



Welcome To The
Town of Medley

INCORPORATED 1949

THE TOWN OF MEDLEY

Multimodal Mobility

STUDY



Kimley»Horn

Expect More. Experience Better.

November 2017





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Introduction

The Town of Medley conducted the *Multimodal Mobility Study* to improve bicycling, walking, and public transit as alternative modes of transportation. This Study looks to identify specific transit and non-motorized transportation improvements that will become part of work programs for the Town and its transportation partners. This study includes recommendations for bicycle and pedestrian facility improvements, as well as recommendations regarding a Medley circulator service.

The Study also includes recommendations to provide improved connections to Tobie Wilson Recreational Center and other key destinations within Medley including Town Hall, Palmetto Metrorail Station, parks, and employment areas. This study also aims to improve connections to Medley's schools, residential neighborhoods, and other points of interest for the surrounding municipalities: Doral, Hialeah, Hialeah Gardens, and Miami Springs.

Context

The Town of Medley is located in the urbanized industrial area of north-central Miami-Dade County, Florida as shown in Figure 1. It is bordered directly by the City of Hialeah Gardens on the northwest, the City of Hialeah on the northeast, the City of Miami Springs on the southeast, the City of Doral on the south, and unincorporated Miami-Dade County on the west. The Town occupies a triangular shaped area of approximately 3,845 acres of land. Its northern boundary is delineated by NW South River Drive. The Town recently annexed approximately 500 acres of land consisting of the triangular shaped area in the northwest portion of the Town and approximately 280 acres for the section just north of NW 74th Avenue (the latter includes the lake bordered by NW 87th Avenue on the west).

The existing land use in the Town is primarily industrial, so while Medley is home to only 1,100 residents, its 1,800 businesses attract workers and visitors which results in a daytime weekday population of over 60,000 people. The large work force serves an industrial community whose goods and services are transported to businesses in and out of the County. The Town has experienced a substantial increase in commercial and industrial developments; resulting in the creation of new jobs which directly translate to an increase in traffic into and out of the Town.

The Town is accessible by way of Florida's Turnpike, Palmetto Expressway/SR 826, MetroRail, US 27/Okeechobee Road, NW 74th Street Connector to and from Hialeah, and the Florida East Coast (FEC)



railroad. NW South River Drive is one of the primary transportation corridors in the Town. This corridor runs adjacent and parallel to US 27/Okeechobee Road. US 27/Okeechobee Road provides direct access into the Town via several bridge crossings over the Miami Canal. The Palmetto Expressway/SR 826 bisects Medley on the eastern section of the town.

The goal of the Medley *Multimodal Mobility Study* is to identify and recommend improvements to enhance connectivity between key civic amenities in Medley and its neighboring municipalities, such as Doral, Hialeah and Hialeah Gardens. The focus is on linking key destinations, including residential neighborhoods, employment areas, neighboring parks, and recreational and open spaces to provide greater mode choice alternatives to residents and workers in and around Medley.





Transportation Mobility Analysis

A transportation mobility analysis was conducted to evaluate and build upon the existing bicycle and pedestrian mobility context within the Town of Medley and to identify opportunities through data analysis. The purpose of this task is to collect data, assess the existing conditions of alternative travel modes in Medley, and to analyze the bicycle and pedestrian infrastructure needs. Additionally, this chapter includes an overview of regional and local plans/programs that may have an impact on mobility in Medley.

Transportation Mode Activity Levels

USDOT data from the *National Household Travel Survey* (2009) (NHTS) indicate that bicycling and walking account for approximately ten percent (10%) of all trips in the Miami-Dade urbanized area, with walking representing approximately nine percent (9%) and bicycling representing approximately one percent (1%) of trips. The USDOT NHTS data are collected on daily trips through random sample travel surveys. Participants record all trips, all modes, all purposes, and all trip lengths. Florida's participation in the NHTS Add-On Program allows sufficient data collection to be analyzed at the urbanized area level, but not at the municipal level.

The United States Bureau of the Census measures transportation data for work trips only using a sampling of respondents that are selected to complete the annual American Community Survey (ACS). Updated socioeconomic, demographic, and housing information is available on an annual basis. The 2011-2015 ACS 5-Year Estimates were used for this analysis, and are summarized in Table 1.

Work trip characteristics in the Town of Medley demonstrate that walking trips account for over six percent (6%) of total work trips, which is three times the share that walking has in Miami-Dade County as a whole, and four times the share that walking has in the State of Florida. Residents of Medley are about as likely to use a personal motorized vehicle to travel to work as residents of Miami-Dade County, the State of Florida, or the country. Notably, the percent of work trips made by using public transportation in Medley is significantly less than Miami-Dade County as a whole. This could be an indication of low levels of transit accessibility for residents of Medley. Bicycling to work also exhibits a lower percentage in Medley than Miami-Dade County as a whole.



It should be noted that the sample population for the Town of Medley is typically in the 400-respondent range, therefore mode share and journey to work data may fluctuate significantly year to year depending on respondents.

Table 1. Journey to Work Data

2015 ACS 5-Year Estimates	Town of Medley	Miami-Dade County	State of Florida	United States
Car, truck, or van	86.49%	86.07%	89.06%	85.86%
Drove Alone	79.36%	76.86%	79.60%	76.40%
Carpooled	7.13%	9.22%	9.46%	9.45%
Public Transportation	1.23%	5.45%	2.11%	5.13%
Taxicab	0.00% ⁽¹⁾	0.13%	0.08%	0.12%
Motorcycle	0.00% ⁽¹⁾	0.26%	0.33%	0.21%
Bicycle	0.25%	0.61%	0.69%	0.60%
Walked	6.63%	2.24%	1.48%	2.78%
Other means	0.74%	0.90%	1.12%	0.89%
Worked at home	4.67%	3.43%	5.11%	4.42%

⁽¹⁾ Responses were not received for people using Taxicab or Motorcycle as a primary mode of transportation to work.



GIS Data Map Series

Using geographic information systems (GIS), a map series was prepared to illustrate existing transportation mobility conditions and community features in the Town of Medley that help form the background conditions for improving the Town's bicycle and pedestrian mobility. Figures 1 through 10 present the GIS Data Map Series.

- Figure 1: Town Overview Map
- Figure 2: Existing Transit Network and Ridership
- Figure 3: Pedestrian Level of Service (PLOS)
- Figure 4: Bicycle Level of Service (BLOS)
- Figure 5: Existing and Funded Bike Facilities
- Figure 6: Existing Land Use
- Figure 7: Future Land Use
- Figure 8: Employment Density
- Figure 9: Pedestrian and Bicycle Crashes
- Figure 10: Opportunities Map

Figure 1 provides an overview of key points of interest in and around the Town of Medley including parks, government buildings, public schools, and other trip generators.

Figure 2 provides an overview of transit ridership data in Town of Medley. As shown in Table 1, transit ridership represents approximately 1.25 percent of work trips made by residents of Town of Medley. As shown in Figure 2, the Town of Medley is served by the Palmetto Metrorail station, two Miami-Dade Transit (MDT) routes, and the Doral Trolley. These routes serve very few riders within the Town of Medley, with an average daily ridership of ten people or fewer per stop. However, ridership in the surrounding area is much higher due to more residential land uses in Hialeah Gardens, Hialeah, and Miami Springs. Hialeah, Miami Springs, and Doral also provide a trolley service that serve the outskirts of the Town of Medley. The Doral Trolley network as well as the MDT bus network, provide access to the Palmetto Metrorail Station, which serves the southernmost portion of Medley.



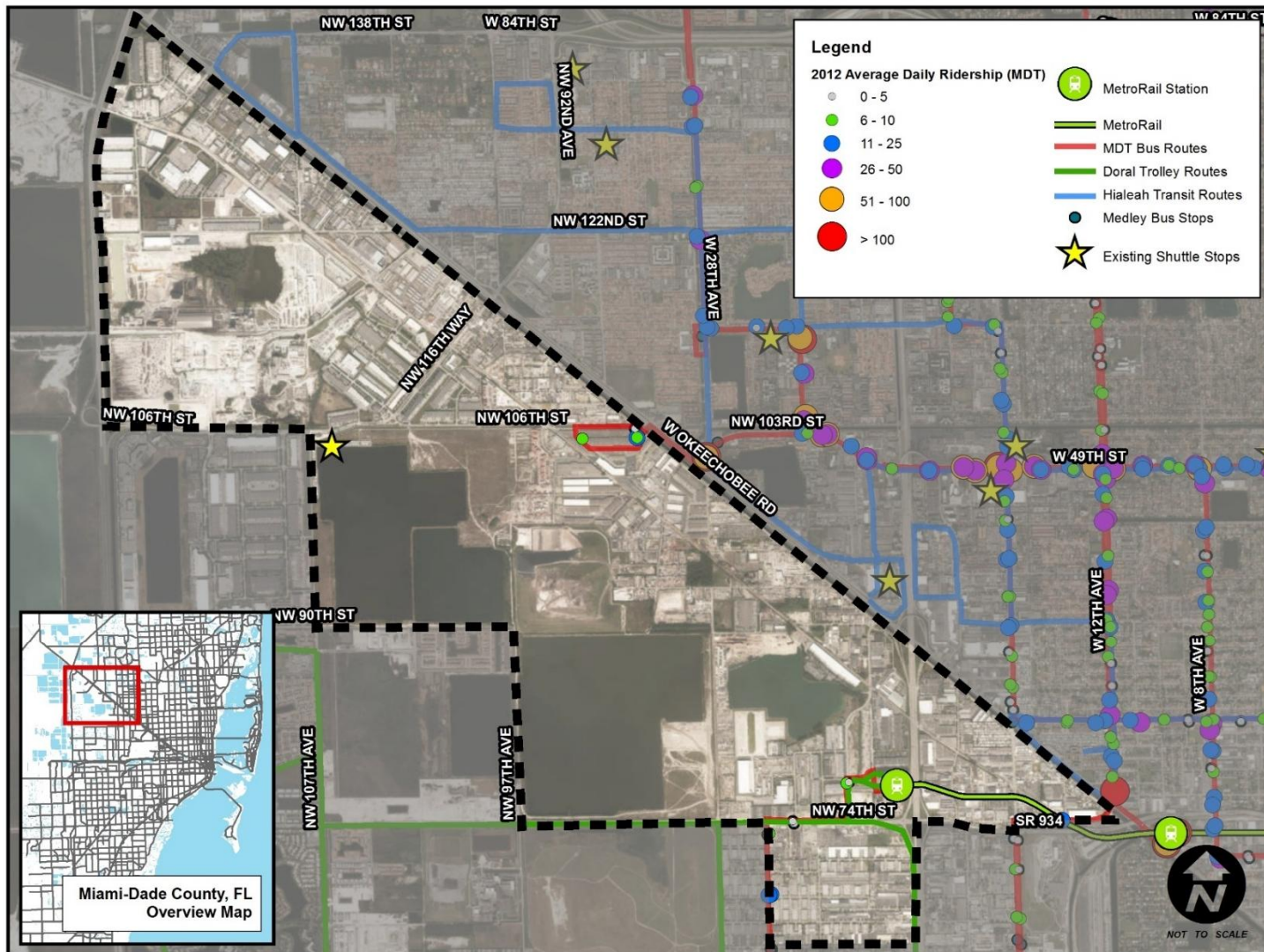


Figure 2. Existing Transit Network and Bus Ridership

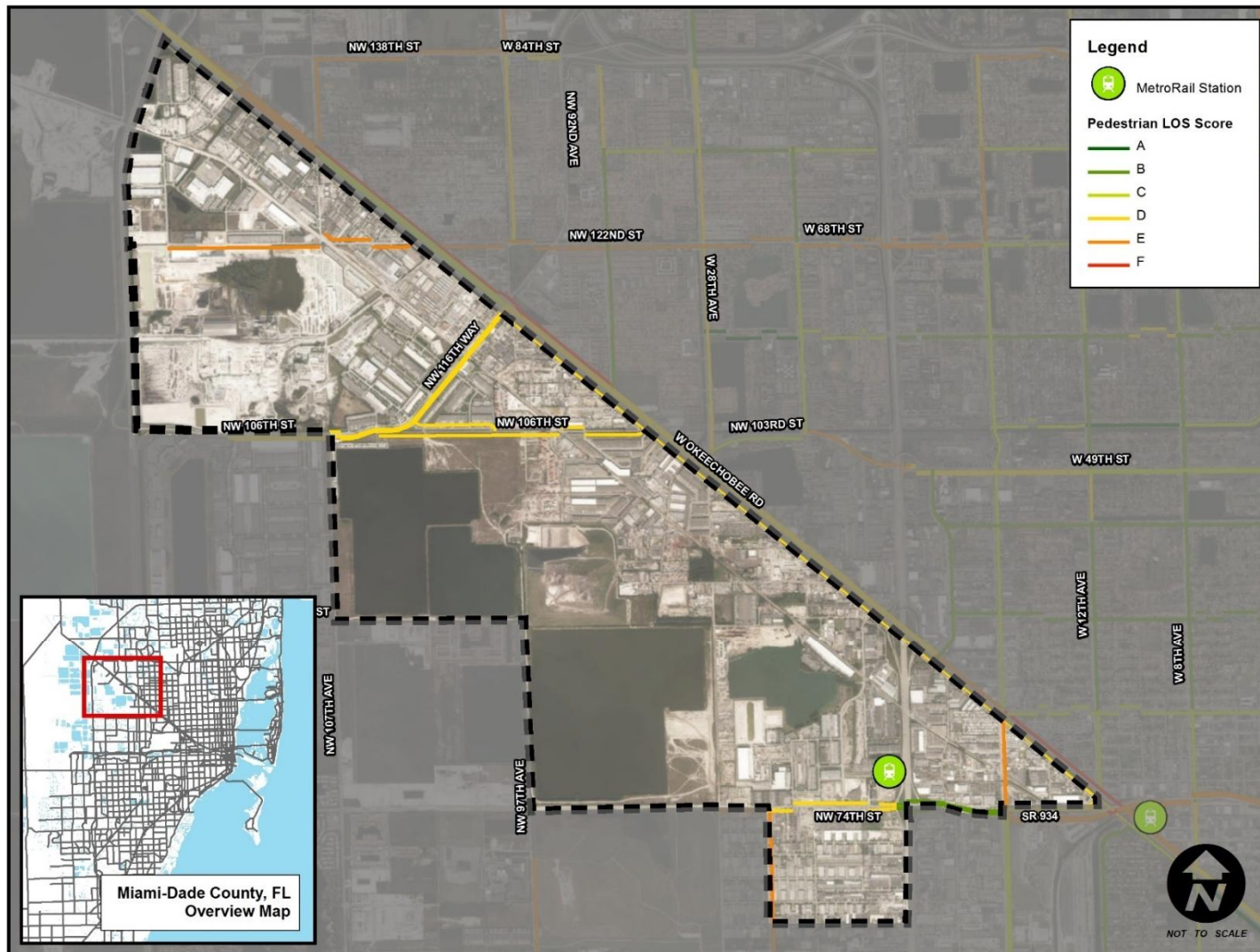


Figure 3. Pedestrian Level of Service (PLOS)



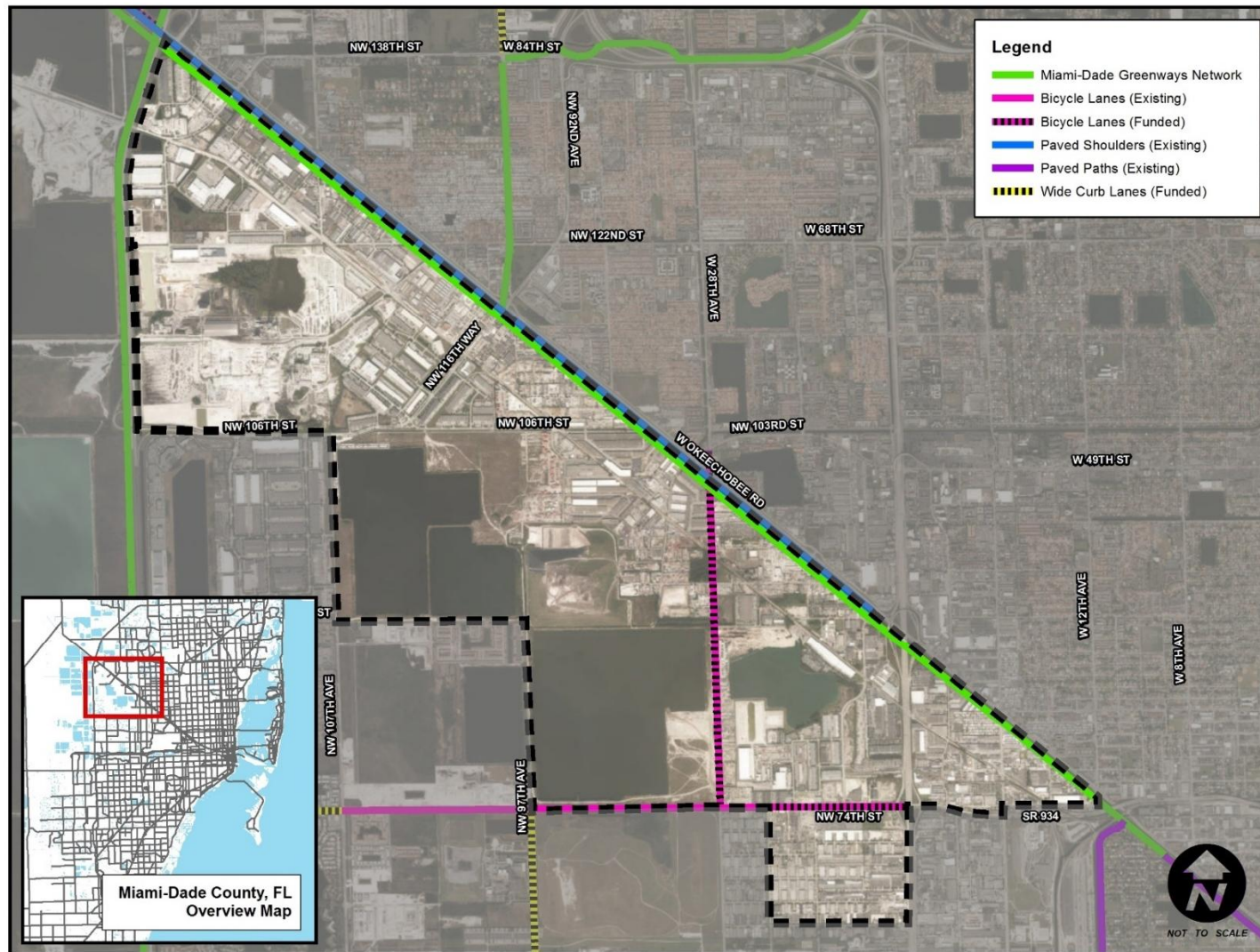


Figure 5. Existing and Funded Bicycle Facilities



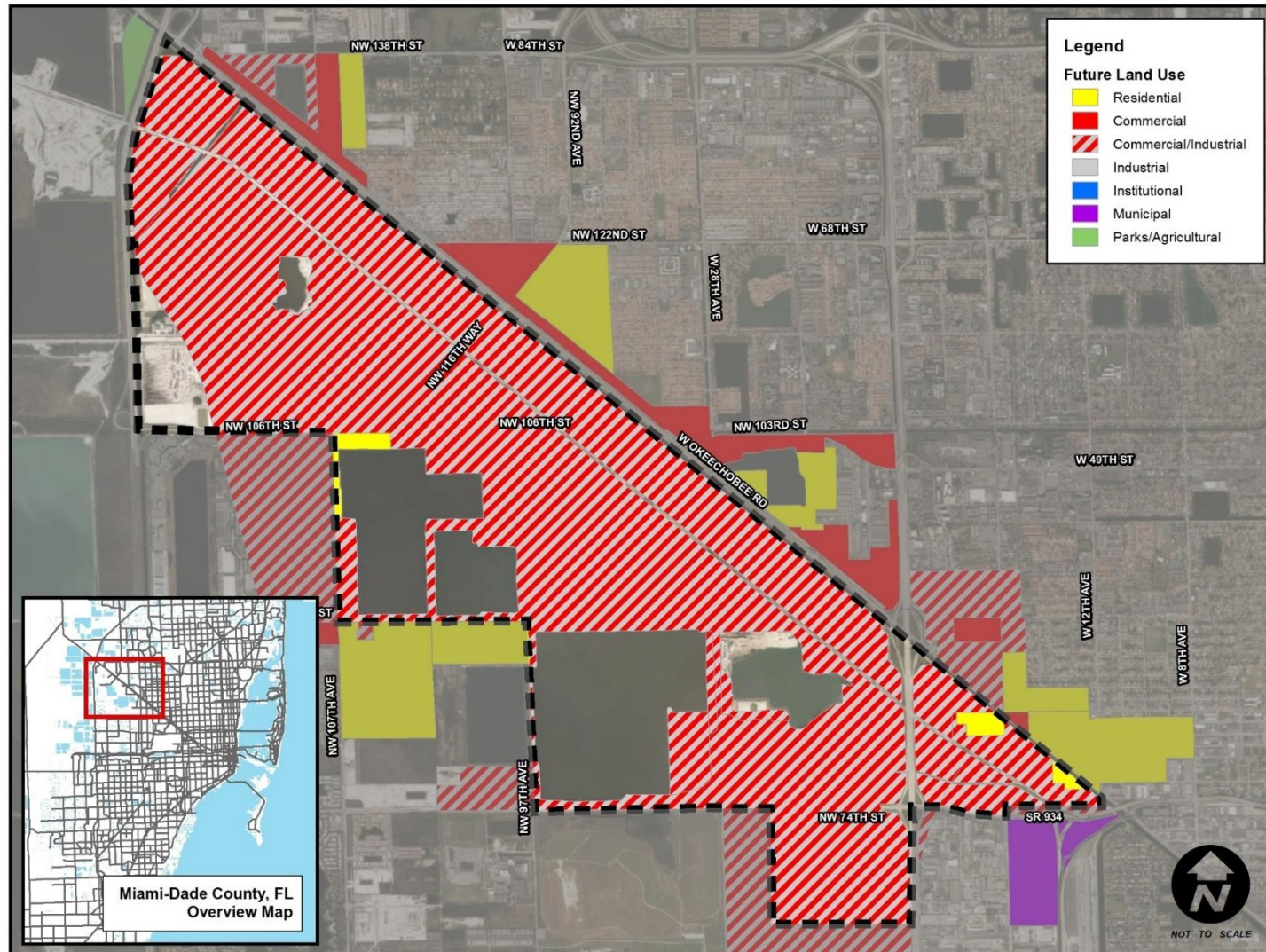


Figure 7. Future Land Use

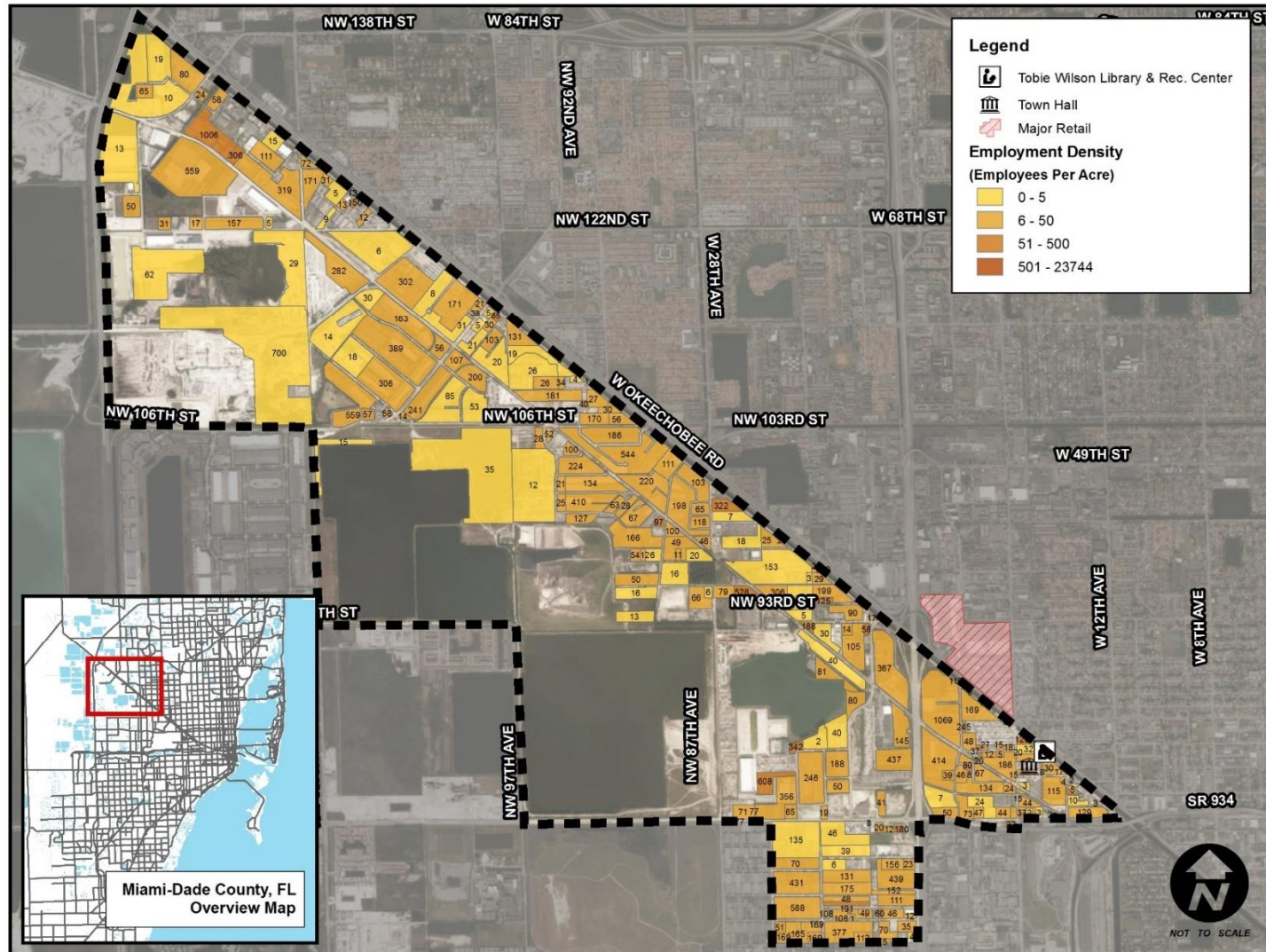


Figure 8. Employment Density

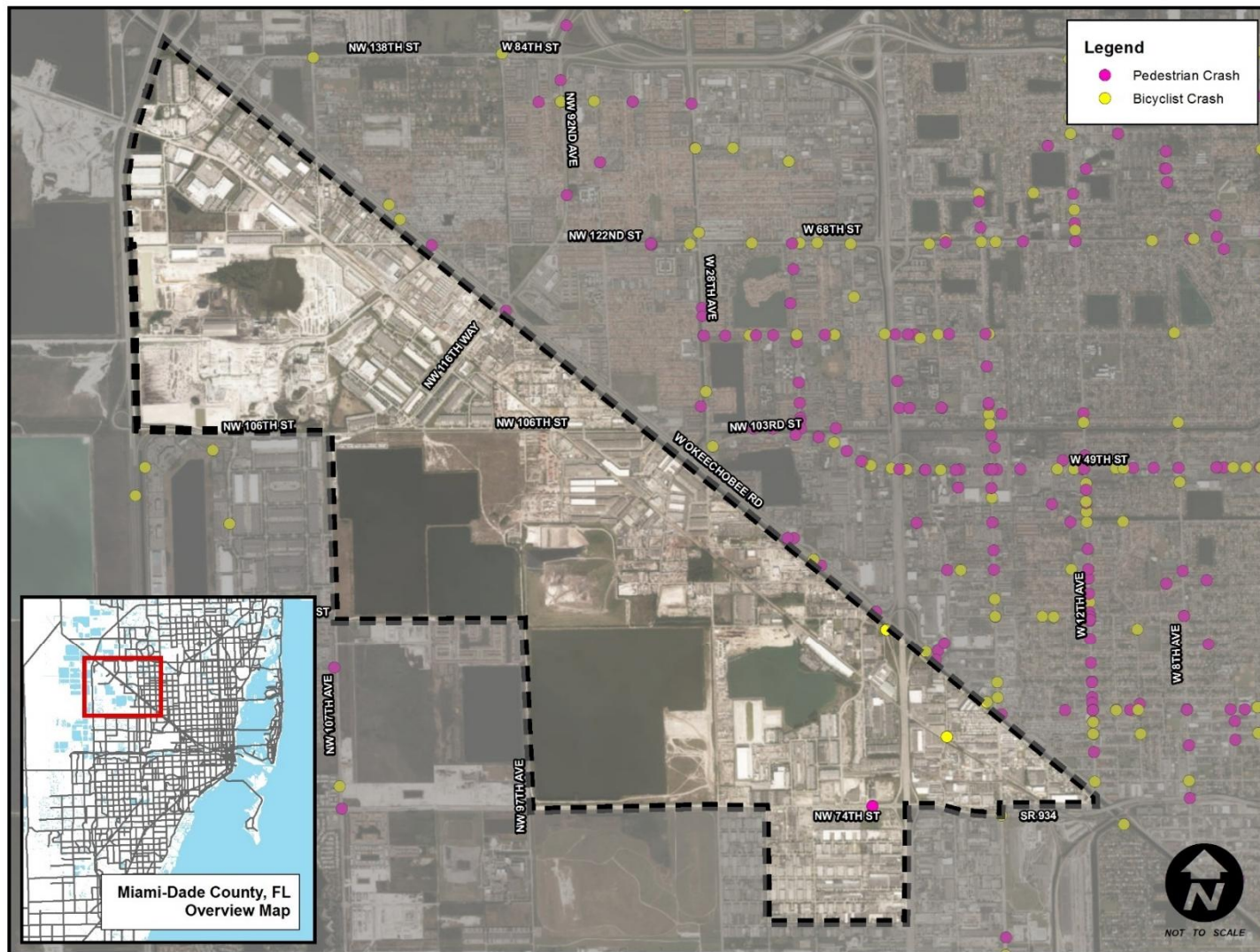


Figure 9. Bicycle and Pedestrian Crashes

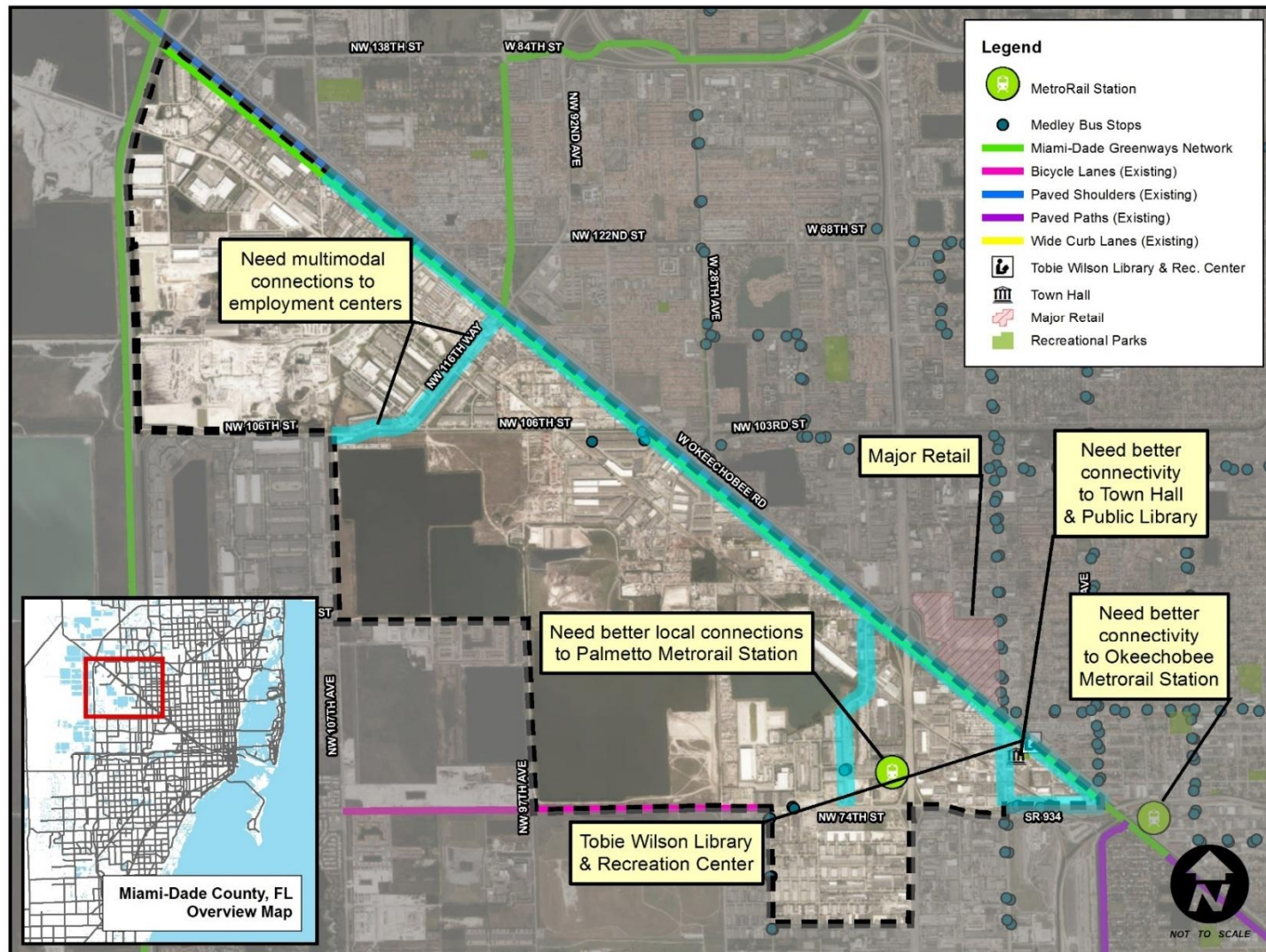
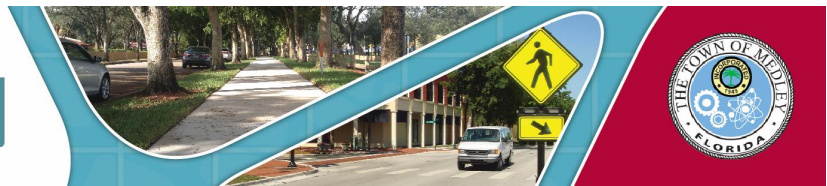


Figure 10. Town of Medley Opportunities Map



A preliminary pedestrian level of service (PLOS) analysis was conducted for major roadways based on the available GIS data. As can be seen in Figure 3, the Town of Medley has PLOS D on nearly all the major roads that pass through the town. Additionally, it should be noted that most of the local roadways in Medley do not provide a sidewalk, and therefore would have a PLOS F.

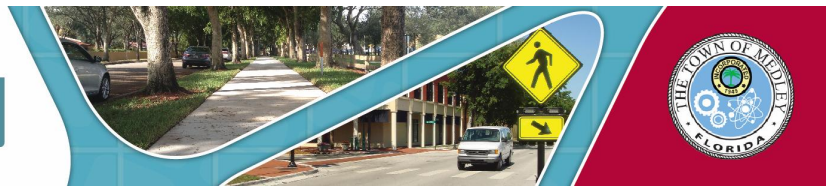
Similar to PLOS, a bicycle level of service (BLOS) analysis was conducted. As can be seen in Figure 4, most of the Town of Medley has a BLOS E on the major roadways. However, NW 74th Street has a BLOS F between SR 826/Palmetto Expressway and NW 84th Avenue.

The poor BLOS score is closely tied to the lack of bicycle facilities in the area, as shown in Figure 5. A bike lane provides a connection along NW 74th Street between NW 107th Avenue and NW 84th Avenue. Also depicted in Figure 5 are the planned (funded) facilities, including the extension of the bike lane on NW 74th Street to SR 826/Palmetto Expressway, and a bike lane along NW 87th Avenue between NW 74th Street and NW 103rd Street in Hialeah. These new bike facilities should alleviate the existing BLOS F along NW 74th St and provide improved bicycle transportation.

Figures 6 and 7 show the existing and future land uses for the Town of Medley, respectively. As seen in Figure 6, the Town of Medley is characterized by industrial land uses such as factories and warehouses. Future land use identifies new areas for residential development along the outskirts of the Town, as well as encourages commercial development by slating the majority of the Town for mixed commercial/industrial land use.

The Town of Medley is predominately an employment center, and therefore demographic analysis of the area is based on readily available employment data from InfoUSA. Employment data was joined to parcel data for the Town of Medley and found to be negligible. This is expected for a municipality with low bicycle and pedestrian mode share. However, it should be noted that bicyclist and pedestrian crashes often go unreported, and therefore Figure 9 may not show an accurate representation of crashes in Medley.

Figure 10 identifies opportunities for overcoming some key obstacles to non-motorized network connectivity within, to, and from the Town of Medley. As shown in the figure, NW South River Drive is a key corridor for providing a continuous connection within the Town. Additionally, NW 72nd Avenue, NW 79th Place, and NW 116th Way are identified as key corridors for providing connections to employment areas, recreation, retail, and to transit facilities within and adjacent to Medley.



A review of data available through Strava was also conducted as a tool to study bicycle trip patterns. Strava is a smartphone-based application that uses GPS location to track data about bike rides taken by its members. The data available through Strava provide an overview of popular routes for cyclists. Smartphone-based applications such as Strava are largely used by experienced on-road bicyclists who use their bike for recreational activity, and therefore provide limited information about bicycle use as a means of commuting to/from work. Figure 11 identifies US 27/Okeechobee Road as the primary route used by Strava users. There are minimal local routes within the Town boundaries; however, a few local routes outside of the Town's immediate boundaries, such as NW 74th Street, NW 114th Avenue, and NW 67th Avenue. Activity on these adjacent routes show that there is bicycling activity within the vicinity of Medley, yet most Strava users tend to use roadways to circumvent Medley, as opposed to using roadways within the Town.

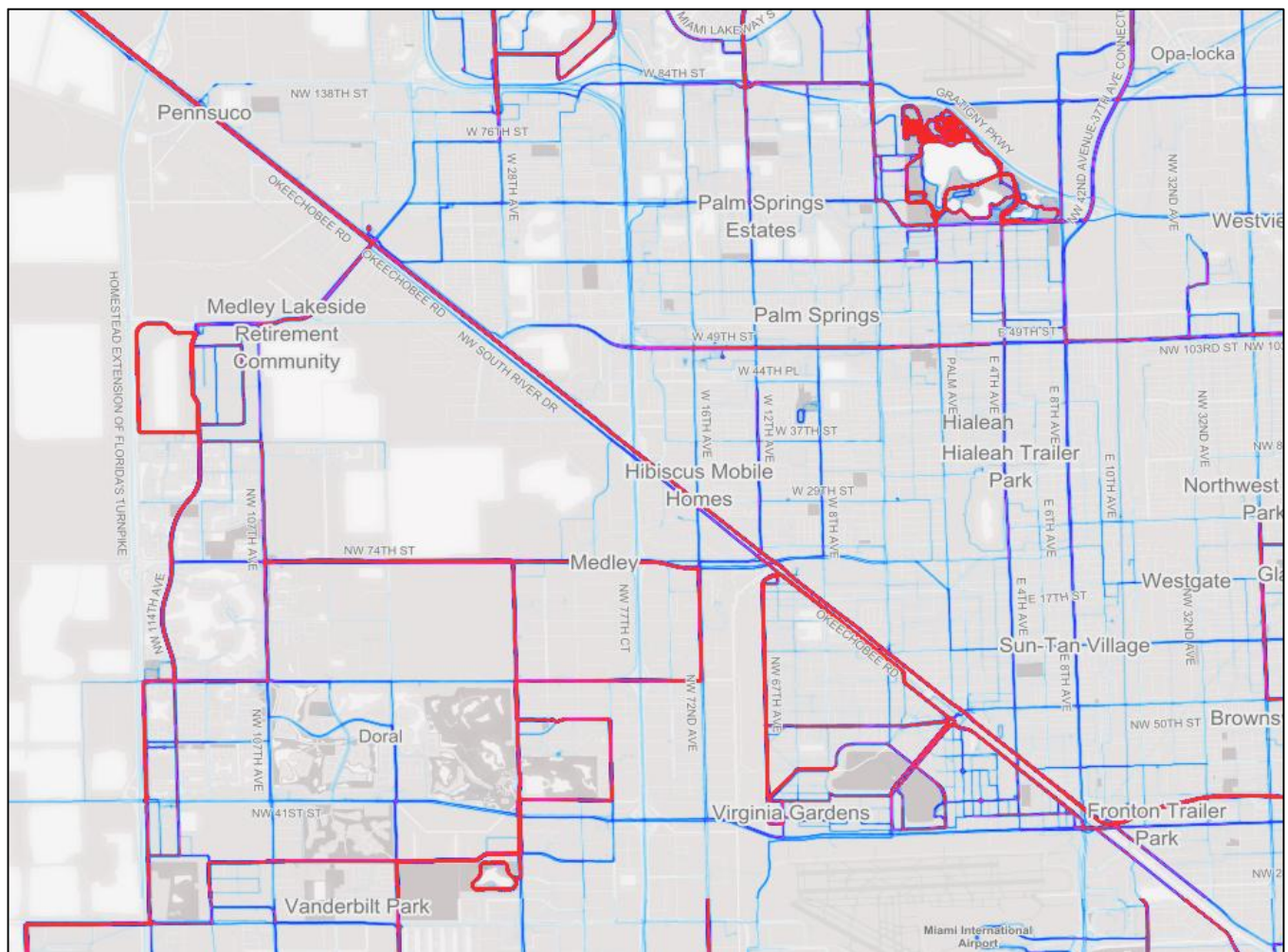


Figure 11. Strava Data

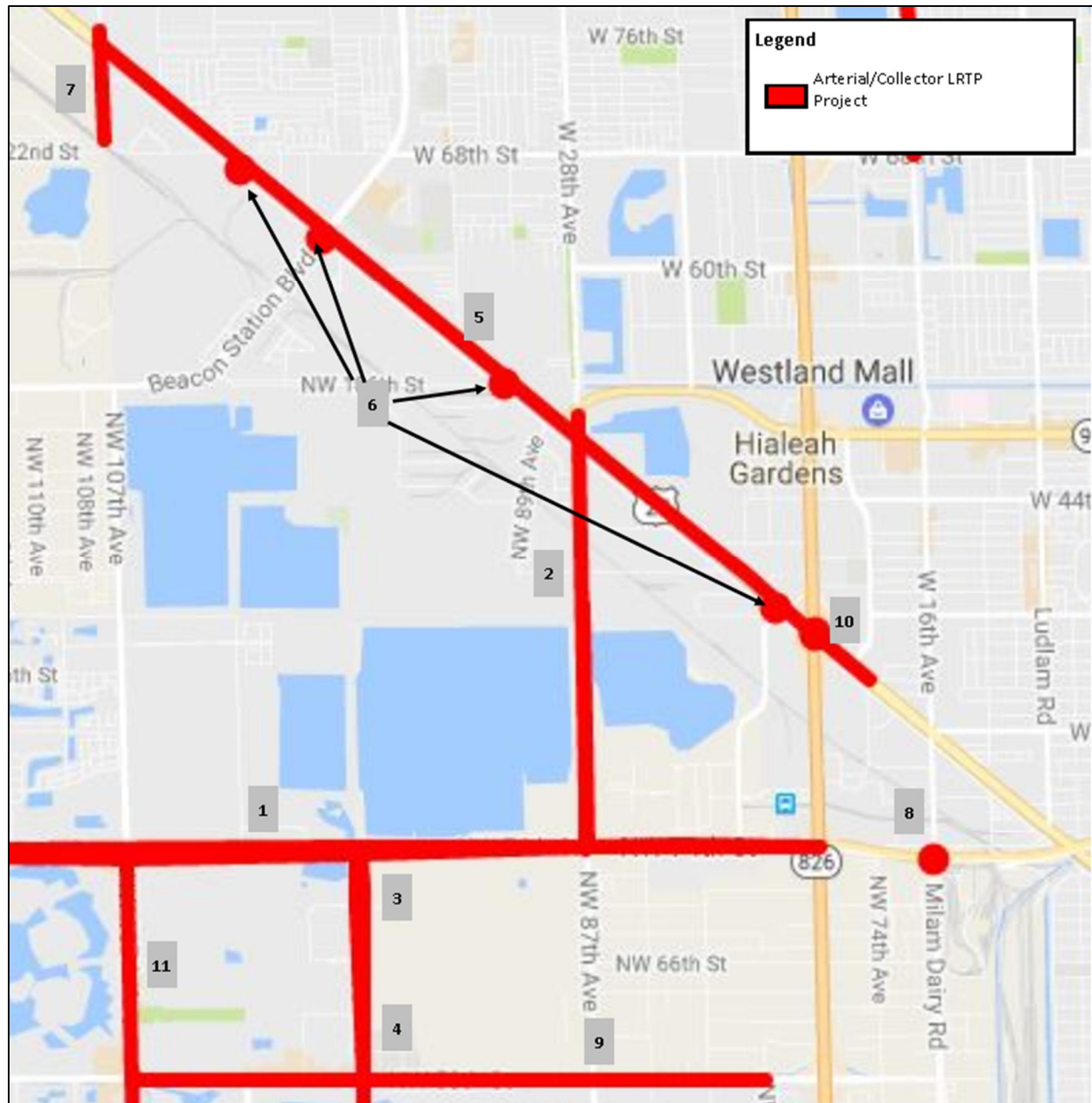


Source. Miami-Dade Transportation Plan Interactive Project Tool.

Project Code		Project Name
1	CMP12	SR 934 (Hialeah Expressway) between NW 84 Ave and W 4 Ave (Red Road) TDM Strategies.



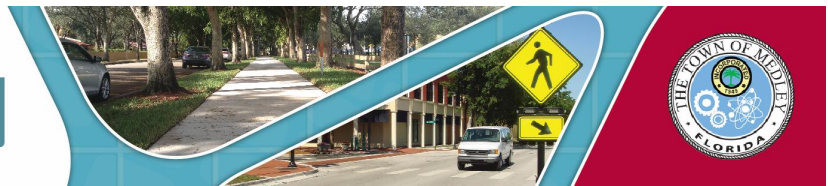
Arterial/Collector Projects



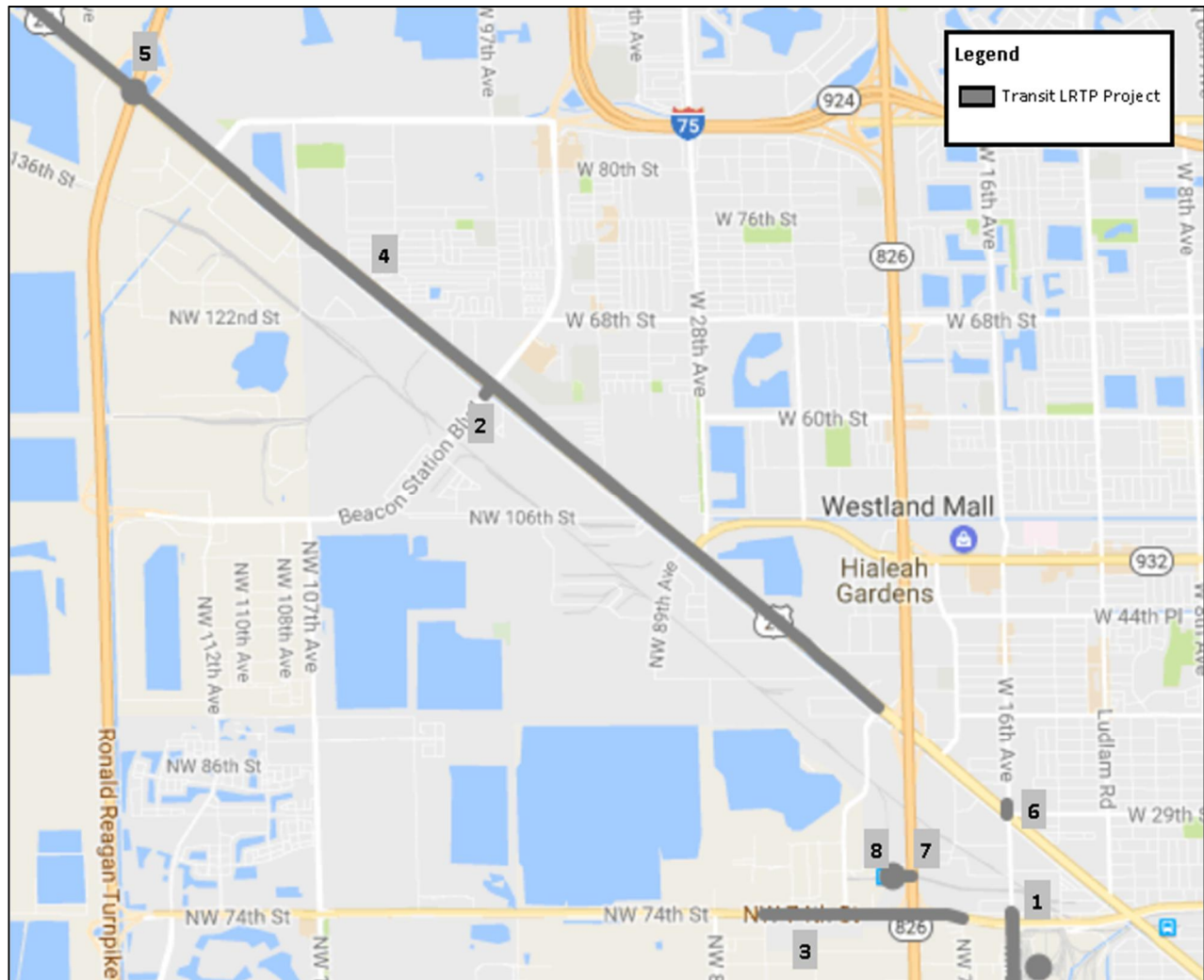
Source. Miami-Dade Transportation Plan Interactive Project Tool.



	Project Code	Project Name	Description/Project Limits	Priority
1	PW20040355	NW 74 St Reconstruction and Widening	SR 821 (HEFT) to SR 826 (Palmetto)	Priority 1
2	DT4056153	NW 87 Ave New 2 lane road construction	NW 74 St to NW 103 St	Priority 1
3	PW000746	NW 97 Ave New 4 lane road construction	NW 70 St to NW 74 St	Priority 1
4	PW000751	NW 97 Ave Reconstruction and Widening	NW 58 St to NW 70 St	Priority 1
5	FP1059	NW South River Drive Roadway and Operational Improvements	NW 74 Ave to NW 107 Ave	Priority 2
6	FP1018	Medley Bridge/Canal Improvements	NW 121 Way, NW 116 Way, NW 105 Way, NW 79 Way.	Priority 2
7	PW107	NW 107 Ave Widen Bridge over Miami Canal	North of W 122 St to US 27	Priority 3
8	FP1022	NW 72 Ave (Milam Dairy) Operational Improvements	Hialeah Expwy	Priority 3
9	FP1046	NW 58 St Traffic Operational Improvements	NW 82 Ave to NW 107 Ave	Priority 3
10	FDOT250	US 27 (Okeechobee Rd)/SR 826 (Palmetto) Interchange	Ramp Improvements	Priority 4
11	FP1057	NW 97 Ave Reconstruction and Widening	NW 52 St to NW 58 St	Priority 4



Transit Projects

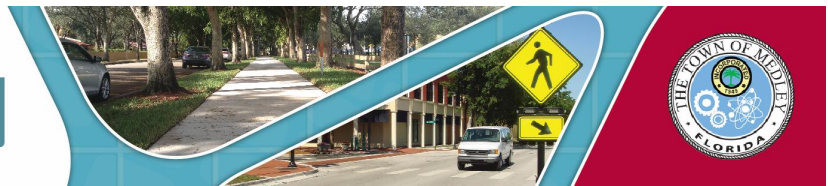


Source. Miami-Dade Transportation Plan Interactive Project Tool.

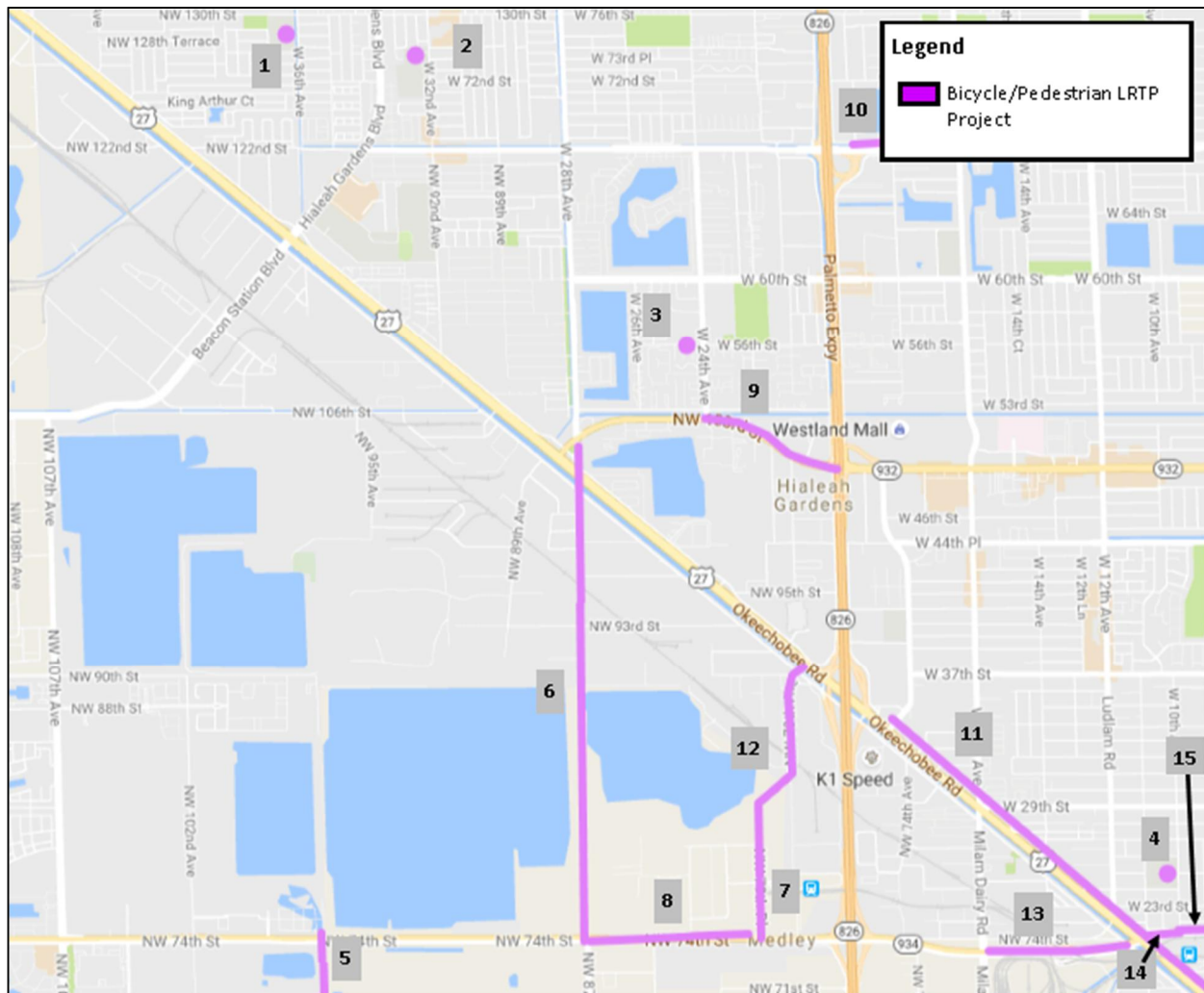
Project Code	Project Name	Description/Project Limits	Priority
1	FP06 NW 72 Ave (Milam Dairy) Corridor Improvements	NW 58 St to NW 74 St	n/a



2	FP07	NW 116 Way Signal Operations Improvements	Improve signal operations with headways and lost time. Retime and improve signal coordination, widen turn radii at intersections with South River Drive and US 2 (Okeechobee Road)	n/a
3	FP10	NW 74 St Corridor Improvements	NW 84 Ave to NW 74 Ave	n/a
4	FP13	US 27 (Okeechobee Rd) Timing Improvements	Signal timing improvements, improve access and signing between NW 138 Ave and NW 79 Ave	n/a
5	FP14	Truck Parking Improvement	US 27 (Okeechobee Rd)/SR 821(Heft)	n/a
6	FP15	W 16 Ave Signal Operations Improvements	Improve signal timing and coordination considering truck headways. Intersection improvements. US 27 (Okeechobee Rd) to NW South River Dr	n/a
7	MDT191	Direct Ramps to Palmetto Intermodal Terminal	SR 826 (Palmetto Expwy) Managed Lanes to Palmetto Intermodal Terminal	Priority 3
8	MT106	Palmetto Intermodal Terminal	Facility to service cruise terminals	Priority 3



Bicycle/Pedestrian Projects



Source: Miami-Dade Transportation Plan Interactive Project Tool.

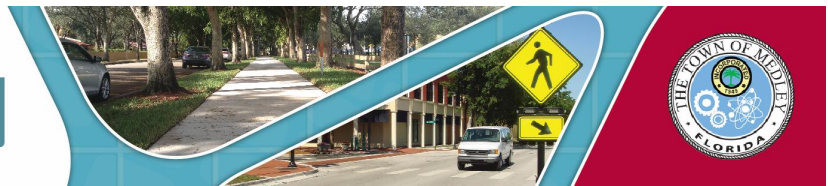
Project Code		Project Name	Description/Project Limits	Priority
1	NM212	Safe Routes to School	Hialeah Gardens Elementary	n/a
2	NM208	Safe Routes to School	Ernest R Graham Elementary	n/a
3	NM201	Safe Routes to School	Ben Sheppard Elementary	n/a
4	NM214	Safe Routes to School	James H. Bright Elementary	n/a
5	NM35	NW 97 Ave Bicycle Facility Improvements	NW 58 St to NW 74 St	n/a



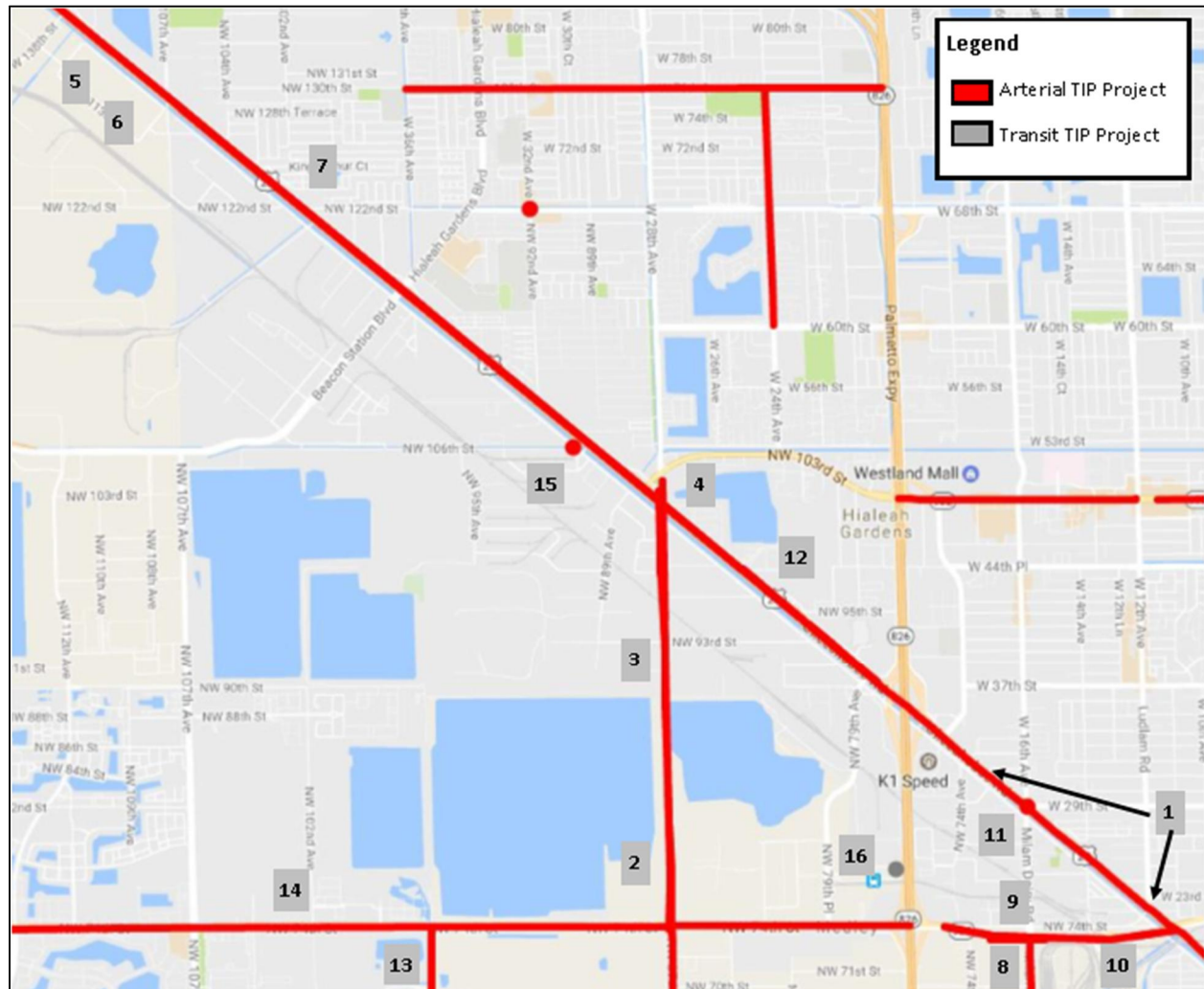
	Project Code	Project Name	Description/Project Limits	Priority
6	NM36	NW 87 Ave Bicycle Facility Improvements	NW 74 St to NW 103 St	n/a
7	NM6	NW 79 Place Bicycle Facility Improvements	NW 74 St to Palmetto Metrorail Station	Priority 1
8	NM9	NW 74 St Bicycle Facility Improvements	NW 87 Ave to NW 79 Ave	Priority 1
9	NM65	NW 103 St Pedestrian Facility Improvements	W 49 Ave to W 24 Ave	Priority 2
10	NM104	W 68 St Pedestrian Facility Improvements	W 19 Ct to W 17 Ct	Priority 3
11	NM94	W Okeechobee Rd Pedestrian Facility Improvements	NW 103 St to W 18 Ave	Priority 3
12	N137	NW 79 Pl / NW 79 Ave Bicycle Facility Improvements	Palmetto Metrorail Station to US 27/Okeechobee Rd	Priority 4
13	NM115	Hialeah Expressway Pedestrian Facility Improvements	NW 72 Ave to N Royal Poinciana Blvd	Priority 4
14	NM117	Hialeah Expressway Pedestrian Facility Improvements	W 10 Ave to W 8 Ave	Priority 4
15	NM131	Hialeah Expressway Pedestrian Facility Improvements	US 27/Okeechobee Rd to W 10 Ave	Priority 4

2018 Transportation Improvement Program (TIP)

The Miami-Dade Transportation Planning Organization (TPO) prepares the annual Transportation Improvement Program (TIP) consistent with federal guidelines. The TIP in effect at the time of this Plan is the FY 2017/18 to FY 2021/22 TIP adopted by the Miami-Dade TPO Governing Board. The TIP specifies proposed transportation improvements to be implemented in Miami-Dade County over the



coming five years. The most recent TIP was reviewed to identify programmed projects within the Town of Medley.



Source: Miami-Dade Transportation Plan Interactive Project Tool.

Project #	Project Name	Description/Limits	Fiscal Year
1	DT2501051 DT2501052	US 27/Okeechobee Rd	<2017



2	DT4056151	NW 87 Ave	PD&E Study from NW 58 St to US 27/Okeechobee Rd	<2017
3	DT4056152 DT4056153	NW 87 Ave	New road construction from NW 58 St to NW 103 St	2016/17
4	DT4056154	US 27/Okeechobee Rd and SR 932/NW 103 St	Add turn lanes at NW 87 Ave	2016/17
5	DT4232511	US 27/Okeechobee Rd	PD&E/EMO Study from SR 997/Krome Ave to NW 79 Ave	<2017
6	DT4232512 DT4232513	US 27/Okeechobee Rd	Add lanes and reconstruct forms-997/Krome Ave to NW 117 Ave	>2021
7	DT4232514 DT4232515 DT4232516	US 27/Okeechobee Rd	Add lanes and rehabilitate pavement from east of NW 107 Ave to east of NW 116 Way	>2021
8	DT4293451	SR 969/NW 72 Ave	Resurfacing from NW 25 St to NW 74 St	2016/17
9	DT4293452	SR 969/NW 72 Ave	Intersection improvements at SR 934/NW 74 St	<2017
10	DT4326394	NW 74 St	Transportation Planning from SR 826/Palmetto Expwy to US 27/Okeechobee Rd	<2017



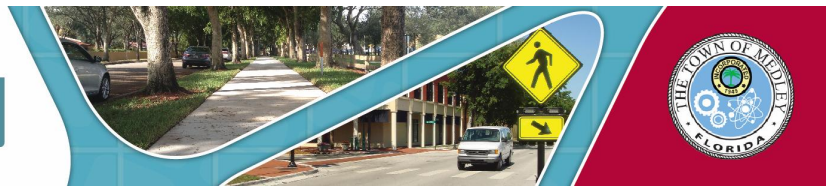
11	DT4379171	US 27/Okeechobee Rd	Intersection improvement at W 16 Ave	2019/20
12	PW0000461	North River Dr	Widen to include shoulders and improved access management from SR 985/NW 107 Ave to NW 74 Ave	
13	PW000746	NW 97 Ave	New 4-lane roadway from NW 70 St to NW 74 St	<2017
14	PW2004035	NW 74 St	New 6-lane roadway from SR 821/HEFT to SR 826/Palmetto Expwy	2016/17
15	PW671133A	NW 106 Street and NW S River Drive	Add/replace culvert at intersection	<2017
16	TA4353811	Palmetto Intermodal Station	Hub capacity project	2019/20

¹ Fiscal Year refers to year for which construction funding has been set aside. <2017 signifies that funding had been established for the project in prior years. >2021 signifies that funding for construction has not yet been programmed.

There were no bicycle/pedestrian projects in the TIP within or immediately adjacent to Medley.

Miami-Dade 2040 Bicycle/Pedestrian Plan

The Miami-Dade 2040 Bicycle/Pedestrian Plan presents a vision and improvement strategies developed through public engagement activities and technical analysis to enhance the non-motorized transportation network of the Miami-Dade County, and serves as an important element of the County's 2040 Long Range Transportation Plan (LRTP). The plan establishes evaluation criteria specific to on-road and off-road bicycle and pedestrian facilities, and projects were categorized into four priority levels using a Needs Assessment processes established by the Bicycle Pedestrian Advisory Committee (BPAC). The



evaluation criteria used in the 2040 Bicycle/Pedestrian Plan is summarized in Table 2. The highest priority projects are represented in the Minimum Revenue Plan (Cost Feasible Plan). This plan consisted of all projects that were identified as Priority 1. Priority 1 projects account for approximately 56 miles (44%) of on-road network improvements, and 48 miles (approximately 34%) of the off-road improvements.

Table 2. Evaluation Criteria for On-road and Off-road Facilities

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

The projects identified in Table 3, below, appear in the Cost Feasible Plan and include bicycle and pedestrian facility improvements, one of which was already funded for construction at the time the Plan was developed.



Table 3. Cost Feasible Plan

PRIORITY	CATEGORY	TYPE	FACILITY/LOCATION			LENGTH (mi)	CONSTRUCTION COST (YOE \$)	DESIGN COST (YOE \$)	TOTAL COST (YOE \$)
			FACILITY/ITEM	FROM	TO				
1	On-Road Bicycle	Bicycle Facility Improvements	NW 87th Avenue	NW 74th Street	NW 103rd Street	1.87	Funded	-	-
1	On-Road Bicycle	Bicycle Facility Improvements	NW 74th Street	NW 87th Avenue	NW 79th Street	0.606	\$56,721.60	\$8,508.24	\$65,229.84
3	Pedestrian	Pedestrian Facility Improvements	W Okeechobee Road	NW 103rd Street	W 18th Avenue	5.79	\$2,229,150.00	\$334,372.50	\$2,563,522.50
4	On-Road Bicycle	Bicycle Facility Improvements	NW 79th Place/ NW79 Avenue	Palmetto Metrorail Station	US-27/ Okeechobee Road	0.872	\$137,427.20	\$20,614.08	\$158,041.28
4	Pedestrian	Pedestrian Facility Improvements	Hialeah Expressway	W Okeechobee Road	W 10th Avenue	0.121	\$59,592.50	\$8,938.88	\$68,531.38



Miami-Dade TPO Bicycle/Pedestrian Safety Plan Update

The Bicycle/Pedestrian Safety Plan Update (2009) is an initiative that aims to reduce bicyclist and pedestrian fatalities in Miami-Dade County. The Safety Plan Update identifies and recommends pedestrian focused improvements, bicycle focused improvements, and general improvements that can target certain types of crashes. The plan suggests using “Pork Chop” island refuges, restricting right-turns on red (RTOR), and providing a leading pedestrian interval (LPI) to reduce right-turn crashes. Many of the improvements geared towards preventing bicyclist crashes involve education and enforcement. Some examples of other general improvements include road diets/lane reductions to help reduce midblock crashes, speed feedback signs to reduce high-speed crashes, and improved lighting to reduce nighttime crashes.

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

The Miami-Dade County Park and Recreation Department developed the most recent OSMP in 2007, and it was approved in early 2008. This plan provides a 50-year vision to guide the development in the county in order to build more sustainable, livable communities in the county. The OSMP identifies six major goals: Sustainability, Seamlessness, Beauty, Equity, Access and Multiple Benefits. The Plan identifies the following five concepts to guide the vision for Miami-Dade County:

- **Great Parks** – Every resident in the County can walk (within 5 minutes) to a central neighborhood park or civic space to exercise, socialize, or engage in a healthy and active lifestyle.
- **Great public Spaces** – public spaces provide an opportunity for meaningful recreation experiences and help strengthen a sense of community.
- **Great Natural and Cultural Spaces** - This can be done by creating a sense of pride and place through integration of public art, signage, and cultural/historic exhibits into parks and public spaces. The goal is also to elevate the public’s appreciation and understanding of the County’s natural ecosystem through the provision of public access to lakes, beaches, and other natural areas.
- **Great Greenways, Trails, and Water Trails** – these trails strengthen connections across the County, from Broward to Monroe Counties, and from the Atlantic Ocean to the Everglades.
- **Great Streets** – design and redevelop streets to provide a safe and connected environment for all users. Every resident should safely and comfortably walk, bicycle, or take transit to community



parks and/or recreation centers. An interconnected network of shaded and safe bikeways and trails should be used to connect to parks, neighborhoods, schools, employment centers, civic buildings, and other community destinations. Transit should be provided to parks and civic sites.

Town of Medley Comprehensive Plan

The Town's Comprehensive Plan was developed in 2009 to identify community goals and aspirations for community development and which informs public policy in terms of land use, transportation, housing, utilities and parks and recreation. For the transportation element, the following goals, objectives and policies were put forth in the Comprehensive Development Plan related to multimodal mobility in Medley.

Policy 1.3: Where public transit service exists with headways of 20 minutes or less, roadways located within ½ mile of the service may operate at LOS E and where a roadway is parallel to exceptional transit service, the roadway may operate at LOS E + 20% (as opposed to all other roads that must operate at LOS D).

Policy 2.3: The Town will consider linking existing parks with greenways.

Objective 5: Provision of safe bicycle and pedestrian routes to schools, public buildings and businesses in the Town for all residents and visitors.

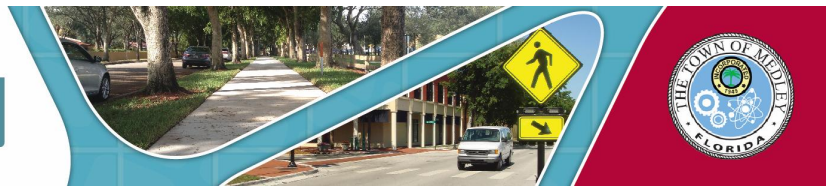
Policy 5.1: The Town will assess the need for sidewalks and bicycle paths in existing developed areas and review proposed development for accommodation of needed facilities.

Policy 10.2: A Master Plan for NW South River Drive will be prepared analyzing possible alignments for different typical sections, and will address issues including 'Pedestrian and Bicycle Facilities.'

Policy 11.3: The Town will coordinate with Miami-Dade County to develop Transportation Demand Management (TDM) and Transportation System Management (TSM) programs to modify peak hour travel demand and reduce the number of vehicle miles traveled per capita with the Town and region. TDM strategies may include ridesharing programs and shuttle services.

Town of Medley Transit Circulator Study

In 2006, the Town completed a study to evaluate existing public transportation system(s) deficiencies and identify recommendations for addressing current and future mobility needs through implementation of a transit circulator system. This study found that Miami-Dade Transit (MDT) (now part of the Miami-Dade Department of Transportation and Public Works – DTPW) had eight routes that operated across



the Town of Medley, none of which provided service to the residential area located in the southeast of the Town's limits. The existing MDT routes also did not provide connections to the Palmetto Metrorail Station or other trip generators such as Tobie Wilson Park, Town Hall or the major retail area. The study recommended a Town transit circulator to connect residents and visitors to key destinations. An overview of the recommended route is shown in Figure 12 below.

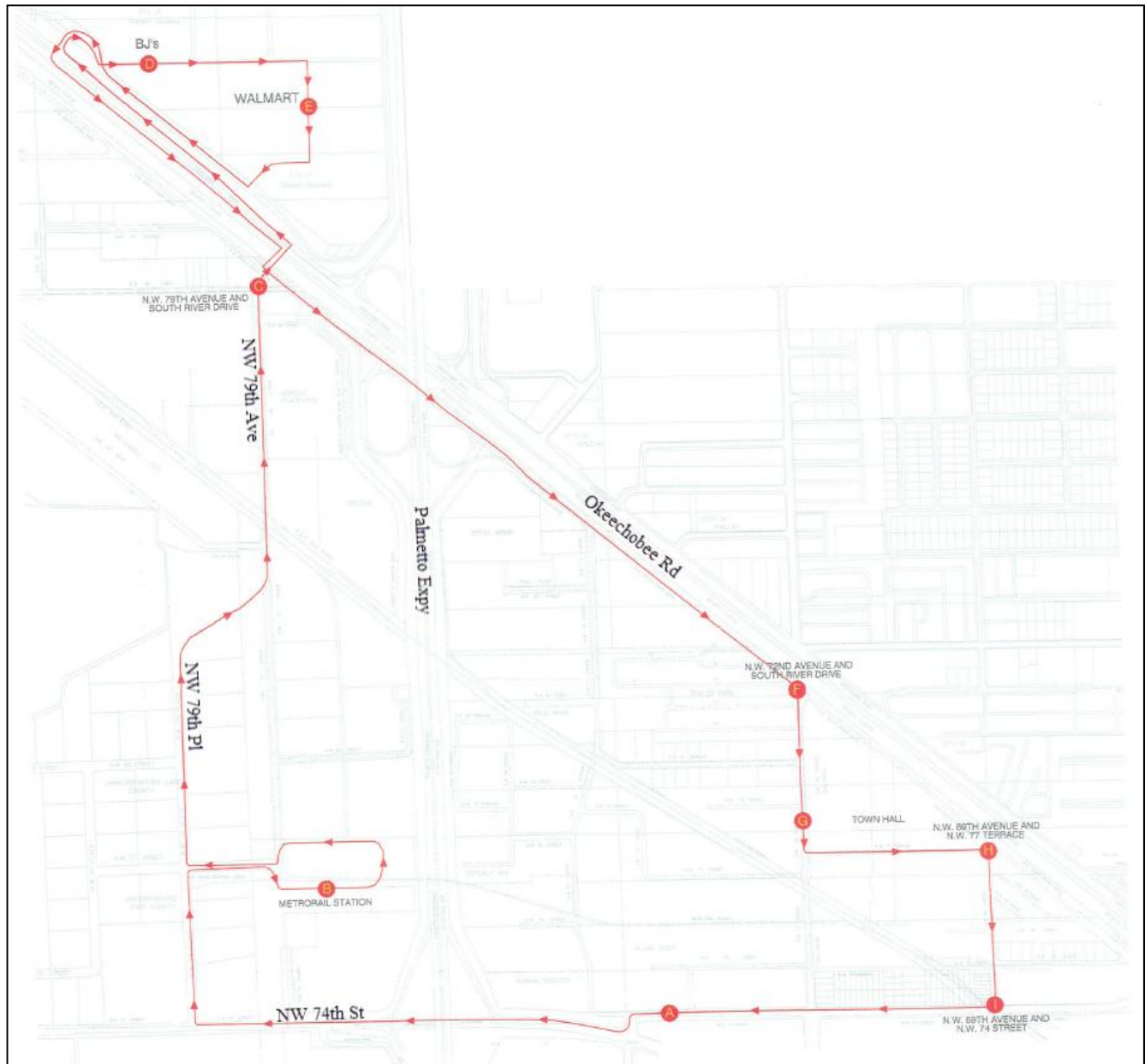


Figure 12. Medley Circulator Study (2006) Alignment



Miami-Dade Transit (MDT): Transit Development Plan (TDP)

The MDT TDP, titled MD10Ahead is the agency's 10-year strategic guide for public transportation in Miami-Dade County. The 2014 major update to the TDP, which resulted in MDT10Ahead, was adopted by the Board of County Commissioners on December 2, 2014. The 2015 Annual Update of the document was approved by the FDOT District Six on October 16, 2015.

MDT10Ahead creates the framework for a long-term vision of transit improvement projects based on identified needs; this vision is represented in the Miami-Dade County 2040 LRTP.

National Association of City Transportation Officials (NACTO) Guides

NACTO guides have quickly become a necessary tool in the guidance of urban infrastructure design. It is supported by FHWA as a means for designing safe and accessible bike and pedestrian facilities. FDOT lists the NACTO guides as design aides in the 2016 draft of the Florida Greenbook; a manual that provides design standards for roadways, bicycle facilities and pedestrian facilities. Most solutions provided in the guides are either supported by or do not conflict with the Manual for Uniform Traffic Control Devices (MUTCD). The NACTO guides cover street design, intersection design and access to transit with an emphasis on implementing pedestrian and bicycle facilities.

ITE Designing Walkable Urban Thoroughfares

ITE provides guidelines that heavily utilize a context-sensitive approach. This approach encourages practitioners to consider the land use, building style and density of the neighborhood so that the street may reflect those same characteristics. Based on the development context, a "thoroughfare type" that best fits within the area is determined. By combining the context-sensitive elements with thoroughfare type, the guide provides roadway designs that do not exceed the needs of a neighborhood while also allowing for implementation of Complete Streets.



Walking and Bicycling Recommendations

As part of the study, Kimley-Horn has recommended the proper facilities for implementation in the Town of Medley. These recommendations identify both the types of infrastructure that fit within the existing streetscape of Medley and propose locations that best fit the facilities and connect to existing points of interest; such as the Okeechobee and Palmetto MetroRail stations.

Shared Use Path

Shared use paths are non-motorized trails used by pedestrians and bicyclists. Typically, shared use paths are separated from the roadway by buffers such as landscaping or light poles. The minimum width for shared use paths is between 10 and 14 feet. Because of the buffer and the width of the facility, shared use paths were only recommended where there was proper right-of-way available. The recommended locations for shared use path implementation include:

NW South River Drive from NW 74th Street to existing shared use path 580 feet south of 1401 N Royal Poinciana Boulevard

NW South River Drive from Palmetto Expressway Southbound On-Ramp to NW 79th Avenue

NW South River Drive from 645 feet north of NW 96th Street to 710 feet north of NW 106th Street

NW South River Drive from NW 121st Way to NW 122nd Street

NW South River Drive from NW 122nd Street to 500 existing sidewalk 500 feet north of NW 122nd Street

NW South River Drive from 905 feet south of NW 127th Street to the Homestead Extension of the Florida Turnpike (HEFT)

Eastern right-of-way of HEFT from NW South River Drive to NW 106th Street

NW 106th Street/NW 116th Way/Beacon Station Boulevard from HEFT to NW 107th Avenue

NW 106th Street/NW 116th Way/Beacon Station Boulevard from NW 107th Avenue to NW 110th Road

NW 107th Avenue from NW 106th Street to NW 90th Street

NW 90th Street/NW 89th Street/NW 81st Road from NW 107th Avenue NW 79th Avenue

NW 74th Street from existing sidewalk at NW 77th Court to Palmetto Expressway northbound ramps

MetroRail Tracks from NW 76th Street to the Palmetto MetroRail Station



Wide Sidewalk

Paved paths and sidewalks provide basic mobility for pedestrians and bicyclists. Unlike shared use paths, wide sidewalks do not provide the buffer between the facility and the roadway; making them the preferred alternative for areas with right-of-way limitations. However, at a minimum of 8 feet wide, they still provide greater accessibility and will have better connections to the shared use paths. The recommended corridors for a paved path/wide sidewalk include:

NW South River Drive from NW 74th Street to NW 72nd Avenue

NW South River Drive from 470 feet south of the Palmetto Expressway northbound off-ramp to the Palmetto Expressway southbound on-ramp

NW South River Drive from NW 79th Avenue to 645 feet north of NW 96th Street

NW South River Drive from 710 feet north of NW 106th Street to NW 121st Way

NW 106th Street/NW 116th Way/Beacon Station Boulevard from NW South River Drive to NW 100th Road

NW 93rd Street from NW South River Drive to NW 89th Avenue

NW 79th Avenue from the Palmetto MetroRail Station to NW 79th Place

NW 74th Avenue from NW South River Drive to NW 77th Street

NW 74th Street/NW 74th Avenue/NW 76th Street from NW 72nd Avenue to the western limit of NW 76th Street

NW 79th Place from NW 74th Street to NW South River Drive

NW 75th Street from NW South River Drive to NW 69th Avenue

NW 69th Avenue from NW 75th Street to NW 74th Street

NW 77th Street from NW 79th Place to Palmetto MetroRail Station

Bike Lanes

Bike lanes are exclusive facilities on the roadway for bicyclists. They are identified using edge lines and pavement marking symbols and located on both sides of a two-way street. The minimum width for a bike lane adjacent to open shoulders or curb and gutter is 4 feet; whereas a bike lane adjacent to on-street parking or a right-turn lane is to be a minimum of 5 feet. In Medley, bike lanes are recommended where



there is not enough of right-of-way for a shared use path but there is enough paved right-of-way to restripe the road to incorporate bike lanes. Corridors with recommended bike lanes in Medley include:

NW 79th Place/NW 79th Avenue from NW 74th Street to NW South River Drive

NW 87th Avenue from NW 74 Street to NW South River Drive

Sidewalk Reconstruction

Where facilities already exist, it is recommended to repair those and link them up to the proposed network. Areas with sidewalks that connect with proposed facilities are:

NW South River Drive at NW 74th Street

NW South River Drive from Medley Mobile Home Park Sections B Entrance to 620 feet north of NW 74th Avenue

NW South River Drive from 500 feet north of NW 122nd Street to 905 feet south of NW 127th Street

Pedestrian Bridge/Tunnel

Pedestrians bridges and other grade separated crossings provide continuity and safety when a bicycle/pedestrian facility intersects with a large roadway. Tunnels are typically preferred to bridges because they allow users to build momentum on the initial downslope before climbing back up to the surface. However, height limitations under the bridges may limit the use of tunnels. Conversely, if a bridge is needed, the slopes should be flat enough so that users are not deterred. Locations that grade separated crossings are recommended are:

- Over NW 138th Street and the adjacent canal to the east
- Under NW 107th Avenue
- Over the Miami Canal between Crane Avenue and the Florida East Coast Railway Bridge connecting to the Okeechobee MetroRail Station

Crossing Improvements

Crossing improvements provide better access to existing infrastructure and proposed facilities by increasing visibility and safety at intersections. Currently, Medley has several intersections where high emphasis crosswalks are not present and/or striping is faded. It is recommended that the improvements



primarily consist of high emphasis crosswalks and moving stop bars further behind these new crosswalks. Intersections with recommended crossing improvements include:

- NW South River Drive and Crane Avenue
- NW South River Drive and NW 74th Street
- NW South Rive Drive and NW 75th Street
- NW South River Drive and NW 76th Street
- NW South River Drive and NW 69th Avenue
- NW South River Drive and NW 72nd Avenue
- NW South River Drive and NW 74th Avenue
- NW South River and Medley Mobile Home Park Section C Entrance
- NW South River Drive and Northbound Palmetto Expressway off-ramp
- NW South River Drive and Southbound Palmetto Expressway on-ramp
- NW South River Drive and Emmett Chaffin Boulevard
- NW South River Drive and NW 79th Avenue
- NW South River Drive and NW 93rd Street
- NW South River Drive and NW 96th Street
- NW South River Drive and NW 87th Avenue
- NW South River Drive NW 105th Way
- NW South River Drive and NW 109th Street
- NW South River Drive and NW 106th Street/116th Way/Beacon Station Boulevard
- NW South River Drive and NW 121st Way
- NW South River Drive and NW 122nd Street
- NW 106th Street/NW 116th Way/Beacon Station Boulevard and NW 107th Avenue
- NW 106th Street/NW 116th Way/Beacon Station Boulevard and NW 100th Road
- NW 79th Place/NW 79th Avenue and NW 90th Street



- NW 79th Place and NW 79th Avenue
- NW 79th Place and NW 80th Street
- NW 79th Place and NW 77th Street
- NW 79th Place and NW 74th Street
- NW 74th Street and Southbound Palmetto Expressway on-ramp
- NW 74th Street and Southbound Palmetto Expressway off-ramp
- NW 74th Street and Northbound Palmetto Expressway on-ramp
- NW 74th Street and Northbound Palmetto Expressway off-ramp
- NW 74th Avenue and NW 77th Street
- NW 74th Street and S Okeechobee Boulevard
- NW 69th Avenue and NW 75th Street

Map

Figure 13 presents a summary map of the pedestrian and bicycle facilities recommendations in the *Medley Multimodal Mobility Study*.

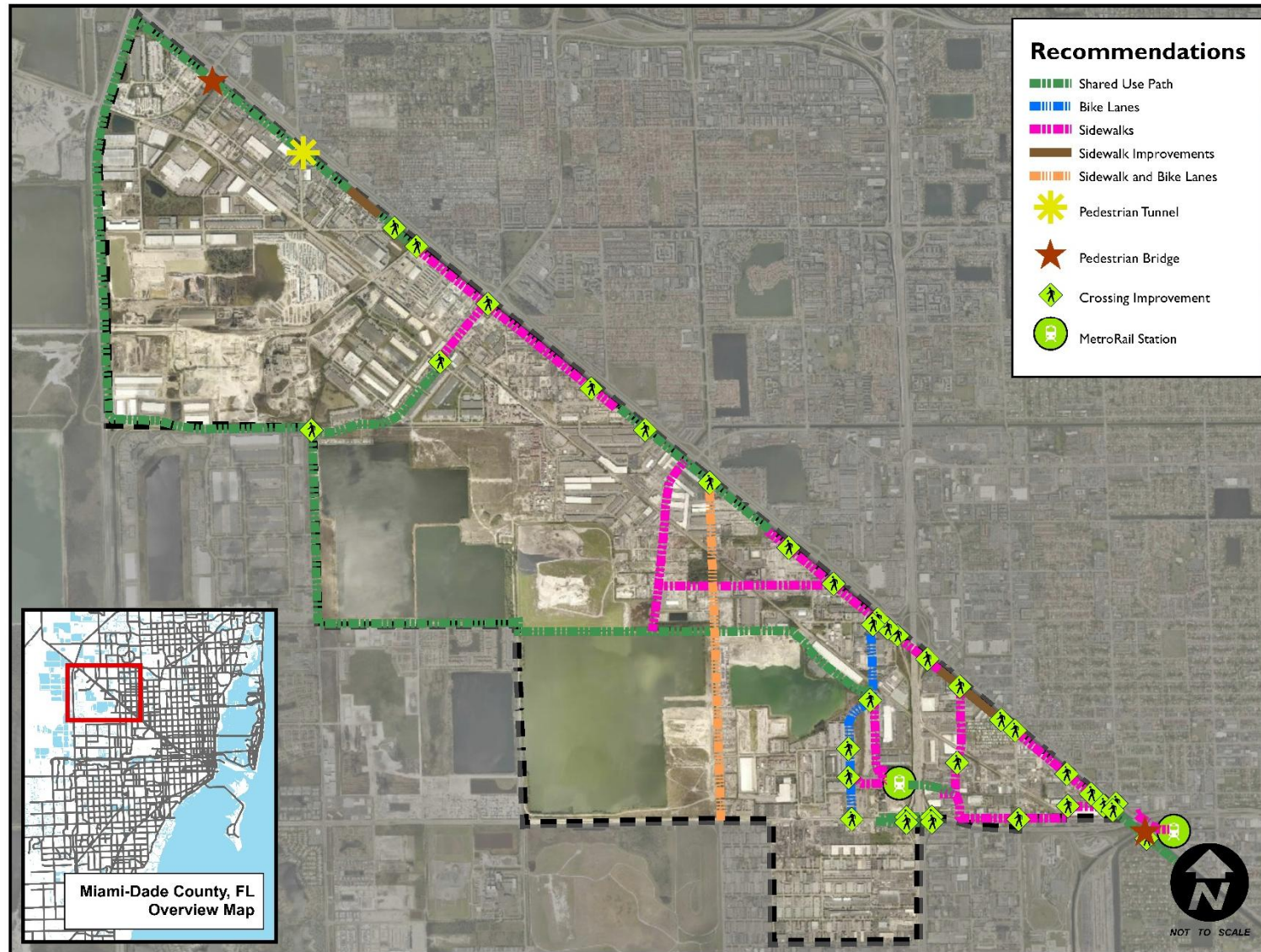


Figure 13. Pedestrian and Bicycle Facility Recommendations



Medley Transit Circulator Study

The Medley Transit Circulator Study was developed as transit portion of the *Town of Medley Multimodal Mobility Plan*. This study is intended to provide an update to the study conducted by the TPO in 2006.

Overview/Summary of 2006 Circulator Study & Recommendations

A Transit Circulator Services Implementation Study was completed in September 2006 for the Town of Medley and the Miami-Dade Transportation Planning Organization (TPO) to determine the feasibility of providing transit circulator services to Medley's residents and businesses. The study evaluated deficiencies with the existing public transportation system, determined existing and future public transportation needs, recommended transit circulator systems, and provided a cost estimate.

Surveys were conducted in the business and residential areas in the Town of Medley to determine the percentage of individuals likely to use a circulator service and determine the areas where a circulator service would be preferred.

Approximately 2,900 employees in the Town of Medley were surveyed: 19 percent said they would use it for home-based-work trips, eight (8) percent would use it for home-based-other trips (shopping, restaurants, etc.), and 27 percent would use it for work-based-other trips (during their lunch breaks or on the way home).

Of the 30 residents surveyed, 78 percent were willing to walk a short distance to a trolley/bus, 92 percent of would use the trolley/bus for their daily activities, and all residents indicated would rather use the new/proposed service to connect with Metrorail or a bus service instead of driving. Residents indicated they preferred to use the circulator service over driving.

The Transit Circulator Services Implementation Study recommended a route that would operate on 60-minute headways, from 6:00 A.M. to 6:00 P.M. Monday through Friday. The proposed circulator was estimated to cost between \$100,000 to \$250,000 per year depending on whether the Town opted to operate their own service, contract to a private operator, or contract the service out to the Miami-Dade Department of Transportation and Public Works (DTPW) – formerly Miami-Dade Transit (MDT).

The following sections provide an update to the circulator study. Alternative routes are evaluated to reflect existing and future land use, as well as current demographics. Additionally, this study will identify potential funding sources for proposed routes.



Existing Conditions

A review of the Town of Medley’s demographics, existing and future land use help determine the type and frequency of service that would best serve its citizens, labor force, and visitors. The existing transit service is also considered, so that routes can maximize connections to nearby municipalities as well as Miami-Dade County’s regional network.

Current Mode of Transportations

As discussed in previous sections of this study, the 2011-2015 American Community Survey (ACS) 5-Year Estimates were used to evaluate current mode split for the Town of Medley. The journey to work data are provided in Table 1, on page 4. A summary of driving, walking, biking, and transit mode use for the Town of Medley and Miami-Dade County is provided below in Table 4.

Notably, the percent of work trips made by using public transportation in Medley is significantly less than Miami-Dade County. This could be an indication of low levels of transit accessibility for residents of Medley.

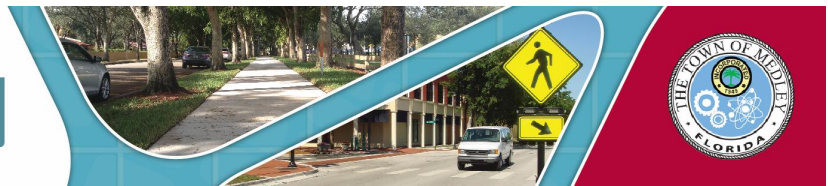
Table 4. Journey to Work Data

2015 ACS 5-Year Estimates	Town of Medley	Miami-Dade County
Car, truck, or van	86.49%	86.07%
Public Transportation	1.23%	5.45%
Bicycle	0.25%	0.61%
Walked	6.63%	2.24%

Existing Transit Service

Medley has limited transit service. Three (3) Metrobus routes (Route 33, Route 73, and Route 87) and the Metrorail provide service operated by the Miami-Dade Department of Transportation and Public Works (DTPW) – formerly Miami-Dade Transit (MDT). The City of Doral operates two municipal circulators that serve the Palmetto Metrorail Station in Medley. The City of Hialeah also provides two circulator services that run along the north side of US 27/Okeechobee Road, but do not directly serve the Town of Medley.

- *Metrobus Route 33* - Route 33 is an east-west route that serves a single block in Medley located between NW 105th Way, 105th Circle, and 106th Street. Despite limited access to Medley, Route



33 provides access to the Westland Mall, the North Dade Campus of Miami-Dade College, the North Shore Medical Center in Miami, and a several residential municipalities between Medley and Miami Shoes Village. The route operates weekdays from 5:30 A.M. to 11:00 P.M. on 30-minute headways during peak periods and 60-minute headways during off-peak periods. On Saturdays, the route operates from 6:20 A.M. to 11:00 P.M. on headways varying between 30 and 60 minutes. Sundays service operates on similar headways, but only operates 7:20 P.M.

- *Metrobus Route 73* - Route 73 provides service north to residential areas in Miami Lakes, and south to residential neighborhoods, the Dadeland Mall, and the Dadeland South Metrorail Station. Within Medley, Route 73 serves the Palmetto Metrorail Station and the associated park-and-ride lot. The route operates weekdays from 5:00 A.M. to 10:30 P.M. on 30-minute headways during peak periods and 40-minute headways during non-peak periods, Saturdays from 6:00 A.M. to 9:30 P.M. on 60-minute headways, and Sundays from 7:30 A.M. to 7:30 P.M. on 60-minute headways.
- *Metrobus Route 87* - Route 87 also serves the Palmetto Metrorail Station, and provides a transit connection south to the Mall of the Americas, Dadeland Mall, and the Dadeland North Metrorail Station. Similar to Route 73, Route 87 serves several residential areas to the south of Medley. The route operates weekdays from 5:15 A.M. to 10:00 P.M. on 30-minute headways during the peak period and 45-minute headways during non-peak periods. Weekend service is provided from 8:45 A.M. to 7:30 P.M., with a 45-minute headway on Saturdays and a 60-minute headway on Sundays.
- *Metrorail* - Miami-Dade County offers an elevated rapid transit system called Metrorail. The Palmetto Metrorail Station, located on NW 79th Place and NW 77th Street in Medley, is the northern terminus of the Metrorail's Green Line, which operates seven (7) days per week. Southbound trains serve the Palmetto Metrorail Station Mondays through Thursdays and Sundays from 5:00 A.M. to 11:00 P.M. on 15-minute headways, with extended service to 12:00 A.M. on Fridays. Service is provided on 30-minute headways from 6:00 A.M. to 12:00 A.M. on Saturdays, and 6:00 A.M. to 11:00 P.M. on Sundays.
- *Existing Shuttle Service* – The Town of Medley currently operates a shuttle service in conjunction with the Citizen's Independent Transportation Trust to transport residents to retail centers outside of Medley. It operates every Monday and Thursday and takes residents from the Lakeside Recreation Center to various grocery stores in Hialeah. It operates on a set departure time of 12:00 P.M. and begins the return trip at 3:00 P.M.. Service is not provided on holidays.



- *Doral Circulators* - The City of Doral operates two (2) trolley services to provide a connection for residents and business to access the Palmetto Metrorail Station. Route 2, Commercial – Metrorail Connector, provides service on weekdays from 6:00 A.M. to 7:50 P.M. on 60-minute headways—weekend service is not provided. Route 3, Residential – Metrorail Connector, provides service on weekdays from 6:00 A.M. to 9:00 P.M. on 30-minute headways and Saturdays from 7:00 A.M. to 7:10 P.M. on 60-minute headways—Sunday service is not provided.
- *Hialeah Circulators* - The Hialeah Transit System, offered by the City of Hialeah, has two (2) routes: the Flamingo Route and the Marlin Route. Both routes operate weekdays from 6:00 A.M. to 7:30 P.M., Saturdays from 9:00 A.M. to 3:30 P.M., and holidays from 9:00 A.M. to 3:30 P.M.—Sunday service is not provided. Individuals in the Town of Medley wishing to access the Hialeah Transit System must cross the Miami Canal and US 27/Okeechobee Road at one of the few pedestrian crossings currently available.

Figure 14 is a map depicting the transit that currently serves the Town of Medley. Metrobus ridership data is depicted by the varying size and color of the dots at each bus stop.

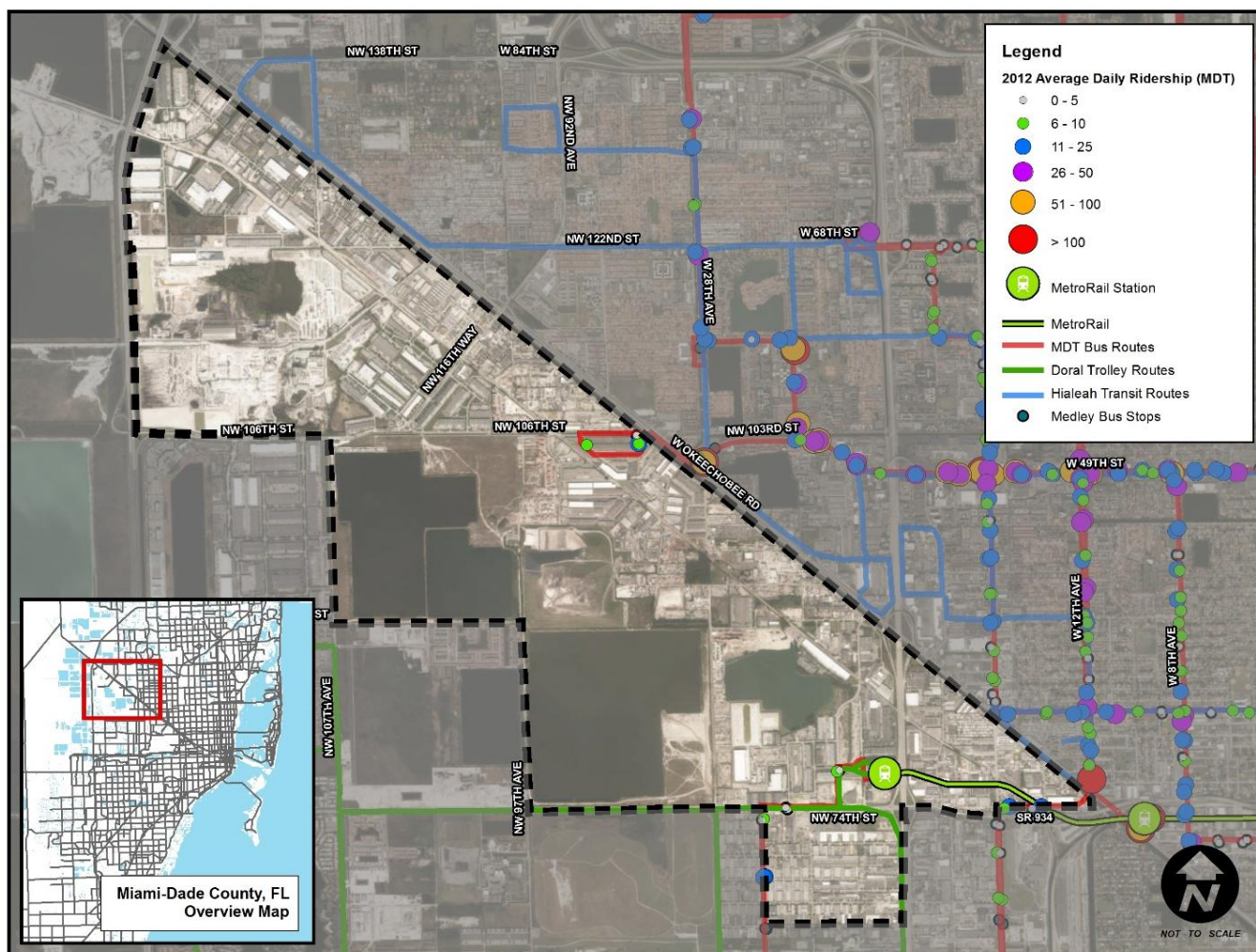


Figure 14. Existing Transit Service in Medley



Existing and Future Land Use

Existing and future land use give insight into the types of trips that municipal circulators need to serve, and are expected to serve in the future. Medley's land use is summarized in Table 5, below.

Table 5. Existing Land Use

Land Use	Number of Parcels	Total Area (sq. ft.)	Percent of Total
Commercial	43	1,902,009	1.34%
Industrial	262	81,708,820	57.70%
Institutional	11	927,461	0.65%
Municipal	21	13,382,306	9.45%
Parks	1	32,959	0.02%
Residential	37	1,474,425	1.04%
Vacant	56	17,523,726	12.38%
Waterways	33	24,650,312	17.41%
Total	464	141,602,020	100.00%

Industrial uses account for nearly 58 percent of land use in the Town of Medley. Municipal land uses (government buildings, roadways, etc.) and waterways account for an additional 27 percent of the land in Medley. Of the remaining 15 percent of the land, over 12 percent is vacant. A map depicting Medley's existing land use is provided in Figure 15, below.

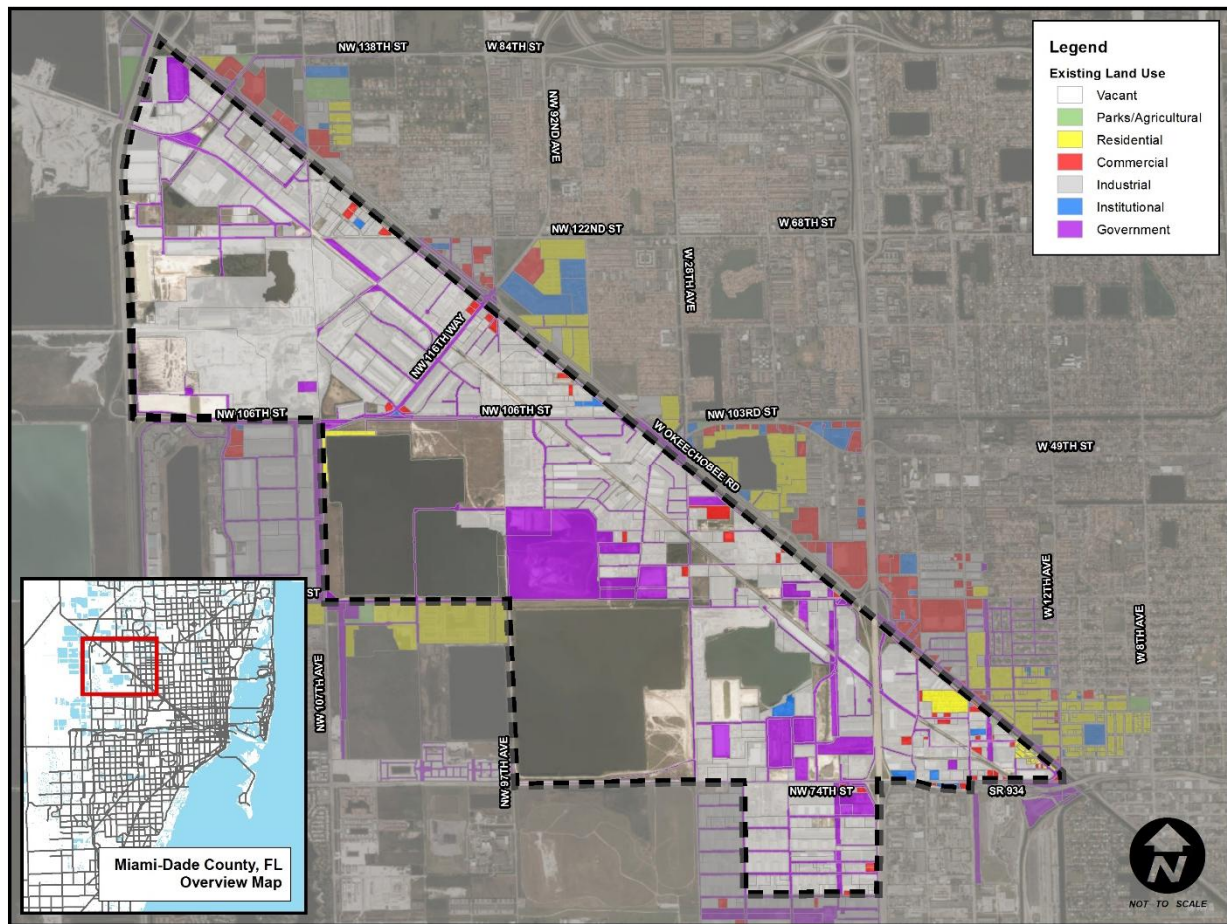
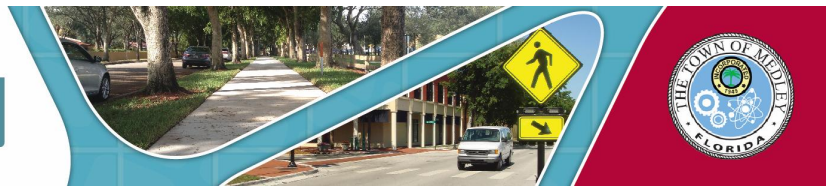


Figure 15. Town of Medley Existing Land Use

Residential land use accounts for one (1) percent of the total land use. A large portion of the residences are mobile homes located between NW 74th Avenue, NW South River Drive, and NW 72nd Avenue. Another residential area is located in the southeast corner of the Town, between NW 75th Street, NW 69th Avenue, and South River Drive. The Medley Lakeside Retirement Park, the smallest of the three residential areas in Medley, is located along NW 105th Way.

While the Town does have some commercial land use, the primary commercial areas serving the residents of Medley are located across the Miami Canal and Okeechobee Road between NW 72nd Avenue and NW 80th Avenue in Hialeah and Hialeah Gardens. Commercial retail in this area includes a Walmart, Best Buy, Target, Lowe's, and various dining and entertainment establishments.

The Future Land Use for the Town of Medley is almost exclusively mixed-use with emphasis on redeveloping the current industrial areas to accommodate both commercial (office buildings) and industrial land uses. However, residential zoning is not expected to change significantly. The proposed



future land use is likely to result in greater employment in the Town of Medley, and increasing the number of people that are expected to commute to the area for work.

Traffic Generators

In addition to employment, primary trip generators in and around the Town of Medley include the Palmetto Metrorail Station, Tobie Wilson Library and Tobie Wilson Park, Town Hall, and the commercial area located along Okeechobee Road at the border of Hialeah and Hialeah Gardens. All trip generators are located in the southeast corner of Medley, and are within a mile of most of Town's residents.

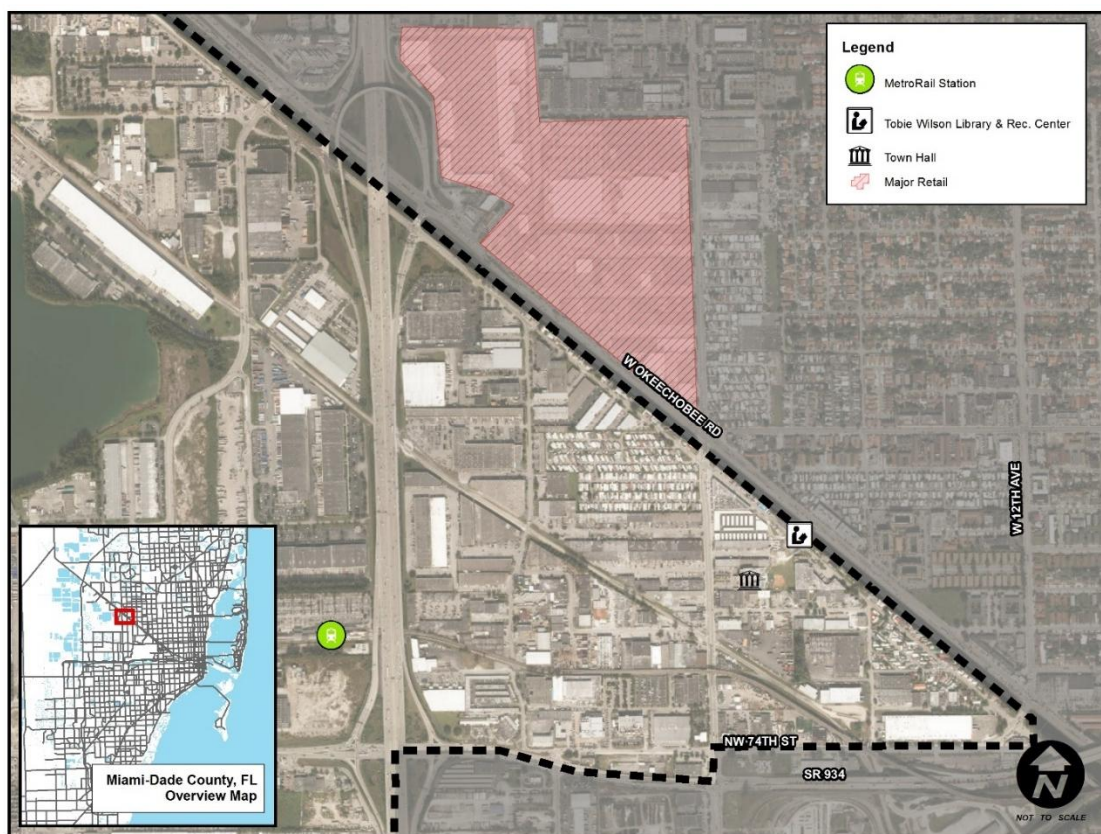


Figure 16. Trip Generators Within and Around the Town of Medley

Demographic Characteristics

Demographic and socioeconomic characteristics were reviewed for the Town of Medley to determine any trends that could influence future transit services. Data obtained from the American Community Survey (ACS) 2015 Five-Year Estimate includes the following data.



- Population by race
- Population by age
- Household income
- Population below poverty level
- Type of employment
- Employment by occupation
- Industry
- Vehicle Ownership
- Disability Status
- Industry by Employers and Employees

For comparative purposes, demographic and socioeconomic data were also obtained for Miami-Dade County and the State of Florida.

Table 6 depicts the racial composition for the Town of Medley, Miami-Dade County, and the State of Florida. Most of the population in the Town of Medley is classified as White, of which is comprised of 95.6 percent Hispanic or Latino and 2.7 percent non-Hispanic or non-Latino.

Table 6. Population by Race

Race	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
White	981	98.3%	2,029,444	76.9%	15,327,007	78.0%
Black or African American	10	1.0%	510,284	19.3%	3,401,179	17.3%
American Indian and Alaska Native	0	0.0%	9,108	0.3%	156,000	0.8%
Asian	2	0.2%	51,558	2.0%	645,847	3.3%
Native Hawaiian and Other Pacific Islander	0	0.0%	2,867	0.1%	35,770	0.2%
Other*	14	1.4%	76,554	2.9%	589,673	3.0%
Total Population	998	100%	2,639,042	100%	19,645,772	100%
Hispanic or Latino (of any race)	954	95.6%	1,731,733	65.6%	4,660,733	23.7%



Table 7 provides the number of residents in each age group for the Town of Medley, Miami-Dade County, and the State of Florida. The median age in the Town of Medley is approximately 43 years old, slightly older than the median age in Miami-Dade County and the State of Florida. The largest age group in the Town of Medley is 15 to 19 years old followed by 35 to 44 years old. Over 20 percent of the residents of Medley are 65 or older, and may have limited mobility. An additional 25 percent of Medley's residents are under the age of 20, and may have limited access to personal vehicles.

Table 7. Population by Age

Age	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Under 5	14	1.4%	154,842	5.9%	1,081,057	5.5%
5 to 9 years	54	5.4%	150,017	5.7%	1,110,752	5.7%
10 to 14 years	27	2.7%	150,725	5.7%	1,140,728	5.8%
15 to 19 years	168	16.8%	160,145	6.1%	1,187,205	6.0%
20 to 24 years	28	2.8%	184,567	7.0%	1,301,825	6.6%
25 to 34 years	87	8.7%	370,417	14.0%	2,468,945	12.6%
35 to 44 years	164	16.4%	378,194	14.3%	2,427,295	12.4%
45 to 54 years	125	12.5%	393,644	14.9%	2,747,409	14.0%
55 to 59 years	48	4.8%	160,616	6.1%	1,312,091	6.7%
60 to 64 years	59	5.9%	142,401	5.4%	1,217,474	6.2%
65 to 74 years	102	10.2%	208,696	7.9%	1,984,853	10.1%
75 to 84 years	89	8.9%	128,849	4.9%	1,167,015	5.9%
85 years and over	33	3.3%	55,929	2.1%	499,123	2.5%
Total	998	100.0%	2,639,042	100.0%	19,645,772	100.0%
Median age (years)	42.8		39.0		41.4	

Table 8 provides household income for the Town of Medley, Miami-Dade County, and the State of Florida. Most of the households in the Town of Medley have an annual income between \$15,000 and \$24,999 and



approximately 45 percent of the households earn less than \$25,000 per year. Most households in Miami-Dade County and the State of Florida earn between \$50,000 and \$74,999.

Table 8. Household Income

Household Income	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Total Households	356	100.00%	842,153	100.00%	7,300,494	100.00%
Less than \$10,000	42	11.8%	89,268	10.6%	569,439	7.8%
\$10,000 to \$14,999	26	7.3%	57,266	6.8%	408,828	5.6%
\$15,000 to \$24,999	91	25.6%	112,006	13.3%	883,360	12.1%
\$25,000 to \$34,999	70	19.7%	93,479	11.1%	846,857	11.6%
\$35,000 to \$49,999	65	18.3%	118,744	14.1%	1,095,074	15.0%
\$50,000 to \$74,999	32	9.0%	135,587	16.1%	1,328,690	18.2%
\$75,000 to \$99,999	7	2.0%	82,531	9.8%	810,355	11.1%
\$100,000 to \$149,999	4	1.1%	83,373	9.9%	788,453	10.8%
\$150,000 to \$199,999	0	0.0%	31,160	3.7%	277,419	3.8%
\$200,000 or more	19	5.3%	39,581	4.7%	299,320	4.1%
Median Household Income (dollars)	\$27,857		\$43,129		\$47,507	

Table 9 depicts population below the poverty level for the Town of Medley, Miami-Dade County, and the State of Florida. Approximately 14 percent of families and approximately 21 percent of individuals in the Town of Medley are living below the poverty level. The percentage of families living in poverty is higher in Miami-Dade County and lower than the State of Florida compared to the Town of Medley. Moreover, the percentage of individuals living below the poverty level in the Town of Medley is higher than Miami-Dade County and the State of Florida.



Table 9. Population Below Poverty Level

Population Below Poverty Level	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Families living below poverty level	33	14.4%	96,734	16.9%	563,987	12.0%
Individuals living below poverty level	209	20.9%	530,006	20.4%	3,180,109	16.5%

Table 10 depicts the composition of employment (population 16 years and over) in the Town of Medley, Miami-Dade County, and the State of Florida. Approximately 52 percent of the population is employed in the civilian labor force in the Town of Medley, compared to approximately 62 percent in Miami-Dade County and approximately 59 percent in the State of Florida, respectively.

Table 10. Type of Employment

Employment (population 16 years and older)	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Total	859	100.0%	2,152,396	100.0%	16,077,778	100.0%
Civilian Labor Force	448	52.2%	1,338,209	62.2%	9,457,267	58.8%
Employed	412	48.0%	1,204,871	56.0%	8,541,291	53.1%
Unemployed	36	4.2%	133,338	6.2%	915,976	5.7%
Armed Forces	0	0.0%	1,770	0.1%	53,414	0.3%
Not in Labor Force	411	47.8%	812,417	37.7%	6,567,097	40.8%

Table 11 depicts employment by occupation for residents of the Town of Medley, Miami-Dade County, and the State of Florida. Most individuals work in production, transportation, and material moving in the Town of Medley whereas most individuals work in management, business, science, and arts in Miami-Dade County and the State of Florida.

**Table 11. Employment by Occupation**

Employment by Occupation	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Management, business, science, and arts	62	15.0%	379,186	31.5%	2,908,404	34.1%
Service occupations	121	29.4%	252,896	21.0%	1,756,091	20.6%
Sales and office occupations	61	14.8%	339,358	28.2%	2,335,343	27.3%
Natural resources, construction, and maintenance	38	9.2%	109,989	9.1%	768,761	9.0%
Production, transportation, and material moving	130	31.6%	123,442	10.2%	772,692	9.0%

Table 12 depicts the industries in the Town of Medley, Miami-Dade County, and the State of Florida. The most common industry in the Town of Medley is transportation and warehousing, and utilities whereas the most common industry in Miami-Dade County and the State of Florida is educational services, and health care and social assistance.

Table 12. Industry

Industry	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	0	0.0%	9,107	0.8%	93,735	1.1%
Construction	33	8.0%	82,433	6.8%	565,396	6.6%
Manufacturing	31	7.5%	57,348	4.8%	445,101	5.2%
Wholesale trade	14	3.4%	50,789	4.2%	245,029	2.9%



Industry	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Retail trade	20	4.9%	153,347	12.7%	1,142,924	13.4%
Transportation and warehousing, and utilities	71	17.2%	86,589	7.2%	430,496	5.0%
Information	3	0.7%	25,678	2.1%	170,738	2.0%
Finance and insurance, and real estate and rental and leasing	29	7.0%	88,376	7.3%	655,554	7.7%
Professional, scientific, and management, and administrative and waste management services	33	8.0%	154,113	12.8%	1,087,819	12.7%
Educational services, and health care and social assistance	49	11.9%	242,726	20.1%	1,816,293	21.3%
Arts, entertainment, and recreation, and accommodation and food services	63	15.3%	135,547	11.2%	1,039,260	12.2%
Other services, except public administration	40	9.7%	75,437	6.3%	458,056	5.4%
Public administration	26	6.3%	43,381	3.6%	390,890	4.6%

Table 13 depicts vehicle ownership in the Town of Medley, Miami-Dade County, and the State of Florida. Most households in the Town of Medley, Miami-Dade County, and the State of Florida have one (1) vehicle



available. Approximately 12 percent of households in the Town of Medley do not have at least one (1) vehicle, which is comparable to Miami-Dade County but higher than the State of Florida.

Table 13. Vehicle Ownership

Vehicle Ownership by Household	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Total Households	356	100.0%	842,153	100.0%	7,300,494	100.0%
No vehicle available	41	11.5%	94,281	11.2%	516,293	7.1%
1 vehicle available	181	50.8%	335,823	39.9%	3,022,760	41.4%
2 vehicles available	98	27.5%	293,518	34.9%	2,768,545	37.9%
3 vehicles available	33	9.3%	87,497	10.4%	752,496	10.3%
4 vehicles available	3	0.8%	24,399	2.9%	189,238	2.6%
5 or more vehicles available	0	0.0%	6,635	0.8%	51,162	0.7%

Table 14 summarizes the composition of disability status in the Town of Medley, Miami-Dade County, and the State of Florida. The percentage of individuals with a disability in the Town of Medley is approximately 14 percent whereas the percentage of individuals with a disability in Miami-Dade County and the State of Florida is approximately 10 percent and approximately 13 percent, respectively. Most individuals with a disability in the Town of Medley are 65 years old and over.

Table 14. Disability Status

Disability Status	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
Total	998	100.0%	2,612,203	100.0%	19,335,250	100.0%
<i>With a disability</i>	141	14.1%	271,588	10.4%	2,553,636	13.2%
<i>No disability</i>	857	85.9%	2,340,615	89.6%	16,781,614	86.8%
Under 18 years	205	20.5%	550,191	21.1%	4,032,325	20.9%
<i>With a disability</i>	4	0.4%	17,040	0.7%	167,668	0.9%
<i>No disability</i>	201	20.1%	533,151	20.4%	3,864,657	20.0%



Disability Status	Town of Medley		Miami-Dade County		State of Florida	
	Number	Percent	Number	Percent	Number	Percent
18 to 64 years	569	57.0%	1,675,372	64.1%	11,717,828	60.6%
<i>With a disability</i>	64	6.4%	119,188	4.6%	1,174,949	6.1%
<i>No disability</i>	505	50.6%	1,556,184	59.6%	10,542,879	54.5%
65 years and over	224	22.4%	386,640	14.8%	3,585,097	18.5%
<i>With a disability</i>	73	7.3%	135,360	5.2%	1,211,019	6.3%
<i>No disability</i>	151	15.1%	251,280	9.6%	2,374,078	12.3%

Table 15 provides the number of employers and the number of employees for each industry in the Town of Medley. The top three (3) employers are Wholesale Trade, Transportation and Warehousing, and Retail Trade that include approximately 37 percent of the total number of employees in the Town of Medley.

Table 15. Industry by Employers and Employees

Industry	Number of Employers	Number of Employees
Accommodation and Food Services	27	226
Admin. Support, Waste Management, and Remediation Services	28	867
Agriculture, Forestry, Finishing and Hunting	2	9
Arts, Entertainment, and Recreation	6	46
Constructions	134	3,013
Educational Services	3	309
Finance and Insurance	21	75
Health Care and Social Assistance	12	111
Information	13	80
Manufacturing	206	5,502
Mining	5	29



Industry	Number of Employers	Number of Employees
Other Services (except Public Administration)	85	461
Professional, Scientific, and Technical Services	85	936
Public Administration	8	126
Real Estate Rental and Leasing	34	619
Retail Trade	209	1,326
Transportation and Warehousing	243	2,895
Utilities	2	43
Wholesale Trade	332	3,467
Undefined	47	826
Total	1,502	20,966

Service Feasibility

This section provides an overview of the demographic indicators that can help identify transit dependent populations, existing transit deficiency, and evaluates circulator feasibility using a tool developed by the Miami-Dade TPO in 2002.

Demographic Indicators of Transit Dependency

Several factors can indicate transit dependency, or likelihood to use transit. Many of the indicators relate to either the availability of a vehicle, or the ability to drive. As shown in Table 13, on page 55, approximately 40 households in Medley do not have a vehicle. Additionally, 180 households have one vehicle – indicating that some of the household members are likely rely on transit if it is made available. This could correspond to as many as 250 people without access to vehicles.

Over 200 of Medley's 998 residents are under the age of 18 and may not have a license to drive. Additionally, 225 of Medley's residents are over the age of 65, and may find it less comfortable to drive in the near future. This constitutes nearly half of Medley's residents who may not comfortable or able to operate a private vehicle.



Household income can also be an indicator of transit dependency or potential transit use. Household with incomes near or below the poverty line may not be able to afford driving, or may chose a less costly option such as transit. The median household income in Medley is under \$28,000, and approximately 20 percent of Medley’s residents are living below poverty level. These residents are likely unable to afford purchasing an operating a personal vehicle and are likely to rely heavily on public transportation for all trips that cannot be reached by walking.

Lastly, nearly 15 percent of Medley’s population has a disability. Though not all disabilities limit a person’s ability to drive their own vehicle or walk, many disabled individuals will rely on transit to provide lifeline services.

Existing Transit Service Deficiency

A Geographic Information Systems (GIS) analysis was conducted to evaluate how many of Medley’s residents and workers lived or worked within a five-minute walk (quarter-mile) of a Metrobus stop, or a ten-minute walk (half-mile) of a Metrorail station.

The 2010 Census block population data was also used to evaluate existing transit service in Medley. As seen in Table 16, 80 percent of Medley’s residents are currently served by Metrobus routes. The Palmetto Metrorail Station is located in a more industrial area of Medley, and is not easily accessible by foot for many of Medley’s residents. Despite providing services within a quarter-mile of many residents, Hialeah’s circulator trolleys are not accessible from Medley on foot due to lack of pedestrian infrastructure across the Miami Canal and US 27/Okeechobee Boulevard.

Table 16. Residents Served by Existing Transit

Transit Service	Number of Residents (2010 Census)	Percent of Residents (2010 Census)
Total Population (2010 Census)	843	100%
Metrobus	671	79.6%
Metrorail	41	4.9%
No Transit	167	19.8%

Table 17 illustrates the number of employers and employees that are served by existing transit. Over 13,000 of the more than 25,000 (53%) of the employees working in the Town of Medley have access to transit.

**Table 17. Employment Served by Existing Transit**

Transit Service	Number of Employers	Number of Employees	Percent of Total Employees
Metrobus	812	7,577	29.8%
Metrorail	526	5,813	22.9%
No Service	1,151	15,271	60.1%
Total	2,140	25,389	100.0%

As shown in Table 18, 35 of the 51 (69%) residential parcels are within a quarter mile (approximately a five-minute walk) of a Miami-Dade County Metrobus stop.

Table 18. Land Use Served by Existing Transit

Land Use	Total	No Transit		Metrorail		Metrobus	
		Number	Percent	Number	Percent	Number	Percent
Commercial	56	23	41.1%	11	19.6%	22	39.3%
Industrial	324	211	65.1%	35	10.8%	78	24.1%
Institutional	15	2	13.3%	3	20.0%	10	66.7%
Municipal	28	17	60.7%	6	21.4%	5	17.9%
Parks/Agricultural	1	0	0.0%	0	0.0%	1	100.0%
Residential	51	2	3.9%	14	27.5%	35	68.7%
Vacant	63	49	77.8%	7	11.1%	7	11.1%
Waterways	31	27	87.1%	1	3.2%	3	9.7%
Grand Total	569	331	58.2%	77	13.5%	161	28.3%

Circulator Feasibility Scorecard

The Miami-Dade Transportation Planning Organization (formerly the Miami-Dade Metropolitan Planning Organization) *Local Municipal Transit Circulator Policy Study*, published in June 2002, developed a form to determine whether a community is a good candidate for circulator service. The evaluation form uses a point system to quantify the need and support for a circulator system based on demographic data, presence of existing public transit, activity centers, and local support. The evaluation form is provided below.



1. Indicators of transit dependency or the propensity to use circulator services. (50 points maximum for A through D)
 - (a) Population density less than 3,000 persons per square mile. (0 points)
 Population density between 3,000 and 7,500 persons per square mile. (5 points)
 Population density between 7,500 and 10,000 persons per square mile. (10 points)
 Population density greater than 10,000 persons per square mile. (15 points)
 - (b) Less than 20 percent of residents aged 65 and older. (0 points)
 Greater than 20 percent of residents aged 65 and older. (5 points)
 Greater than 25 percent of residents aged 65 and older. (10 points)
 Greater than 30 percent of residents aged 65 and older. (15 points)
 Greater than 35 percent of residents aged 65 and older. (20 points)
 - (c) Median household income greater than \$30,000. (0 points)
 Median household income between \$20,000 and \$30,000. (5 points)
 Median household income less than \$20,000. (10 points)
 - (d) Greater than 10 percent of households with zero automobiles. (5 points)
2. Recognizable gaps (defined as outside a ¼-mile walking distance from a transit stop) in the community where MDT does not provide transit service.
 (Yes = 15 points, No = 0 points)
3. Presence of specific activity centers in the community that are not serviced by MDT.
 (Yes = 10 points, No = 0 points)
4. Often obtain requests for circulator service from citizens, employers, employees, etc.
 (Yes = 10 points, No = 0 points)
5. Commitment of the municipality to partially or completely fund a feasibility study.
 (Yes = 10 points, No = 0 points)
6. Identification of a detailed local funding source for the transit circulator service.
 (Yes = 5 points, No = 0 points)

Source: Miami-Dade TPO Local Municipal Transit Circulator Policy Study, June 2002.

The suitability and need for a circulator service for the Town of Medley was evaluated using the Evaluation Scorecard. Results from the evaluation are summarized below in Table 19. Municipalities scoring above 60 are good candidates for circulator services.



Table 19. Medley Service Evaluation

Criteria		Result	Score
1a	Population density	~21,000 employees in 4.3 square miles = 4,900 people per square mile	5
1b	Population age	< 20% of residents 65 or older	0
1c	Median household income	Between \$20,000 and \$30,000	5
1d	Households with zero automobiles	Greater than 10% of households	10
2	Recognizable gaps in transit service	Yes	15
3	Presence of specific activity centers not serviced by transit	Tobie Wilson Park and Rec Center, library, municipal land uses	10
4	Community request for service	Yes	10
5	Commitment of the municipality to partially or completely fund a feasibility study	Yes	10
6	Identification of a detailed local funding source for the transit circulator service	CITT transportation fund from county-wide half-penny sales tax	5
Total Score		70	

The Town of Medley has a population of under 1,000 residents, and therefore would typically score zero points with regards to population density. However, one of the primary purposes of a transit circulator in the Town would be to provide service to the many employees that commute into Medley on a daily basis. Therefore, an employment density of 4,900 employees per square mile was used for this analysis.

Using the Service Evaluation Criteria established by the TPO in the 2002 study, above, the Town of Medley scored a 70 – indicating it to be a good candidate for a municipal circulator service.

Alternatives Development and Evaluation

The Miami-Dade Transportation Planning Organization (TPO) – formerly the Miami-Dade Metropolitan Planning Organization (MPO) – has published guidelines for service and design planning for circulator



services. The following section outlines the *Guidelines for Municipal Transit Programs in Miami-Dade County, 2016*.

Service Purpose

The Miami-Dade TPO's guidelines identify four (4) primary types/purposes of transit circulator services:

- (1) *To provide first/last mile connectivity* – Often provided at locations where there is limited transit service. The primary goal of this service is to provide connectivity between residential or employment areas and existing transit service such as Metrorail stations. This type of circulator will best serve commuters that use transit for home-based-work trips.
- (2) *To extend the reach of a regional transit system* – this type of service differs from the previous type in that it is used to provide connectivity to key attractions, in addition to residential and employment areas. This type of circulator would serve home-based work trips as well as home-based-other trips.
- (3) *To provide circulator services within a community* – this service differs from the previous two types in that it does not necessarily tie into an existing transit network. This type of circulator can serve all types of trips including recreational, shopping, and commuter trips.
- (4) *To provide lifeline services* – this type of municipal circulator aims to provide transit service and connectivity for those with no alternative mode of transportation. This transit service is typically aimed at demographics that cannot walk, bike, or drive such as those with limited mobility.

As discussed in prior sections of this study, approximately 90 percent of the residents of Medley live within a quarter-mile of existing transit service. However, the routes primarily serving the residents of Medley operate along US 27/W Okeechobee Road, and accessibility to bus stops is limited. Overall, the service available to residents does not provide a convenient connection to employment, commercial, or recreational attractions. A *circulator service* is necessary to provide a connection between the residential areas of Medley, businesses along NW South River Drive, and the commercial area located north of US 27/Okeechobee Road, east of SR 826/Palmetto Expressway.

Over two-thirds (70%) of Medley's workforce has limited access to transit. While transit exists to bring employees into the Town limits (Metrobus, Metrorail), there is no service to connect the existing transit stops/stations with employment areas in the center and north of Medley. A municipal transit route is necessary to provide connectivity to employment centers in Medley.



Route Alignment

Routes were identified for the two purposes discussed above. Two potential commuter routes were identified for providing connectivity for employees. Two potential circulator routes were identified for providing connectivity between the residential neighborhoods of Medley and the commercial area located on the boundary of Hialeah, Hialeah Gardens, and Medley.

The *Guidelines for Municipal Transit Programs in Miami-Dade County* recommends a maximum route length based on type of circulator service. For circulators that primarily provide first/last mile connectivity, it is recommended that the route length remain below 5 miles. All other services should aim to provide route alignments under 10 miles in length. However, it should be noted that Medley's limited roadway network often results in greater route length, as roadways may not be available to provide the most direct connection between key areas.

The *Guidelines for Municipal Transit Programs in Miami-Dade County* recommends that a municipal transit program's (MTP's) system serve at minimum 50 percent of a municipality's residents/employees. On average, MTPs in Miami-Dade County serve 76 percent of their respective populations. Three of the four routes evaluated for Medley will individually serve the Town's population at levels equal to or greater than the Miami-Dade County MTP service coverage average. A map depicting each of the four proposed routes, overlaid on top of the existing transit network, is provided below in Figure 17.

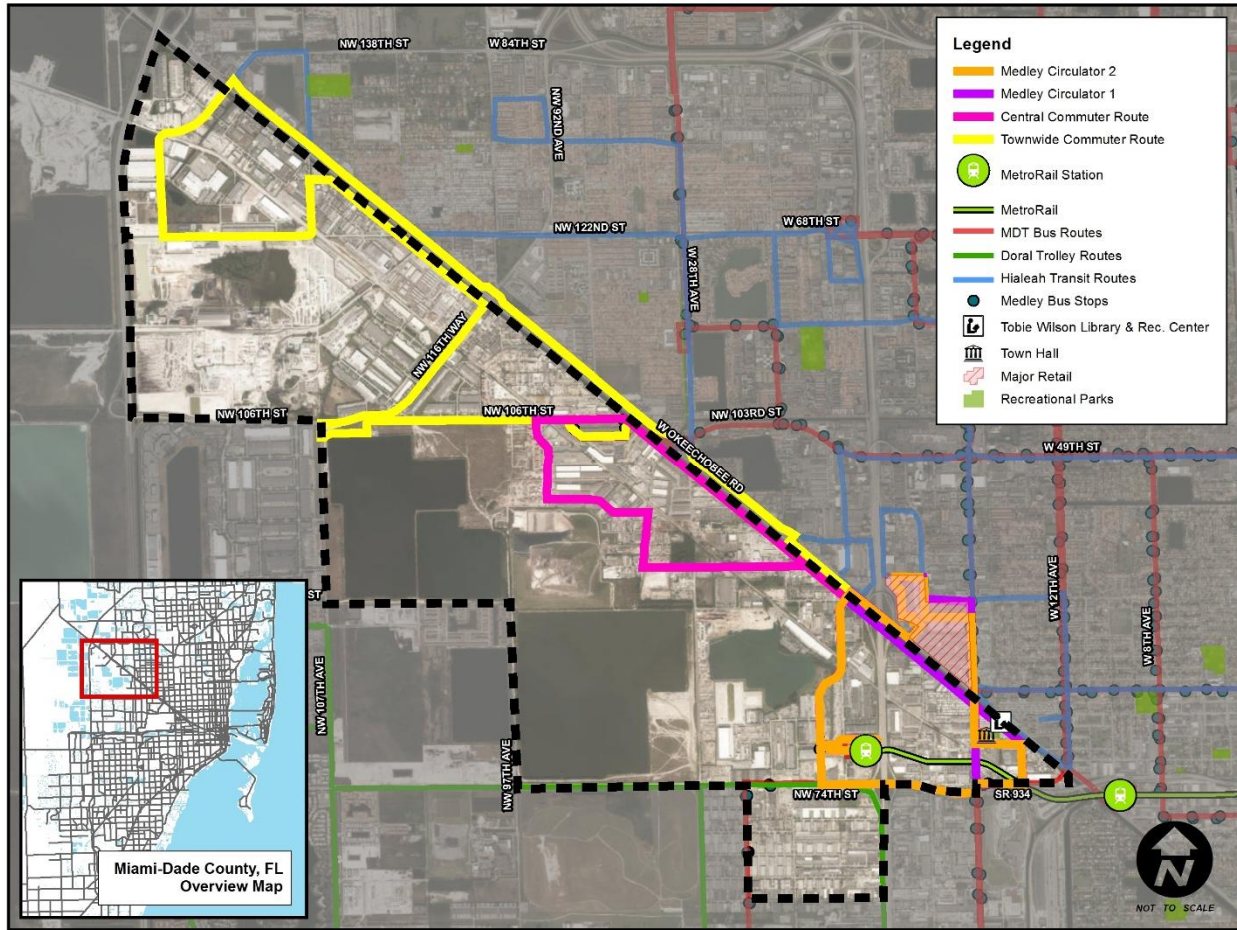


Figure 17. Potential Routes - Overview Map

ip time, and service coverage.

Table 20, below, provides an overview of some of the key characteristics of each route including length, round trip time, and service coverage.

Table 20. Summary of Potential Circulator Routes

Route	Length (miles)	Total Round Trip Time (min)	Employees Served	% of Total Employment Served	Residents Served	% of Total Residents Served
Townwide Commuter Route	15.3	71	15,789	62%	314	37%
Central Commuter Route	5.8	35	9,347	37%	231	27%
Medley Circulator 1	4.2	29	3,858	15%	671	80%
Medley Circulator 2	5.7	36	5,856	23%	672	80%



Route 1 – Townwide Commuter Route

The Townwide Commuter Route is a 15.3-mile route that provides service from the Palmetto Metrorail Station through central Medley and to the northwest corner of the Town. Starting at the Palmetto Metrorail Station, the Townwide Commuter Route would head north along NW 79th Place/NW 79th Avenue and continue northbound along NW South River Drive. The route would then serve employment along NW 93rd Street and then north towards NW 106th Street, where it provides a connection to the Metrobus Route 33. The proposed commuter route would operate along NW 106th Street and stops at the Medley Lakeside Retirement Park, before continuing north towards NW 138th Street via NW 106th Street/NW 116th Way/Beacon Station Boulevard and NW South River Drive. On its way, the route circles around existing job centers along NW 122nd Street and NW 115th Avenue. The route then uses the W Okeechobee Road Frontage Road to return south towards the Palmetto Metrorail Station. The Townwide Commuter Route then travels south towards the Palmetto Metrorail Station via the Okeechobee Frontage Road where it connections to the City of Hialeah's Marlin Route. Additionally, the Townwide Commuter Route would provide service to retail and dining establishments, as well as residential areas located along the Okeechobee Frontage Road.

A map of the proposed Townwide Commuter Route is provided in Figure 18.

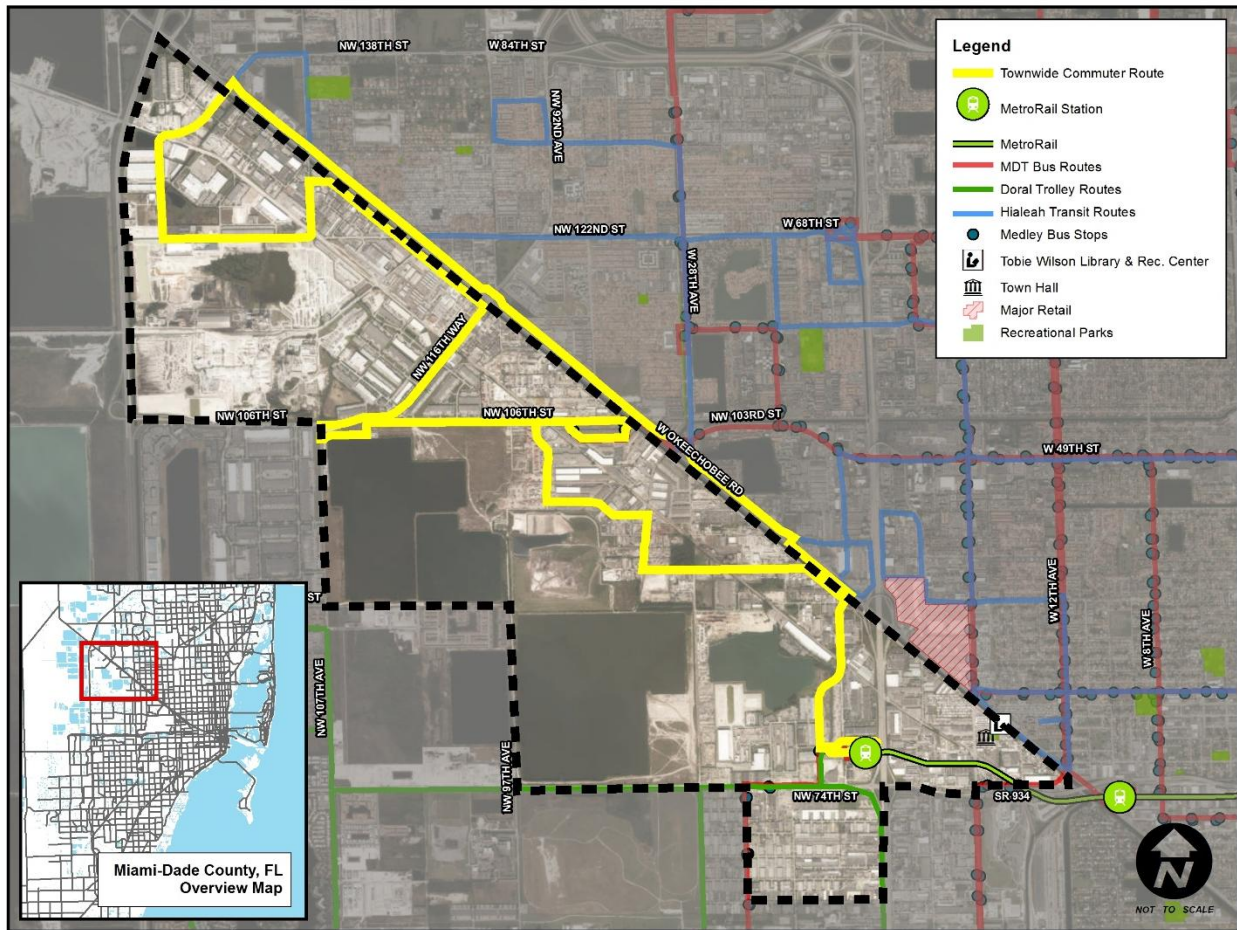


Figure 18. Proposed Townwide Commuter Route

Using GIS analysis, it was estimated that the Townwide Commuter Route would provide service to approximately 15,800 employees, 62 percent of the total employees in the Town. Although the route is intended to serve commuters, over 300 residents (37 percent of all residents) live within a quarter mile of the alignment and would benefit from the connection to Metrorail and Metrobus services.

The travel time for the Townwide Commuter Route is expected to be approximately 70 minutes. Additional time is then factored in for each stop. The *Miami-Dade Transit Service Standards* establishes guidelines for stop frequency based on land use characteristics. For Medley's land use density, three stops per mile are recommended. It is assumed that the route will dwell for 15 seconds at each stop – resulting in a total dwell time of approximately 15 minutes. Additionally, a minimum of five-minutes layover should be provided at the end of each loop to allow the bus operator a short break. However, it is recommended that layover time be at least 10 percent of the route's travel time (excluding dwell time) to accommodate schedule recovery that will be required due to heavy traffic conditions. The recommended minimum total round-trip time for this route (including layover) is anticipated to be approximately 71 minutes.



Route 2 – Central Commuter Route

The Central Commuter Route is a truncated version of the Townwide Commuter Route, and is intended to provide more frequent service between the Palmetto Metrorail Station and 106th Street. The Central Commuter Route is 5.8 miles long and with an estimated round trip time of 35 minutes, and would provide service to approximately 37 percent of Medley's labor force. The Central Commuter would also serve approximately 230 residents, and provide them with frequent access to the Palmetto Metrorail Station. A map depicting the proposed Central Commuter Route is provided below in Figure 19.

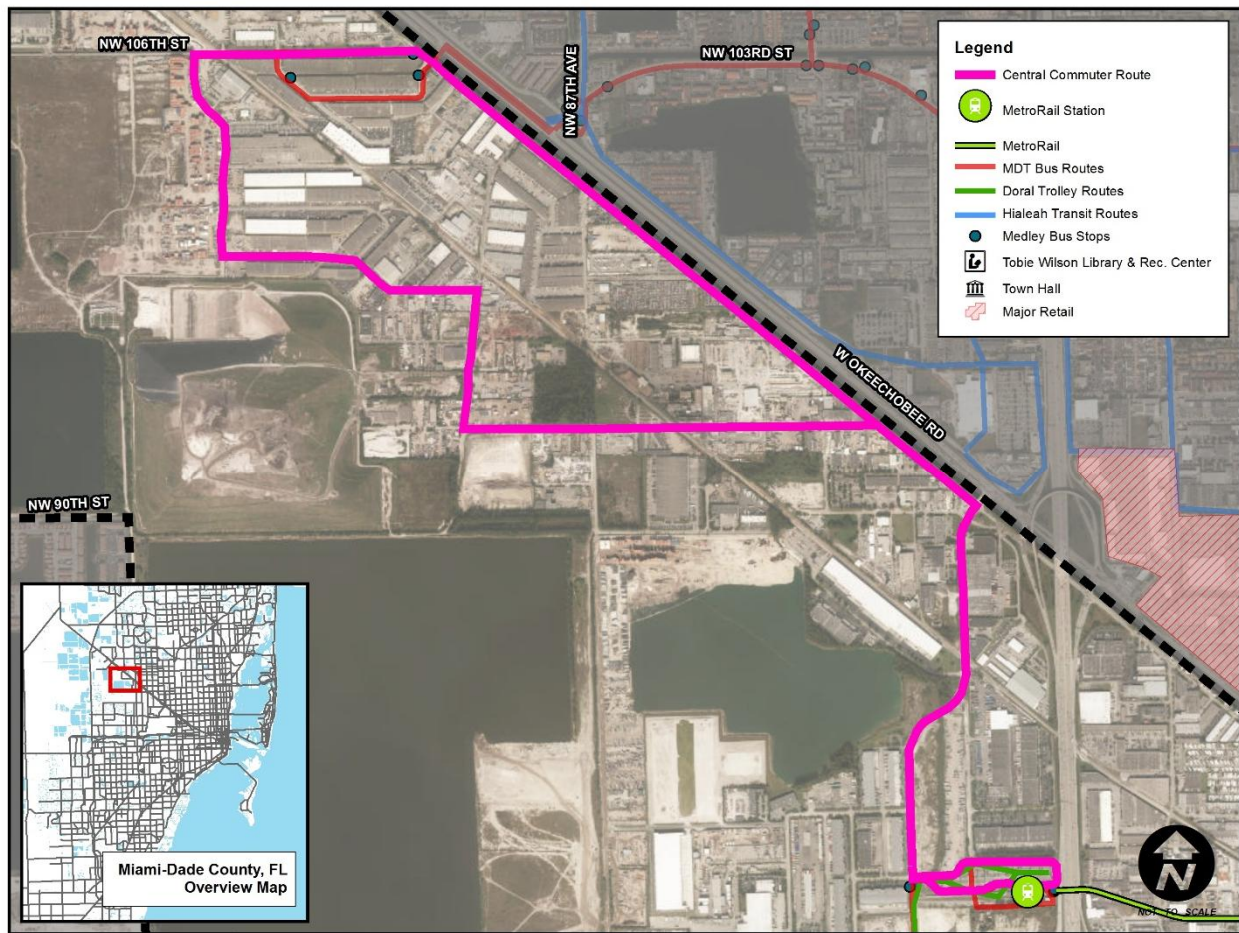


Figure 19. Proposed Central Commuter Route

The Central Commuter Route operates along NW South River Drive, rather than along the Okeechobee Frontage Road, as a connection to Hialeah is provided via a transfer onto Metrobus Route 33. Operating along NW South River Drive, the Central Commuter Route would provide service to business and employers that would otherwise have little or no transit connectivity.



Route 3 – Medley Circulator 1

The residents of the Town of Medley primarily live in the southeast portion of the town, between SR 826/Palmetto Expressway, NW 74th Street, and the Miami Canal. As such, the Medley Circulator 1 is designed to provide a connection between the southeastern portion of the Town and the commercial development located north of US 27/Okeechobee Road and east of SR 826/Palmetto Expressway – as shown below in Figure 20.

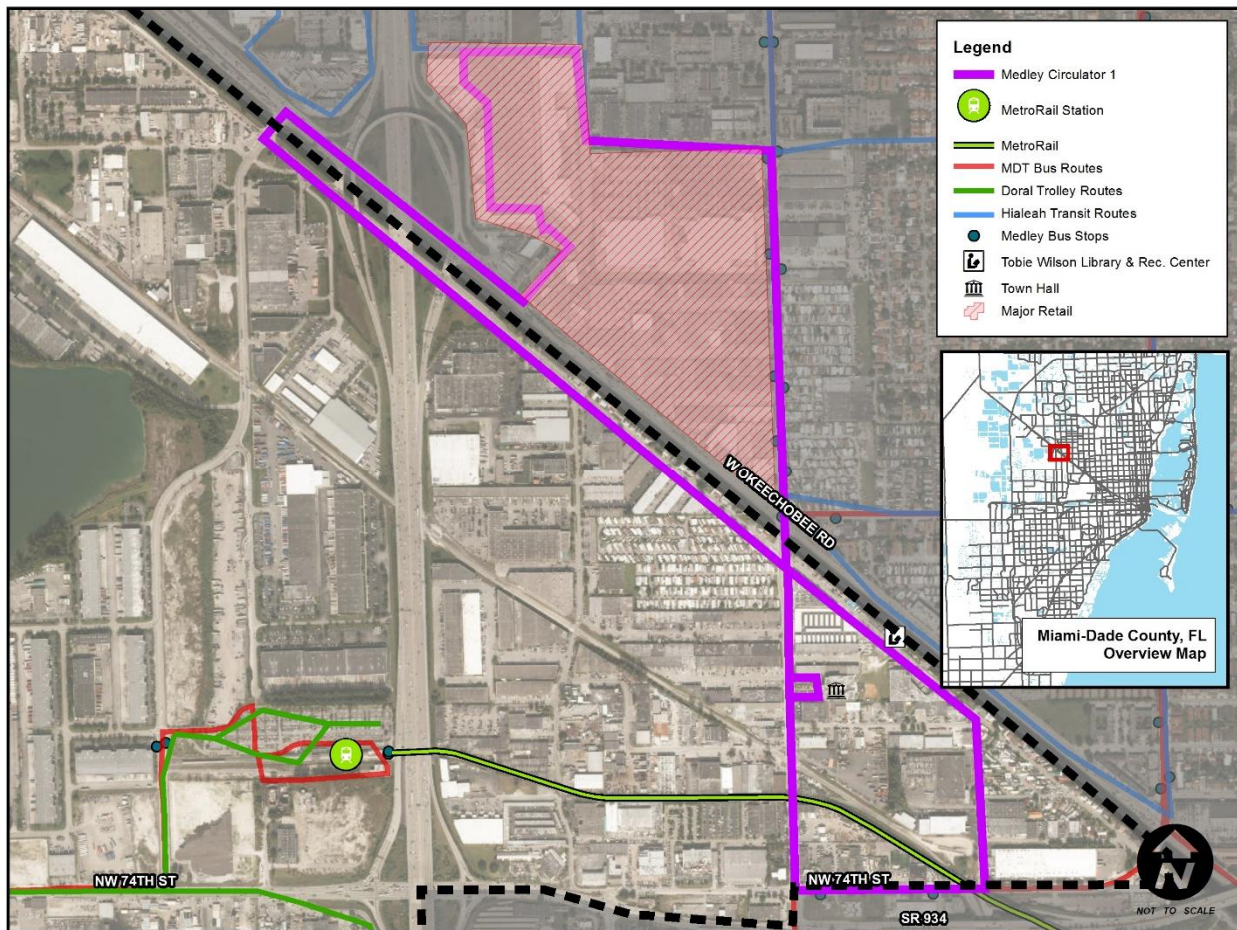


Figure 20. Proposed Medley Circulator 1

The Medley Circulator 1, is a 4.3-mile alignment that starts at the Medley Town Hall, and traverses north along NW 72nd Avenue across the Miami Canal and US 27/Okeechobee Road to connect to the commercial center east of SR 826/Palmetto Expressway. The Medley Circulator 1 would then continue northwest along US 27/Okeechobee Road and cross the Miami Canal at NW 79th Avenue. From there, the Medley Circulator 1 route then travels south along NW South River Drive to NW 69th Avenue, before looping back to Medley Town Hall via NW 74th Street and NW 72nd Avenue. In addition to Town Hall and



the commercial center, the Medley Circulator 1 would serve Tobie Wilson Park, business and restaurants along NW 74th Street, and over 670 Medley residents along the way. Although not the intent of the route, the Medley Circulator 1 alignment also provides circulator services to 15% of the employees working in the Town of Medley.

The proposed Medley Circulator 1 would provide direct connectivity to Metrobus Route 73, Metrobus Route 29, and the City of Hialeah's Flamingo Route.

The Medley Circulator 1 has an estimated round trip time of 35 minutes, and would likely operate with 40 or 45-minute headways between approximately 9:00 A.M. and 4:00 P.M., Mondays through Saturdays.

Route 4 – Medley Circulator 2

The Medley Circulator 2 is an approximately 5.7-mile, 35-minute route that provides a connection between the Palmetto Metrorail Station, Town Hall, and Hialeah's nearby commercial land uses. The route, shown in Figure 21, starts at the Palmetto Metrorail Station and travels south to NW 74th Street and east to NW 69th Avenue. The Medley Circulator 2 then heads northbound until NW 77th Terrace, where it turns west towards Medley Town Hall. From there, the route is similar to the Medley Circulator 1 as it operates north along NW 72nd Avenue and to businesses and restaurants in Hialeah before returning south and terminating at the Palmetto Metrorail Station.

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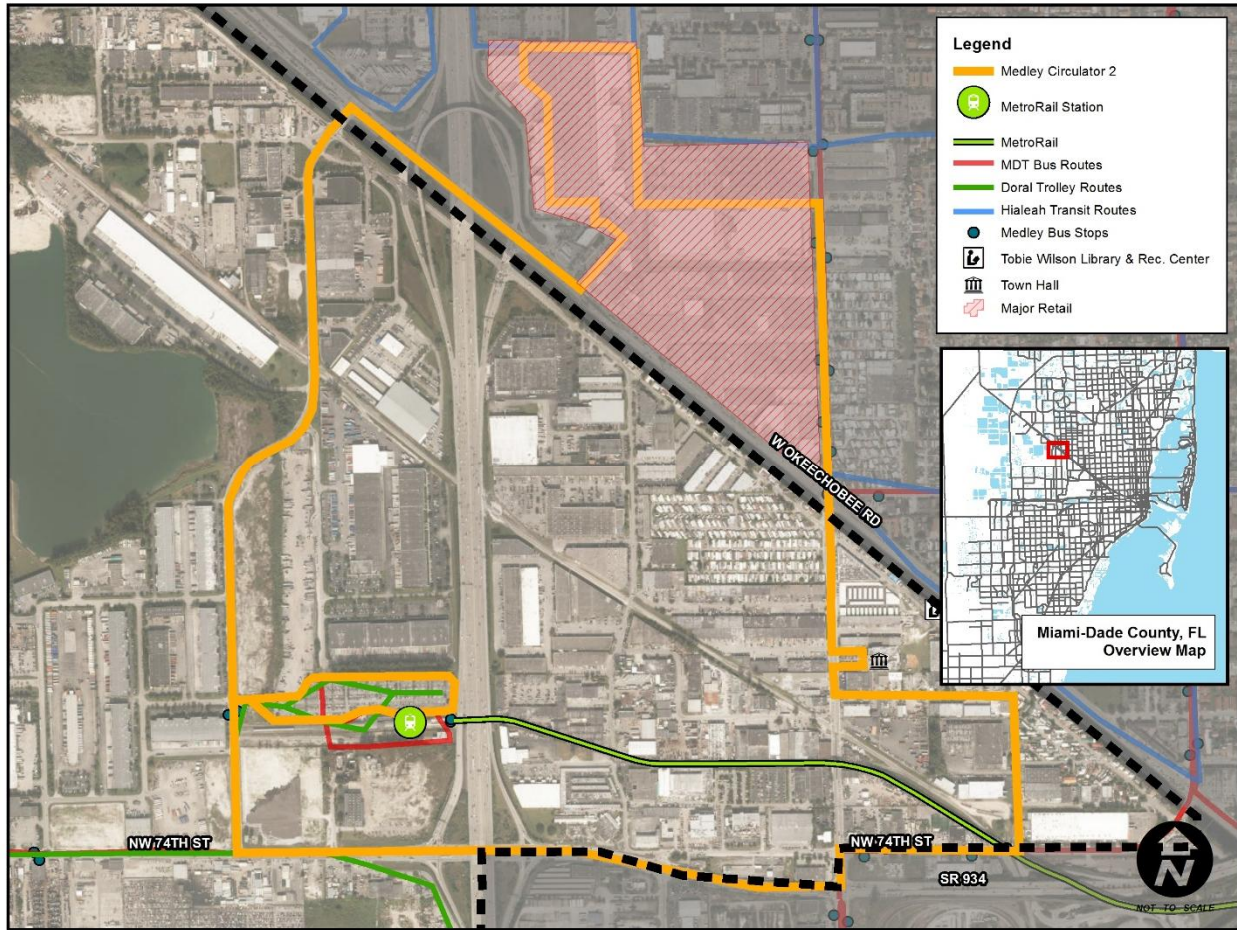


Figure 21. Proposed Medley Circulator 2

As the name suggests, the route is primarily designed to serve home-based-other type trips such as shopping, and running errands. Approximately 670 residents live within a quarter-mile of the route's alignment. Additionally, the Medley Circulator 2 also has the potential to serve nearly a quarter (23 percent) of the men and women working in Medley.

The Medley Circulator 2 would provide a connection to several local and regional transit services including three Metrobus Routes (Route 29, Route 33, and Route 87), the Metrorail, the two Doral circulators serving the Palmetto Metrorail Station, and the City of Hialeah's Flamingo Route.

Operating Plan

Two primary considerations are made in the development of a transit service operating plan: hours of service and frequency. Hours of service define a fixed schedule for each day of the week. Service frequency, or headway, can vary by time of day to meet demand needs. Hours of service and service



frequency also have significant impact on operational needs and costs. The Town of Medley may choose to operate service themselves, or contract operations out to a third party, as is frequently done by other municipalities in Miami-Dade County.

Hours of Service

Service characteristics vary depending on the purpose of the circulator service. For routes serving employment centers, it is recommended that the service begin to operate prior to morning peak-hour, and terminate after the afternoon peak-hour. Typically, routes serving employment centers should operate between the hours of 6:00 A.M. and 8:00 P.M., Monday through Friday. Depending on work schedules, service may be limited to commute-specific times such as 6:00 A.M. to 10:00 A.M. and 4:00 P.M. to 8:00 P.M. As commuter trips primarily occur Mondays through Fridays, circulators serving this trip purpose would not operate on the weekend. For analysis purposes, it is assumed that the Townwide Commuter Route and the Central Commuter Route would operate 6:00 A.M. to 10:00 A.M. and 4:00 P.M. to 8:00 P.M.

Community circulators, such as the residential loops described above, primarily serve non-commuter trips. The trips that these routes would be serving include running errands (bank, post office, etc.), going to the doctor, and buying groceries. Most of these trips are likely to occur between the hours of 9:00 A.M. and 5:00 P.M. Transit routes designed to serve non-commuter trips often operate Monday through Saturdays, and sometimes Sundays. For analysis purposes, it is assumed that the two medley circulators described above would operate 9:00 A.M. to 5:00 P.M. Monday through Saturday.

Service Frequency

Service frequency may vary throughout the day, and can be increased to meet higher transit demands and provide improved service. Headway is a term used in transit to describe the amount of time between two buses on the same route, or the maximum time a user can expect to wait at a bus stop. During peak demand periods, headway can be decreased (increased frequency) to provide greater service capacity and improved convenience to potential users. Routes with shorter headways provide a greater level of service and improved connectivity to adjacent transit services, but results in additional operating and capital costs compared to a lower frequency service. However, headways that are too great tend to have a negative impact on ridership.

Municipal transit services typically offer between a 30-minute and a 60-minute headway depending on the demand for service, capacity of the vehicles, and length of route. To minimize capital and operating costs,



it is recommended that headway be set based on length of route to minimize fleet size requirements. However, a maximum headway of 60 minutes is recommended, and longer routes will require a second vehicle to provide the appropriate level of service frequency.

Routes that serve commuter trips are likely to have higher peak demands in the morning and afternoon hours, requiring increased service frequency. However, demand for commuter trips is limited during mid-day and therefore would operate on longer headways. It is anticipated that a majority of the potential transit ridership for commuter routes would transfer from the Palmetto Metrorail Station, which provides 15-minute service frequency Mondays through Fridays. A 45-minute headway would allow commuters to transfer onto Medley's route from every third Metrorail train.

Community circulators, on the other hand, typically serve trips that are less time-specific. Therefore, service demand is likely to be more constant throughout the day. For these types of routes, the mid-day period may see increased service frequency to reflect the demand for lunch trips. To maximize connections to Metrorail service, particularly on weekends when Metrorail runs less frequently, a 40-minute headway is recommended for residential circulator services.

Vehicle Type

Vehicles can vary in size depending on service needs. Typically, two types of vehicles are commonly used for municipal transit programs: typical transit (40-foot, low-floor) buses, and trolley replica buses.

Transit buses typically vary between 30-feet and 40-feet in length, and have a 30-45 passenger seating capacity. Costs for such vehicles vary by make and size, but are typically in the range of \$200,000 to \$280,000.

Trolley buses are smaller in size, and have an average seating capacity of 20-30 passengers. The cost of trolley buses greatly depends on size and level of customization, and can vary between \$140,000 and \$250,000.

Minibuses, also known as 'cutaway' buses, are smaller than trolley buses and typically have seating capacity of 10-15 passengers. These buses vary in cost but are a fraction of the cost of a trolley or typical 40-foot bus. The smaller vehicle is expected to have better fuel efficiency, resulting in lower operating costs. However, this vehicle type may not provide the capacity needed to meet passenger demand.

For the Town of Medley, a trolley-type bus is recommended, as it best matches the expected ridership demand.



System Requirements

System requirements include a determination of the number of vehicles and the number of drivers necessary to operate the system. Different schedules and service frequency will impact system requirements. For each route the required number of buses is identified in Table 21, below.

Table 21. Service Requirements

Route	Round Trip Time (min)	Base Headway (min)	Vehicles Require (Base-Service)	Peak Service Headway (min)	Vehicles Required (Peak-Service)
Townwide Commuter Route	71	45	2	30	3
Central Commuter Route	35	45	1	30	2
Medley Circulator 1	30	40	1	30	1
Medley Circulator 2	35	40	1	30	2

Except for the Townwide Commuter Route, the proposed routes are all able to provide a 45-minute headway with a single bus. At higher frequencies, such as 30-minute headways, the required number of vehicles increases for all routes except the Medley Circulator 1. Additionally, it is recommended that one spare vehicle be provided for every five buses in service.

Preliminary Operating Cost Estimate

Operating and maintenance (O&M) costs were estimated for each route using the assumed base headway and service span defined in the previous sections of this document. O&M costs consist of operator costs, fuel costs, maintenance and insurance of the transit vehicle, and the salary of a transit administrator required to coordinate transit operations. To develop a cost estimate, annual service hours and annual service miles need to be calculated. A summary of the anticipated operations for each route is provided below in



Table 22. Summary of Route Operations (Base Conditions)

Route	Route Length (miles)	Round Trip Time (min)	Base Headway (min)	Service Span	Days of Operation	Annual Service Miles	Annual Service Hours
Townwide Commuter Route	15.3	71	45	6am-8pm	M-F	74,353	7,280
Central Commuter Route	5.8	35	45	6am-8pm	M-F	28,265	3,640
Medley Circulator 1	4.2	29	40	9am-5pm	M-Sa	15,837	2,496
Medley Circulator 2	5.7	36	40	9am-5pm	M-Sa	21,303	2,496

Operator costs are directly related to service hours, while fuel and maintenance costs are based on the number of vehicle-miles. The cost of insurance and of a transit administrator are fixed costs that are not directly linked to a route's alignment or schedule. Preliminary costs for each route are summarized below in

Table 23.

Table 23. Estimated O&M Costs by Route (Base Conditions)

Route	Annual Maintenance Costs*	Annual Insurance Costs	Annual Admin. Costs**	Total Annual O&M Cost
Townwide Commuter Route	\$ 19,210	\$ 7,200	\$ 80,000	\$ 337,200
Central Commuter Route	\$ 7,750	\$ 3,600	\$ 80,000	\$ 283,600
Medley Circulator 1	\$ 7,600	\$ 3,600	\$ 80,000	\$ 283,600
Medley Circulator 2	\$ 10,230	\$ 3,600	\$ 80,000	\$ 283,600

Notes:

*A fixed cost of \$200,000 was used to account for fuel, operator salary, and maintenance. This number was increased to \$250,000 for the Townwide Commuter Route to account for additional operators and vehicles.

**Administrative costs are included for each route, though this cost is independent of the number of routes serving the system. Therefore, administrative costs would be the same regardless of whether the system had one, two, three, or more routes.



The costs provided above assume that the Town of Medley would purchase, operate, maintain, and store their own vehicles. For larger systems, ownership of a fleet and a storage and maintenance facility may be feasible. However, many municipalities opt to contract out their operations to eliminate the need to purchase vehicles. The level to which operations and maintenance are contracted out can range depending on the type of services provided. For the purposes of this study, a cost estimate was developed using an average contract rate of \$54.49 per service hour, which was determined based on a review of contracts that other municipalities have with a local operator. The estimated O&M cost for each route is provided in Table 24, below.

Table 24. Summary of O&M Costs - Contracted Out

Route	Annual Service Hours	Total Annual Contract Cost	Total Admin. Costs*	Total Cost*
Townwide Commuter Route	7,280	\$ 396,703	\$ 40,000	\$ 436,703
Central Commuter Route	3,640	\$ 198,352	\$ 40,000	\$ 238,352
Medley Circulator 1	2,496	\$ 136,013	\$ 40,000	\$ 176,013
Medley Circulator 2	2,496	\$ 136,013	\$ 40,000	\$ 176,013
*Administrative costs are included for each route, though this cost is independent of the number of routes serving the system. Therefore, administrative costs would be the same regardless of whether the system had one, two, three, or more routes.				

Medley Transit System Alternatives

The Town of Medley has a need for two types of service: a commuter route that can provide morning and evening service to the over 20,000 employees working in the area, and circulator service to connect the residents of Medley adjacent transit services as well as retail and restaurants. It is recommended that the Town of Medley implement one of the commuter routes, and one of the residential/commercial routes. If service is contracted out, the two residential routes are expected to have the same operating costs resulting from the same number of service hours. However, it is recommended that the Medley Circulator 2 be implemented, as it provides a connection to the Palmetto Metrorail Station and can serve more of Medley's workers while still providing the same level of service to Medley's residents.

The Townwide Commuter Route, though twice as expensive to operate as the Central Commuter Route, is recommended for implementation as it provides service to a larger number of employees and residents and connects to more transit services. However, the Central Commuter Route should be considered for implementation of a lower-cost system.



Medley Circulator System – Alternative 1

The preferred alternative is to provide a system that includes the Townwide Commuter Route and the Medley Circulator 2. This system would require a minimum of three vehicles to be in service, and three bus drivers to operate the routes. This system would serve over 80 percent of Medley’s employees, and approximately 85 percent of Medley’s residents. The total system cost, assuming service is contracted out, is summarized in Table 25, below.

Table 25. Alternative 1 System Costs

	Total Annual Contract Cost
Townwide Commuter Route	\$ 396,704
Medley Circulator 2	\$ 136,013
Admin. Costs	\$ 40,000
Total Annual System O&M Cost	\$ 572,716

Medley Circulator System – Alternative 2

Alternative 2 substitutes the Townwide Commuter Route with the Central Commuter Route to reduce total cost. This system would require a minimum of two vehicles to be in service, and two bus drivers to operate the routes. This system would serve approximately 55 percent of Medley’s employees, and about 75 percent of Medley’s residents. The total system cost, assuming service is contracted out, is summarized in Table 26, below.

Table 26. Alternative 2 System Costs

	Total Annual Contract Cost
Central Commuter Route	\$ 198,352
Medley Circulator 2	\$ 136,013
Transit Administrator	\$ 40,000
Total Annual O&M Cost	\$ 374,364

Medley Circulator System – Single-Route Systems

If, for financial reasons, Medley chooses to operate only a single route, it is recommended that the Medley Circulator 2 route be implemented. The routes service hours should be extended to include morning and



evening peak commute times, resulting in a total of 14-hours of service per day (6:00 A.M. to 8:00 P.M.). The Medley Circulator 2 provides the greatest overall service of the four routes evaluated, serving both residents and commuters, as well as connecting to several surrounding transit services. The total cost for an extended Medley Circulator 2 service would be approximately **\$278,000**.

Preliminary Capital Cost Estimate

Capital costs for a transit service primarily include the purchase of vehicles and the installation of bus stops and amenities along the routes.

Funding Sources

Several funding sources, including state and federal grant programs, are available to subsidize both operations and capital investment. This section provides a brief overview of available grant programs and funding for transit operations.

Local Funding

Citizens' Independent Transportation Trust (CITT) and the People's Transportation Plan (PTP)

Miami-Dade County general funds and the People's Transportation Plan (PTP) funds are the primary source of county funding for transit. Typically, transit funds are allocated via a DTPW operated program (i.e., DTPW's Municipal Transit Service) based on annual budget requests to the County Commission and available funds. The PTP ordinance calls for 20 percent of surtax proceeds to be distributed directly to municipalities on a pro rata basis for use on local transportation and transit projects. Municipalities must apply at least 20 percent of their share of surtax proceeds toward transit uses and must submit their transportation plans to the County according to established deadlines.

In addition to the PTP funds, there are funding opportunities such as public private partnerships, marketing, and advertising. Although most of the municipalities rely strictly on the PTP funds, there are also opportunities for Federal or State funding.

Enhanced Mobility of Seniors & Individuals with Disabilities - Section 5310

This program (49 U.S.C. 5310) provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. Funds



are apportioned based on each state's share of the population for these two groups. Formula funds are apportioned to direct recipients; for rural and small urban areas, this is the state Department of Transportation, while in large urban areas, a designated recipient is chosen by the governor. Direct recipients have flexibility in how they select subrecipient projects for funding, but their decision process must be clearly noted in a state/program management plan. The selection process may be formula-based, competitive or discretionary, and subrecipients can include states or local government authorities, private non-profit organizations, and/or operators of public transportation.

Local Fundraising

Funds can be raised locally through private-public-partnerships (P3), advertising, and farebox revenue. P3 opportunities may include partnering with existing or planned developments in Medley and the surrounding area. Businesses in and around Medley stand to gain financially from improved transit service bring more customers.

Advertising can be used to help offset cost of operations and maintenance, particularly with regard to bus stop amenities such as trash cans, benches, and shelters. Many municipalities have contracts with a third party to maintain their bus stops and related amenities in exchange for free advertising space.

A fare can be used to help cover some of the cost of operations. Of the municipalities currently providing a circulator system, only Hialeah and Cutler Bay currently charge to ride the bus. Farebox revenue is seldom able to recuperate a significant portion of operating costs. Additionally, ridership is likely to be significantly lower if a fare is implemented. Therefore, it is not recommended that this funding source be pursued.

Funding Transit-Related Capital Investments

Flexible Funding Programs - Surface Transportation Block Grant Program - 23 USC 133

Provides funding that may be used by states and localities for a wide range of projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.

Buses and Facilities Grant Program – 5339

The Grants for Buses and Bus Facilities program (49 U.S.C. 5339) makes federal resources available to states and direct recipients to replace, rehabilitate and purchase buses and related equipment and to



construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. A sub-program, the Low- or No-Emission Vehicle Program, provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.

Low and No-Emission Component Assessment Program (LoNo-CAP)

Since 2014, FTA has provided over \$100 million in competitive funds to support the introduction of low- and no-emission (LoNo) transit buses into transit system fleets. LoNo-CAP will directly support the mission of FTA's ongoing Lo-No programs by providing unbiased assessments of LoNo components used in transit buses, publishing the assessments online, and summarizing them in an annual report to Congress. LoNo component assessments will document -- at a minimum -- the maintainability, reliability, performance, structural integrity, efficiency, and noise of the tested components.

Flexible Funding Programs - Surface Transportation Block Grant Program - 23 USC 133

Provides funding that may be used by states and localities for a wide range of projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.



Next Steps

The *Town of Medley Multimodal Mobility Study* examined improvements to the transit, pedestrian, and bicycle transportation network. The study followed the metropolitan transportation planning approach including Existing Conditions Assessment, Data Analysis, Pedestrian and Bicycle Mobility improvements, and Transit Circulator Study. Public input to the plan was obtained through the Town of Medley's Development Review Committee (DRC) and a publicly-advertised workshop with the Town Council.

The *Medley Multimodal Mobility Study* provides the framework for the programming of transportation improvements. The improvements should be adopted into the appropriate plans and programs of implementation agencies. Finally, the study should be examined periodically to assess the status of the implementation of the identified improvements and adjust as necessary based on future conditions.