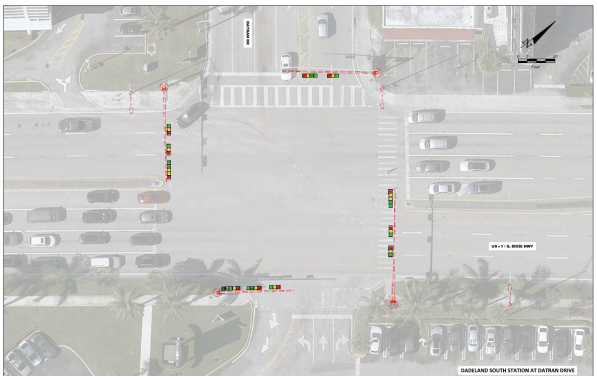
3) General - Improve lighting.

DADELAND SOUTH STATION – EXISTING CONDITIONS

DATRAN DRIVE



DADELAND BLVD



16

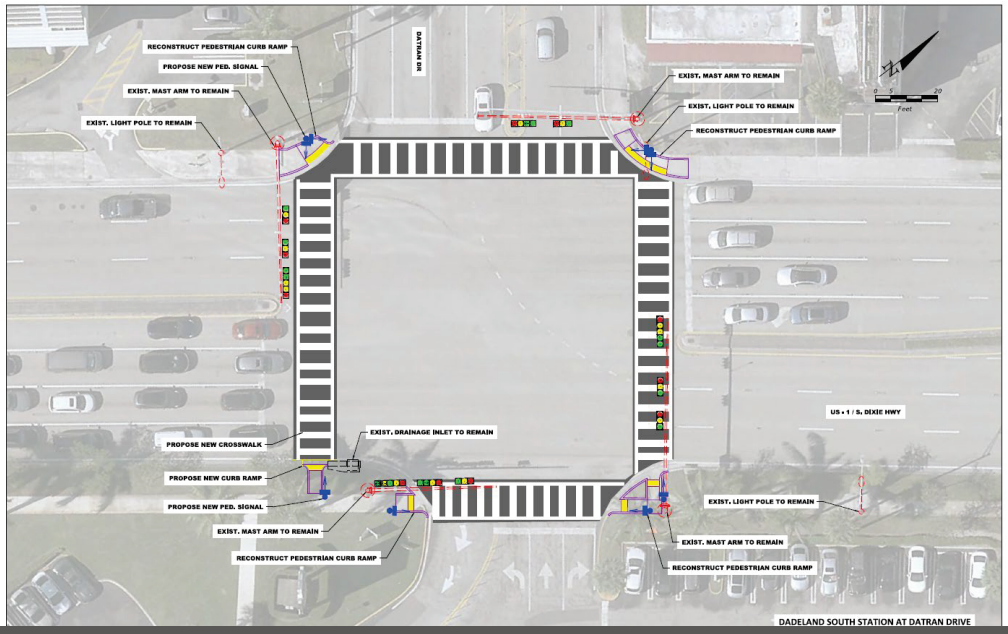
DADELAND SOUTH STATION – EXISTING CONDITIONS

DATRAN DRIVE

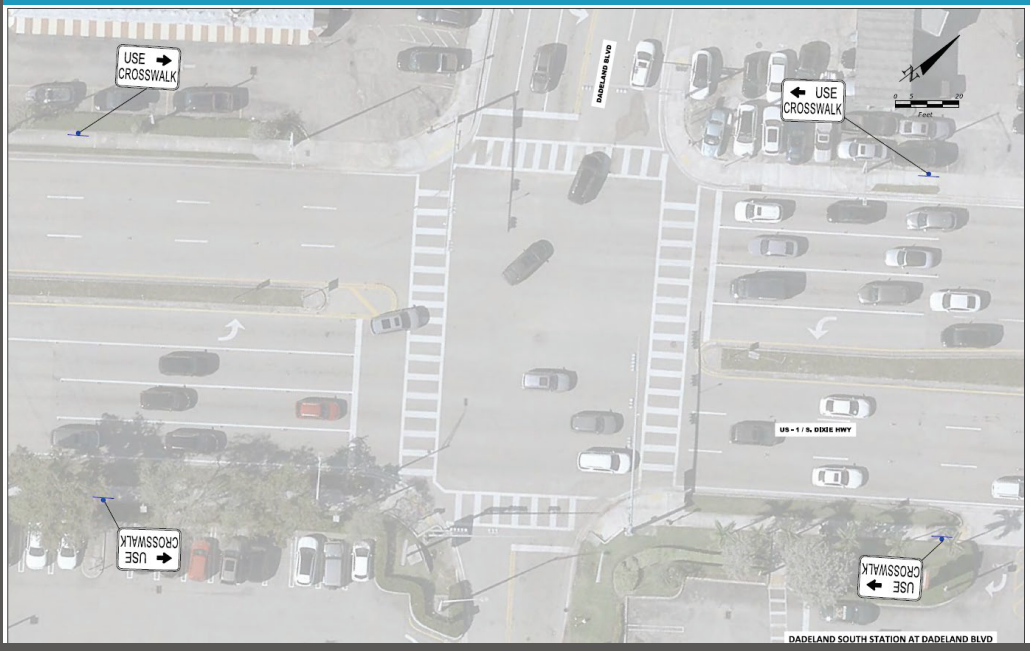
DADELAND BLVD

17

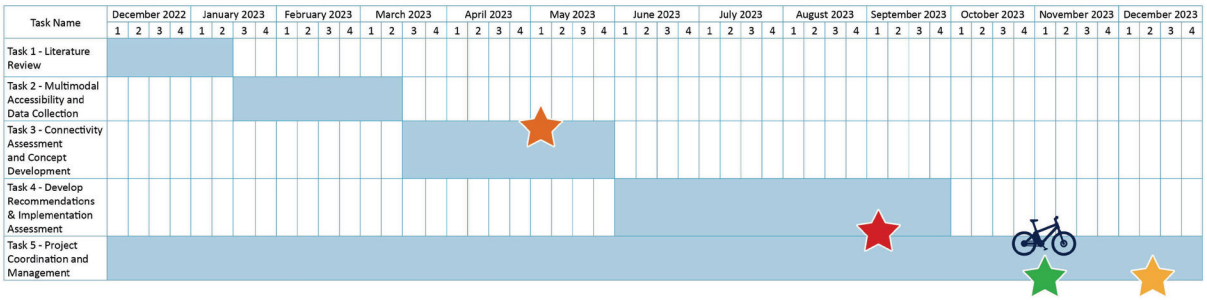
DADELAND SOUTH STATION – ALT 4: AT GRADE IMPROVEMENTS



DADELAND SOUTH STATION – ALT 4: AT GRADE IMPROVEMENTS



PROJECT SCHEDULE



Milestones

Bicycle Pedestrian Advisory Committee (BPAC) Meeting - November 7, 2023

TWO Completed - December 15, 2023

LEGEND

- PWG No. 1
- PWG No.2
- PWG No.3
- TWO Completed
- BPAC Meeting

Estimated Total Duration

20

21

Miami-Dade Transportation Planning Organization

MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION

BICYCLE PEDESTRIAN ADVISORY COMMITTEE

TPO OFFICES
150 WEST FLAGLER STREET
SUITE 1900 – BOARD CONFERENCE ROOM
MIAMI, FL 33130

- FINAL SUMMARY MINUTES -

MEETING OF TUESDAY, NOVEMBER 7, 2023, AT 5:30 PM

BPAC MEMBER ATTENDANCE:
Melissa Hege (Vice-Chair), Webber Charles, Dariel Fernandez, Matthew Gultanoff, Amanda Sherlock, Eric Tullberg, Robert Werthamer, Dr. Mickey Witte

BPAC MEMBERS ABSENT:
Charles Fischer (Chair)(Excused), Samantha Henry (Unexcused). Ginger Phillips (Excused), Hank Sanchez-Resnik (Excused)

OTHERS IN ATTENDANCE:

Kevin C. Walford, Miami-Dade TPO
John McWilliams, Kimley-Horn
Victoria Rodriguez, Kimley-Horn
Isaac Pinckney, DTPW
Thom Bell, Citizen
Sheena Lewis, Citizen
Stephanie Romero, BCC Engineering
Jesús Fuentes, Miami-Dade TPO

I. CALL THE MEETING TO ORDER

Mr. Walford called the meeting to order with a quorum at 5:35 PM. As the Chair, Charles Fischer, was not present, the gavel was handed to the Vice-Chair, Melissa Hege. Mr. Walford introduced two new members, Amanda Sherlock and Robert Werthamer, who were appointed by TPO Board Members Christi Fraga and Keon Hardemon, respectively. Introductions around the room followed.

II. APPROVAL OF AGENDA

Motion for approval of the November 7, 2023 agenda made by Mr. Tullberg, seconded by Dr. Witte, and approved unanimously.

III. APPROVAL OF MINUTES

Motion for approval of the October 10, 2023 minutes made by Mr. Tullberg, seconded by Dr. Witte, and approved unanimously.

IV. PUBLIC COMMENTS

Thom Bell and Sheena Lewis spoke about bike facilities and interactions with drivers in Wynwood.

V. US-1 BICYCLE AND PEDESTRIAN BRIDGE FEASIBILITY STUDY

Stephanie Romero of BCC Engineering conducted a brief presentation highlighted by the following:

- Project Information
- Project Need
  - Implement pedestrian and bicyclist access across US-1 utilizing pedestrian bridges at the 3 Metrorail stations
  - Maximize safety, mobility and accessibility for pedestrians and bicyclists crossing US-1
- Coconut Grove Station Analysis
  - Connectivity Assessment
  - Crash Data
  - Alternative 1 – Pedestrian Bridge at SW 27th Avenue
  - Alternative 2 – At Grade Improvements
- Dadeland North Station Analysis
  - Connectivity Assessment
  - Crash Data
  - Alternative 1 – Pedestrian Bridge west of SW 84th Street
  - Alternative 2 - Pedestrian Bridge W of SW 84th St (closer to Snapper Creek Canal)
  - Alternative 3 – At Grade Improvements
- Dadeland South Station Analysis
  - Connectivity Assessment
  - Crash Data
  - Alternative 1 – Pedestrian Bridge at Dadeland Boulevard
  - Alternative 2 - Pedestrian Bridge west of Datran Drive
  - Alternative 3A - Pedestrian Bridge to accommodate new development at northern end 9300 Plaza and Shorty's BBQ
  - Alternative 3B - Pedestrian Bridge to accommodate new development at the center of 9300 Plaza and Shorty's BBQ
  - Alternative 4 – At Grade Improvements
- Project Schedule
- Next Steps

BPAC member Dariel Fernandez arrived to the meeting at 6:12 pm.

After the presentation, the Chair opened the floor to questions, concerns, and comments that Ms. Romero addressed. Dr. Witte proposed a BPAC resolution for crossing options other than pedestrian bridges. Mr. Walford will prepare the resolution and it will be brought to the BPAC at its December meeting for a vote.

VI. FDOT DISTRICT SIX: MONTHLY PROJECT UPDATE REPORT

John McWilliams of Kimley-Horn conducted a brief presentation highlighted by the following:

- 435501-4-34-01 The Underline from SW 19 Avenue to Dadeland South Metrorail Station
- 449946-1-52-01 Scoping Report – SR A1A/Collins Avenue from 44 Street to south of Indian Creek Drive
- 446002-1-52-01 SR 953/Le Jeune Road/SW 42 Avenue from North Dixie Highway to north of Altara Avenue
- 450761-3-61-01 SR A1A at 5th Street Miami Beach Pedestrian Bridge
- 429286-6-32-01 SR 959/SW 57 Avenue at SW 62 Street
- 452428-1-21-01 Town of Bay Harbour Islands – Broad Causeway Bridge PD&E Study
- 414052-4-32-01 SR 953/Le Jeune Road at Coral Way/Miracle Mile

After the presentation, the Chair opened the floor to questions, concerns, and comments that Mr. McWilliams addressed.

VII. DTPW ROAD TO ZERO GRANT UPDATE

Isaac Pinckney of DTPW conducted a brief presentation highlighted by the following:

- Program Goal
  - To end traffic fatalities and serious injuries by 2040
- Grant Overview
  - To increase safe, reliable, sustainable, and equitable mobility for all
- Progress to Date
  - Grant Funding Scope
    - Funded by National Highway Traffic Safety Administration (NHTSA)
    - Three Pillars of Road to Zero Strategy
    - Vision Zero Dashboard
    - Local Community Liaison Pilot Program
  - Budget
    - DTPW awarded $150,000 in funding for its 2022 applications
  - Scope of Work Development

- Next Steps
  - Approval and Signing of Notice to Proceed (NTP)
    - November 7, 2023
  - Launching in-house design of the Vision Zero Dashboard
    - 9 month implementation window

After the presentation, the Chair opened the floor to questions, concerns, and comments that Mr. Pinckney addressed.

BPAC member Amanda Sherlock left the meeting at 7:12 pm.

VIII. FDOT DISTRICT SIX: NW 36TH STREET MULTIMODAL CORRIDOR STUDY

Jesús Fuentes of EXP conducted a brief presentation highlighted by the following:

- Description of the Area
- Steps Completed so Far
  - Technical Memoranda
  - Public Outreach
- Walking Audits
  - City of Miami Springs (9.15.23)
  - Village of Virginia Gardens (10.4.23)
- Elected Officials/Public Feedback Received
- Current and Recommended Conceptual Typical Sections and Alternatives
  - Section 1A – SR 826/Palmetto Expressway to NW 72nd Avenue
  - Section 1B – NW 72 Avenue to Bridge over FEC Hialeah Railway Yard
  - Section 2 – FEC Railway Bridge
  - Section 3 – NW 67 Avenue to NW 57 Avenue
  - Section 4 – NW 57 Avenue to South Royal Poinciana Boulevard
  - Section 5 – South Royal Poinciana Blvd to NW 37 Avenue (Iron Triangle)
  - Section 6 – NW 37 Avenue to NW 17 Avenue
  - Section 7 – NW 17 Avenue to NW 7 Avenue
  - Section 8 – NW 7 Avenue to I-95 Underpass
  - Section 9 – NW 5 Avenue to North Miami Avenue
  - Section 10 – North Miami Avenue to SR-5/US-1/Biscayne Boulevard
- Other Recommended Analyses
- Next Steps
  - Nov – BPAC, FTAC & CTAC meetings
  - Dec – City of Miami Springs, Village of Virginia Gardens, and City of Miami Commission Meetings
  - Dec - Final Report
  - 2024 - Including recommendation in the upcoming 2050 LRTP, 2026-2030 TIP, FDOT Work Program, as appropriate

After the presentation, the Chair opened the floor to questions, concerns, and comments that Mr. Fuentes addressed.

IX. MEMBER COMMENTS

Mr. Tullberg's comments were provided via printed handouts to the BPAC members.

X. NEW/OLD BUSINESS

Mr. Walford mentioned that the 2024 meeting dates will be finalized soon. He also discussed that in January will be the next cycle for BPAC officer elections. The current chair, Charles Fischer, has mentioned that he will need to step down.

XI. ADJOURNMENT

The meeting adjourned at 7:41 PM. The next meeting will be on December 5, 2023.

*****MINUTES ARE IN SUMMARY FORM*****

FOR AN ELECTRONIC COPY OF THE RECORDING OF THIS MEETING
PLEASE CONTACT THE MIAMI-DADE TPO AT 305.375.4507

Miami-Dade Transportation Planning Organization

MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION (TPO)

TRANSPORTATION AESTHETICS REVIEW (TARC) COMMITTEE

150 WEST FLAGLER STREET, SUITE 1900
MIAMI, FL 33130

FINAL SUMMARY MINUTES

MEETING OF WEDNESDAY, NOVEMBER 15, 2023

TARC MEMBERS ATTENDANCE:

Debbie Swain (Vice-Chairperson)
Mark W. Bobb
Karley Chynces
Jorge Troitino

OTHERS PRESENT:

Oscar Camejo, TARC Coordinator, Miami-Dade TPO
Stephanie Romero, BCC Engineering
Bradley Woodson, Miami-Dade TPO

I. CALL TO ORDER/ ROLL CALL AND QUORUM

Vice-Chairperson Debbie Swain introduced herself and called the meeting to order at 4:03 pm. Vice-Chairperson Debbie Swain, asked for the Committee Members and audience to introduce themselves and advised that there was a quorum present.

I. A. APPROVAL OF AGENDA

Karley Chynces made a motion to approve the agenda, which was seconded by Mark W. Bobb. The motion passed unanimously.

I. B. APPROVAL OF MINUTES

Vice-Chairperson Debbie Swain requested that approval of September meeting minutes be moved to next TARC meeting since those present at the current meeting were not present at the September meeting. TARC members agreed.

II. ACTION ITEMS

N/A

III. INFORMATION ITEMS

A. US-1 BICYCLE AND PEDESTRIAN BRIDGE FEASIBILITY STUDY

Miami-Dade TPO consultant made the presentation on the US-1 Bicycle And Pedestrian Bridge Feasibility Study. Consultant went over the project needs which included the recommended implementation of pedestrian and bicyclist access across US-1 at Coconut Grove, Dadeland North and Dadeland South Metrorail Stations. The purpose of the study is to maximize safety, mobility and accessibility for pedestrians and bicyclists crossing US-1. The consultant went over the crash data summary, proposed potential bridge and at grade improvements alternatives at three Metrorail Stations studied. Consultant also went over the project schedule, major milestones, and next steps: finalize concept development and cost estimates, finalize recommendations, approval/endorsement of recommendations. The TARC members raised concerns on landscaping and accessibility issues, which consultant responded to the satisfaction of the TARC members.

IV. REPORTS

A . MEMBER REPORTS

None

B. STAFF REPORTS

TARC Coordinator, Mr. Oscar Camejo, distributed the TARC schedule of meetings to be held in 2024. Karley Chynces made a motion to approve the 2024 schedule, which was seconded by Jorge Troitino. The motion passed unanimously.

TARC Coordinator, Mr. Oscar Camejo shared images of the lighting underneath the SR 826/836 interchange which were all in working order. Mr. Oscar Camejo stated that the pictures were submitted by a previous TARC member and that TARC's correspondence with the Expressway Authority played an important role in getting the lights operational again.

V. NEW BUSINESS

Consultant offered to present the "Enhancing Safe Routes to School Program" to the next TARC meeting. TARC members were receptive to the recommendation.

VI. PUBLIC COMMENT

No comments made.

VII. ADJOURNMENT

The meeting adjourned at 4:51 PM.

*****MINUTES ARE IN SUMMARY FORM*****

FOR AN ELECTRONIC COPY OF THE RECORDING OF THIS MEETING, PLEASE CONTACT THE MIAMI-DADE TPO AT (305) 375-4507.

APPENDIX D

COST ESTIMATE

Miami-Dade Transportation
Planning Organization

APPENDIX D

2 - Cost of components of the existing bridge at University station were calculated, note a construction buffer is added.

Station/Alternative	Number of Towers	Tower Cost	Span Length (ft)	Bridge Width (ft)	Bridge Cost	Assumed RoW Aq. (sf)	Assumed RoW Cost (/sf)	Total RoW Cost	Const. Risk Buffer	Total Cost
University	2	$600,000	124	13.333	$1,157,333.33	2000	$250	$500,000	1.10	$2,433,066.67

3 - Cost Calculated is then compared to actual total cost of $6 Million, and a factor is derived from the comparison

Calculated Cost = $2,433,066.67
Actual Cost = $6,000,000.00 Source: https://news.miami.edu/stories/2016/12/pedestrian-bridge-installed-over-us-1.html
Actual Cost Factor = 2.47

Note the actual cost factor accounts for construction costs related to performing construction immediately adjacent to the Metrorail, which heavily affects scheduling and complicates the construction process, leading to increased costs.

4 - The Actual Cost value is based on a dollar value from the year of completion of the Pedestrian Bridge at University station (2017). Inflation must be accounted for from 2017 to 2023.

2017 Dollar Value (Base) = $1.00
2023 Dollar Equivalent = $1.23

Source: https://www.usinflationcalculator.com/

5 - A final factor superimposing the factors developed in steps 3 and 4 is created for the final calculations.

Final Factor = 3.03

6 - Gather RoW data for all alternatives.

Station	Property	Lot Size (sqft)	Market Value	Unit Market Cost ($/SF)
Coconut Grove	Shell Gas Station	54,979	$ 6,155,498	$ 112
Dadeland North	Bomnin Cheverolet	275,977	$ 29,337,288	$ 106
Dadeland North	Ross	247,125	$ 25,092,099	$ 102
Dadeland South	Shortys	32,220	$ 7,249,500	$ 225
Dadeland North	Trader Joe's	64,199	$ 14,444,775	$ 225
Dadeland North	9300	32,907	$ 7,033,871	$ 214
Dadeland South	City Furniture	49,005	$ 10,474,819	$ 214
Dadeland South	Burger King	35,548	$ 8,713,872	$ 245
Dadeland South	Auto Perfection	12,382	$ 2,896,189	$ 234
Dadeland South	9350 BLDG	12,197	$ 2,607,109	$ 214
Dadeland South	Dadeland Plaza	253,808	$ 31,762,511	$ 125

7 - Calculate Bridge Cost Estimates.

Station/Alternative	Number of Towers	Tower Cost	Span Length (ft)	Bridge Width (ft)	Bridge Cost	Assumed RoW Aq. (sf)	Assumed RoW Cost (/sf)	Total RoW Cost	Const. Risk Buffer	Final Cost Factor	Total Cost	Notes
Coconut Grove / 1	2	$600,000	103	13.333	$961,333.33	1800	$112	$201,530	1.10	3.03	$5,820,717.00	
Coconut Grove / 2	2	$928,571	135	13.333	$1,260,000.00	1800	$112	$201,530	1.30	3.03	$9,241,194.71	20% added to Const. Buffer for Constructability Risks, Tower Cost increased for 3rd level bridge height
Dadeland North / 1	2	$600,000	129	13.333	$1,204,000.00	2200	$106	$233,867	1.17	3.03	$7,111,502.66	7% added to Const. Buffer for structures related to canal
Dadeland North / 2	2	$600,000	152	13.333	$1,418,666.67	2200	$106	$233,867	1.10	3.03	$7,444,710.80	
Dadeland North / 3	2	$600,000	148	13.333	$1,381,333.33	1800	$214	$384,750	1.10	3.03	$7,777,805.33	
Dadeland South / 1	2	$600,000	139	13.333	$1,297,333.33	3800	$241	$915,776	1.10	3.03	$9,108,249.18	RoW Cost is a weighted average
Dadeland South / 2	2	$600,000	134	13.333	$1,250,666.67	4300	$173	$741,913	1.10	3.03	$8,425,181.44	RoW Cost is a weighted average
Dadeland South / 3A	1	$300,000	126	13.333	$1,176,000.00	5400	$225	$1,215,000	1.15	3.03	$8,833,918.24	5% added to Const. Buffer for Developer risk, RoW Cost is a weighted average
Dadeland South / 3B	2	$600,000	132	13.333	$1,232,000.00	3200	$214	$684,000	1.10	3.03	$8,187,238.04	RoW Cost is a weighted average

APPENDIX E

RECOMMENDATIONS MATRIX

Miami-Dade Transportation Planning Organization

Miami-Dade County E21-TPO-01 GPC VIII-34:
US-1 Bicycle and Pedestrian Bridge Feasibility Study

Recommendations Matrix

Location	Pedestrian Counts (Max Peak Hour)	Bicycle Counts (Max Peak Hour)	Total Crashes (Last 5 Years)	Pedestrian Fatalities/ (Serious Bodily Injuries)	Recommendations	Cost Range
Coconut Grove Metrorail Station	373	25	15	0 (2)	**Short Term Recommendations:** As a result of the high pedestrian counts and number of crashes at the intersection an interim recommendation is proposed. The interim recommendation are At-Grade Improvements including: wider high emphasis crosswalks, widen pedestrian curb ramps, realigned median to accomodate for new crosswalk width, and No Right Turn on Red.	$200K - $260K
					Long Term Recommendations: A second or third level truss bridge is recommended to span over US-1 just west of SW 27th Avenue. Based on the total number of pedestrian crossings, total crashes, insufficient safety conditions and feedback from the Project Working Group it is recommended that the bridge alternative be further evaluated.	$5 - $10 Million
Dadeland North Metrorail Station	241	28	3	0 (0)	**Short Term Recommendations:** The Dadeland North Station has two different intersections that were evaluated (US-1 at 68th Court and 84th Street). As a result of the traffic data collection efforts, it was concluded that there was a high pedestrian count crossing over US-1. In order to improve the safety conditions at this location, it is recommended that the following interim At-Grade Improvements be provided: new pedestrian signals, new pedestrian curb ramps, new pedestrian refuge area in the median, combined high empahsis cross walks with bicycle crossing, upgraded pavement markings, No Turn on Red Signal and new lighting.	$420K - $546K
					Long Term Recommendations: It is recommended that after the Short Term Improvements are provided a Tier 2 Planning Study be proposed at this location to identify and evaluate the existing bike network in order to provided a connected Bikeway. Complete, connected bicycle networks increase transit ridership and improve safety for all modes of traffic. In order to build a connected, comfortable bicycle network, the community (Miami-Dade County and the Village of Pinecrest) will need to assess the network quality in order to set future goals.	$7 - $10 Million
Dadeland South Metrorail Station	74	7	4	0 (0)	**Short Term Recommendations:** The Dadeland South Metrorail Station encompasses two intersections; Datran Drive and Dadeland Blvd at US-1. The pedestrian counts and crash data justify providing a pedestrian bridge at this location in the future once the new development; Ocean Dadeland, LLC which includes two mixed-use towers located at the Shorty's BBQ are constructed. Interim recommendations include upgraded pavement markings, reconstructed ADA compliant pedestrian curb ramps, and "Use Crosswalk" signs.	$100K - $130K
					Long Term Recommendations: Considering that the proposed development will be primarily residential and that the pedestrian and bicycle counts will increase it is recommended that a pedestrian bridge be constructed over US-1 at the new development location. The existing streets currrently lack safe pedestrian crossings and as a result of this evaluation, new conditions after the construction and the input from the Project Working Group it is recommended that a pedestrian bridge that ties directly into the new development be considered.Two different alternatives can be assessed in the design phase.	$8 - $10 Million