



TRANSIT DEVELOPMENT PLAN

MAJOR UPDATE



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1 INTRODUCTION

The Miami-Dade County Department of Transportation and Public Works (DTPW) is pleased to submit this Transit Development Plan (TDP) Major Update to the Florida Department of Transportation (FDOT District VI). The timely submission of the TDP ensures that DTPW remains eligible for the State Transit Block Grant Program, ensuring sustained operations funding for the year to come.

The State of Florida Public Transit Block Grant Program was enacted by the Florida Legislature to provide a stable source of state funding for public transportation. The Block Grant Program requires public transit service providers to develop and adopt a Transit Development Plan (TDP). A TDP major update is required every five years and TDP annual updates are required in the interim years. TDP updates must be submitted to the Florida Department of Transportation (FDOT) by September 1st of each year.

This TDP Major Update has been prepared in accordance with Florida Administrative Code (FAC) Rule 14-73.001. Transit Development Plans are required for grant program recipients pursuant to Section 341.052, F.S. A TDP shall be the provider’s planning, development, and operational guidance document, based on a ten-year planning horizon and covering the year for which funding is sought, and the nine subsequent years.

This TDP, titled MDT10Ahead, presents both funded and unfunded transit needs to create a framework for transit improvements that can be implemented within a 10-year planning horizon. DTPW’s last Major Update was prepared in 2014 and was adopted by the Board of County Commissioners, pursuant to resolution R-1036-14. Subsequently, DTPW prepared four annual updates. The last, the 2019 Annual Update, was accepted by FDOT District Four on September 17, 2018.

1.1 TDP Requirements

Florida Administrative Code 14-73 describes the TDP requirements for a major update report. Table 1-1 summarizes the sections of this TDP Major update:

Table 1-1: TDP Requirements Checklist

DTPW 10Ahead TDP Major Update Major Components		
Civic Engagement Plan (PIP)		Chapter
✓	Civic Engagement Plan <i>approved by FDOT</i>	Appendix A.1
✓	TDP includes description of Public Outreach	Chapter 5
✓	Provide notification to FDOT	Appendix A.2
✓	Provide notification to Workforce Board	Appendix A.1
Situation Appraisal		
✓	Land use	Chapter 2, 7
✓	State, Regional and local transportation plans	Chapter 7
✓	Other governmental actions and policies	Chapter 7
✓	Socioeconomic trends	Chapter 2, 7
✓	Organizational issues	Chapter 7
✓	Technology	Chapter 7



DTPW 10Ahead TDP Major Update Major Components		
✓	10-year projections of transit ridership using approved methodology	Chapter 7
✓	Assessment of whether land uses and urban design patterns support transit service provision	Chapter 7
✓	Calculate farebox recovery	Chapter 3
Mission and Goals		
✓	Provider's vision	Chapter 3, 6
✓	Provider's mission	Chapter 3, 6
✓	Provider's goals	Chapter 3, 6
✓	Provider's objectives	Chapter 3, 6
Alternative Courses of Action		
✓	Develop and evaluate alternative strategies and actions	Chapter 7
✓	Benefits and costs of each alternative	Chapter 7
✓	Financial alternatives examined	Chapter 8
Implementation Program		
✓	10-year implementation program	Chapter 8
✓	Maps indicating areas to be served	Chapter 7
✓	Maps indicating types and levels of service	Chapter 7
✓	Monitoring program to track performance measures	Chapter 6
✓	10-year financial plan listing operating and capital expenses	Chapter 9
✓	Capital acquisition or construction schedule	Chapter 8
✓	Anticipated revenues by source	Chapter 9
Relationship to Other Plans		
✓	Consistent with Florida Transportation Plan	Chapter 7
✓	Consistent with local government comprehensive plans	Chapter 7
✓	Consistent with TPO long-range transportation plans	Chapter 7
✓	Consistent with regional transportation goals and objectives	Chapter 7
Submission		
✓	Adopted by Governing Board	TBD
✓	Submitted to FDOT by October 1, 2019 <i>(requested extension was granted by FDOT)</i>	TBD
	Official acceptance by FDOT	TBD



In its entirety, the TDP is a benchmark document that describes DTPW's current state, and the direction it intends to go in the coming years. MDT10Ahead is fiscally constrained, and the proposed ten year improvements were developed with this constraint. The TDP is subject to change in correspondence with the County's Adopted Budget and Multi-Year Capital Plan.

1.2 Organization of the TDP Document

This TDP Major Update is organized into 8 chapters and several appendices as described here:

Chapter 1: Introduction - Provides a description of the TDP Major Update document and includes specific statutory requirements and a checklist applicable for the completion of a TDP Major Update.

Chapter 2: Operating Environment - Provides an overview of DTPW's transit operating environment. A general baseline of existing conditions is formed by compiling the demographic, land use, and socio-economic characteristics which are evaluated using Geographic Information Systems (GIS).

Chapter 3: Existing Services – Provides a description of the transit services offered by DTPW, local municipalities, and regional transit partners, as well as DTPW's other transit supportive projects such as Park-and-Ride facilities, Pedestrian Overpasses, and Transit Oriented Development (TOD).

Chapter 4: Peer Comparison and Trend Analysis – Compares the performance of DTPW against peers in relation to recent trends in the transit marketplace. Peer comparisons were conducted for DTPW's fixed-route bus (Metrobus), heavy rail (Metrorail), automated guideway/people mover service (Metromover), and DTPW's complimentary ADA paratransit service (STS), to evaluate and compare its performance with other transit systems having similar characteristics. A trend analysis of DTPW's performance from 2013 to 2018 assesses how transit service has changed recently and can suggest areas that should be examined moving forward.

Chapter 5: Civic Engagement and Outreach – Describes DTPW's efforts to engage with the public and obtain feedback to improve the transit system. Contains information on the Advisory Review Committee, Civic Engagement Plan, and the annual rider survey which includes representative results.

Chapter 6: Goals & Objectives – Contains a complete inventory of the long-term goals, strategic objectives, and specific performance targets guiding DTPW. The TDP Major Update provides an opportunity for an agency to revisit and identify new goals and objectives that align with the Agency's vision for transit in Miami-Dade.

Chapter 7: Situation Appraisal – Provides an appraisal of factors within and outside of DTPW that affect the provision of transit services. This section includes an evaluation of organizational issues, technological innovations, the effects of land use regulations, support or hindrance of transit service, socioeconomic trends, state and local transportation plans, and other governmental actions and policies. It also includes an estimation of transit demand from the Southeast Florida Regional Planning Model (SERPM).

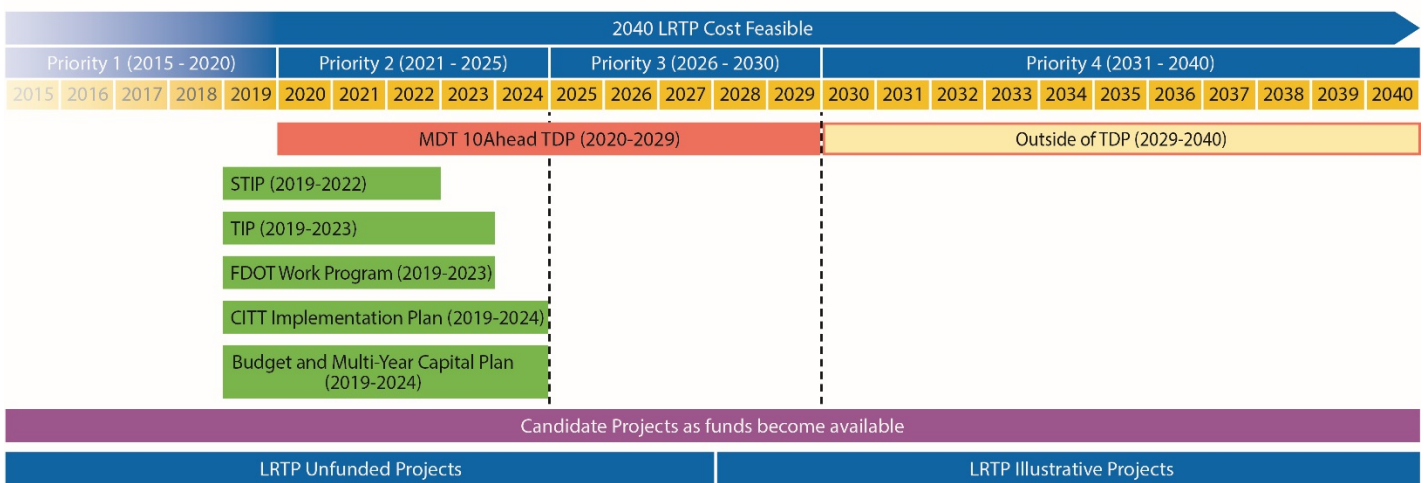
Chapter 8: Ten Year Implementation Plan – Contains a complete accounting of planned projects between Fiscal Years (FY) 2019 and 2028, including capital projects, operations, and state of good repair projects, each broken down according to funding status. This Chapter also includes separate tables with information on SMART Plan corridors, the BERT Network, and projects planned beyond the ten-year threshold for inclusion.

Chapter 9: Financial Plan – Describes the estimated costs of providing the agency's existing and planned new services over a ten-year horizon. The financial resources that will support those services are also identified and estimated, as well as unfunded needs. Through the development of this financial plan DTPW determines which service improvements are financially feasible and establishes a time line by when said improvements can be implemented.

1.3 Related Plans

The TDP informs and is informed by other Land Use and Transportation Plans in Miami-Dade County. MDT10Ahead identifies the county's long-term transit infrastructure needs, which are used in the development of the Miami-Dade Transportation Planning Organization (TPO) Long Range Transportation Plan (LRTP). The TDP also identifies and presents short-term improvements for implementation through the TPO's Five-Year Transportation Improvement Program (TIP), FDOT's Work Program process, the Citizens' Independent Transportation Trust (CITT) Five-Year Implementation Plan, and Miami-Dade County's FY2019 Adopted Budget and Multi-Year Capital Plan.

Figure 1-1: Interrelationship of Planning Documents in Miami-Dade County



1.3.1 2040 Long Range Transportation Plan

Regularly updating the Miami-Dade County Long Range Transportation Plan (LRTP) is a primary activity in Miami-Dade County's transportation planning process, with federal and state requirements for an update of the Transportation Plan every five years. Federal law requires that the LRTP address a minimum of a 20-year planning horizon from the date of the Transportation Planning Organization (TPO) adoption.

The 2040 LRTP was approved by the TPO Governing Board on October 23rd, 2014, and includes four priorities with their own implementation years. Projects identified as priority one are scheduled for implementation between 2015 and 2020; priority two between 2020 and 2025; priority three between 2026 and 2030; and Priority four between 2030 and 2040.

The Miami-Dade TPO is preparing a new 2045 LRTP which should be completed in 2019.

1.3.2 State Transportation Improvement Program (STIP)

The State Transportation Improvement Program (STIP) is a federally mandated document which includes a list of projects planned with federal participation in the next four fiscal years. The report is based upon the same projects that are listed in the first four years of FDOT's Adopted Five Year Work Program. The STIP is approved annually by Federal Highway Administration (FHWA) at the beginning of each federal fiscal year.

Projects shown in both the Work Program and the STIP are all drawn from the same Work Program Administration (WPA) database. Work Program reports and STIP reports contain the same projects programmed in the WPA database, with different formatting. For a project to be listed in the approved STIP, it must first be included in the WPA database and programmed in the first four years of the Adopted Five Year Work Program. The project must either be included in the Tentative Work Program during the annual Tentative Work Program development cycle, or it must be amended into the Work Program and STIP after it has been adopted on July 1st of each state fiscal year. The current STIP covers FY 19-22 (July 1st, 2018 through June 30th, 2022).

1.3.3 Transportation Improvement Program (TIP)

The Transportation Improvement Program (TIP) contains the transportation improvement projects planned for the next five years. All projects receiving federal funds must be included in this plan. Other major projects which are part of the area’s program of improvements, but do not receive federal funds, are included in the TIP as part of the planning process.

The current TIP covers FY 2019 through FY 2023 (October 1, 2018 - September 30, 2023) and was approved by the TPO Governing Board on June 21st 2018. Categories of improvements include Highway, Transit, Aviation, Seaport, and Non-Motorized improvements. All projects and priorities listed in the adopted TIP are consistent with those in the adopted 2040 LRTP.

1.3.4 Florida Department of Transportation (FDOT) Five Year Work Program

The Work Program is the tentative list of projects that will be funded and carried out in District 6 (including Miami-Dade and Monroe counties) during the next five years. Developed annually, it is FDOT’s budget for work in Miami-Dade and Monroe counties. Projects are identified and schedules are developed based on priorities and allocated funds.

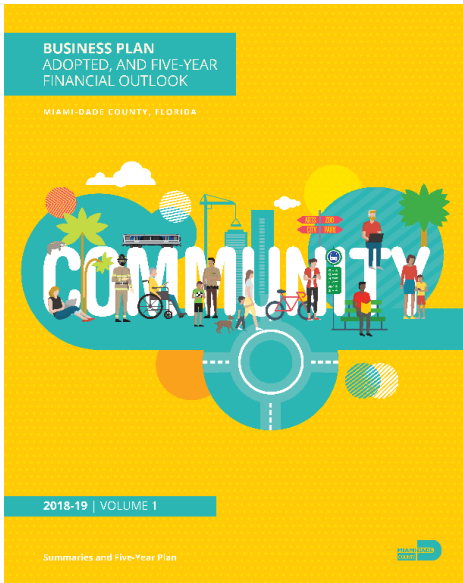
In each cycle, a new fifth year is added, and the first year drops off as projects are completed. A new project only begins to move forward after it is funded and then placed in the Work Program’s fifth year. Each phase of a project generally takes two years to complete. Therefore, some projects could take up to 10 years or more from initiation to completion and would cycle through the Work Program several times. The current Five Year Work Program covers FY 2019 through FY 2023 (July 1st, 2018 through June 30th, 2023).

1.3.5 Citizens’ Independent Transportation Trust (CITT) Five-Year Implementation Plan

The CITT 5-Year Implementation Plan documents the current implementation status of surtax-funded People’s Transportation Plan (PTP) projects as well as their progress versus the baseline provided in the previous year’s initial plan. This includes references to projects from the County’s 2018-2019 Proposed Capital Budget. Future annual updates to the PTP will continue to monitor the actual implementation of the projects, their adherence to budget and schedule, and any changes to the Plan including project additions, deletions or deferrals. The current Five Year Implementation Plan covers FY 2019 through FY 2024.



1.3.6 Adopted Budget and Multi-Year Capital Plan



Miami-Dade County has a responsibility to appropriately plan for and strategically manage the funding of public services desired by the community. The annual budget and multi-year capital plan are essentially a plan of activities consistent with the County’s Strategic Plan and the resources required to achieve those goals. The County’s adopted budget is a powerful financial management tool that helps:

- Prioritize programs and service levels
- Prepare for operational challenges in advance
- Provide appropriate funding to each department
- Create accountability and ensure transparency of the planned use of public funds
- Establish a sound fiscal framework for proper day to day monitoring

Each department’s operating and capital budgets are evaluated on an annual basis as one cohesive plan. The County’s budget and multi-year capital plan, spans six fiscal years, is adopted on an annual basis by the Board of County Commissioners, and conveys the services to be delivered to the community as well as the resources required to provide those services.

The current Adopted Budget and Multi-Year Capital Plan covers FY 19 (October 1st, 2018 through September 30th, 2019).



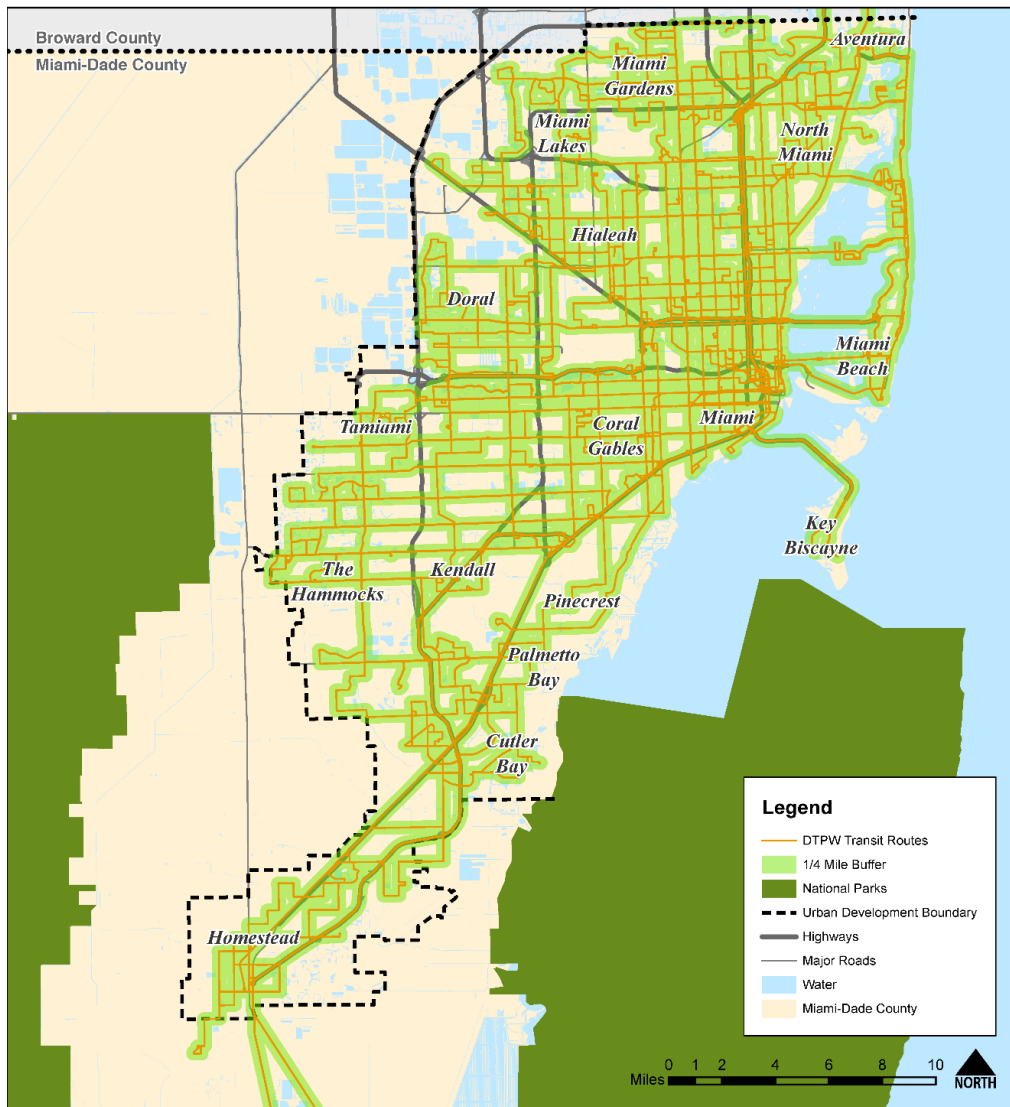
2 OPERATING ENVIRONMENT

This chapter provides an overview of DTPW’s transit operating environment. A general baseline of existing conditions is formed to identify the challenges and opportunities associated with transit operations in Miami-Dade County. Demographic, land use, and socio-economic characteristics are evaluated using Geographic Information Systems (GIS), described throughout this chapter.

2.1 Service Area Description

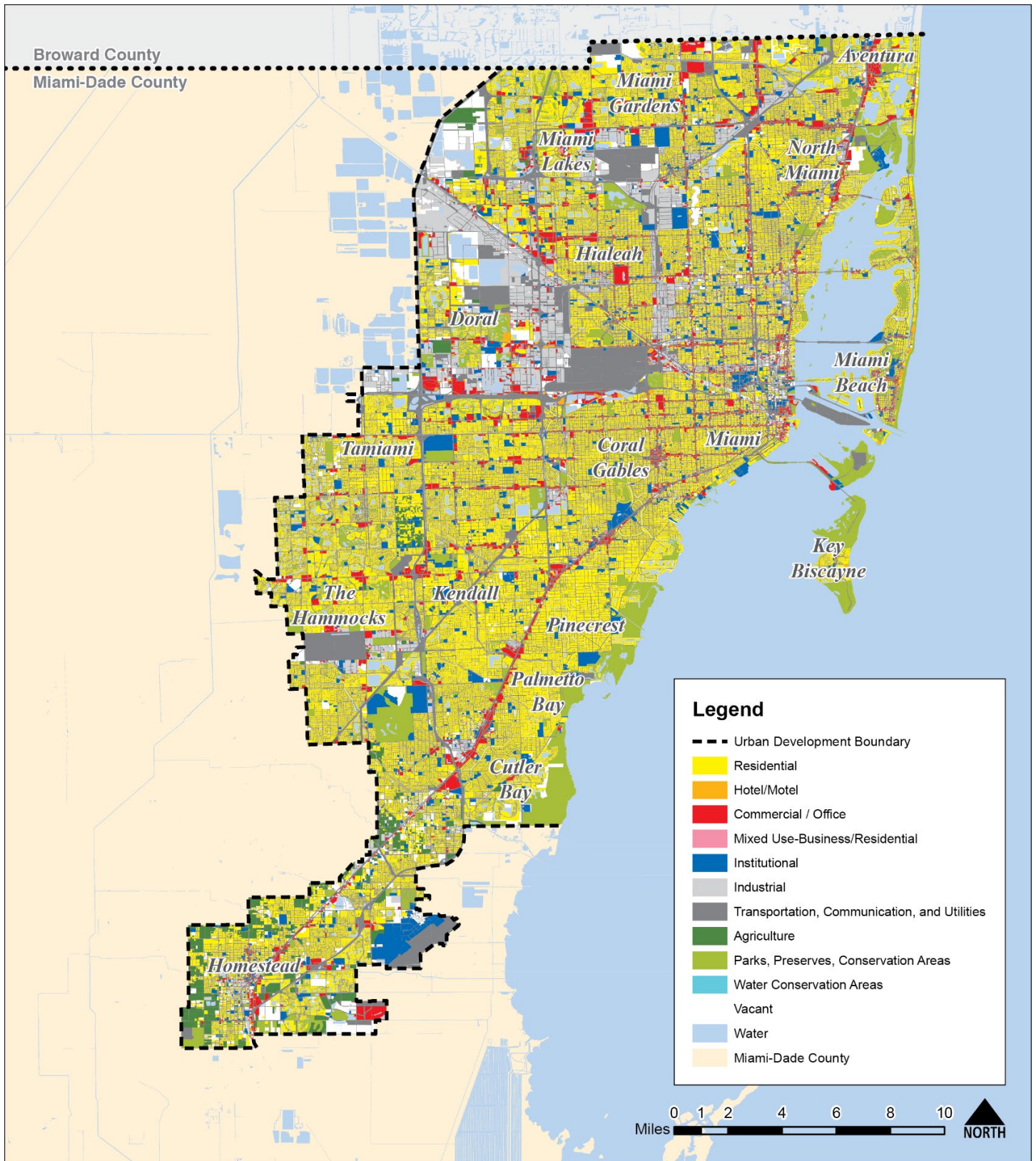
Miami-Dade County is comprised of 34 municipalities, and large areas of unincorporated land. The county encompasses a total area of 2,431 square miles, of which 19 percent (%), or 452 square miles, falls within the Urban Development Boundary (UDB). Within the UDB, DTPW’s service area covers 291 square miles or 64% of the urbanized area, as depicted in Map 2-1. Miami-Dade County is home to two national parks. Biscayne National Park sits on the southeast end of the county in Biscayne Bay, and Everglades National Park is situated to the southwest outside of the Urban Development Boundary.

Map 2-1: DTPW Service Area



Sources: Miami Dade County GIS, 2018, and Florida Geographic Data Library, 2018

Map 2-2: Existing Land Use Map



Source: Miami-Dade County GIS Open Data Hub, <https://gis-mdc.opendata.arcgis.com/>, 2018

2.2 Land Use

Existing land use in Miami-Dade County is monitored by the department of Regulatory and Economic Resources (RER) Planning Division based on the most recent aerial photography, property appraisal data, thematic layers, development, and environmental characteristics.

Existing land uses are classified into 98 specific categories, and then grouped into 11 generalized categories. The distribution of land uses within the county’s Urban Development Boundary is shown in Map 2-2 and Table 2-1.

Table 2-1: Existing Land Use within the Urban Development Boundary

Land Use Category	Acres	Percent of Total Area
Residential	105,428	41.1%
Transportation, Communication, and Utilities	69,431	27.1%
Parks, Preserves, Conservation Areas	22,126	8.6%
Institutional	14,688	5.7%
Industrial	13,713	5.3%
Commercial/Office	12,920	5.0%
Vacant	11,722	4.6%
Agriculture	5,517	2.1%
Hotel/Motel	851	0.3%
Mixed Use-Business/Residential	244	0.1%
Total	256,642	100%

Source: Miami-Dade County GIS Open Data Hub, <https://gis-mdc.opendata.arcgis.com/>, 2018

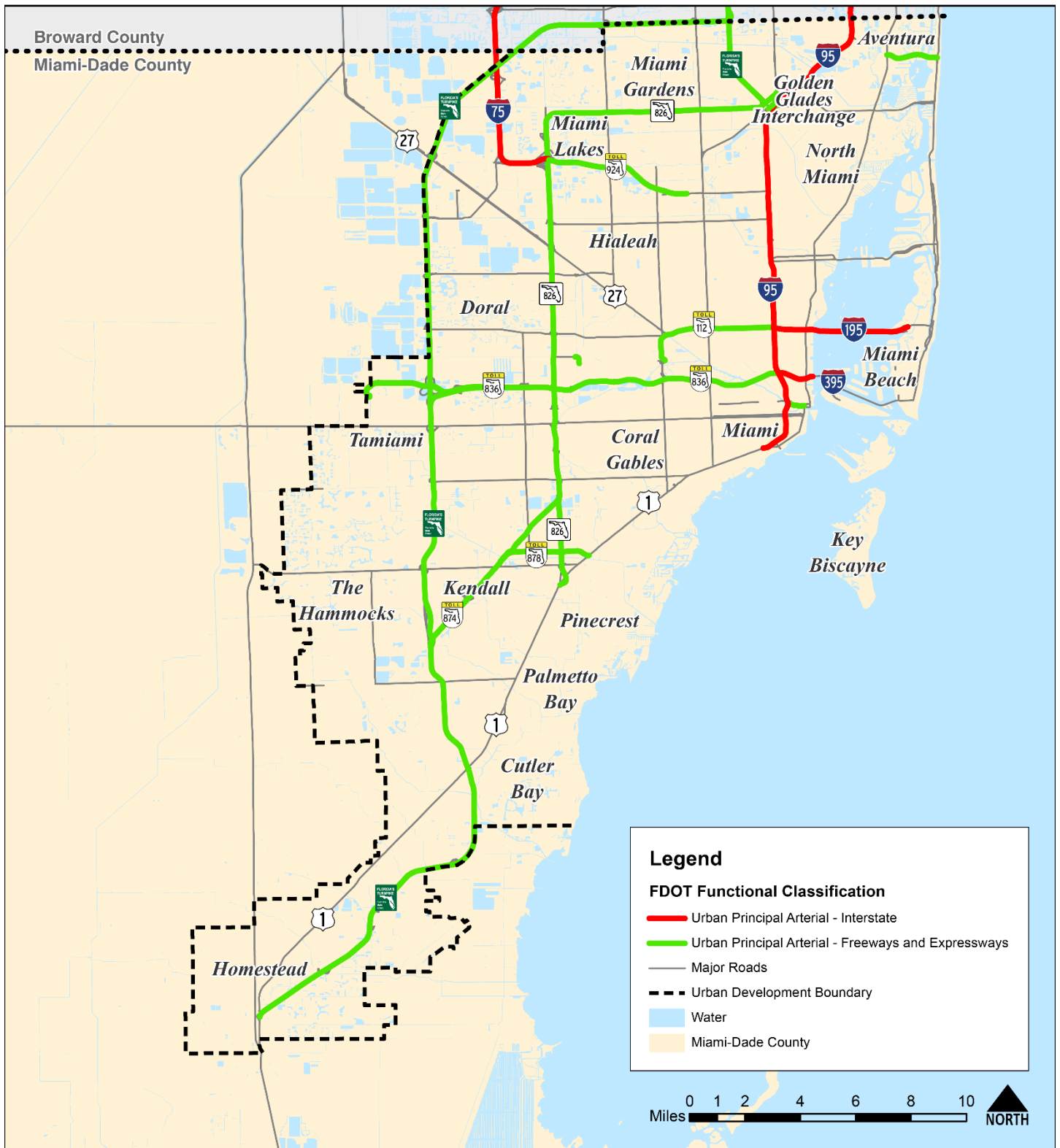
Future land uses are governed by the Miami-Dade County Comprehensive Development Master Plan (CDMP). The pattern of land use and urban growth promoted in the original 1975 edition of the CDMP remains largely unchanged, though reviews and updates are conducted every seven years. The CDMP aims to manage development within unincorporated Miami-Dade County by establishing the Urban Development Boundary (UDB) and a growth policy that encourages development which occurs along the following guidelines:

- At a rate commensurate with projected population and economic growth;
- In a contiguous pattern centered around a network of high-intensity urban centers connected by multi-modal intra-urban transportation facilities;
- In locations which optimize efficiency in public service delivery and conservation of natural resources; and
- In recognition of the county’s physical limitations due to the location of natural parks and preserves, and the county’s unique agricultural land resources.

The objectives and policies in the Land Use Element of the CDMP encourage increasing densities around active urban centers which are in areas with high accessibility through multimodal transit corridors.

The CDMP establishes that (re)development throughout Miami-Dade County should occur in a manner that supports transit and other alternative transportation modes which serve a variety of uses and activities for both residents and visitors. Specifically, in planned or existing transit corridors and urban centers, developments must be planned and designed to promote transit-oriented development, transit accessibility, and walkable environments.

Map 2-3: Interstates, Freeways, and Expressways



Source: FDOT Functional Classification, December 2018

2.2.1 Miami-Dade County Transportation System

Miami-Dade County has 15 principal arterials as defined by the Florida Department of Transportation (FDOT) functional classification designations, including four interstate highways and 11 freeways or expressways, as shown in Map 2-3. Of the four interstates, I-95 and I-75 provide the primary links between Miami-Dade County and the rest of the state to the north. I-195 and I-395 provide access between Miami Beach and the City of Miami. Of the 11 freeways and expressways in Miami, there are four free facilities and seven tolled facilities.

The free facilities are:

- SR-856 (Lehman Causeway) which connects US-1 in Aventura on the mainland to Sunny Isles Beach on the barrier island across the Intracoastal Causeway;
- SR-826 (Palmetto Expressway) which runs west from the Golden Glades Interchange, turns south in Miami Lakes, and continues to US-1 SW 98th Street in Pinecrest;
- NW 25th Street Viaduct, which provides airport cargo access between Doral and the Miami International Airport cargo area;
- SR-970 Downtown Distributor which connects I-95 to downtown Miami.

Four agencies operate tolled facilities in Miami-Dade County – The Miami-Dade Expressway Authority, The Florida Turnpike Enterprise, FDOT, and Miami-Dade County. These facilities are summarized here:

The Miami-Dade Expressway Authority (MDX) operates five tolled roadways:

- SR-112 (Airport Expressway) which connects I-95 to Miami International Airport (MIA) and the Miami Intermodal Center (MIC);
- SR-836 (Dolphin Expressway) which links I-95 to NW 137th Avenue on the western extent of the Urbanized Area;
- SR-874 (Don Shula Expressway) which connects the southern end of SR-826 to the HEFT;
- SR-878 (Snapper Creek Expressway) which connects US-1 to SR-874; and
- SR-924 (Gratigny Parkway) which extends I-75 to NW 32nd Avenue at NW 119th Street

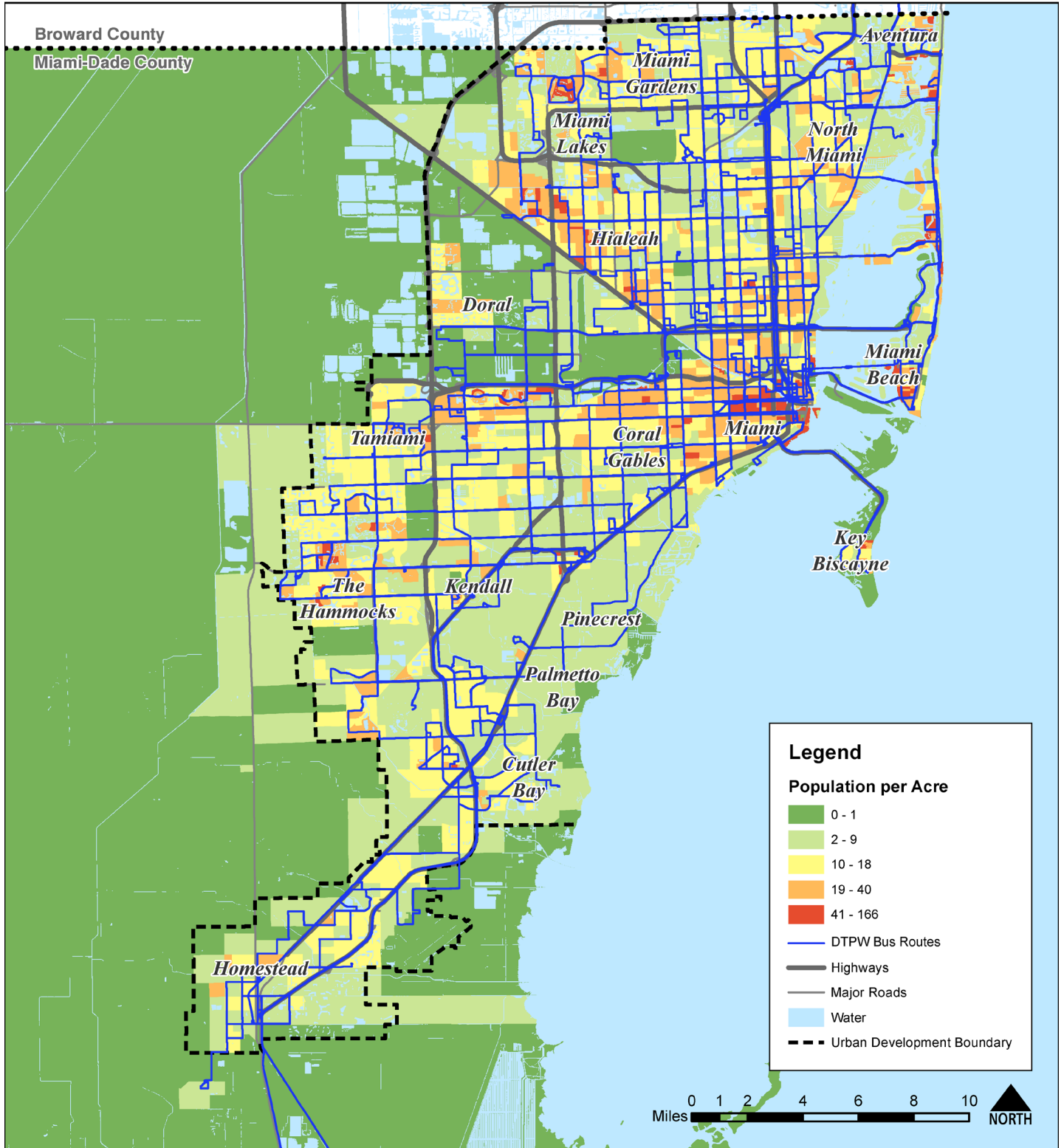
Additionally, Florida's Turnpike Enterprise (FTE) operates the Florida's Turnpike mainline from the Golden Glades Interchange to the rest of the Turnpike system to the north, as well as the Homestead Extension of Florida's Turnpike (HEFT), which runs perpendicular from the mainline at the Miami-Dade/Broward county line before turning south, where it terminates in Florida City. FDOT operates managed lanes along I-95, and Miami-Dade County operates several tolled bridge facilities, including the Rickenbacker and Venetian Causeways.

2.2.2 Miami-Dade County Street Grid System

The street grid system in Miami-Dade County extends from the intersection of Flagler Street and north-south running Miami Avenue in Downtown Miami, dividing the county into four quadrants which act as prefixes (NW, NE, SE, SW) to the roadway names. East-west running roadways are designated as streets, while smaller roadways between streets are typically called terraces. North-South running roadways are designated as avenues, while smaller roadways between avenues are typically identified as courts or places. Roadways are numbered according to their distance from the origin axis, and the grid is typically distributed at 10 avenues per east-west mile and 16 streets per north-south mile, with major roads typically occurring every mile or half mile. As such, SW 8th street is one half mile to the south of Flagler, on the west side of Miami Avenue.

This system applies to most roads in Miami-Dade, but some municipalities, including Hialeah, Coral Gables and Homestead use their own naming system.

Map 2-4: Population Density



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

2.3 Demographic and Economic Analysis

This section reviews population profile and trends, demographic characteristics, and journey-to-work characteristics for Miami-Dade County. A series of maps are included to illustrate select population, demographic, and journey-to-work characteristics. The primary data sources include United States Census instruments, including the U.S. Decennial Census and the American Community Survey three- and five-year estimates. Moreover, Southeast Florida Regional Planning Model (SERPM), and Miami-Dade County open source datasets were also used in this analysis.

2.3.1 Data Sources

2.3.1.1 United States Census – American Community Survey (ACS)

The U.S. Census is a federal program conducted every ten years and is focused on gathering social and economic characteristics of the population. In addition, the Census collects physical and financial characteristics of households.

The ACS is a part of U.S. Census Bureau’s Decennial Census Program and designed to provide more current and detailed demographic, social, economic, and housing estimates throughout the decade. The ACS is sent to a small percentage of the population on a rotating basis and asks more in-depth questions than the decennial census. Each year the survey randomly samples around 3.5 million addresses and produces statistics that cover one-year, three-year and five-year periods for geographic areas in the United States and Puerto Rico. The five-year estimate data set was utilized to provide a more detailed snapshot into the demographic and economic characteristics within Miami-Dade County as a whole.

Every December, ACS provides a five-year estimate (based on data collected in five consecutive years). For analytic purposes, this document uses the ACS 2012-2016 five-year estimates as a source to provide a comprehensive descriptive average of demographic and economic conditions during this time. The five-year estimates represent the average characteristics over the five-year period, with a larger sample size than the one-year and three-year estimates, making them more precise.

2.3.2 Miami-Dade County Population Characteristics

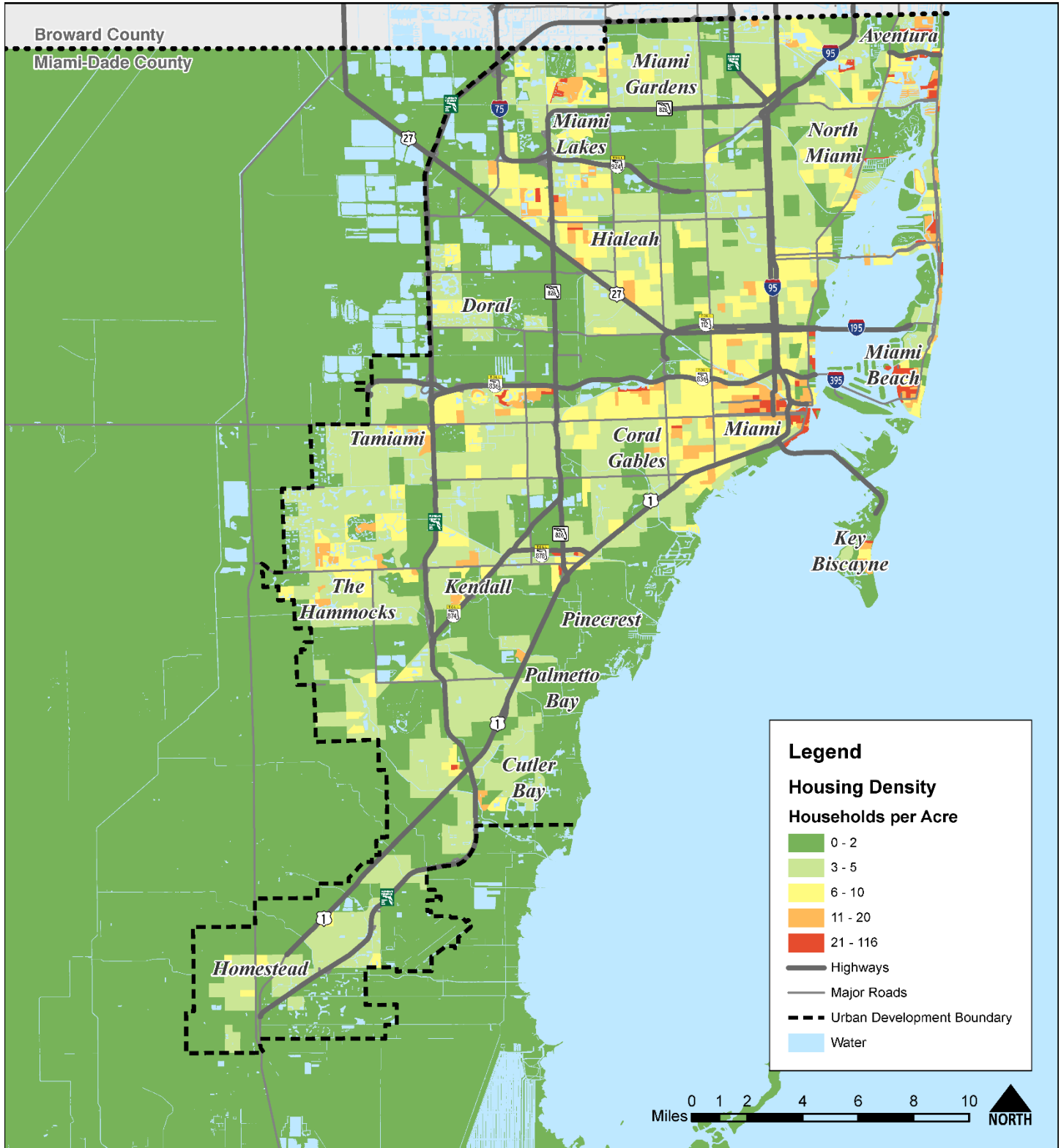
Miami-Dade County was the most populous county in Florida and the sixth most populous county in the nation with 2.6 million residents. Miami-Dade County has experienced population growth of 6.7%, or approximately 168,000 new residents since the 2010 Census. The distribution of Miami-Dade County residents is shown in Map 2-4. Miami-Dade population growth has slightly outpaced its peers in southeast Florida, as shown in Table 2-2.

Table 2-2: Estimated South Florida Population Growth 2010-2016

Year	Miami-Dade County Population	Broward County Population	Palm Beach County Population
2010	2,496,435	1,748,066	1,320,134
CHANGE	+167,983 (6.7%)	+115,714 (6.6%)	+78,623 (6%)
2016	2,664,418	1,863,780	1,398,757

Sources: 2010 Census SF1, and ACS 2016 five-year estimates

Map 2-5: Housing Density



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

2.3.3 Household Characteristics

The American Community Survey 2016 estimates noted a household reduction of 1.6%, down to 853,624 from the 2010 count of 867,352 households. With the growth in population that Miami-Dade experienced during the same time, this has resulted in an increase of average household size from 2.83 to 3.07, despite single occupant households increasing from 23.5% to 26.4%. In the same period, the proportion of households with children decreased from 36.1% to 33.3%, while the proportion of households with persons over the age of 65 increased from 29.6% to 30.9%. Taken together these statistics reflect broader social trends; millennials delaying parenthood, more inter-generational co-habitation, and growing income inequality as reflected in Table 2-6, which shows a 6.8% increase in per capita income at the same time as an 8.7% increase in households receiving public assistance. These results are summarized in Table 2-3 below:

Table 2-3: Miami-Dade County Household Characteristics, 2010 - 2016

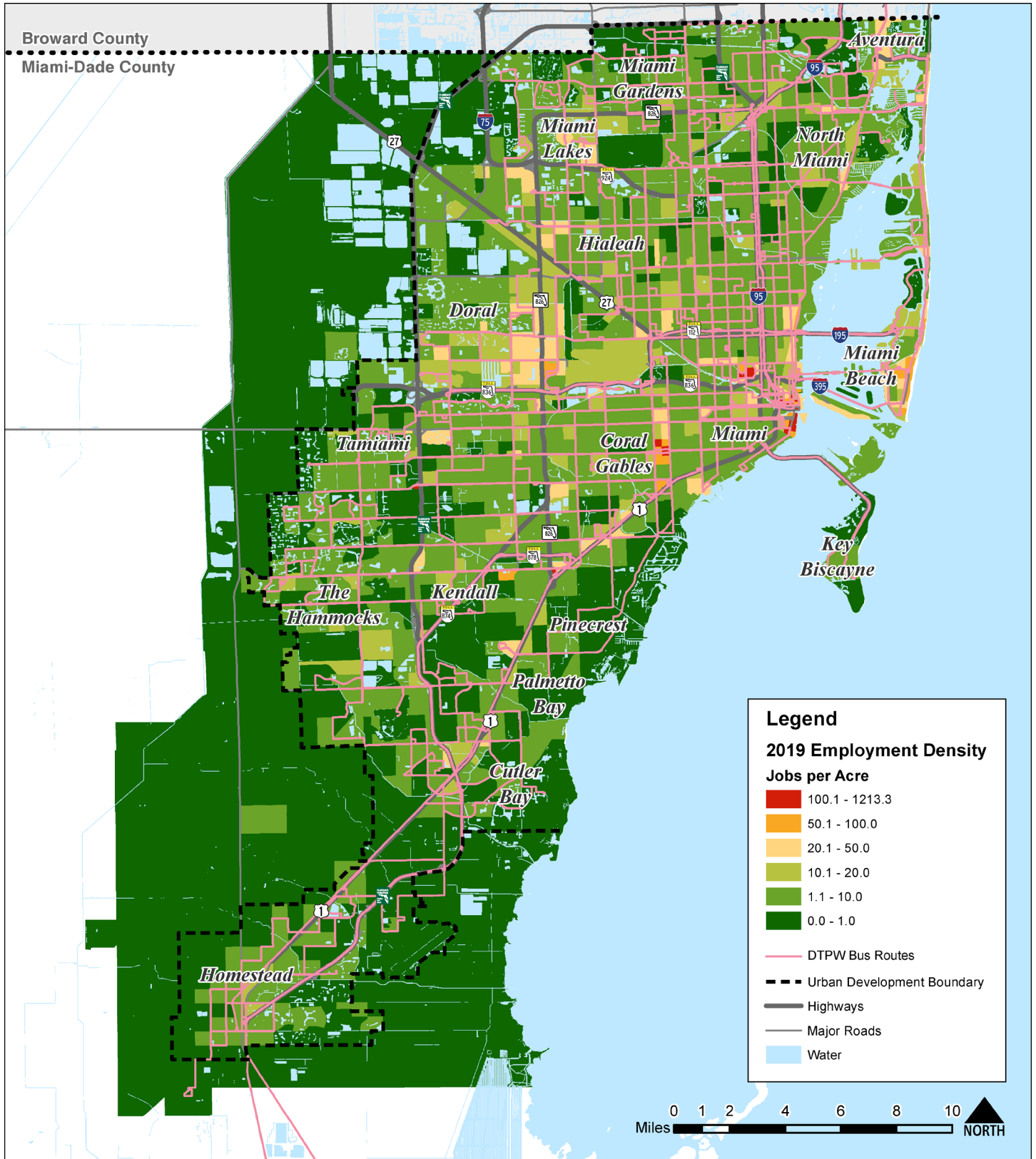
Year	Households (HHs)	Average HH Size	Single Occupant HHs	HHs with Persons Under 18	HHs with Persons Over 65
2010	867,352	2.83	204,223 (23.5%)	313,235 (36.1%)	256,913 (29.6%)
CHANGE	-13,728	+0.24	+21,133	-28,557	+7,586
2016	853,624	3.07	225,356 (26.4%)	284,678 (33.3%)	264,499 (30.9%)

Sources: 2010 Census SF1, and ACS 2016 five-year estimates

The distribution of households corresponds to land use patterns in the county. Single-family housing is the predominant residential land use type with multi-family housing concentrations along the coast in places like the City of Miami, Miami Beach, Aventura, and Sunny Isles Beach. The Urban Development Boundary to the west and south limit land availability, which has led to continued redevelopment of existing urban centers and the ongoing growth of new emergent urban centers such as Downtown Doral and Downtown Dadeland.

Household density within the Urban Development Boundary's 452 square miles is 1,889 households per square mile (3.0 households per acre) illustrates the 2016 housing density in Miami-Dade County.

Map 2-6: Employment Density



Source: South East Regional Planning Model 7 (SERPM 7)

Data Resolution: Traffic Analysis Zones (TAZ)

2.3.4 Miami-Dade County Employment Characteristics

The median employment density of Miami-Dade County was approximately 1,810 persons per square mile in 2010 (2.7 persons per acre) and has since risen to 2,207 (3.4 persons per acre). This data is based on the SERPM, with 2010 data coming from version 6.7, and 2018 data coming from version 7. The distribution of employment locations can be seen in Map 2-6.

Miami-Dade County employment profile includes a diverse assortment of fields and industries, as depicted in Table 2-4. The Beacon Council, a public-private partnership which acts as the official economic development organization for Miami-Dade County, maintains a list of the largest individual public and private employers in the county. The most recent data available, from 2015, is shown in Table 2-5.

Table 2-4: Miami-Dade County Distribution of Workers Over Age 16, by Industry

Industry	Workers	Percentage
Educational Services, Health Care, and Social Assistance	246,702	21.0%
Professional, Scientific, Management, Administrative, and Waste Management Services	156,461	13.3%
Retail Trade	153,083	13.0%
Arts, Entertainment, Recreation, Accommodation, and Food Services	139,904	11.9%
Transportation, Warehousing and Utilities	91,485	7.8%
Construction	88,780	7.6%
Other Services	78,375	6.7%
Manufacturing	58,400	5.0%
Wholesale Trade	50,258	4.3%
Public Administration	43,997	3.7%
Finance, Insurance, Real Estate, Rental and Leasing	32,857	2.8%
Information	25,440	2.2%
Agriculture, Forestry, Fishing, Hunting, and Mining	9,423	0.8%
Total	1,175,165	100%

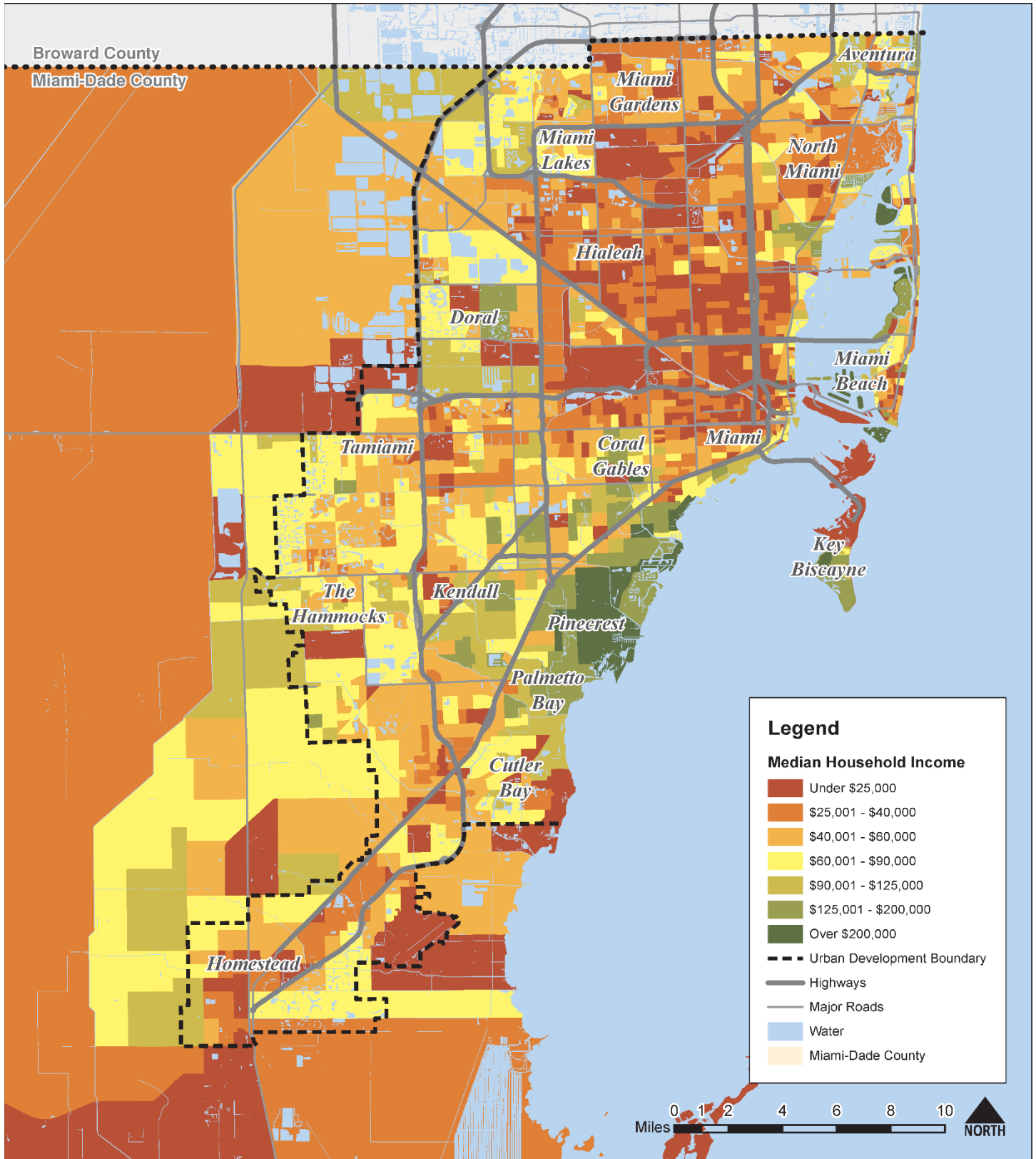
Source: ACS 2016 five-year estimates

Table 2-5: Major Employers in Miami-Dade County, 2015

Private Employers		Public Employers	
Organization	Employees	Organization	Employees
University of Miami	12,818	Miami-Dade County Public Schools	33,477
Baptist Health South Florida	11,353	Miami-Dade County	25,502
American Airlines	11,031	Federal Government	19,200
Carnival Cruise Lines	3,500	Florida State Government	17,100
Miami Children's Hospital	3,500	Jackson Health System	9,797
Mount Sinai Medical Center	3,321	City of Miami	3,997
Florida Power & Light Company	3,011	Florida International University	3,534
Royal Caribbean International/Celebrity Cruises	2,989	Homestead Airforce Base	3,250
Wells Fargo	2,050	Miami VA Healthcare System	2,500
Bank of America Merrill Lynch	2,000	Miami-Dade College	2,390

Source: Beacon Council

Map 2-7: Median Household Income



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

2.3.5 Income Distribution Characteristics

In 2010 the Miami-Dade County median household income averaged approximately \$43,605, while per capita income was, at \$22,957. By 2016, median household income rose by \$619 (1.4%) while per capita income grew \$1,558 (6.8%). This means individual income grew four times faster than of household income. Median Household Income is reflected in Map 2-7.

Over 552,000 people fell below the poverty level in Miami-Dade in 2016, representing 19.9% of the county's population. This was an increase from 410,000 residents, or 17.2% of the county in 2010. The Census Bureau uses a set of income thresholds that vary by family size and composition, not by geography, to determine who meets the criteria of living in poverty. If a family is found to fall below this threshold, all members of that family are in poverty. These calculations exclude tax credits, non-cash benefits like food stamps and housing subsidies, and capital gains.

The number of households that that received public assistance also increased between 2010 and 2016. Public Assistance includes Temporary Assistance to Needy Families (TANF) and General Assistance (GA) programs. Households receiving public assistance increased from 17.2% to 25.9% to a total of 221,280 households in 2016.

Table 2-6: Miami-Dade County Income Characteristics, 2010 - 2016

Year	Median HH Income	Per Capita Income	People Below Poverty	HH Receiving Public Assistance	Persons Aged >16 In Labor Force
2010	\$43,605	\$22,957	410,093 (17.2%)	142,575 (17.2%)	1,233,799 (62.8%)
CHANGE	+\$619 (+1.4%)	+\$1,558 (+6.8%)	+142,050 (+2.7%)	+78,705 (+8.7%)	+118,126 (+0.8%)
2016	\$44,224	\$24,515	552,143 (19.9%)	221,280 (25.9%)	1,351,925 (62%)

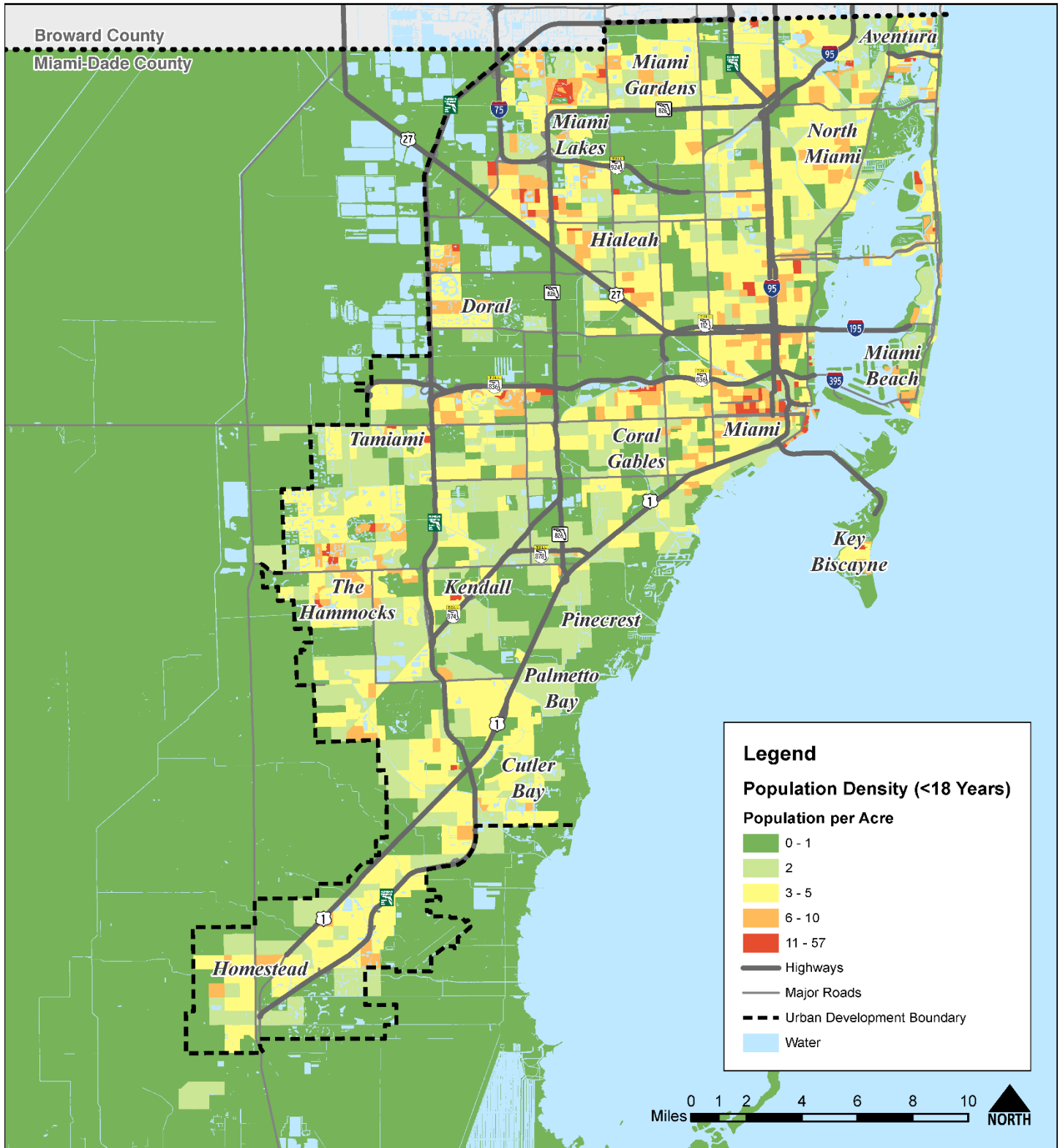
Sources: ACS 2010 and 2016 five-year estimates

2.3.6 Age Distribution Characteristics

In the 2010 Census, Miami-Dade County had a relatively young population with the median age of 38 years old, which was lower than the overall state's median age of 41. The age distribution indicated that persons aged 18 years and younger made up 22% of the population, while elderly residents aged 65 years and older made up 14%.

Trends indicate a slow shift to an older demographic. In the 2016 ACS update, the percentage of persons age 18 and younger fell to 21%, and the percentage of persons age 65 and older rose to 15%, while the county median age rose to 39. Map 2-8 illustrates the density of people under age 18, and Map 2-9 illustrates the density of people over age 65.

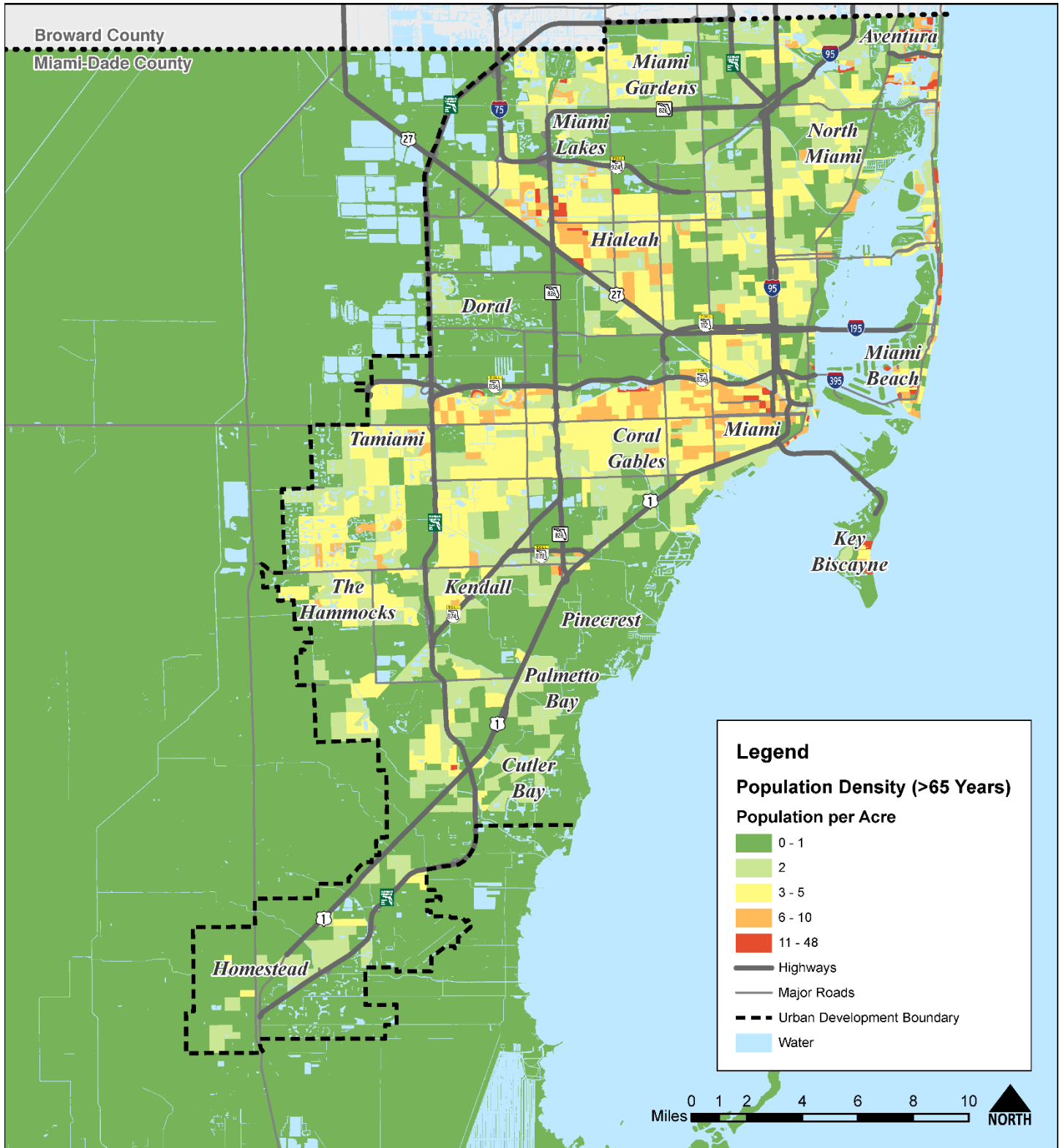
Map 2-8: Population Density (Under 18 Years of Age)



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

Map 2-9: Population Density (Over 65 Years of Age)



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

2.3.7 Racial and Ethnic Characteristics

Miami-Dade County has the highest concentration of racial/ethnic minorities in the state of Florida. Just 14% of residents in the county identify as white, non-Hispanic. Most Miami-Dade County residents identify as Hispanic or Latino (66%). An additional 18% of county residents identify as Black. More details on the ethnic and racial distribution in Miami-Dade County can be seen in Table 2-7 and Table 2-8.

Table 2-7: Miami-Dade County Racial Characteristics

Year	Population	Single Race: White	Single Race: Black	Single Race: Other*	Two or More Races
2010	2,496,435	1,841,887 (74%)	472,976 (18.9%)	122,695 (4.9%)	58,877 (2.4%)
CHANGE	+167,983 (6.7%)	+173,535	+16,054	+14,420	-19,972
2016	2,664,418	2,015,422 (76%)	489,030 (18%)	121,061 (4.5%)	38,905 (1.5%)

Sources: 2010 Census SF1, and ACS 2016 five-year estimates

Table 2-8: Miami-Dade County Ethnicity and Race Distribution

Year	Population	Hispanic or Latino Origin (Any Race)	White Non-Hispanic	Black Non-Hispanic	Single Race: Other*, Non-Hispanic	Two or More Races, Non-Hispanic
2010	2,496,435	1,623,859 (65%)	383,551 (15%)	425,650 (17%)	43,276 (1.7%)	20,099 (0.8%)
CHANGE	+167,983 (6.7%)	+146,064	+1,920	+17,908	+6,334	-4,243
2016	2,664,418	1,769,923 (66%)	385,471 (14%)	443,558 (17%)	49,610 (1.9%)	15,856 (0.6%)

Sources: 2010 Census SF1, and ACS 2016 five-year estimates

*"Other" includes the following Census classifications: Asian, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and Some Other Race

2.3.8 Travel Time to Work

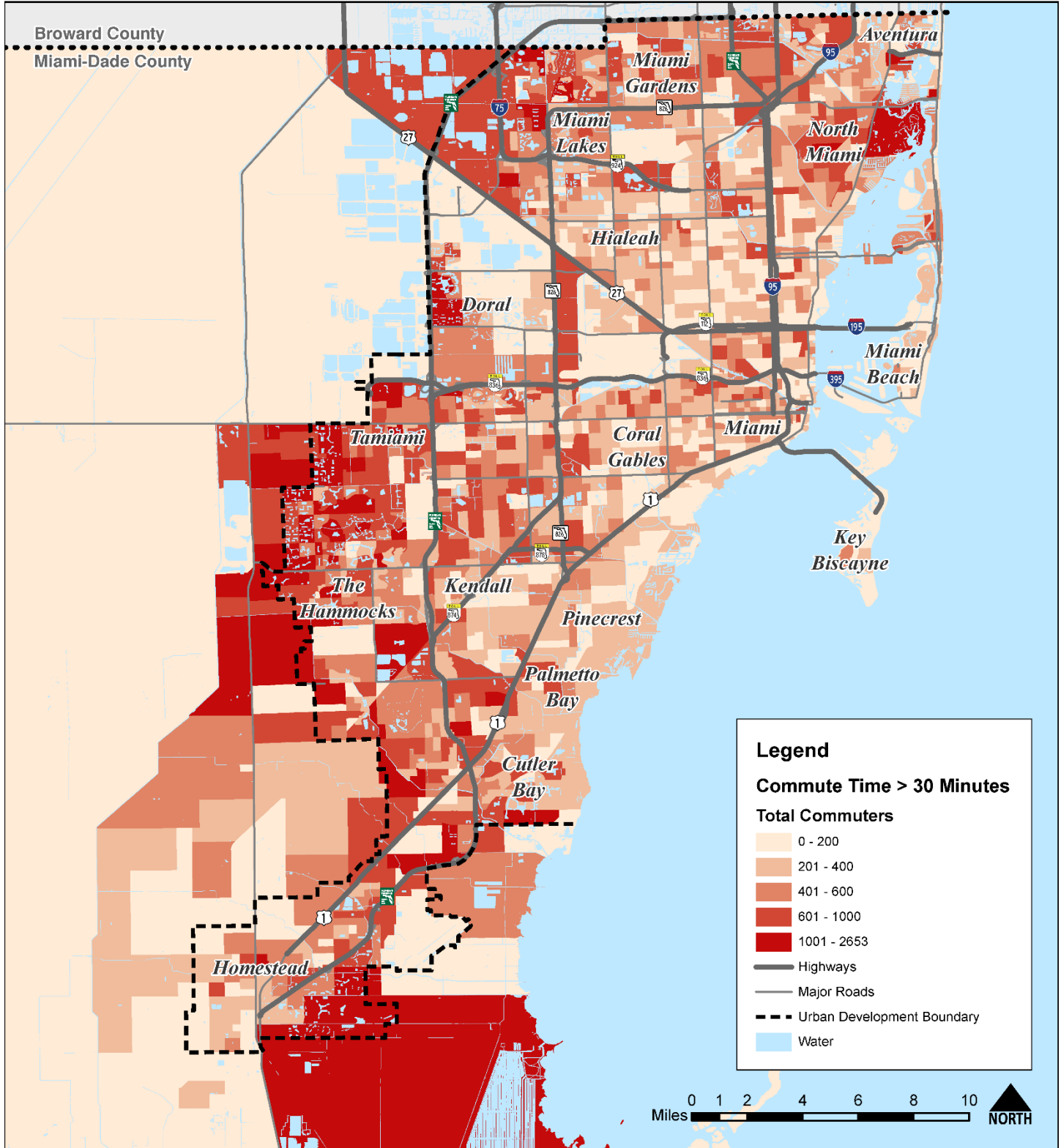
Travel times commuting to and from work have steadily increased in Miami-Dade County as shown in Table 2-9. Between 2010 and 2016 Miami-Dade County's commuting population grew by more than 90,000 commuters. Commuters with short commutes – under 15 minutes – fell from 16% to 14% of all commuters while the number of people with commutes greater than 45 minutes rose by nearly 40,000. The distribution of commute times over 30 minutes and over 45 minutes can be seen in Map 2-10 and Map 2-11, respectively. As observed, the highest number of commuters who travel over 30 and 40 minutes to work are concentrated in the west and southwest areas of the county.

Table 2-9: Commute Times in Miami-Dade County

Year	Total Commuters	< 15 Minutes	15-25 Minutes	25-35 Minutes	35-45 Minutes	45-60 Minutes	> 1 Hour
2010	1,064,642	168,414 (16%)	303,361 (28%)	273,883 (26%)	98,375 (9%)	110,406 (10%)	110,203 (10%)
CHANGE	+93,584	-1,478	+13,702	+35,340	+6,291	+18,898	+20,831
2016	1,158,226	166,936 (14%)	317,063 (27%)	309,223 (27%)	104,666 (9%)	129,304 (11%)	131,034 (11%)

Sources: ACS 2010 and 2016 five-year estimates

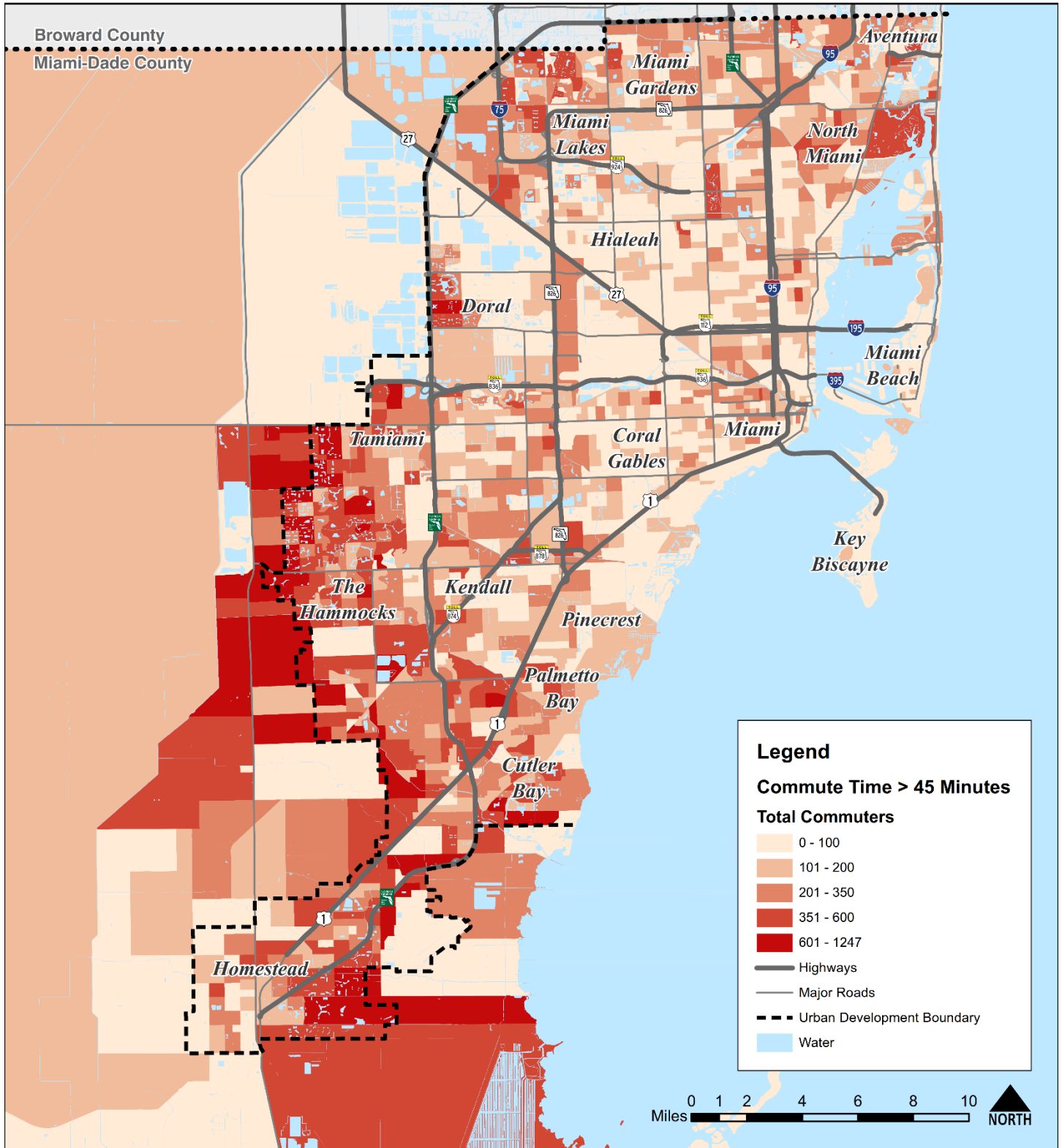
Map 2-10: Commute Times Greater Than 30 Minutes



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

Map 2-11: Commute Times Greater Than 45 Minutes



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

2.3.9 Transportation Disadvantaged Population Characteristics

Transportation disadvantaged (TD) populations refer to special populations that are most likely to benefit from improved and expanded transit services provided by DTPW. Chapter 427 of the Florida Statutes defines TD persons as:

“Those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment education, shopping, social activities, or children who are handicapped or “high-risk” or “at-risk” as defined in s.411.202 F.S.”

Persons within this population often rely on public transit as the major motorized form of transportation. The US Census provides four categories that describe TD Populations:

- Disabled Persons;
- Elderly Persons Age 65 or Older;
- Low Income Households (Under \$25,000 per year); and
- Zero-Vehicle Households.

The number of Miami-Dade County residents in each of these categories is shown in Table 2-10. The geographic distributions of zero-vehicle households and TD population in Miami-Dade County are illustrated in Map 2-12 and Map 2-13, respectively.

Table 2-10: Transportation Disadvantaged Characteristics

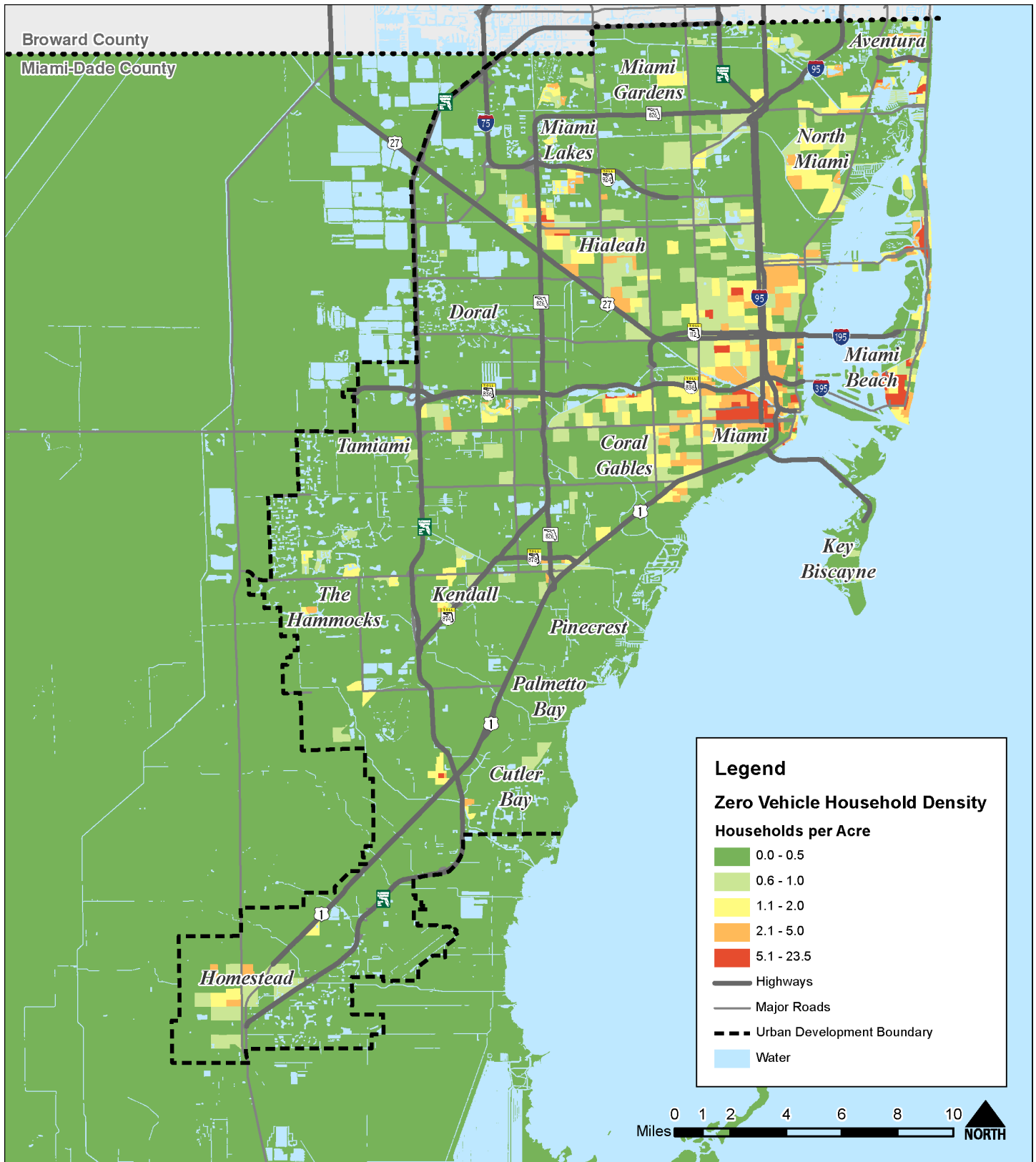
Year	Total Population	Disabled Persons	Elderly Persons (Aged 65+)	Total Households	Low Income Households	Zero-Vehicle Households
2010	2,387,454	255,790 (11%)*	338,845 (14%)	827,556**	245,432 (30%)	91,558 (11%)
CHANGE	+276,964 (+12%)	+16,149	+59,743	-13,728	+9,544	+2,547
2016	2,664,418	271,939 (10%)	398,588 (15%)	853,624	254,976 (30%)	94,105 (11%)

Sources: ACS 2010 and 2016 five-year estimates

*2010 disability data was not available from ACS 5-year estimates, instead ACS 3-year estimates are used. The total population used to calculate the percentage is the total civilian noninstitutionalized population for that dataset, which is 2,423,678.

**2010 Household data was taken from 2010 ACS 5-year estimates. Household data in the previous section titled “Household Characteristics” was taken from the Census Summary Files. However, since income data was not available from that dataset, the ACS 5-year estimates were selected for this portion of the analysis.

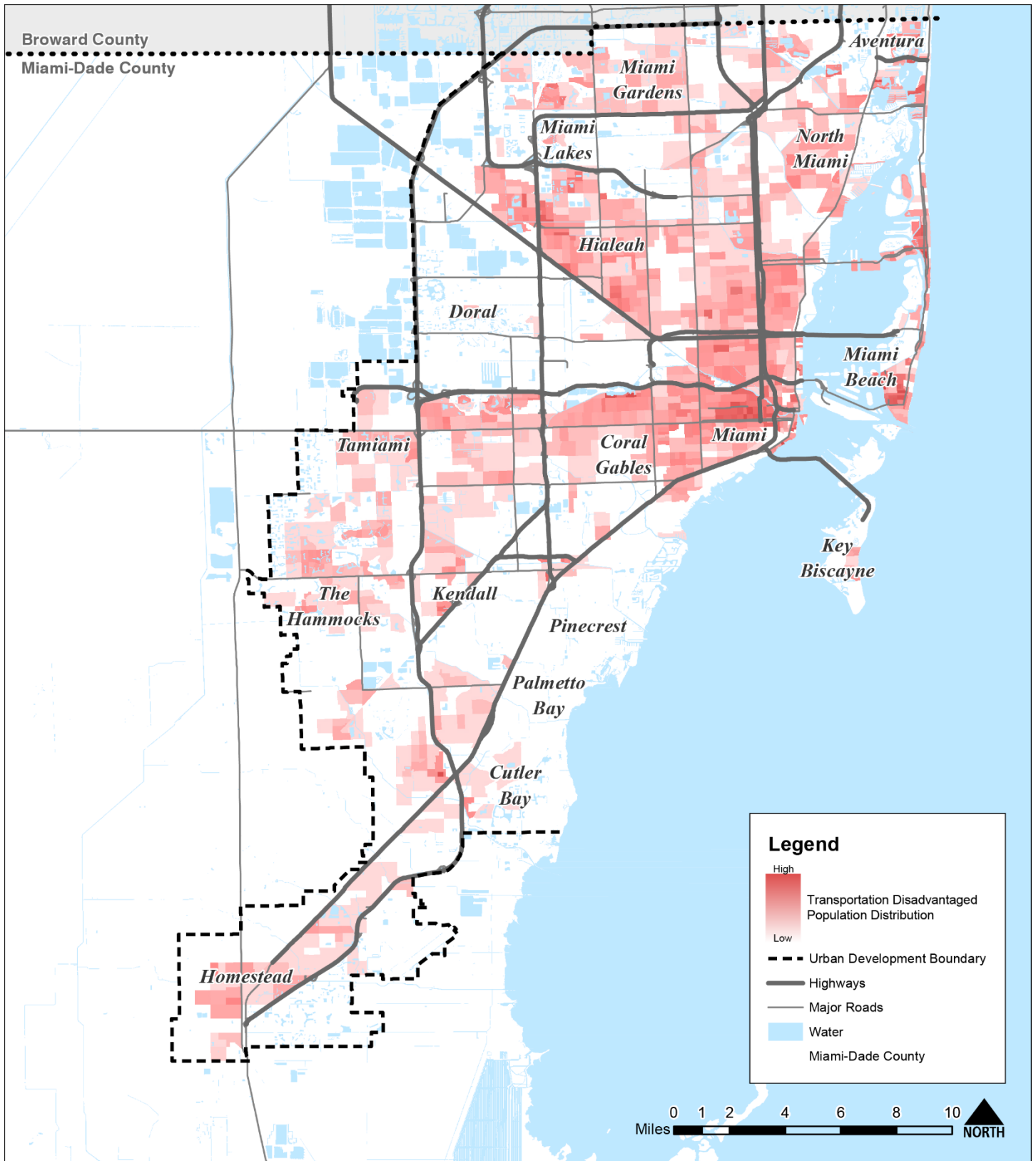
Map 2-12: Zero Vehicle Households



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

Map 2-13: Transportation Disadvantaged Population Distribution



Source: US Census Bureau - 2010 Census and 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups



3 OVERVIEW OF EXISTING DTPW SERVICES

The Miami-Dade County Department of Transportation and Public Works (DTPW) operates the 18th largest transit system in the United States¹. With a total service area of approximately 306 square miles that encompasses 34 municipalities and includes service into adjacent Broward and Monroe Counties, DTPW provides an assortment of transit services to meet the mobility needs of its 2.7 million residents and 15.9 million annual visitors².

DTPW operates an integrated multi-modal transit system comprised of four modes: motorbus (Metrobus), heavy rail (Metrorail), automated guideway (Metromover), and demand-response service (Special Transportation Services or STS). Overall, DTPW vehicles traveled over 54 million miles providing more than 81 million unlinked passenger trips in 2018; 64% of those trips were made on Metrobus, 24% on Metrorail, 11% on Metromover, and the remainder on STS. The department is led by Department Director Alice Bravo. Table 3-1 lists the operating characteristics of DTPW transit services. The DTPW Departmental Table of Organization is available in the Appendix.

DTPW is one of the largest departments in Miami-Dade County government and is responsible for planning and providing public transit services to the entire county. The department consists of over 3,729 employees working in all aspects of transit operations and administration.

Department of Transportation and Public Works Transit Mission Statement:

Plan for, operate, and maintain a clean, safe, reliable, and convenient transportation system that effectively enhances mobility in Miami-Dade County.

¹ American Public Transportation Association 2019 Public Transportation Fact Book, based on unlinked passenger trips and passenger miles traveled

² Greater Miami and the Beaches 2018 Visitor Industry Overview

Table 3-1: DTPW Existing Service Characteristics

System Characteristics	Metrobus			Metrorail	Metromover	STS
	DTPW Operated Routes	Contracted Express Routes (301 & 302)	Other Contracted Routes			
Operating Hours	24 hours seven, days a week ²	5:10 AM -12:40 AM Monday-Friday 6:20 -12:40 AM Saturday & Sunday	24 hours, seven days a week	5:00AM - 12:00AM, seven days a week	5:00AM - 12:00 AM, seven days a week	24 hours seven days a week
Number of Routes	74	2	21	2	3	N/A
No. of Stations/Stops	8,319	32 ³	893	23 ¹	21 ¹	N/A
Peak Headways	Variable	Variable	Variable	5-10 minutes ⁴	1½ - 3 minutes	(Pick up +/-30 minutes of scheduled time)
Midday Headways				7-15 minutes	1½ - 5 minutes	
Weekend Headways				15-30 minutes ⁴	3-6 minutes	
Routes Miles	2,069	126	264	24.8 miles	4.4 miles	N/A
Peak Vehicle Requirements ¹	646	9	45	76	21	375
Total Fleet Size ¹	762	11	53	172	29	389
Annual Revenue Miles ¹	25,326,531	1,037,780	848,633	7,384,249	1,108,496	12,509,097
Annual Boardings ¹	50,638,153	290,160	831,603	19,150,308	8,802,523	1,743,023
Annual Operating Expense ¹	\$357,811,284	\$7,292,542	\$3,617,574	\$99,275,231	\$28,066,947	\$55,734,369
Annual Operating Revenue ¹	\$70,367,510	\$398,692	\$13,161	\$16,120,089	\$0	\$5,877,893
Annual Revenues (Other) ¹	\$20,355,930 ⁵	\$0	\$0	\$0	\$0	N/A
Base Fare	\$2.25 ⁶	\$2.65 ⁶	\$2.25	\$2.25	Free	\$3.50
Pedestrian Overpasses	1	0	0	4	0	N/A
Maintenance/Storage Facilities	3	1	1	1	1	N/A

¹ Source: National Transit Database, Department of Transportation and Public Works, 1st Submission Data, January 2019.

² Six (6) Metrobus routes (L, S, 3, 11, 27, 38/Busway MAX) operate 24 hours per day. Two other routes, 246/Night Owl and 500/Midnight Owl, provide hourly bus service approximately between 12:00 am - 5:06 AM.

³ In addition to the 32 designated bus stops for the two routes, buses pick up passengers anywhere along the routes when hailed.

⁴ 5-minute combined headway (Orange Line and Green Line) during the peak AM and PM travel times from Dadeland South Station to the Earlington Heights Station. The Green Line Metrorail Service operates at 10-minute headways during the peak AM and PM travel times between the Palmetto Station and the Dadeland South Station. Orange line operates at 10-minute peak headways between the Miami International Airport and Dadeland South stations. Off Peak, combined headway is 15 minutes. Single line segments operate with 30-minute headways.

⁵ (old) Includes all modes.

⁶ Express Bus fare for routes operating within the County is \$2.25; Routes that travel to other counties (301 Dade-Monroe Express, 302 Card Sound Express, and four 95 Dade-Broward Express routes) remain at the express trip fare of \$2.65. Circulator bus fare is \$0.25.

3.1 Metrobus

Metrobus is DTPW’s fixed-route bus service. Metrobus service operates 24 hours a day, seven days a week. A total fleet of 762 buses operate along the 74 routes comprising DTPW’s regular fixed-route bus service, and the 23 contracted routes are served by 64 additional buses. DTPW operates a variety of bus services, including local, circulator, limited-stop and express routes. Map 3-1: DTPW System Route Map presents the Metrobus system route map as of December 2018. A detailed service schedule for current DTPW operated Metrobus routes is presented in the Appendix.

Table 3-2: Metrobus Service Characteristics

Service Type	Routes	Route Miles
Circulator	11	85
Local	66	1,481
Limited Stop	7	167
Express	13	568
Total	97	2,301

Source: Miami-Dade County GIS, and Dec. 2018 Technical Ridership Report

3.1.1 Circulator Service

Circulator routes operate short route connections between activity centers, and as feeders linking neighborhoods to other transit services. Examples of circulator routes include the Tri-Rail Doral Shuttle (Route 132), Westchester Circulator (Route 82), and the Little Havana Connection (Routes 207 and 208).

3.1.2 Fixed-Route Service (Local Routes)

Fixed-Route Metrobus is schedule-based bus service that operates along a specific route with frequent stops to pick up and deliver passengers from and to specific stops. This service type is characterized by short and moderate-length passenger trips, and comparatively low average speeds over the course of an entire route. Most existing Metrobus service is considered fixed-route service.

3.1.3 Limited-Stop Service

Limited-stop service is like fixed-route service except it skips some stops on an existing route and only serves stops with higher passenger activity. With fewer stops, limited-stop routes have increased operating speeds when compared to local service. DTPW’s limited-stop routes are designated as MAX routes and service major transfer points and stops approximately every half mile (in the Miami Central Business District (CBD)) to one mile (in suburban areas). Route 38 (Transitway), Route 51 (Flagler Street), and Route 277 (NW 7th Avenue) are examples of DTPW limited-stop routes.

3.1.4 Express Bus Service

Express bus service connects commuters in outlying suburban areas, to designated activity centers such as the Miami central business district (CBD) with direct service. These routes use freeways and major arterials to connect commuters to their destination. The 95 Express Bus service also utilizes express lanes on I-95 to provide shorter travel times.

3.1.5 Transitway

DTPW operates one transitway known as the South Dade Transitway. The South Dade Transitway is a 20-mile, two-lane, at-grade corridor designated exclusively for transit use. The Transitway runs parallel to US 1 from SW 344th Street in South Miami-Dade County to the Dadeland South Metrorail Station at SW 92nd Street. The corridor consists of 30 bus stations and six park-and-ride/transit terminal facilities along the Transitway.

Ten local fixed-route DTPW routes operate within adjacent neighborhoods and enter the exclusive lanes at major intersections. Most bus routes that operate on the Transitway provide limited-stop or express service, while others provide fixed-route local service but offer limited-stop or express service when operating on the

Transitway. The Transitway offers travel time savings features as a result of exclusive transit travel lanes, fewer stops, and Transit Signal Priority (TSP) at intersections. The South Dade Transitway is identified as a priority corridor under the Miami-Dade SMART Plan with the planned implementation of Bus Rapid Transit service, upgraded level-boarding stations, and vehicles.

3.1.6 Contracted Bus Routes

DTPW currently contracts 23 local bus routes to America’s Transportation (AT) and Transportation America (TA).

TA operates 21 bus routes with over 264 route miles throughout Miami-Dade County.

AT operates Route 301, the Dade Monroe Express, and Route 302, the Card Sound Express. Route 301 operates between the SW 344th Street Park-and-Ride Transit Terminal Facility in Florida City at the terminus of the Miami-Dade Transitway to Key Largo, Tavernier, Islamorada, and Marathon via US 1. Route 302 runs between the SW 5th Avenue and SW 344th Street in Florida City, stops at the SW 344th Street Park-and-Ride Lot/Transit Terminal facility on the Transitway, and terminates at the Ocean Reef Club, traveling via Card Sound Road.



An AT operated bus during service to the Florida Keys

3.1.7 Better Bus Project

The purpose of the Better Bus Project is to redesign the Miami-Dade County’s DTPW bus system, and three municipal trolley systems (City of Miami, Miami Beach and Coral Gables). The project is a partnership between Transit Alliance Miami and Miami-Dade County, with the technical analysis and planning led by Jarrett Walker + Associates.

As a “clean slate” redesign, the process may redefine the goals and priorities of the bus system, which may lead to a new bus network with across-the-board changes to route alignments, spans and frequencies.

The Miami Dade Board of County Commissioners (BCC) signed a resolution of support on May 27th, 2019; which signified the start of the project. The system redesign will be developed with the help of transit riders and advocates, the local Transit Workers Union, municipal staff and county commissioners, from September to November 2019. A cost neutral draft network redesign is expected in early December 2019 with final BCC approval in early 2020.

3.1.8 Consistency Analysis of Committed Service Adjustments

In the previous Annual Update of the TDP for FY 2019-2024, a list of committed metrobus service adjustments for calendar year 2018 was included as part of the Implementation Plan, showing 73 committed adjustments. In addition to other route adjustments and improvements made throughout the year, 50 of the committed adjustments were executed for a total of 68.5% consistency. The details of this analysis are shown in Table 3-3 below.

Table 3-3: Consistency Analysis Summary

Route	Description	Type of Change: A (Adjustment) I (Improvement) R (Reduction)	Start Date	2018 TDP Consistency
Implemented service change committed to in previous TDP:				✓
Implemented service change not included in previous TDP:				✗
3	Reduce weekday off-peak frequency from 20 to 30 min	R	3/11/2018	✓
	Reduce Saturday frequency from 15 to 20 min all day	R	3/11/2018	✓
7	Reduce weekday off-peak frequency from 20 to 30 min	R	3/11/2018	✓
	Reduce Saturday frequency from 20 to 30 min all day	R	3/11/2018	✓
	Reduce Sunday frequency from 20 to 30 min all day	R	3/11/2018	✓
	Reroute to use NW 17 St to enter/exit Dolphin Mall	A	3/11/2018	✓
	Extend Route to serve Dolphin Station	I	N/A	✗
8	Reduce weekday off-peak frequency from 20 to 30 min	R	3/11/2018	✓
	Reduce Saturday frequency from 20 to 30 min all day	R	3/11/2018	✓
11	Reduce weekday off-peak frequency from 15 to 20 min	R	3/11/2018	✓
	Reduce Saturday frequency from 15 to 20 min all day	R	3/11/2018	✓
	Reduce Sunday frequency from 20 to 30 min all day	R	3/11/2018	✓
24	Reduce weekday off-peak frequency from 20 to 30 min	R	3/11/2018	✓
27	Reduce weekday off-peak frequency from 15 to 20 min	R	3/11/2018	✓
	Reduce Saturday frequency from 20 to 30 min all day	R	3/11/2018	✓
31	Reduce weekday peak frequency from 15 min to 30 min	R	3/11/2018	✓
34A	Running time adjustments	A	6/17/2018	✗
	Route name will be changed to Route 34	A	6/17/2018	✓
34B	Route name will be changed to Route 39	A	6/17/2018	✓
34/39	Modify Deadhead	A	6/17/2018	✓
35	Restructure 35/70 as proposed in Grid. (Cumulative 35/70 reduction)	R	3/11/2018	✓
	Increase weekday frequency to 20 min trunk /40 min legs*	I	N/A	✗
	Increase Sunday frequency to 30 min trunk / 60 min legs and operate 35a*	I	N/A	✗
	Increase Saturday frequency to 30 min trunk / 60 min legs and operate 35a*	I	N/A	✗
	Contract out	A	N/A	✗



Route	Description	Type of Change: A (Adjustment) I (Improvement) R (Reduction)	Start Date	2018 TDP Consistency
36	Extend route to serve Dolphin Station M-F	I	N/A	x
38	Reduce weekday off-peak frequency from 15 to 20 min	R	3/11/2018	✓
	Reduce Saturday frequency from 15 to 20 min all day	R	3/11/2018	✓
	Serve all stops during weekday peak	I	3/11/2018	✓
	Start PM 10 min SB peak earlier from 3:30PM to 2:30PM	A	11/18/2018	✓
54	Extend route to the I-75 / Miami Gardens Park-and-Ride	I	N/A	x
56	Contract out	A	N/A	x
71	Contract out	A	N/A	x
	Extend route to Dolphin Station M-F	I	N/A	x
	Reroute to use NW 17 St to enter/exit Dolphin Mall	A	3/11/2018	✓
	Contract out	A	N/A	x
72	Contract out	A	N/A	x
73	Extend route to the I-75 / Miami Gardens Park-and-Ride	I	N/A	x
77	Reduce weekday off-peak frequency from 12 to 20 min	R	3/11/2018	✓
	Reduce Saturday frequency from 15 to 20 min all day	R	3/11/2018	✓
	Adjust weekday running time after 6PM	A	11/18/2018	✓
88	Match last weekday trip with last train arrival at Dadeland South Station. Add 10 minutes to last trip	A	11/18/2018	✓
95	Extend route to the I-75 / Miami Gardens Park-and-Ride	I	N/A	x
	Add 5 min running time to 6:30A SB trip between 186/73Ave and Golden Glades	A	N/A	x
99	Extend route to the I-75 / Miami Gardens Park-and-Ride	I	N/A	x
115	Contract out*	A	N/A	x
	Reduce weekday to 3 AM and 3 PM trips	R	3/11/2018	✓
	Reduce Saturday to 3 AM and 3 PM trips	R	3/11/2018	✓
	Reduce Sunday to 3 AM and 3 PM trips	R	3/11/2018	✓
	Add midday service 7 days a week	I	11/18/2018	✓
120	Reroute to Biscayne Blvd like Route S	A	3/11/2018	✓
137	Adjust running times and add a bus in AM peak	I	3/11/2018	✓
	Extend Route to Dolphin Station M-F	I	3/11/2018	✓
	Reroute to use NW 17 St to enter/exit Dolphin Mall	A	3/11/2018	✓





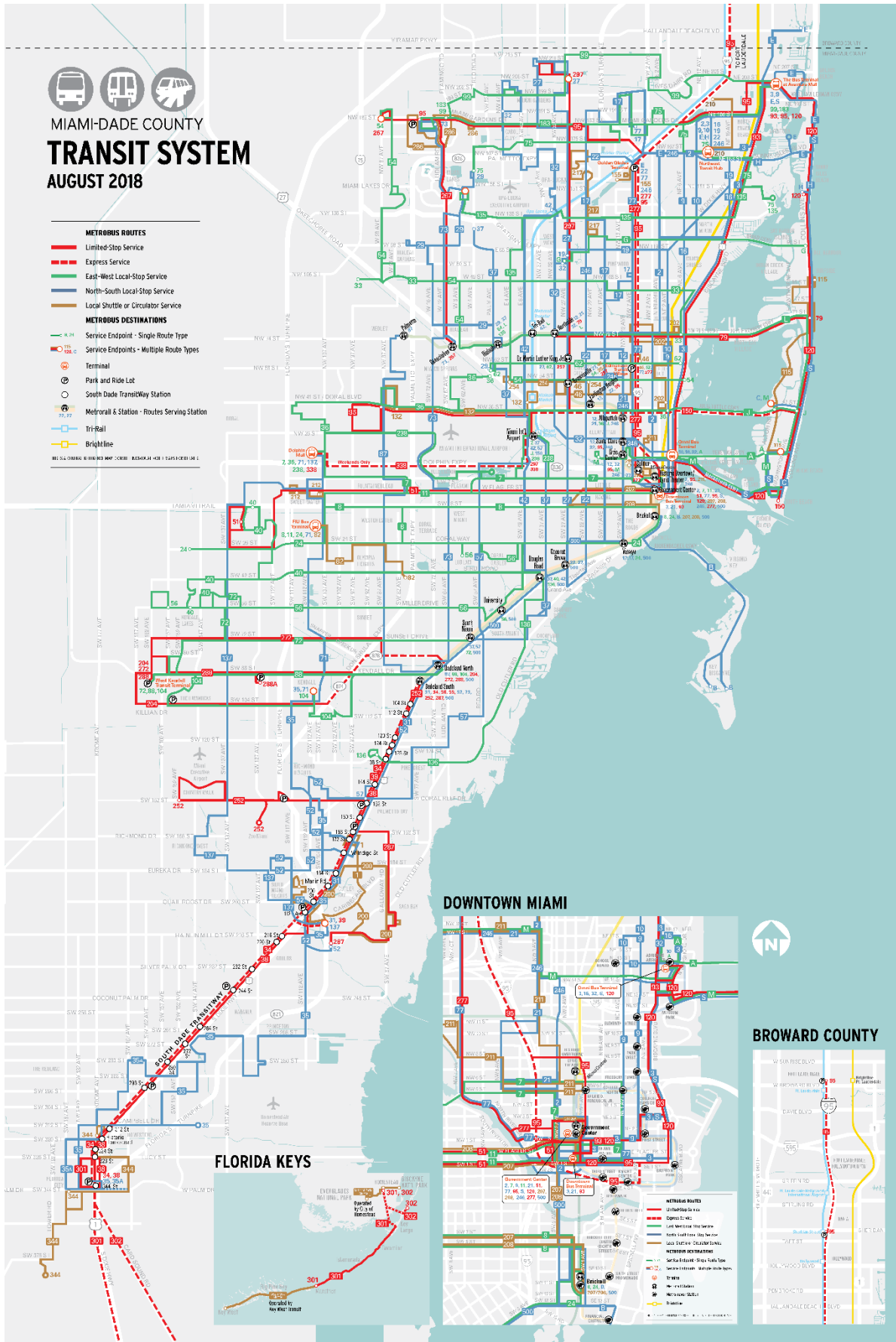
Route	Description	Type of Change: A (Adjustment) I (Improvement) R (Reduction)	Start Date	2018 TDP Consistency
155	Reroute as proposed and adjust frequency from 30 to 60 min weekdays only	R	N/A	x
183	Reduce weekday off-peak frequency from 15 to 20 min.	R	3/11/2018	✓
	Extend route to the I-75 / Miami Gardens Park-and-Ride	I	N/A	x
	Reduce Saturday frequency from 20 to 30 min all day.	R	3/11/2018	✓
200	Operate Sunday service with the same running times as Saturday from 10AM to 4PM	I	11/18/2018	✓
207	Reduce weekday off-peak frequency from 20 to 30 min.	R	3/11/2018	✓
	Reduce Saturday frequency from 20 to 30 min all day.	R	3/11/2018	✓
	Reduce Sunday frequency from 20 to 30 min all day.	R	3/11/2018	✓
208	Reduce weekday off-peak frequency from 20 to 30 min.	R	3/11/2018	✓
	Reduce Saturday frequency from 20 to 30 min all day.	R	3/11/2018	✓
	Reduce Sunday frequency from 20 to 30 min all day.	R	3/11/2018	✓
210	Contract out.	A	N/A	x
	Reduce frequency from 30 to 60 min 7 days a week.	R	3/11/2018	✓
	Increase frequency from 60 to 30 min weekdays from 8AM to 5PM only	I	N/A	x
217	Contract out.	A	N/A	x
238	Extend route to Dolphin Station M-F	I	N/A	x
248	New Princeton Circulator operating 60 minutes, weekdays from 6AM to 8PM**	I	11/19/2018	✓
249	Discontinue Jan 2, 2018.	R	1/2/2018	✓
287	Minor schedule adjustments	A	6/18/2018	✓
338	Reroute to use NW 17 St to enter/exit Dolphin Mall.	A	3/11/2018	✓

*Completed in early 2019

**New Princeton Circulator operating 60 minutes, weekdays from 6AM to 7PM



Map 3-1: DTPW System Route Map





METROBUS ROUTES

Connects with Metrorail
 Serves Park & Ride Lot
 Overnight Service
 Serves Miami International Airport
 Connects with Tri-Rail
 Connects with Brightline

- 1** Perrine ⇄ Quail Roost Dr/SW 117 Ave
- 2** 163 St Mall, 84 St ⇄ Downtown Miami
- 3** Aventura Mall ⇄ Downtown Miami
- 7** Dolphin Mall, Miami Intl Airport ⇄ Downtown Miami
- 8** FIU Maidique Campus ⇄ Brickell Metrorail
- 9** Aventura, 163 St Mall ⇄ Downtown Miami
- 10** Skylake Mall ⇄ Omni Metrobus Terminal
- 11** FIU Maidique Campus, Mall of the Americas ⇄ Downtown Miami
- 12** Northside Metrorail ⇄ Mercy Hospital
- 16** 163 St Mall ⇄ Omni Metrobus Terminal
- 17** Norwood ⇄ Vizcaya Metrorail
- 19** (WEEKDAYS ONLY) MDC North Campus ⇄ 163 St Mall
- 21** Northside Metrorail ⇄ Downtown Miami
- 22** 163 St Mall ⇄ Coconut Grove Metrorail
- 24** CORAL WAY LIMITED - West Dade ⇄ Brickell Metrorail
- 27** Miami Gardens ⇄ Coconut Grove Metrorail
- 29** (WEEKDAYS ONLY) Miami Lakes Education Center ⇄ Hialeah
- 31** BUSWAY LOCAL - South Dade Government Center ⇄ Dadeland South Metrorail
- 32** Carol City ⇄ Omni Metrobus Terminal
- 33** Hialeah ⇄ NE 79 St/Biscayne Blvd
- 34** EXPRESS (WEEKDAY RUSH-HOUR ONLY) Florida City ⇄ Dadeland South Metrorail
- 35** MDC Kendall Campus ⇄ Florida City
- 36** Dolphin Mall, Doral, Miami Springs ⇄ Midtown Miami
- 37** Hialeah ⇄ South Miami Metrorail
- 38** BUSWAY MAX - Dadeland South Metrorail ⇄ Florida City
- 39** EXPRESS (WEEKDAY RUSH-HOUR ONLY) S Dade Govt Ctr ⇄ Dadeland South Metrorail
- 40** Lakes of the Meadow, Tamiami Trail/SW 132 Ave ⇄ Douglas Road Metrorail
- 42** Opa-locka Tri-Rail ⇄ Douglas Road Metrorail
- 46** LIBERTY CITY CONNECTION (WEEKDAY RUSH-HOUR ONLY) Brownsville Metrorail ⇄ Seventh Avenue Transit Village
- 51** FLAGLER MAX (WEEKDAYS ONLY) West Dade ⇄ Downtown Miami
- 52** Dadeland South Metrorail ⇄ South Dade Health Center
- 54** Miami Gardens Dr/NW 87 Ave, Hialeah Gardens ⇄ Biscayne Blvd/NE 54 St
- 56** (WEEKDAYS ONLY) West Dade ⇄ Miami Children's Hospital
- 57** (WEEKDAYS ONLY) Miami Intl Airport ⇄ Jackson South Hospital
- 62** Hialeah ⇄ Biscayne Blvd / 62 St
- 71** Dolphin Mall ⇄ MDC Kendall Campus
- 72** West Kendall Terminal, Miller Square ⇄ South Miami Metrorail
- 73** Miami Gardens Dr & NW 73 Ave Park & Ride ⇄ Dadeland South Metrorail
- 75** Miami Lakes Educational Center ⇄ FIU Biscayne Bay Campus
- 77** Norwood ⇄ Downtown Miami
- 79** STREET MAX (WEEKDAY RUSH-HOUR ONLY) Northside Metrorail ⇄ 72 St / Miami Beach
- 82** WESTCHESTER CIRCULATOR (WEEKDAYS ONLY) FIU Maidique Campus ⇄ Tropical Park
- 87** Palmetto Metrorail, Doral ⇄ Dadeland North Metrorail
- 88** Dadeland North Metrorail ⇄ West Kendall Terminal
- 93** BISCAYNE MAX (WEEKDAYS ONLY) Downtown Miami ⇄ Aventura Mall
- 95** EXPRESS GOLDEN GLADES (WEEKDAY RUSH-HOUR ONLY) Carol City, Aventura Mall, Golden Glades ⇄ Downtown Miami, Civic Center
 95 EXPRESS DADE BROWARD (WEEKDAY RUSH-HOUR ONLY)
 ROUTE 195: Broward Blvd ⇄ Downtown Miami
 ROUTE 196: Sheridan St ⇄ Downtown Miami
 ROUTE 295: Broward Blvd ⇄ Civic Center
 ROUTE 296: Sheridan St ⇄ Civic Center
- 99** Miami Gardens Dr & NW 73 Ave Park & Ride ⇄ Aventura Mall
- A** ROUTE 101: Omni ⇄ 20th Street & West Avenue / Miami Beach
- B** ROUTE 102: Brickell Metrorail ⇄ Key Biscayne
- C** ROUTE 103: South Beach ⇄ ML Sinai Medical Center
- 104** West Kendall Terminal ⇄ Dadeland North Metrorail
- E** ROUTE 105: Golden Glades ⇄ Hallandale Beach
- G** ROUTE 107: 94 St / Miami Beach ⇄ MDC North Campus
- H** ROUTE 108: 163 Street Mall ⇄ Haulover Park
- J** ROUTE 110: Miami Intl Airport ⇄ 41 St / Miami Beach
- L** ROUTE 112: Lincoln Rd ⇄ Hialeah Metrorail
- M** ROUTE 113: Civic Center ⇄ ML Sinai Hospital
- 115** MID-NORTH BEACH CONNECTION - Collins Ave / 88 St ⇄ Lincoln Rd
- S** ROUTE 119: Downtown Miami ⇄ Aventura Mall
- 120** BEACH MAX - Downtown Miami ⇄ Haulover Park, Aventura Mall
- 132** TRI-RAIL DORAL SHUTTLE (WEEKDAY RUSH-HOUR ONLY): Doral ⇄ Hialeah Market Tri-Rail
- 135** Hialeah Metrorail, Miami Lakes ⇄ FIU Biscayne Bay Campus
- 136** (WEEKDAY RUSH-HOUR ONLY) SW 136 St / US1 ⇄ Douglas Road Metrorail
- 137** WEST DADE CONNECTION Dolphin Mall ⇄ South Dade Gov Center
- 150** MIAMI BEACH AIRPORT EXPRESS - Miami Intl Airport ⇄ South Beach
- 155** BISCAYNE GARDENS CIRCULATOR (WEEKDAYS ONLY)
- 183** Miami Gardens Dr & NW 73 Ave Park & Ride ⇄ Aventura Mall
- 200** CUTLER BAY LOCAL (NO SUNDAYS)
- 202** LITTLE HAITI CONNECTION Biscayne Shopping Plaza, NW 5 Ave / 83 St ⇄ Miami Design District
- 204** KILLIAN KAT (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal ⇄ Dadeland North Metrorail
- 207** LITTLE HAVANA CONNECTION (CLOCKWISE) Downtown Miami, Brickell ⇄ SW 25 Ave via SW 1 St & SW 7 St
- 208** LITTLE HAVANA CONNECTION (COUNTERCLOCKWISE) Downtown Miami, Brickell ⇄ SW 27 Ave via W Flagler St & S
- 210** SKYLAKE CIRCULATOR Skylake Mall ⇄ 163 Street Mall
- 211** OVERTOWN CIRCULATOR (WEEKDAYS ONLY)
- 212** SWEETWATER CIRCULATOR (WEEKDAYS ONLY)
- 217** BUNCHE PARK CIRCULATOR (WEEKDAYS ONLY) NW 127 St / 22 Ave ⇄ N Dade Health Center
- 238** EAST-WEST CONNECTION (WEEKDAYS ONLY) Dolphin Mall ⇄ Miami Intl. Airport
- 246** NIGHT OWL Downtown Miami ⇄ 163 St Mall
- 252** CORAL REEF MAX Country Walk ⇄ Dadeland South Metrorail, Zoo Miami (Weekends Only)
- 254** BROWNSVILLE CIRCULATOR (WEEKDAYS ONLY) Caleb Center ⇄ Jefferson Reeves Park, Hialeah (Thursday only)
- 267** LUDLAM LIMITED (WEEKDAY RUSH-HOUR ONLY) NW 186 St/87 Ave ⇄ Okeechobee Metrorail
- 272** SUNSET KAT (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal ⇄ Dadeland North Metrorail
- 277** NW 7 AVENUE MAX (WEEKDAY RUSH-HOUR ONLY) Downtown Miami ⇄ Golden Glades Park & Ride
- 286** NORTH POINTE CIRCULATOR (NO SUNDAYS) Miami Gardens Dr & NW 73 Ave Park & Ride ⇄ NW 57 Ave/NW 176 St
- 287** SAGA BAY MAX (WEEKDAY RUSH-HOUR ONLY) S Dade Health Center ⇄ Dadeland South Metrorail
- 288** KENDALL CRUISER (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal, SW 127 Ave Park & Ride ⇄ Dadeland North Metrorail
- 297** 27th AVE ORANGE MAX (WEEKDAYS ONLY) Miami Intl Airport ⇄ Miami Gardens
- 301** DADE-MONROE EXPRESS Florida City ⇄ Marathon Key
- 302** CARD SOUND EXPRESS Florida City ⇄ Ocean Reef Club
- 338** WEEKEND EXPRESS (WEEKENDS ONLY) Miami Intl Airport ⇄ Dolphin Mall
- 344** (WEEKDAYS ONLY) Florida City ⇄ MDC Homestead Campus
- 500** MIDNIGHT OWL Dadeland South Metrorail ⇄ Downtown Miami

SPECIFIC ROUTE INFORMATION / TRIP PLANNING:

www.miamidade.gov/transit



MDT Tracker App



311 OR 305.468.5900 TDD/FLORIDA RELAY: 711



@GoMiamiDade



EASY PAY MIAMI | MDT TRANSIT WATCH

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS



3.2 Metrorail

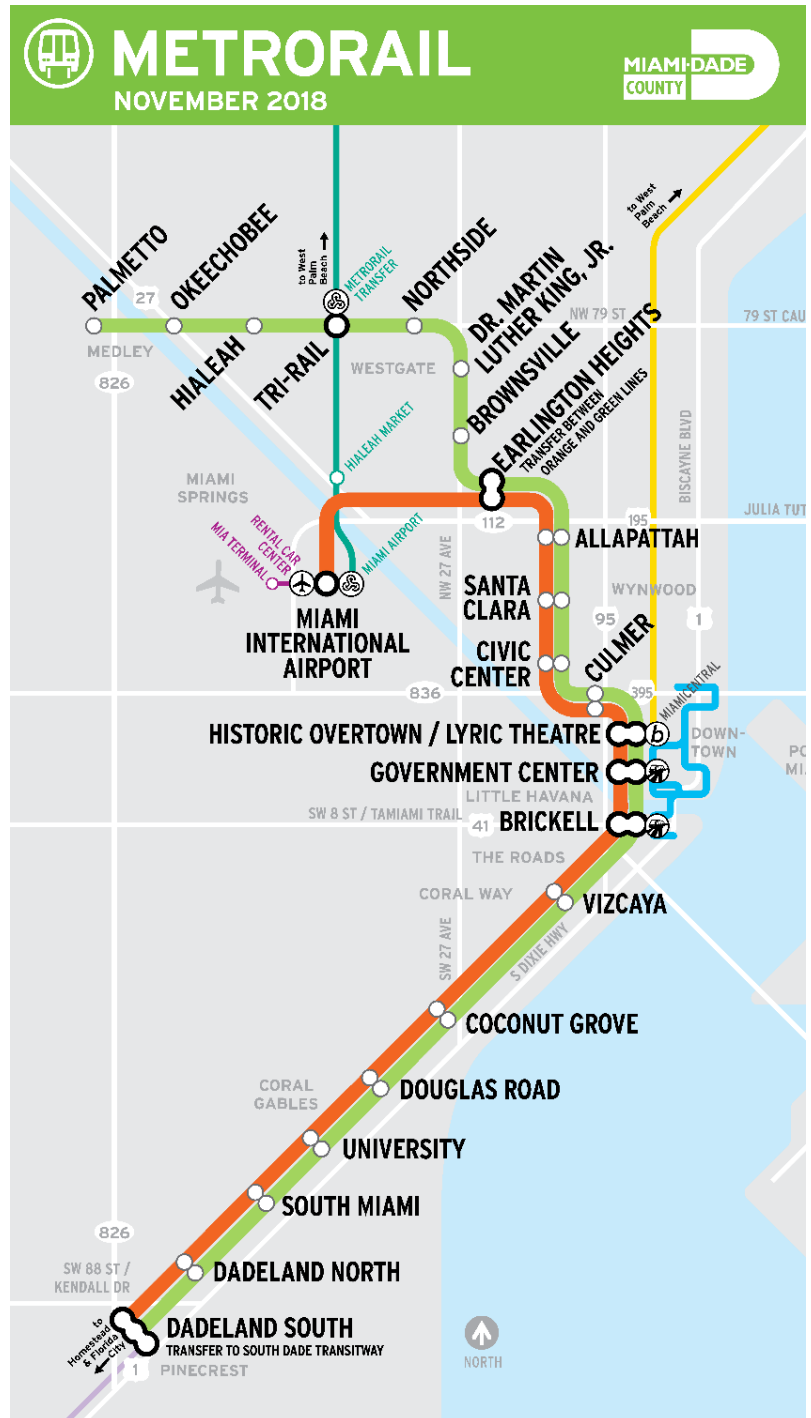
Metrorail provides heavy rail service to 23 stations on a 24.8-mile elevated guideway. The system has transfer points to Tri-Rail commuter rail service, the DTPW Metromover system, and the South Dade Transitway. DTPW maintains a fleet of 136 Metrorail vehicles which consist of four to six cars each. The original Metrorail fleet, in service since operations commenced in 1984, is currently undergoing a full replacement. The first four new cars commenced service at the end of 2017, followed by an additional 40 in 2018. New vehicles continue to be entered into service as they complete acceptance testing, with completion expected in the spring of 2020.

DTPW operates two Metrorail routes: the Green Line runs from Palmetto Station to Dadeland South Station and the Orange Line runs from the Miami Intermodal Center (MIC) at Miami International Airport (MIA) to Dadeland South Station. Combined the Orange and Green Lines provide a five to ten-minute headway during the AM and PM peak periods.

On weekends and holidays, the Green Line and Orange Line operate with 30-minute headways, which combine for a 15-minute headway between Earlington Heights and Dadeland South Station.

Green Line service runs from 5:00 AM to 12:48 AM seven days a week, while the Orange Line operates between 5:00 AM and 12:56 AM.

Map 3-2: Metrorail System Route Map



- METORAIL**
- Orange Line / Station
 - Green Line / Station
 - Station Serving Both Lines
 - Recommended Transfer Station
 - Station Connects with Metromover
 - Station Connects with Tri-Rail
 - Station Connects with Airport
 - Station Connects with Brightline
- CONNECTING SERVICES**
- Metromover
 - Tri-Rail (tri-rail.com)
 - Brightline (gobrightline.com)
 - MIA Mover (miami-airport.com)
 - South Dade Transitway

3.3 Metromover

DTPW's automated people mover (Metromover) is an elevated automated guideway system that serves 21 stations and is comprised of three (3) partially overlapping loops:

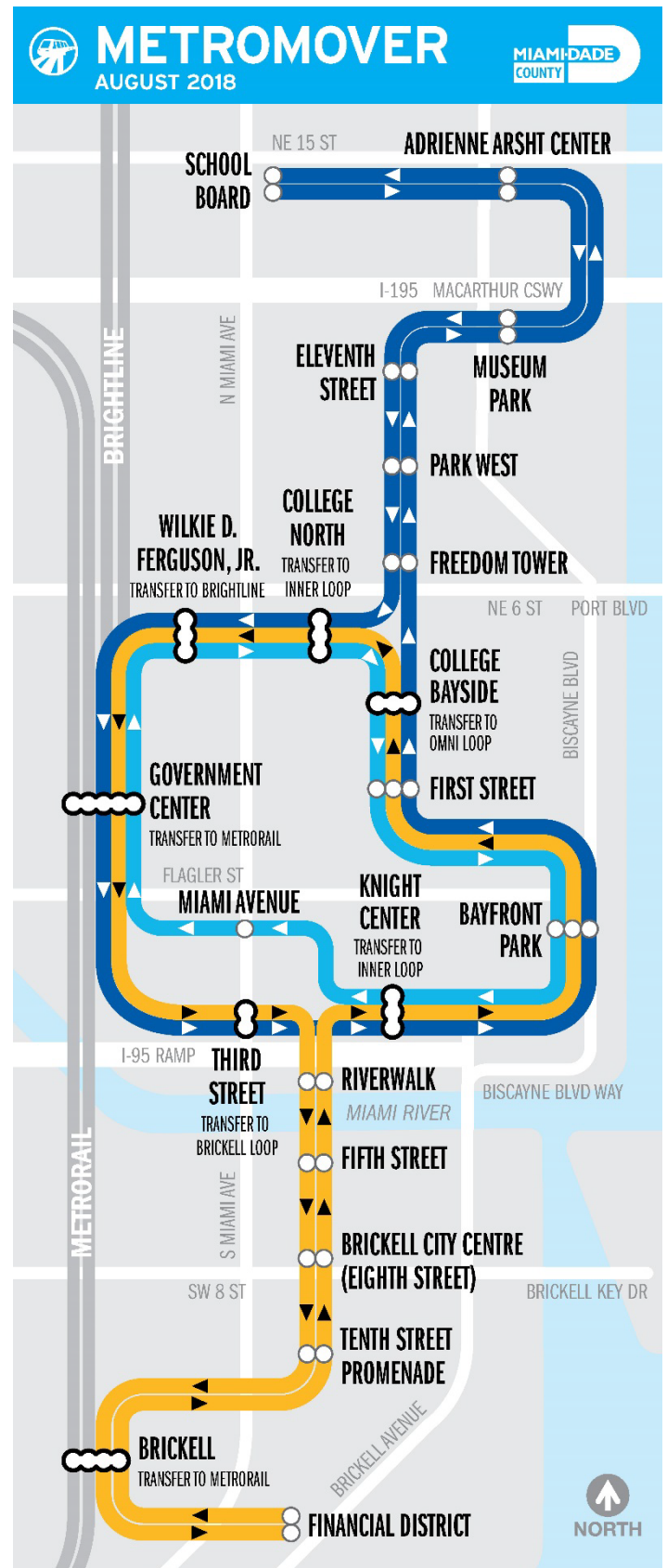
- The Inner Loop – serves eight stops, including Government Center, Bayfront Park, and the Knight Center.
- The Outer/Omni Loop – Includes the Inner Loop and extends to the north to the School Board, including stops at the Adrienne Arsht Center and Museum Park.
- The Outer/Brickell Loop – Includes the Inner Loop and extends to the south, including Brickell Metrorail Station, Brickell City Centre and the Financial District.

DTPW maintains a fleet of 29 Metromover vehicles and operates with a maximum of two (2) cars per train. Metromover operates free of charge from the School Board area to Brickell, serving major destinations throughout Downtown Miami. Metromover's Inner/Downtown, Outer/Omni and Brickell loops operate seven (7) days a week from 5:00 AM to Midnight. In the Central Business District, service frequency is every 90 seconds during the AM and PM peak periods, and every three (3) minutes during weekends and holidays. On the Omni and Brickell Loops, service frequency is five (5) minutes during peak periods and six (6) minutes during weekends and holidays. Map 3-3 illustrates the DTPW Metromover system as of December 2018.

LEGEND

- OMNI LOOP
- INNER LOOP
- BRICKELL LOOP
- STATION SERVING SINGLE LOOP
- STATION SERVING MULTIPLE LOOPS
- RECOMMENDED TRANSFER STATION
- DIRECTION OF TRAVEL
- METRORAIL & BRIGHTLINE

Map 3-3: Metromover System Route Map



3.4 Special Transportation Service (STS)

DTPW provides a demand response service known as STS, required by the Americans with Disabilities Act of 1990. STS is a shared-ride, door-to-door transportation service for certified individuals with disabilities who are unable to utilize the local fixed-route transit system.

Demand response service is provided by sedans, vans, and lift-equipped vehicles, seven (7) days a week, 24 hours a day. Trips cost \$3.50 one-way and must be scheduled 24 hours in advance. Presently, there are 389 vehicles available for paratransit service transportation. Currently, these vehicles and services are privately contracted through Transportation America (TA).

In 2018, STS provided nearly 1.7 million trips to the 35,296 eligible clients who are enrolled in the STS program.



TA operated vans dropping off passengers at the Overtown Transit Village

3.5 Services Provided by Private Contractors

DTPW contracts out various services to private companies. One contracted service has a private company build and maintain bus benches and shelters throughout the county. In exchange for these amenities, the contract-holding company can place advertising at these bus stops. Other contracted services include:

- Security at DTPW facilities like Metrorail and Metromover stations;
- Miscellaneous maintenance services, such as tires, facility maintenance, etc.;
- Miscellaneous contracts for marketing;
- Planning, engineering, and technical support;
- Maintenance of bus benches/shelters at no cost to the county; and,
- Bus/rail advertising services.

3.6 Miami-Dade Transit Passenger Fare Structure

DTPW’s automated passenger fare collection system for Metrorail and Metrobus is known as the EASY Card. The county also offers the EASY Ticket (available for one-time uses) and EASY Pay (a mobile phone application) as ticket alternatives. Cash fare payments are still accepted on Metrobus, however, Metrobus passengers are encouraged to purchase the DTPW EASY Card to take advantage of discounted transfer fees. Metrorail passengers are required to purchase and load the contactless DTPW EASY Card. These cards are purchased at a fee of \$2.00 and loaded with appropriate fare amounts for passage.

DTPW offers various discount and free-fare programs to different segments of the population. Among those, include the Corporate Discount Program, which offers up to 15% discounts on monthly passes. The Golden and Patriot Passports, offer free transit passes to senior citizens (regardless of income), and honorably-discharged, low-income veterans, respectively. The Transit Mobility program offers free transit passes to low income individuals who can demonstrate incomes of less than \$18,735 per year. DTPW also offers discount programs for school age children, and regional passes that includes discounted transfers from the Tri-Rail System. Table 3-4 presents the current fare structure for regular and discounted fares.

Table 3-4: DTPW Fare Structure

Fare Type	Regular Fare	Discount Fare ¹
Metrobus	\$2.25	\$1.10
Inter-County Express Bus	\$2.65	\$1.30
Intra County Express Bus Reg Fare	\$2.25	\$1.30
Circulator / Trolley / Shuttle Bus ²	25¢	10¢
Metrorail	\$2.25	\$1.10
Metrorail daily parking fee	\$4.50	Not Applicable
Metrorail monthly parking permit ³	\$11.25	Not Applicable
Metromover	Free	Free
Special Transportation Service (STS)	\$3.50	Not applicable
Bus-to-Bus Transfer ⁴	Free	Free
Bus-to-Express Bus Transfer	50¢ + 45¢ upgrade = 95¢	25¢ + 20¢ upgrade = 45¢
Bus-to-Rail Transfer	60¢	30¢
Rail-to-Bus Transfer	60¢	30¢
Tri-Rail-to-Metrorail Transfer	\$1.20	60¢
Shuttle Bus-to-Bus or Rail Transfer	\$2.00	\$1.00
Shuttle Bus-to-Express Bus Transfer	\$2.40	\$1.20
Metrorail-to-Express Bus Transfer	95¢	45¢
BCT-to-Metrobus Bus (Transfer)	60¢	30¢
Regional Monthly Pass (Unlimited Metrorail, Metrobus and Tri-Rail Rides)	\$145	\$72.50
1-Month Pass + Monthly Metrorail Parking Permit	\$123.75	\$67.50
1-Month Pass	\$112.50	\$56.25
1-Month Pass - Group Discount 4-99 passes (Corporate Discount)	\$101.25	Not applicable
1-Month Pass - Group Discount 100 or more passes (Corporate Discount)	\$95.65	Not applicable
College/Adult Education Center Monthly Pass	\$56.25	Not applicable
Golden Passport or Patriot Passport	Free	Free
7-Day Pass	\$29.25	\$14.60
1-Day Pass	\$5.65	\$2.80
EASY Card (cost of media)	\$2.00	Not applicable
EASY Ticket (cost of media)	Free	Not applicable
Transit Mobility (Transportation Disadvantaged)	Free	Free
Commuter Reduced	Not Applicable	Half-fare

Source: Department of Transportation and Public Works, December 2018

- Discount fare is available for Medicare recipients, most people with disabilities, and students in grades K-12 when using an EASY Card for discount fare rides, which replaces all previous discount IDs and permits. Preschool children less than 42 inches in height can ride Metrobus and Metrorail free at all times with an accompanying adult. Parents or guardians of pre-schoolers are encouraged to present proof of age to bus operators and rail personnel to access the system. EASY Cards are not issued to pre-schoolers.
- DTPW operates six shuttle routes: 132/Doral-Tri-Rail Shuttle, 200/Cutler Bay Local, 211/Overtown Circulator, 212/Sweetwater Circulator, 254/Brownsville Circulator, and 286/North Pointe Circulator. There is no fare for route 132 (Doral-Tri-Rail Shuttle).
- Only available with the purchase of a monthly pass.
- Transfers are free for passengers traveling in one direction (not for round trips) using an EASY Card or EASY Ticket only within three hours of initial access of system. Passengers paying with cash must pay the full fare each time they board a bus.

3.6.1 EASY Card Sales Outlets

EASY Card Sales Outlets are conveniently located throughout Miami-Dade County for transit customers to obtain or load cash value and/or passes onto the EASY Card or EASY Ticket. The DTPW EASY Card Services Division is responsible for training new vendors and managing all EASY Card Sales Outlets. In 2018, EASY Cards accounted for \$3.8 million in sales. Currently there are 86 sales outlets enrolled in Miami-Dade County, including Navarro Discount Pharmacies and Sedano’s Supermarkets.

3.6.2 Farebox Recovery Ratio

The farebox recovery ratio of a passenger transportation system is the portion of operating expenses which are covered by the fares paid by passengers. It is calculated by dividing the system’s total fare revenue by its total operating expenses. Most transit systems are not fully self-supporting, so advertising revenue, government subsidies, and other sources of funding are usually required to cover total operating costs.

Table 3-5 illustrates DTPW’s farebox recovery ratio according to the most recently validated data reported to the National Transit Database (NTD) for each mode. Note that DTPW’s Metromover is a fare-free service and therefore collects no farebox revenue.

Table 3-5: DTPW Farebox Recovery Rates

Mode	FY 2017	FY 2018
Metrobus	19.1%	17.0%
Metrorail	15.9%	15.2%
STS	11.7%	10.6%
System-Wide	16.8%	15.2%

Source: DTPW National Transit Database Facts at a Glance Report, Jan. 2019

3.6.3 DTPW’s Discount and Special Assistance Programs

3.6.3.1 Corporate Discount Program

DTPW’s Corporate Discount Program allows participants to save on commuting costs through group discounts and pre-tax savings, by purchasing a monthly Corporate EASY Card through an employee pre-tax deduction under IRS Code 132(f). It allows employees to pay for their public transit rides using pre-tax dollars, up to \$260 per month or \$3,120 per year in 2018. Monthly Corporate EASY Cards provide a 10% discount for corporate groups of 4-99 participants, and a 15% discount for groups of 100+ participants and include unlimited rides on Metrobus and Metrorail. Participants wishing to use parking at Metrorail Stations can save additional money by purchasing a \$11.25 monthly Metrorail parking permit with pre-tax dollars. In 2017, the Program generated approximately \$8.8 million in revenue. Currently, 210 companies are enrolled.

The 2017 Tax Cut and Jobs Act (TCJA) amended the tax benefit rules on commuter benefits in such a way that the benefits from the program are still being determined.

3.6.3.2 College / Vocation School Discount Program

Full-time college, university, vocational/technical, and adult education school students can purchase a one-month pass on specially-encoded Orange EASY card for \$56.25, half the cost of a full price monthly pass. Fifty-

nine education institutions currently participate in the program, generating approximately \$2.8 million in annual sales.

3.6.3.3 K-12 Discount Program

Miami-Dade County students in grades K-12 can purchase a Metrobus and Metrorail fare at 50% off the regular fare. First time eligible students may obtain a specially-encoded EASY Card at no cost by applying online, visiting the Transit Service Center Kiosk located on the second floor of the Stephen P. Clark Center, or Pass Sales Office located at 701 NW 1 Court, Suite 121. This program is open to any student attending public or private schools in Miami-Dade County. Currently, there are over 9,051 K-12 enrolled riders.

3.6.4 Senior and Veteran Discount Program

The Golden Passport EASY Card provides free transportation to adults 65 years and older or Social Security beneficiaries of any age who are permanent Miami-Dade County residents. A Patriot Passport provides free transportation to honorably-discharged, low-income veterans who are permanent Miami-Dade County residents. Currently, there are 209,085 certified Golden Passport/Patriot Passport customer accounts; this includes 190,070 Golden Passport customers over 65 years of age, 16,880 Golden Passport customers under 65 years of age, and 2,135 Patriot Passport customers.

3.7 Transit Mobility (Transportation Disadvantaged) Program

Section 427 of the Florida Statutes and Rule 41-2 of the Florida Administrative Code establishes the creation of the Transportation Disadvantaged Program (TD). The Transportation Disadvantaged Program, through a state funded grant, provides EASY Tickets and EASY Cards to transportation disadvantaged Miami-Dade County residents such as homeless, at-risk children and families, and residents enrolled in vocational training, and rehabilitation) allowing fare-free access to the MDT system. DTPW is the county-appointed Community Transportation Coordinator (CTC) for and is responsible for the coordination and provision of cost-efficient transportation services for the transportation disadvantaged.

The Transit Mobility EASY Card program provides tickets to qualifying social service agencies to distribute to their clients for use on the Miami-Dade County transit system. Currently there are 100 agencies enrolled in the program. The Transit Mobility EASY Card Program provides annual EASY Cards to individuals who are TD eligible. Currently, there are 5,563 Transit Mobility EASY Card program participants.

3.7.1 Section 5310

The Section 5310 grant provides funding for states to assist sub-recipient agencies to meet the transportation needs of older adults and people with disabilities. DTPW in its role as the CTC is responsible for the program coordination with local sub-recipient agencies serving elderly and disabled residents in Miami-Dade County. As evidence this coordination, DTPW executes an annual coordination agreement to ensure that sub-recipient agencies to maintain program eligibility.

3.8 Customer Information

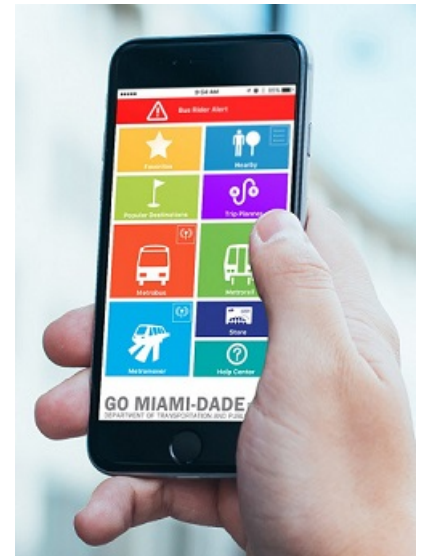
DTPW continues to implement enhancements to their customer information platform via the Rider Alert system that notifies registered passengers about transit service delays through their cellular phones, email addresses, text pagers, or smart phones. Registered users receive electronic alerts on detours, route changes, service changes as well as service interruptions for Metrorail, Metromover, Metrobus, and Special Transportation Services. The Rider Alert system also provides the operational status of elevators and escalators at Metrorail and Metromover stations. There are currently 4,469 registered users.

Riders can access real-time locations of Metrorail, Metromover, and Metrobus vehicles using the Train Tracker, Mover Tracker and the Bus Tracker, respectively. Users can view the estimated time of arrival of the next and live locations using the DTPW website via computer desktops, cell phones/smartphones, personal digital assistants (PDAs) and tablets. The website also provides information on service alerts, elevator and escalator for Metrorail and Metromover stations.

3.8.1 Smartphone Mobile Apps

DTPW has deployed real-time arrival and departure information for iPhone and Android applications for all four of their service modes. These apps provide DTPW passengers with everything that is currently present on the DTPW web site as well as additional smartphone-specific features such as:

- Rider alerts
- Train Tracker
- Bus Tracker
- Service updates
- Elevator/escalator operational status
- Real time Metrorail parking information
- Schedules and route maps
- Metrorail station information
- Metromover station information
- Fare information
- Rider alert registration
- Contact numbers
- Feedback zone
- Where Am I?
- Live Mapping
- Nearby Bus Stop Look Up - Illustrates station locations and real-time bus locations near the user with panning capabilities
- STS Connect online service for STS clients
- Integration with other apps such as EASY Pay, Pay by Phone, and MDT Transit Watch for submitting safety concerns in real-time
- 3-D touch support for iPhones



3.9 Maintenance and Storage Facilities

DTPW operates three maintenance bus garages to serve the current fleet of 762 buses. The DTPW garages are located in various areas throughout the county to provide efficient maintenance and storage services at the following locations:

- Central Facility: 3311 NW 31st Street, Miami, Florida 33142;
- Coral Way Facility: 2775 SW 74th Avenue, Miami, Florida 33155;
- Northeast Facility: 360 NE 185th Street, Miami, Florida 33179;

The Metrorail fleet of 136 rail cars is maintained and stored at the William E. Lehman Center in 6601 NW 72nd Avenue, Miami, Florida 33166. The Metromover fleet of 29 cars is supported by the maintenance facility located at 100 SW 1st Avenue in Downtown Miami

3.10 Park-and-Ride Facilities

DTPW currently has over 12,000 available parking spaces, at 32 park-and-ride locations, as shown in Table 3-6. An additional facility, the Dolphin park-and-ride/transit terminal facility (Dolphin Station), is expected to open in 2019 with 869 parking spaces, 12 bus bays, additional facilities for layovers, and a modest retail space.

Parking utilization is highest on the southern portion of the Metrorail line (Dadeland South to South Miami) and in the north at the Golden Glades Multimodal Transportation Facility (GGMTF). Map 3-4 identifies the location of existing park-and-ride facilities that owned and operated by DTPW.

Table 3-6: DTPW Park-and-Ride Facilities

	Metrobus Only	Multimodal (Metrorail)
Facilities	14	18
Spaces	3,300	9,190

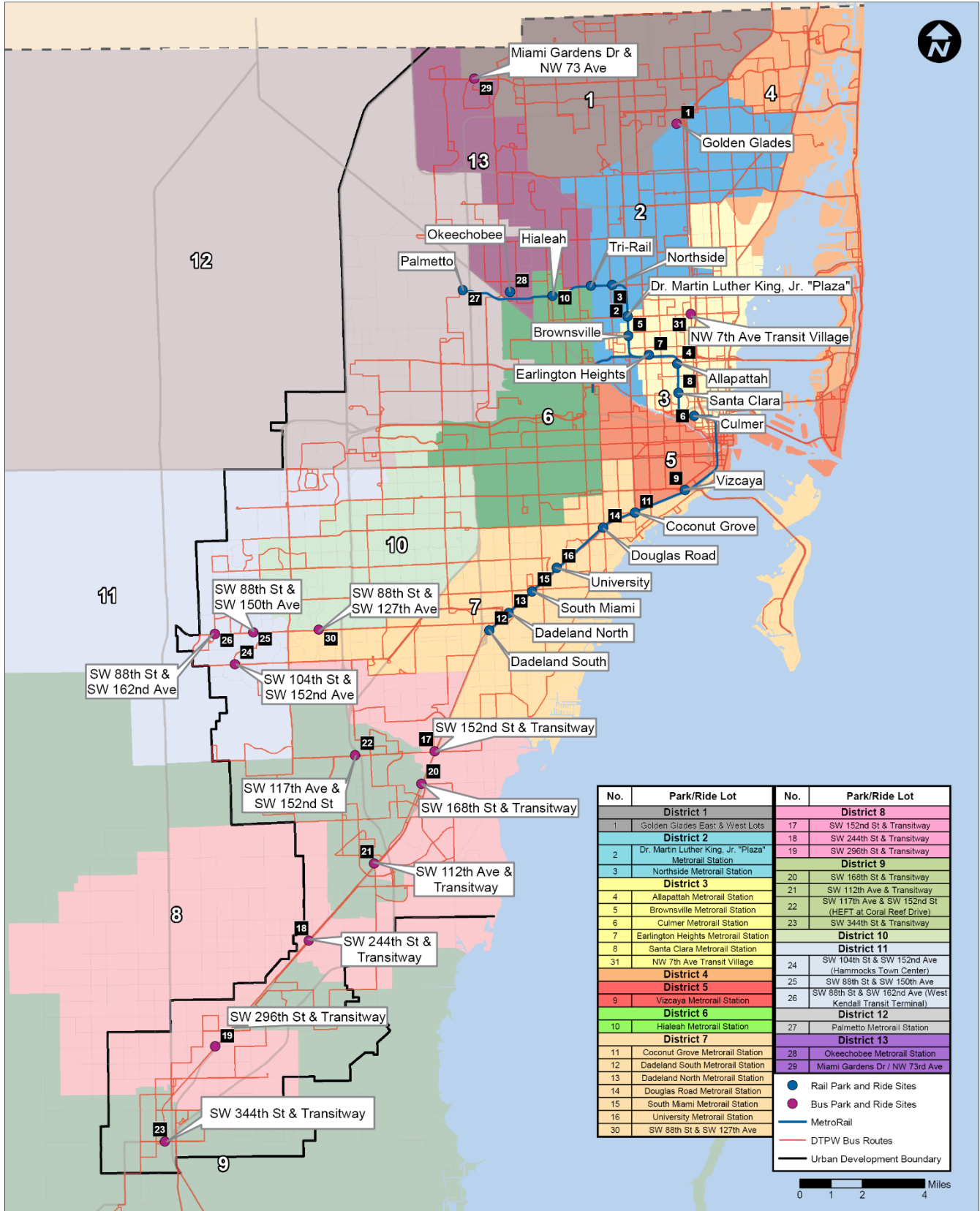
Source: DTPW, MiamiDade.gov

3.11 Pedestrian Overpasses

To facilitate safe passenger connections, DTPW maintains pedestrian overpasses throughout its transit network:

- Douglas Road Metrorail Station Pedestrian Overpass
- Vizcaya Metrorail Station Pedestrian Overpass
- Hialeah Metrorail Station Overpass
- Snapper Creek Expressway and US-1 M-Path Overpass
- University Metrorail Station Pedestrian Overpass

Map 3-4: Park-and-Ride Facilities in Miami-Dade



3.12 Transit Oriented Development

In an effort to increase transit ridership, generate revenue, and create attractive and dynamic station areas, DTPW has partnered with the private sector to implement the following transit oriented development projects:



3.12.1 Dr. Martin Luther King, Jr. Plaza Metrorail Station

Project: Dr. Martin Luther King, Jr. Plaza Office Building

- 5-story, 172,000 sq. ft. office building including 13,500 sq. ft. of ground floor retail
- Demolition of portion of parking structure and renovation of 631-space entire garage
- Covered walkway linking building with station

Location: NW 62nd Street at NW 27th Avenue, Unincorporated Miami-Dade County

Development Area: 7.9 Acres

Status: Completed in 2004



3.12.2 Allapattah Metrorail Station

Project: Allapattah Garden Apartments

- Affordable rental housing complex with surface parking
- 8 garden-style, 3-story buildings totaling 135,100 sq. ft.
- 128 two- and three-bedroom units
- Clubhouse, tenant amenities, resident programs and services, daycare center

Location: NW 36th Street at NW 12th Avenue, City of Miami

Development Area: 4.7 Acres

Status: Completed in 2004

3.12.3 Santa Clara Metrorail Station

Project: Santa Clara Apartments

- Phase I: 9-story, 208-unit affordable housing rental apartment building, 157 surface parking and 51 Phase II garage parking spaces
- Phase II: 17-story, 204-unit affordable rental apartment building; 319 parking spaces on five levels with 207 spaces for Phase II tenants, 51 spaces for Phase I tenants and 61 ground floor spaces dedicated for Metrorail patrons

Location: NW corner, NW 20th Street at NW 12th Avenue, City of Miami

Development Area: 3.3 Acres

Status: Completed in 2006



3.12.4 Overtown Metrorail Station

Projects: Overtown Transit Village (OTV)

North (Phase I)

- 17-story, 309,900 sq. ft. office building
- Separate 9-story, 590-space parking garage
- 4,000 sq. ft. ground floor retail

OTV South (Phase II)

- 21-story, 300,000 sq. ft. office building including garage
- 7,152 sq. ft. ground floor lobby
- Integrated 6-story, 334-space parking garage

Location: NW 1st Court between NW 6th and 8th Streets, City of Miami

Development Area: 2.1 Acres

Status: Completed in 2010



3.12.5 Dadeland South Metrorail Station

Projects: Datran Center I & II (Phases 1 & 3)

- 2 Class A office buildings, 476,412 rentable sq. ft.
- 35,000 sq. ft. retail space
- 3,500 parking spaces, 1,100 dedicated to transit patron usage
- Miami Marriott Dadeland Hotel and Conference Center (Phase 2)
- 302 luxury hotel rooms

Dadeland Centre I (Phase 4A)

- 18 story Class A office building (8 floors offices, 9 floors parking)
- 152,014 sq. ft.

Dadeland Centre II (Phase 4B)

- 15 story Class A office building (8 floors office, 6 floors parking)
- 119,516 sq. ft. of ground floor retail

Location: S. Dixie Highway/U.S. 1 between Dadeland Boulevard and the Palmetto Expressway Overpass, Unincorporated Miami-Dade County

Status: Completed in 2008



3.12.6 Dadeland North Metrorail Station

Project: Motion at Dadeland

- 25 story residential tower
- 294 market rate apartments
- 411 space parking garage
- 7,500 sq. ft. of ground floor retail

Location: SW 84th Street between SW 70th Avenue and U.S. 1.

Development Area: 0.87 Acres

Status: Completed Spring 2019



© 13th Floor Investments / Adler Group via CTBUH

3.12.7 Douglas Road Metrorail Station

Project: Link at Douglas

- Five tower mixed-use development
- 1,421 apartments (12.5% workforce housing)
- 251,873 sq. ft. of office space
- 25,000 sq. ft. of retail
- 750 parking spaces

Location: The area bounded by SW 37th Avenue on the east and SW 38th Avenue on the west, between U.S. 1 and Peacock Avenue.

Development Area: 5.57 Acres

Status: Under Construction. Phase 1 broke ground in Q1 2019, with three additional phases planned.



3.12.8 Coconut Grove Metrorail Station

Project: Grove Central

- 250 apartments
- 180 key hotel
- 190,000 square feet of combined office and retail space
- Large Parking Garage
- \$5 million for station upgrades and improvements
- First Urban Microgrid in Florida
- Geothermal AC system

Location: The parcel bounded by Douglas Road on the east and SW 29th Avenue on the west, between U.S. 1 and SW 27th Terrace.

Development Area: 5.18 Acres

Status: In development, construction expected to be complete in late 2021



3.12.9 Adrienne Arsht Center Metromover Station

Project: Omni Bus Terminal

- Hotel To be built around and above existing Omni Bus Terminal and Metromover Station.
- \$22 million in upgrades to existing transit infrastructure, including new state of the art bus terminal
- 300 room hotel
- Residential service apartments
- 5,000 sq. ft. of retail space

Location: Southeast corner of Biscayne and NE 15th Street

Development Area: 0.987 Acres

Status: Broke ground Q1 2019



3.12.10 Freedom Tower Metromover Station

Project: Luma at Miami Worldcenter

- 44 stories
- 434-unit apartment tower
- As a part of the development, the developer will reconstruct the Metromover station for integration with the rest of the development
- Station improvements will include a new elevator, renovated stairs, new turnstiles, lighting, and landscaping.

Location: NE 2nd avenue and NE 7th street

Development Area: 1.65 acres

Status: Miami Worldcenter currently under construction. Station improvements scheduled to begin in 2019.



3.12.11 Northside Metrorail Station

Project: Northside Transit Village

- Four phase TOD with 438 affordable housing units (219 elderly, 219 family)
- 20,000 sq. ft. ground floor retail
- Multi-level parking garage with 250 dedicated Metrorail parking spaces

Location: Southeast corner of NW 32nd Avenue and NW 79th Street

Development Area: 5.8 Acres

Status: Phase I completed in 2015, with 100 apartments, a parking garage and ground floor retail.

Construction of 119 affordable housing units and additional retail space scheduled for completion by December 2019.

3.12.12 South Miami-Dade Transitway

Project: Caribbean Village

- Mixed use TOD with a minimum 170 affordable housing units for seniors
- 12,500 sq. ft. of retail/commercial space
- 150 space surface parking for transit riders

Location: North side of Caribbean Boulevard between SW 110th Court and SW 200th Drive

Development Area: 3.23 acres

Status: Under Construction, completion expected by the end of 2019



3.12.13 Tenth Street Promenade Metromover Station

Project: 1010 Brickell

- The Tenth Street/Promenade Metromover station will be integrated into the project via new walkways and ramps, improved lighting, installation of new hardscaping, signage, handrails, and bicycle racks.
- Other improvements include reconfiguration of the north station entry, relocation of automatic passenger counters, painting of ground floor and concrete structures, restoration of elevator cab and door, and installation of new LED lighting and fan inside the station's elevator.

Location: 1011 SE 1st Ave

Status: Under Construction

3.12.14 Metrorail Stations between Brickell and Dadeland South

Project: The Underline

- A nine-phase effort to transform the underutilized land below the Metrorail into a 10-mile linear park, urban trail, and living art destination.
- Separated pedestrian and bicycle paths.
- Improvements to over 30 intersections.
- Recreational features will include butterfly gardens, playgrounds, exercise equipment, basketball and volleyball courts, soccer fields, picnic areas, dog parks and more.
- Once completed, The Underline will serve 107,000 residents within a 10-minute walk, will provide access to public transportation to one University and 24 schools, two hospitals, three urgent care facilities, four major malls and over 10,000 businesses.

Location: Following the path of the Metrorail from the Miami River to Dadeland South Station

Development Area: 120 Acres

Status: Phase 1 (Brickell Backyard) from the Miami River to SW 13th Street broke ground on November 1, 2018.

Phase 2, from SW 13th Street to SW 19th Avenue is fully funded, and is now in pre-design planning.

Phase 5 will be built by private developers near the Douglas Road Station.

All other phases are currently unfunded,



3.13 Municipal Transit Services

DTPW continues to coordinate with local municipalities to avoid duplication of transit services and allow for efficient transit operations that complement one another. Currently, there are 34 municipalities eligible to receive surtax funding with 33 participating in the program (Indian Creek is not participating). Of these 33 municipalities participating in the program, 27 have local transit circulators that supplement DTPW bus routes. Map 3-5: *Municipal Circulator Route Mappresents* a map of local municipal circulators. The 29 municipalities below operate their own circulator, partner with another municipality or partner with DTPW to provide local transit service.

- City of Aventura
- Village of Bal Harbour
- Town of Bay Harbor Islands
- City of Coral Gables
- Town of Cutler Bay (Interlocal Agreement (ILA) with DTPW)
- City of Doral
- City of Hialeah
- City of Hialeah Gardens (ILA with the City of Hialeah)
- City of Homestead
- Village of Key Biscayne
- Town of Medley (Monday/Thursday only service to various shopping plazas)
- City of Miami
- City of Miami Beach (ILA with DTPW)
- City of Miami Gardens
- Town of Miami Lakes
- Miami Shores Village
- City of Miami Springs
- City of North Bay Village
- City of North Miami
- City of North Miami Beach
- City of Opa-locka
- Village of Palmetto Bay
- Village of Pinecrest
- City of South Miami
- City of Sunny Isles Beach
- Town of Surfside
- City of Sweetwater
- Village of Virginia Gardens (ILA with the City of Miami Springs)
- City of West Miami

Miami Beach Trolley



Coral Gables Trolley



The collective ridership on these circulators exceeded 13.8 million passenger trips in FY 18, a 29% growth over the previous year. The three largest municipal circulator systems – operated by the Cities of Miami, Miami Beach, and Coral Gables, respectively – accounted for over 80% of the total municipal ridership, with 11.4 million riders in FY 18. Ridership on these systems have grown 35% since FY 17, and 120% since FY 13.

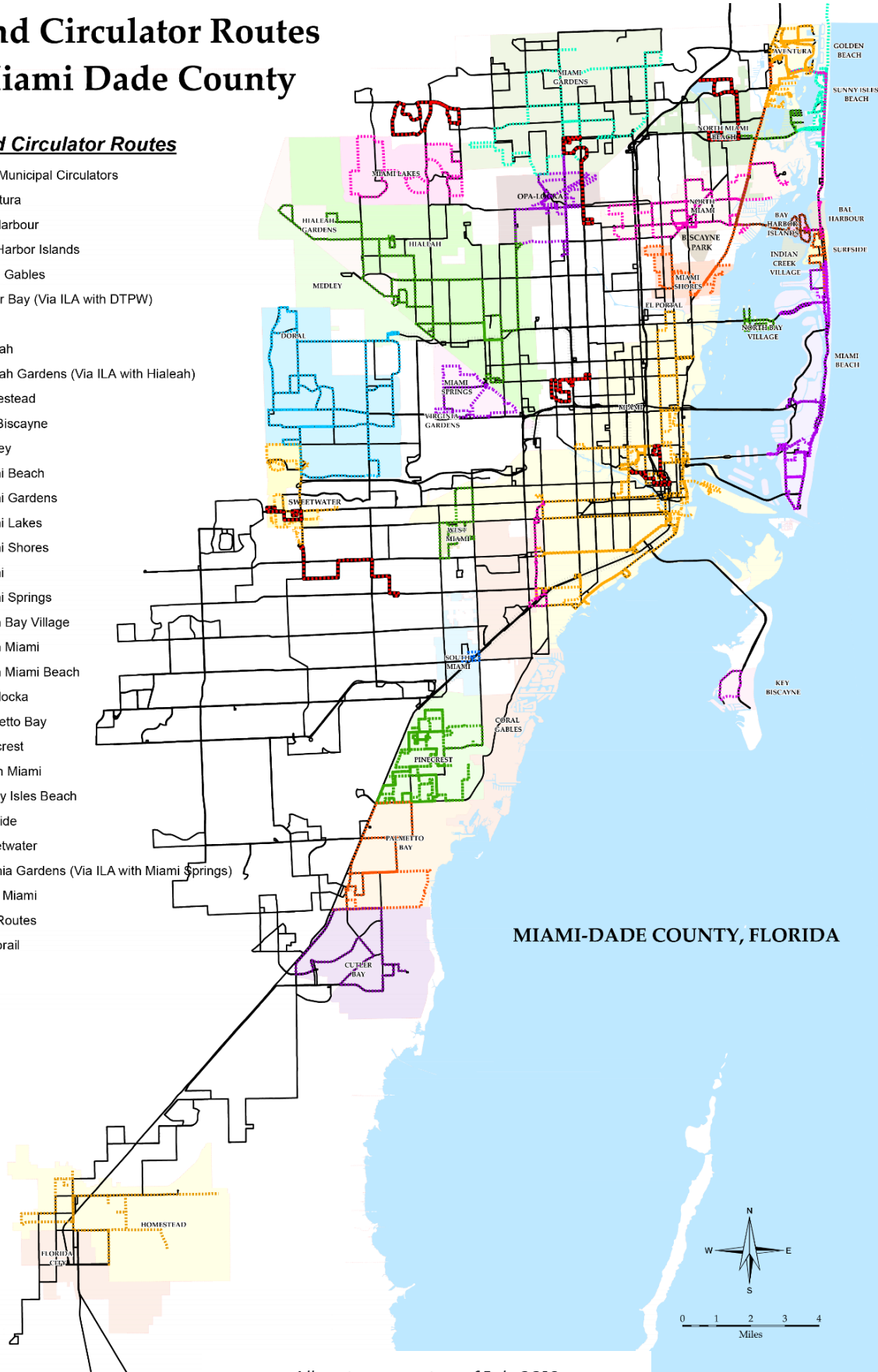
The Appendix provides a listing of each participating municipality, respective service operator and website.

Map 3-5: Municipal Circulator Route Map

Bus and Circulator Routes in Miami Dade County

Bus and Circulator Routes

- Non-Municipal Circulators
- 1 Aventura
- 2 Bal Harbour
- 3 Bay Harbor Islands
- 4 Coral Gables
- 5 Cutler Bay (Via ILA with DTPW)
- 6 Doral
- 7 Hialeah
- 8 Hialeah Gardens (Via ILA with Hialeah)
- 9 Homestead
- 10 Key Biscayne
- 11 Medley
- 12 Miami Beach
- 13 Miami Gardens
- 14 Miami Lakes
- 15 Miami Shores
- 16 Miami
- 17 Miami Springs
- 18 North Bay Village
- 19 North Miami
- 20 North Miami Beach
- 21 Opa-locka
- 22 Palmetto Bay
- 23 Pinecrest
- 24 South Miami
- 25 Sunny Isles Beach
- 26 Surfside
- 27 Sweetwater
- 28 Virginia Gardens (Via ILA with Miami Springs)
- 29 West Miami
- Bus Routes
- Metrorail



MIAMI-DADE COUNTY, FLORIDA

All routes current as of July 2019

3.14 Regional Transit Service Connections

3.14.1 Broward County Transit (BCT)

The Broward County Office of Transportation operates BCT, a fixed-route bus service that connects with DTPW service. BCT provides several types of fixed-route bus service that operate along a designated route and with a fixed schedule, including regular fixed-route local bus service, Breeze limited-stop service, and express bus routes. Combined, BCT operates 44 routes on weekdays, 31 routes on Saturdays, and 29 routes on Sundays. Service runs from 4:30 AM to after midnight on weekdays. A regular one-way fare is \$2.00, while a reduced one-way fare is \$1.00 and an all-day pass is \$5.00. The express bus



one-way fare is \$2.65, and its reduced one-way fare is \$1.30. DTPW passengers transferring to BCT must provide the BCT bus operator with an Inter-County Ticket and pay \$0.50. Passengers transferring from BCT to DTPW must provide the DTPW bus operator with the BCT Transfer and pay \$0.60 for a full-fare transfer, \$0.30 for a discounted-fare transfer, \$0.95 for an express-bus transfer, or \$0.45 for a discounted express-bus transfer. BCT and DTPW have partnered to provide regional bus service between Broward and Miami-Dade Counties. Currently, DTPW buses travel into Hallandale Beach (southern Broward) and BCT buses travel into Aventura, North Miami, Miami Gardens, and the Golden Glades Interchange. Bus service from both agencies operate within the I-95 Express lanes, providing connections from park-and-ride facilities in central and southern Broward communities to Downtown Miami and the Civic Center. BCT operates the 595 Express, which connects western Broward communities to the Civic Center and Downtown Miami. Table 3-6 lists those locations and BCT bus routes that provide connecting service to DTPW's Metrobus routes. One of DTPW's goals for the next 10 years is to continue coordinating with BCT.

Table 3-7: BCT Regional Service Routes

Bus Route	Service Connection Location
1	Aventura Mall, US 1
2	NW 207 Street, NW 27 th Avenue, University Drive
18	Golden Glades, State Road 7
28	Aventura Mall, State Road 7
441 Breeze (441)	Golden Glades, Miami Gardens Drive
University Breeze (102)	Golden Glades, Miami Gardens Drive
US 1 Breeze (101)	Aventura Mall, US 1
595 Express Miami/Brickell (110)	Overtown Metrorail station, Eighth Street, Metromover station, Brickell Metrorail station
595 Express Miami Civic Center (114)	Civic Center Metrorail station
95 Express Miramar (106)	Miami VA Hospital, Jackson Memorial Hospital, Miami Civic Center, University of Miami Hospital
95 Express Pembroke Pines (108)	Miami VA Hospital, Jackson Memorial Hospital, Miami Civic Center, University of Miami Hospital
95 Express Pembroke Pines / Miramar (109)	Overtown Metrorail station, Downtown Miami Transit Terminal

Source: Broward County Transit, 2019

3.14.2 South Florida Regional Transportation Authority (SFRTA)

The SFRTA operates Tri-Rail, a commuter rail service that operates along 72 miles of the South Florida Rail Corridor (SFRC), which spans Palm Beach County, Broward County, and Miami-Dade County. Tri-Rail primarily runs through the eastern urbanized areas of the three (3) counties between the Mangonia Park station in Palm Beach County and the Miami International Airport station in Miami-Dade County. Tri-Rail serves 18 passenger stations and an average weekday ridership of approximately 14,000 passengers.

Weekday service operates between 4:00 AM and 11:35 PM, with trips departing every 20 minutes in the peak periods and hourly during the off-peak periods. In the northbound direction, service begins at 4:15 AM and ends at 11:35 pm, whereas service in the southbound direction begins at 4:00 AM and ends at 10:35 PM. Weekend service runs hourly from 5:50 AM to 6:50 PM in the northbound direction, with one additional northbound evening trip ending by 11:00 PM. In the southbound direction, weekend service runs hourly from 5:17 AM to 6:17 PM, with one additional southbound evening trip ending by 11:45 PM. Tri-Rail operates a zonal fare system, which is comprised of six (6) equidistant zones. Fares are determined by the sum of zones traveled. For one zone of travel, the regular base fare for one-way travel is \$2.50 with a discounted one-way fare of \$1.25. The regular round-trip fare is \$4.40 for one zone of travel, with a discounted round-trip fare of \$2.50. On weekends and holidays, SFRTA offers discounted flat fares for all travel: daily passes are issued for \$5.00 (with a discounted rate of \$2.50). The cost for the Tri-Rail full-fare monthly pass is \$145 (\$72.50 discounted for children, seniors, and persons with disabilities).

Tri-Rail passengers transferring to the DTPW system at a Tri-Rail transfer point are required to pay as presented in the following table:

Table 3-8: SFRTA Fare Structure

Transferring from Tri-Rail to:	Full Fare	Discount Fare
Metrorail	\$1.20	\$0.60
Metrobus	\$0.60	\$0.30
Express Bus	\$0.95	\$0.45
Return Trip	Full Fare	Discount Fare
All Modes/Express Bus	\$2.25 / \$2.65	\$1.10 / \$1.30

Source: SFRTA, 2019

Table 3-8 provides details of DTPW services that connect with Tri-Rail in Broward and Miami-Dade Counties. Tri-Rail has five (5) station locations in Miami-Dade County that connect with DTPW services, including Metrobus and Metrorail. These Tri-Rail stations include Golden Glades, Opa-locka, Tri-Rail/Metrorail Transfer, Hialeah Market, and the Miami International Airport (MIA) station. In addition, several stations are served by Tri-Rail Commuter Connectors, which provide free shuttle service between the stations and nearby destinations, such as the Opa-Locka Flea Market. As of September 2019, the Tri-Rail Downtown Miami Link is scheduled to begin service in 2020 along nine miles of track from the SFRC at the Tri-Rail/Metrorail Transfer Station to the Little River Florida East Coast (FEC) railroad spur and into the MiamiCentral Station adjacent to Government Center.

Table 3-9: DTPW Services Connecting to Tri-Rail

Tri-Rail Station	DTPW Route	Major Destinations
Broward County		
Fort Lauderdale	95 Dade-Broward Express	Downtown Miami, Fort Lauderdale Tri-Rail station
Sheridan Street	95 Dade-Broward Express	Downtown Miami, Sheridan Street Tri-Rail station
Miami-Dade County		
Golden Glades	105 E	Golden Glades Park-and-Ride Lot, Jackson North, The Mall at 163rd Street, City of North Miami Beach, Eastern Shores, Winston Towers, Aventura Mall, Turnberry Isle, Diplomat Mall/Hallandale
	22	City of North Miami Beach, The Mall at 163rd Street, Golden Glades Park-and-Ride, Earlington Heights Metrorail station, clinics, Coconut Grove Metrorail station, Sunshine State Industrial Park
	77	SR 441, Liberty City, Culmer Metrorail station, Government Center Metrorail station, Main Library, Historical Museum of South Florida, Miami Art Museum, Downtown Miami Bus Terminal, NW 7th Avenue Transit Village
	155	Nearby apartment complexes on NW 155 Lane
	246 Night Owl	The Mall at 163rd Street, Downtown Miami, Government Center Metrorail station, Overtown, Civic Center Metrorail station, University of Miami/Jackson Memorial Hospitals and clinics, Allapattah Metrorail station
	277 NW 7th Avenue MAX	Downtown Miami, Government Center Station, Culmer Metrorail Station, Edison Center, North Miami, Biscayne Gardens, NW 7th Avenue Transit Village, Golden Glades Park-and-Ride Lot
	95 Golden Glades Express	Golden Glades Park-and-Ride, Civic Center, Veterans Hospital, Jackson Memorial Hospital, Norwood, Earlington Heights Metrorail station, Downtown Miami, Brickell
Opa-locka	32	Carol City, St. Thomas University, Florida Memorial College, City of Opa-locka, Opa-locka Tri-Rail station, Miami Dade College North Campus, Northside Metrorail station, Northside Shopping Center, Santa Clara Metrorail station, Omni Bus Terminal
	42	Miami Springs, City of Opa-locka City Hall, Opa-locka Tri-Rail station, City of Hialeah, Amtrak Passenger Terminal, Tri-Rail Metrorail station, Miami International Airport Metrorail station, City of Coral Gables, Douglas Road Metrorail station
	135	Hialeah Metrorail station, Miami Lakes, Opa-locka Tri-Rail station, FIU Biscayne Bay
Tri-Rail / Metrorail Transfer	112 L	Lincoln Road Mall, Miami Beach Convention Center, JFK Causeway, Northside Metrorail station, Amtrak Terminal, Hialeah Metrorail station, Miami Beach Senior High School



Tri-Rail Station	DTPW Route	Major Destinations
	42	Miami Springs, City of Opa-locka City Hall, Opa-locka Tri-Rail station, City of Hialeah, Amtrak Passenger Terminal, Tri-Rail Metrorail station, Miami International Airport Metrorail station, City of Coral Gables, Douglas Road Metrorail station
Hialeah Market	110 J*	Miami International Airport, Allapattah Metrorail station, City of Miami Beach
	37	City of Hialeah, Dept. of Children & Families, Hialeah Metrorail station, Miami International Airport Tri-Rail station, Miami International Airport Metrorail station, Douglas Road Metrorail station, City of South Miami, South Miami Metrorail station, Cocoplum Circle
	36*	Dolphin Mall, Miami International Mall, Miami Dade College West Campus, Doral, City of Miami Springs, Miami Springs High School, Allapattah Metrorail station
	132 Doral/ Tri-Rail Shuttle	Doral Executive Center, Doral Country Club, Atrium Shopping Center, Miami Springs, Hialeah Market Tri-Rail station
Miami International Airport	42	Miami Springs, City of Opa-locka, Opa-locka Tri-Rail station, City of Hialeah, Amtrak Passenger Terminal, Tri-Rail Metrorail station, Miami International Airport Metrorail station, City of Coral Gables, Douglas Road Metrorail station
	297 27th Avenue Orange MAX**	Miami International Airport Metrorail station, Martin Luther King Jr. Metrorail station, Brownsville Transit Village, Brownsville Metrorail station, Miami Dade College North, City of Opa-locka, City of Miami Gardens, Dolphin Stadium
	150 Miami Beach Airport Flyer	Miami International Airport Metrorail station, City of Miami Beach
	7	Miami International Airport Metrorail station, City of Sweetwater, Dolphin Mall, Miami International Mall, Mall of the Americas, Downtown Bus Terminal, Main Library, Historical Museum of South Florida, Miami Art Museum, MDC Wolfson Campus, Historic Overtown/Lyric Theatre Metrorail station
	37	City of Hialeah, Dept. of Children & Families, Hialeah Metrorail station, Miami International Airport Tri-Rail station, Miami International Airport Metrorail station, Douglas Road Metrorail station, City of South Miami, South Miami Metrorail station, Cocoplum Circle
	57	Miami International Airport Tri-Rail station, Miami International Airport Metrorail station, South Miami Metrorail station, Red Road (NW/SW 57 Avenue), Transitway at SW 152 Street, SW 152 Street Park-and-Ride Lot, Jackson South Hospital
	110 J	Miami International Airport Metrorail station, Allapattah Metrorail station, City of Miami Beach
	238 East-West Connection	Dolphin Mall, Miami International Mall, Airport Corporate Center, Airport Cargo City, Airport Hilton Hotel, Miami International Airport Metrorail station.
338 Weekend Express	Dolphin Mall, Miami International Mall, Miami International Airport Metrorail station	

Source: DTPW, 2019, SFRTA, 2019

* Route does not enter the Tri-Rail station; passengers must access DTPW routes from NW 36th Street.

** Route does not enter the Brownsville Transit Village or the Brownsville Metrorail station. Passengers must access the route from the stop north of NW 53rd Street.



3.14.3 Brightline / Virgin Trains

In 2018, All Aboard Florida, a subsidiary of Florida East Coast Industries (a private real estate company), began intercity higher speed rail service between West Palm Beach and Downtown Miami, with an intermediate stop in Fort Lauderdale. Brightline has since entered into a strategic partnership with Virgin Trains USA. Operating east of much of the existing Tri-Rail commuter line, Brightline offers faster travel times with fewer stops. Travel time between West Palm Beach and Miami is about 75 minutes. Currently, 17 daily roundtrips between West Palm Beach and Miami are provided. There are plans to extend the rail service first to Orlando and then to Tampa in the future.

On weekdays, Brightline runs hourly from 5:00 AM to 12:25 AM, except during peak hours when it departs every 30 minutes. Weekend services run hourly from 8:00 AM to around midnight, except for one late-night northbound trip originating in Miami at 3:30 AM. One-way fares between West Palm Beach and Miami range from \$22 for a business class ticket, to \$37 or more for first class. Brightline frequently partners with rideshare companies to supplement connectivity. Initial ridership figures indicated that nearly 75,000 passengers rode Brightline during the first quarter of 2018.

The MiamiCentral Brightline station is located less than a half mile from the Government Center. Connections to Metrorail, Metromover, and Metrobus services are all located adjacent to MiamiCentral station.

3.14.4 Regional Fare Interoperability/Mobile Ticketing

DTPW and the other regional transit systems (i.e., SFRTA, BCT, and PalmTran) are partnering on the implementation of a Fare Technology Interoperability Project to provide a seamless transfer protocol among South Florida transit systems. DTPW and SFRTA already utilize the EASY Card (reloadable plastic smartcards) electronic fare payment system, while BCT and PalmTran do not yet accept this form of payment. Metrorail, Metrobus, and Tri-Rail are a few of the services that already accept EASY Card fare technology. The project is slated for implementation in late 2019.

3.15 National Connections

3.15.1 Intercity Passenger Bus Service

Greyhound operates one (1) station and two (2) additional stops in Miami. The Miami Greyhound Bus Station is located east of MIA, at 3801 NW 21st Street #171. Greyhound also operates buses out of the nearby MIC and from its American Chevron stop near the GGMTF in North Miami. Greyhound offers bus service from Miami to all major US cities and more than 1,800 minor cities and towns across the country. One-way ticket prices currently start at \$8.00 for a trip from Miami to North Miami, and range upwards to \$160 for a trip to Seattle, WA.



RedCoach operates four intercity bus routes out of the MIC, connecting to Orlando and Tallahassee with stops in Fort Lauderdale, Pompano Beach, West Palm Beach, Fort Meyers, Tampa, Fort Pierce, Ocala, and Gainesville.

3.15.2 Amtrak Intercity Passenger Rail Service

The Miami Amtrak station is located at 8303 NW 37th Avenue. Miami is the southern terminus for the Silver Service / Palmetto Line, which connects Miami to New York Penn Station by way of Philadelphia; Baltimore; Washington, D.C.; Raleigh; Charleston; Jacksonville; Orlando; Fort Lauderdale; and many smaller cities in between. One-way coach seats are currently available from Miami for prices starting at \$34 for a trip to Winter Haven, Florida, and costing \$126 to reach the other end of the Palmetto Line at New York Penn Station. Sleeper rooms are currently available for prices starting at \$142 for a trip to Winter Haven, up to \$389 for a trip to New York.



3.15.3 Megabus

Megabus operates in over 100 cities across the United States and Canada. In Miami, Megabus departs from the MIC at 3801 NW 21st Street, like many other transit providers. Miami currently is the southernmost Megabus stop in the United States. The service is advertised as a low-cost transportation alternative, with one-way tickets to Tampa available for \$5 and to Atlanta for \$10. The only out-of-state destination available by a direct trip via Megabus is Atlanta; however, transfers from the Atlanta station can reach as far as New York City.



3.16 Health Impact Assessment

A growing body of research indicates that land use and transportation decisions can improve overall health by reducing pollution and promoting an active lifestyle through reduced car use. Even a moderate amount of daily exercise has an impressive range of benefits to both physical and mental health, including lower risk of chronic disease such as heart disease, obesity, high blood pressure, adult-onset diabetes, depression, and stress. A robust public transportation system allows residents the reasonable choice to walk, bike, and take transit instead of driving, which reduces the number of cars on the road and provides a base level of physical activity to residents who choose not to drive to their destinations.

Reducing the number of cars on the road doesn't just help the individuals who make that choice, it helps the entire community by reducing pollution and traffic collisions while creating social capital. When residents participate in active transit (on foot, bike, scooter, or any other mode), they interact more with neighbors. Residential streets become calmer, quieter, and safer not only in terms of traffic but also in terms of crime, since more pedestrian and cycling activity means there is more activity on the street.

DTPW strives to achieve positive health outcomes through four primary strategies:

1. Provide residents with access to healthcare facilities and other health-supportive resources such as parks, social services, and healthy food choices, promoting equity in addition to direct health benefits.
2. Enable and encourage active transportation as a first/last mile solution, to help reduce rates of chronic disease.
3. Improve air quality both by replacing single-passenger vehicle trips and by reducing transit's contribution to air pollution through alternative energy sources.
4. Reduce motor vehicle-related injuries and fatalities by replacing single-passenger vehicle trips.

3.16.1 Access to Healthcare Facilities and Health-Supportive Resources

DTPW's service area (calculated as a quarter-mile radius around all transit stops) covers 256.2 square miles, 60% of the Miami-Dade County urbanized area. Existing DTPW service currently provides access to more than 25 major healthcare facilities via 64 transit routes, which provides residents with access to the small healthcare providers and health-supportive resources distributed throughout the county.

3.16.2 Active Transportation

Active transportation is any human-powered mode of transportation, such as walking or bicycling. Active transportation becomes the first/last mile solution of choice when a transit system is connected to high density development or mixed-use neighborhoods. DTPW has partnered with the private sector to implement TOD throughout the county in an effort to activate station areas and increase ridership. TOD projects in Miami-Dade are extensively covered in the Situation Appraisal.

Active transportation can also be encouraged by connecting transit to a network of Complete Streets, extensive sidewalks, and mixed-use paths to enable wheeled transportation of all shapes and sizes to take place throughout Miami-Dade County. In addition to the extensive sidewalk network that connects most major streets throughout the county, Miami also has more than 172 miles of bicycle lanes and 140 miles of mixed-use paved paths.

The county has recently engaged in multiple efforts to expand and enhance the active transportation network. The SMART Trails Master Plan is a companion to the SMART Plan which identifies potential first and last mile connections between SMART Plan corridors and the regional non-motorized trail system. The county also developed the Public Easement Bicycle/Pedestrian Network Plan in 2018, which examined the feasibility of using existing utility easements and other government owned land to construct new mixed-use paved paths.

Construction has begun on Phase I of The Underline, known as the Brickell Backyard. When completed, the Underline will transform the M-Path, a mixed-use path running below the elevated guideway of the Metrorail from Brickell to the southern terminus at Dadeland, into a linear park that integrates restored natural habitats, art installations, and an active mobility corridor with enhanced facilities for bicycle and pedestrian use. The Ludlam Trail also took significant steps towards realization in 2018, with rezoning and government land purchases setting the stage for the six-mile abandoned railway to be transformed into a linear park in the coming years.

Safe Routes to School

Research has shown that people who use active transportation in their youth are far more likely to continue as an adult. The Safe Routes to School program is a nation-wide movement to make it safer and easier for students to walk and bike to school. In support of this objective, local governments make infrastructure improvements that make walking and biking to schools safer. Miami-Dade County Public Works has had a program to build safe routes to school for nearly 50 years, but the first federally funded program was created in 2005, and today this funding flows through the Fixing America's Surface Transportation (FAST) Act Transportation Alternatives set-aside.

Miami-Dade County uses a quantitative method to prioritize ten elementary and k-8 schools, as well as one high school, to apply for federal funding of infrastructure improvements such as new sidewalks, crosswalks, signage, signal improvements, and more. Since 2011, 100% of Miami-Dade's SRTS applications have been approved, with over \$11 million awarded. Local money is also directed to SRTS projects. The Miami-Dade TIP includes \$6.5 million in Safe Routes to School projects for improvements around 38 schools.

3.16.3 Air Quality

In 2018, DTPW began replacing the diesel bus fleet with cleaner, CNG powered vehicles manufactured by New Flyer of America. As of December 31, 2018, DTPW has received, inspected, and released for service 157 of 300 CNG buses from New Flyer, with the remainder expected by September 2019. An additional order for 120 CNG buses from Gillig are expected to begin arriving by the end of the year.

Significant improvements in air quality are also made by reducing the number of single-passenger vehicle trips, especially during peak travel times. According to the Census Bureau's 2016 ACS data, 5.8% of Miami-Dade commuters take transit, an increase of 6,553 people since 2010.

Table 3-10: Commute Mode Split

Year	Commuters	Drove Alone	Carpooled	Public Transportation	Walked	Other Means
2010	1,064,642	851,100 (79.9%)	105,148 (9.8%)	60,698 (5.7%)	24,194 (2.3%)	23,502 (2.2%)
2016	1,158,226	931,770 (80.4%)	109,613 (9.5%)	67,251 (5.8%)	27,150 (2.3%)	22,442 (1.9%)

Source: 2010 and 2016 ACS

Subtracting those who work at home from the total number of workers reveals that there are roughly 1.16 million commuters in Miami-Dade County. Since 2010, the commute mode split has remained largely the same, with roughly 80% of commuters driving alone, 10% carpooling, 6% taking transit, and 4% walking or taking another mode of transportation such as bicycle or electric personal vehicle.

3.16.4 Motor Vehicle-Related Injuries

According to *Dangerous by Design 2019*, a report published by Smart Growth America and the National Complete Streets Coalition, Florida is the #1 most dangerous state in the country for pedestrians. This report ranked South Florida as the 14th most dangerous metro area in the entire country for pedestrians, with 2.61 annual pedestrian fatalities per 100,000 people.

Transit is proven to be far safer than automobile travel – a 2016 study by the American Public Transportation Association (APTA) observed actual injury rates and concluded that on a per-mile basis, travelling by transit is ten times safer than traveling by automobile. This benefit extends beyond just the transit riders, as the study also showed that public transit-oriented communities are five times safer than automobile-oriented communities.

3.17 Conclusion

DTPW operates a multi-modal system that provides regional connectivity to 2.7 million residents and 15.9 million visitors. Transit fares are structured to help provide equitable access to all users. DTPW's TOD projects have yielded more than 3,933 residential units with 1,891 of those considered affordable housing. Interconnectivity with regional and national service providers help extend the reach of DTPW's services.



4 PEER COMPARISON AND TREND ANALYSIS

Performance measurement is a valuable tool to aid decision makers towards prioritizing areas where future transit investments should be directed. Most performance measures are difficult to review in isolation without any context for interpretation. In recognition of such, transit planners generally present performance metrics in context through comparison with similar transit providers serving similar markets. Accordingly, multiple peer comparisons were performed in support of the TDP. Annual trend analysis of performance measures is another technique decision makers often find useful to assist future policy and investment decisions. Therefore, this chapter also documents year-to-year trends for several key measures of transit effectiveness and efficiency.

Peer comparisons were conducted for DTPW's fixed-route bus (Metrobus), heavy rail (Metrorail), automated guideway/people mover service (Metromover), and DTPW's complimentary ADA paratransit service (STS), to evaluate and compare its performance with other transit systems having similar characteristics. A trend analysis of DTPW's 2013-2018 performance is presented alongside the peer review analysis. This analysis allows DTPW to assess how transit service has changed over the last several years and can suggest areas that should be examined based on observed trends.

This chapter contains documentation of the peer selection methodology the peer comparisons and a trend analysis of performance metrics associated with DTPW's four principal transit modes.

4.1 Peer System Selection Methodology

Peers agencies were selected based on the following:

- Peers selected during the last TDP;
- A review the peers identified in the of Miami-Dade Transit's *Operating Cost Efficiency* Report from the CITT (2011);
- An updated assessment of national transit agencies with similarities to DTPW's operating service characteristics; and
- Input from DTPW staff.

Table 4-1 lists the selected peer agencies by mode.

Table 4-1 Peer Agencies

Peer Agency	Metrobus	Heavy Rail	Automated Guideway	Demand Response
Metro Transit (Minneapolis, MN)	✓			✓
Harris MTA (Houston, TX)	✓			✓
MARTA (Atlanta, GA)	✓	✓		
DART (Dallas, TX)	✓			✓
MBTA (Boston, MA)	✓			
HART (Tampa, FL)	✓			
BCT (Plantation, FL)	✓			
JTA (Jacksonville, FL)	✓		✓	
LACMTA (Los Angeles, CA)		✓		
PATCO (Lindenwold, NJ)		✓		
SIRTOA (Staten Island, NY)		✓		
BART (San Francisco, CA)		✓		
SEPTA (Philadelphia, PA)		✓		✓
WMATA (Washington, DC)		✓		
GCRTA (Cleveland, OH)		✓		
CTA (Chicago, IL)		✓		
WVU PRT (Morgantown, WV)			✓	
DTC (Detroit, MI)			✓	
OCTA (Orange County, CA)				✓
RTD (Denver, CO)				✓
NJ Transit (Newark, NJ)				✓
APT (Richmond County, GA)				✓
Metro Mobility (St. Paul, MN)				✓

4.2 Analysis Overview

Peer comparisons and trend analyses were conducted using validated 2013-2017 data from the National Transit Database (NTD), which is a standard database maintained by the Federal Transit Administration (FTA) and which all federally funded transit agencies must update annually. The 2018 data for trend analysis was supplied by DTPW and reflects NTD data submitted to FTA and still undergoing validation. As part of the peer comparison and trend review processes, select operating and financial performance measures are analyzed to illustrate the performance of DTPW's service modes relative to the peer group and over time, respectively, as follows:

- General Performance Measures
 - Route Miles
 - Unlinked Passenger Trips

- Passenger Miles Traveled
- Average Passenger Trip Length
- Average Age (yrs.) of Bus Fleet
- Bus Revenue Hours
- Bus Revenue Miles
- Train Revenue Hours
- Train Revenue Miles
- Operating Expenses
- Maintenance Expenses
- Effectiveness Performance Measures
 - Weekend Service Availability (Revenue Hours)
 - Passenger Trips per Service Area Capita
 - Passenger Trips per Revenue Hour
 - Passenger Trips per Revenue Mile
- Efficiency Performance Measures
 - Operating Cost per Passenger Trip
 - Operating Cost per Train Revenue Hour
 - Operating Cost per Bus Revenue Hour
 - Farebox Recovery Ratio

The peer comparisons and trend review analyses are organized by mode and include tables, figures, and statistics to gauge DTPW's performance over the past six years and how DTPW performs in relation to its peer agencies.

4.3 Summary Conclusions

Overall, the peer comparisons suggest that DTPW services generally fall within range of its peer agencies. The trend analysis depicts declines in service effectiveness and efficiency in recent years, which is in accord with national trends.

4.3.1 Metrobus Service

- General performance indicators are used to gauge the overall system operating performance. Metrobus service fell within the normal range for most general performance measures such as revenue miles and route miles. Metrobus service had the second highest passenger productivity with respect to passenger trips. Although Metrobus ranked second within its peer group for passenger productivity, unlinked passenger trips decreased 34.4% between 2013 and 2018. DTPW's decline in ridership mirrors the national trend in transit ridership decline. In addition, the decreasing number of annual passenger trips can be partially explained by the concurrent growth in passenger trips on expanding municipal circulators.
- Effectiveness measures indicate the extent to which service-related goals are being met and include service supply, service consumption, and quality of service. Metrobus performed close to the peer mean for most of the effectiveness measures such as passenger trips per capita (23.4), passenger trips per revenue mile

(2.1), and passenger trips per revenue hour (23.5), but experienced a declining trend between 2013 and 2018 for both of these measures. Metrobus had the highest average passenger trip length (6.17) of the peer group, suggesting that Metrobus users travel longer distances than patrons of the peer group agencies.

- Efficiency measures are used to evaluate and monitor the use of resources and how the system is performing relative to operating and maintenance costs. Metrobus performed slightly below the peer average in efficiency, with slightly higher than average operating expenses per passenger trip (\$6.35) and operating expense per revenue hour (\$148.24). The downward trend in efficiency noted for the six most recent years is due to increasing operating and maintenance costs. Additionally, Metrobus's farebox recovery ratio (19.37%) was slightly higher than the peer mean. Finally, when compared to its peer agencies, Metrobus has the oldest fleet as of FY 2017.

4.3.2 Metrorail Service

- Compared to the peer agencies, Metrorail service had low passenger productivity with respect to passenger trips, however Metrorail has significantly lower route miles and revenue hours than its peers.
- Despite declining performance in effectiveness, Metrorail service performed close to the peer mean with respect to effectiveness measures such as passenger trips per revenue mile, passenger trips per revenue hour, and average passenger trip length. The decline in effectiveness is associated with the declining passenger trips between 2013 and 2018.
- With respect to efficiency measures, Metrorail performed close to the peer mean for operating expense per passenger trip and operating expense per revenue hour. Metrorail's decline in cost efficiency between 2013 and 2018 is largely due to the rapid increase in total operating costs during this time. Metrorail had a significantly lower farebox recovery ratio (15.9%) compared to its heavy rail peers, with a farebox recovery ratio that has declined nearly 50% in the six most recent years. In 2017, Metrorail had the second oldest fleet, after San Francisco's BART. The Metrorail fleet is being updated however with the purchase of four new cars in 2017 and 40 new cars in 2018, which is part of an ongoing full Metrorail fleet replacement program.

4.3.3 Metromover Service

- DTPW's Metromover service had the highest level of annual unlinked passenger trips (9,463,403) in the peer group, despite the overall decline in passenger trips that took place beginning in 2017. Metromover annual passenger miles followed a corresponding decline between 2013 and 2018.
- Metromover, along with its Florida peer, Jacksonville Transit Authority, had a higher than average level of effectiveness. Metromover and Jacksonville Transportation Authority's Skyway ranked high in passenger trips per revenue mile and passenger trips per revenue hour; the high performance may be potentially attributed to the free fare policy for these services. Metromover experienced a slight increase in passenger trips per revenue hour between 2013 and 2018 due to the decrease in revenue hours during that time.
- Metromover experienced declining performance in all cost efficiency measures from 2013 to 2018 due to increasing operating and maintenance costs. Despite the negative trend, Metromover service still had a higher level of efficiency when compared to the peer agencies; the service had a lower than average operating expense per passenger trip (\$3.03) and operating expense per revenue hour (\$260.55).

4.3.4 Special Transportation Service

- DTPW had the second highest number of passenger trips, passenger miles, and revenue hours in the peer group. In the six most recent years, Special Transportation Service experienced an increase in unlinked passenger trips despite a decrease in vehicle revenue miles.

- With respect to effectiveness measures, DTPW performed close to the peer average in passenger trips per revenue mile and passenger trips per revenue hour. Service consumption in terms of passenger trips per capita, and passenger trips per revenue mile has seen subtle improvements from 2013 to 2018, suggesting increased effectiveness. Passenger trips per revenue hour decreased slightly.
- Total operating expense and total maintenance expense have increased gradually between 2013 and 2018, leading to decreased cost efficiencies with respect to cost per passenger trip and cost per revenue hour. Compared to the peer group, DTPW had a significantly lower than average operating expense per passenger trip (\$30.80) and operating expense per revenue hour (\$45.50), suggesting a higher level of cost efficiency when compared to its peer agencies. DTPW also had the highest farebox recovery ratio (11.68%) compared to its peers. DTPW also served the second highest passenger trips per capita in the peer group.
- Special Transportation Services had the second oldest fleet, after DART in Dallas.

4.4 Metrobus Peer and Trend Analysis

Figure 4-1: summarizes Metrobus and the directly operated services of peers selected for the peer analysis using 2017 NTD data (All peers directly operate all of their service with the exception of Boston, which contracts 1% of their service. DTPW contracts 5.1% of bus service. This purchased transportation is not *included in the peer portion of the Metrobus analysis*). Table 4-2 compares DTPW and the selected peer agencies in a wide range of measures relating to their respective operation of fixed-route bus service. Each transit agency is identified by its headquarter city, which does not represent the entirety of its larger service area (e.g., city, county, or metropolitan region).

The trend analysis was conducted using validated 2013-2017 NTD data and preliminary 2018 data obtained from DTPW. *DTPW began reporting commuter bus as a separate mode from motorbus beginning in 2015, thus, directly operated and purchased motorbus, as well as commuter bus, are included in this first modal analysis.* Table 4-3 presents the trend of the six years of data as made available from the NTD for the operation and performance of DTPW's fixed-route Metrobus service. Figures 4-2 through 4-17 reflect trend data from Table 4-3, which includes both motorbus and commuter bus.

Figure 4-1: DTPW Metrobus and Peer Agencies

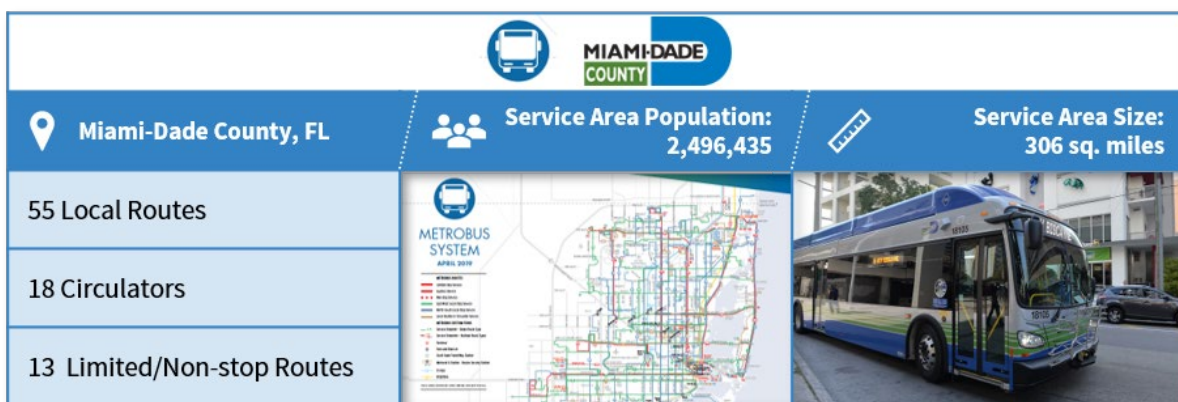


Figure 4-1: DTPW Metrobus and Peer Agencies (continued)

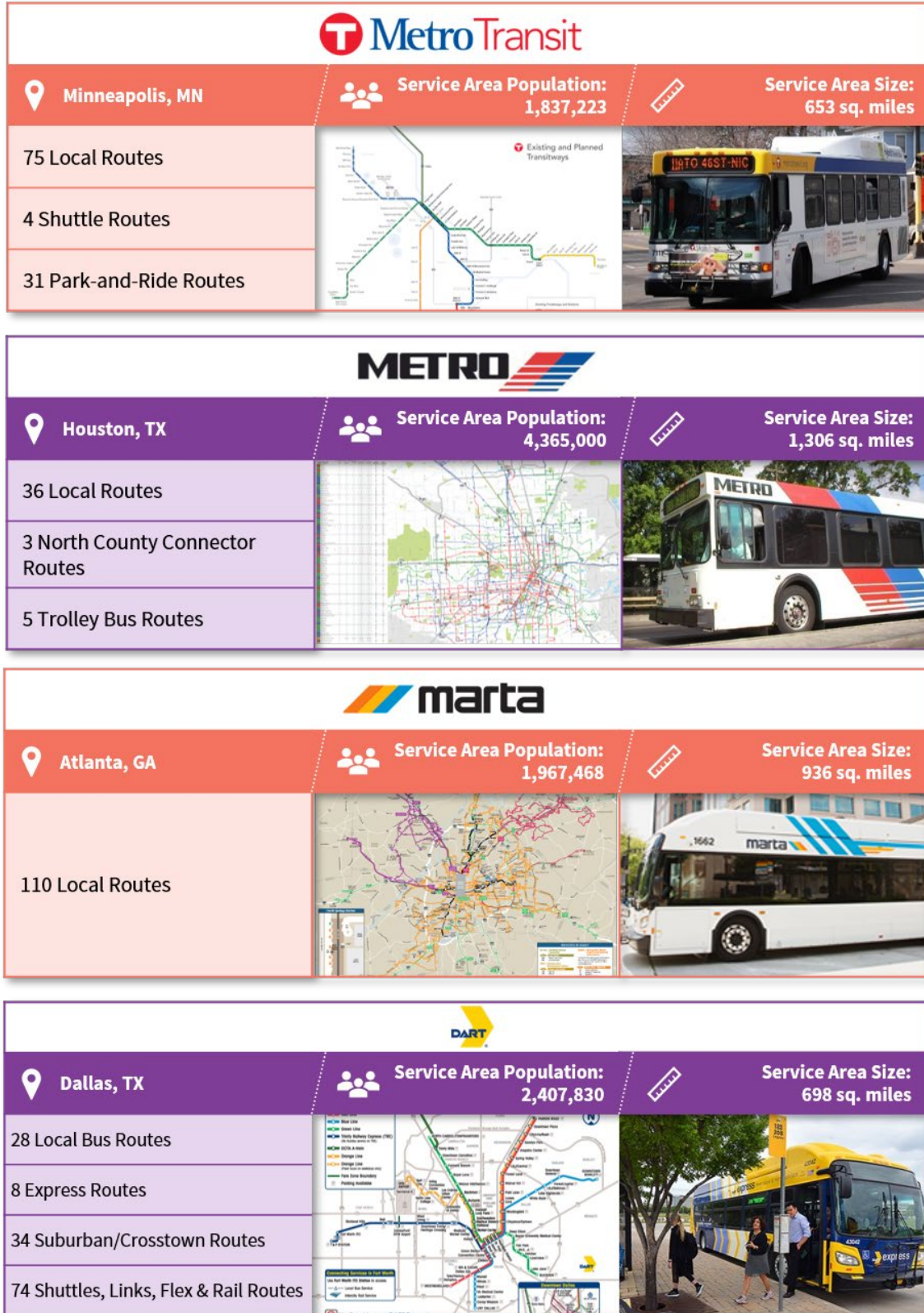


Figure 4-1: DTPW Metrobus and Peer Agencies (continued)

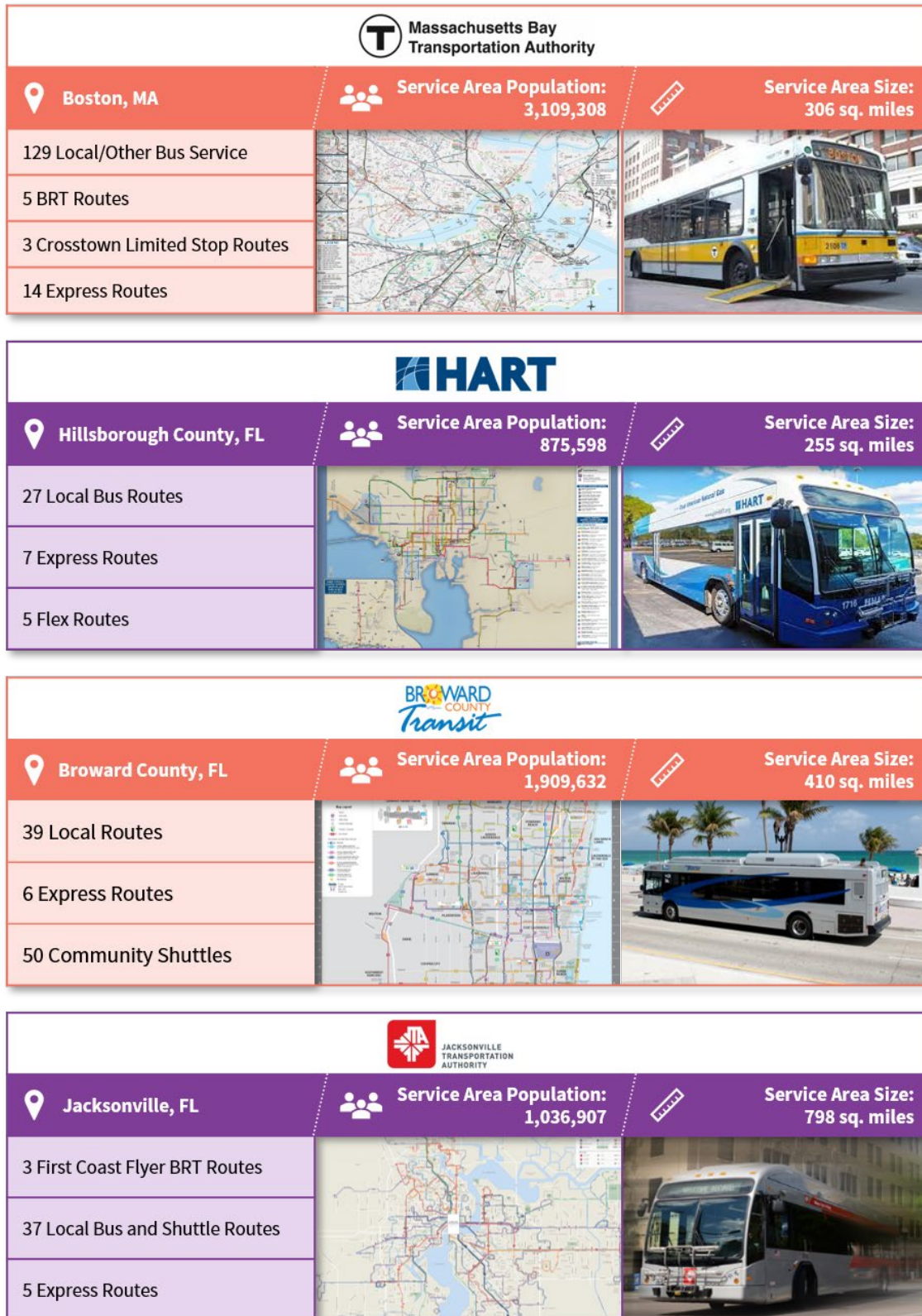


Table 4-2: Metrobus Peer Comparison

Agency	DTPW (Miami)	MBTA (Boston)	MARTA (Atlanta)	BCT (Plantation)	JTA (Jacksonville)	HART (Tampa)	Metro Transit (Minneapolis)	Harris MTA (Houston)	DART (Dallas)	Peer Mean
Farebox Recovery Ratio (%)	19.4	22.6	27.4	28.2	14.0	18.8	22.8	7.5	10.6	19.0
Route Miles	1,874	1,509	1,613	1,120	829	996	2,492	2,430	1,486	1,594
Unlinked Passenger Trips	58,000,998	105,457,861	57,460,309	28,784,170	10,794,798	12,901,178	57,322,632	48,997,160	31,951,162	45,741,141
Average Age (yrs.) of Bus Fleet	11.6	9.2	6.4	7.7	6.9	6.9	5.5	7.9	3.7	7.3
Passenger Miles Traveled	357,878,157	274,990,173	251,234,929	143,395,091	64,694,247	60,976,285	237,929,456	250,226,338	117,278,600	195,400,364
Average Passenger Trip Length	6.17	2.61	4.37	4.98	5.99	4.73	4.15	5.11	3.67	4.64
Vehicle Revenue Hours	2,466,292	2,210,516	2,113,732	1,135,814	630,492	655,997	2,029,663	2,361,682	2,169,564	1,752,639
Vehicle Revenue Miles	28,285,507	21,669,220	26,238,748	14,869,713	8,853,123	8,323,695	24,651,638	28,756,452	27,565,509	21,023,734
Passenger Trips per Revenue Hour	23.5	47.7	27.2	25.3	17.1	19.7	28.2	20.7	14.7	24.9
Passenger Trips per Revenue Mile	2.1	4.9	2.2	1.9	1.2	1.5	2.3	1.7	1.2	2.1
Operating Expense Per Passenger Trip	\$6.26	\$4.12	\$3.63	\$3.96	\$6.88	\$5.61	\$5.07	\$5.77	\$8.15	\$5.49
Operating Expense Per Revenue Hour	\$147.25	\$196.57	\$98.75	\$100.31	\$117.74	\$110.29	\$143.21	\$119.75	\$119.99	\$128.21
Weekend Service Availability (Revenue Hours)	9,463	6,807	8,618	3,693	129	1,864	1,020	10,048	7,340	5,442
Total Operating Expenses	\$363,156,856	\$434,511,798	\$208,724,592	\$113,930,263	\$74,234,599	\$72,349,970	\$290,671,637	\$282,800,925	\$260,331,520	\$233,412,462
Maintenance Expenses	\$102,984,529	\$127,960,960	\$53,788,283	\$25,682,827	\$14,516,452	\$12,526,309	\$67,761,468	\$67,500,554	\$58,033,622	\$58,972,778
Employees (Full Time Equivalent)	2,556	2,543	1,965	1,069	675	661	2,549	2,726	2,269	1,890

Data Source: 2017 NTD motorbus mode data (does not include commuter bus mode data)

Table 4-3: DTPW Metrobus 2013-2018 Trend

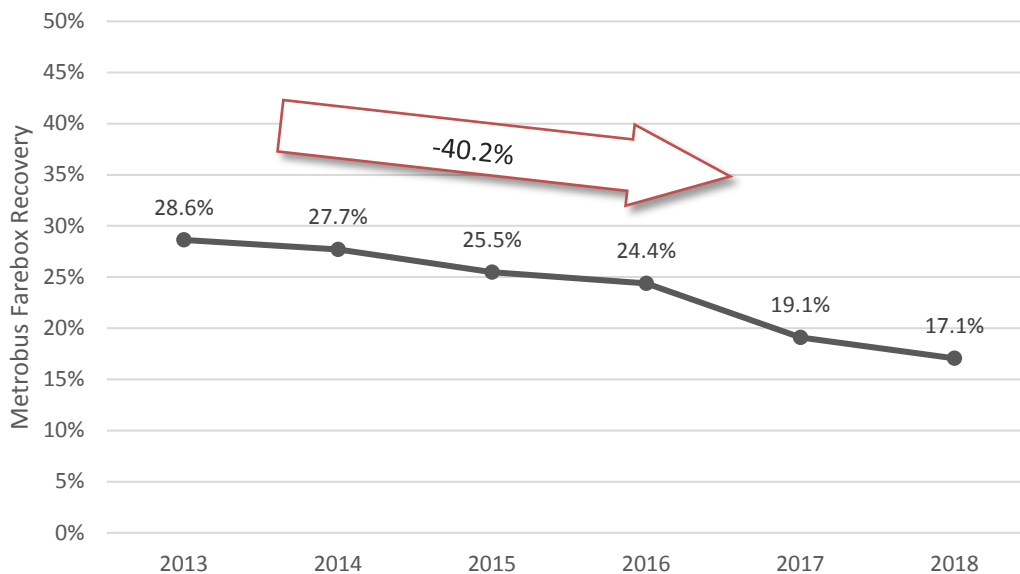
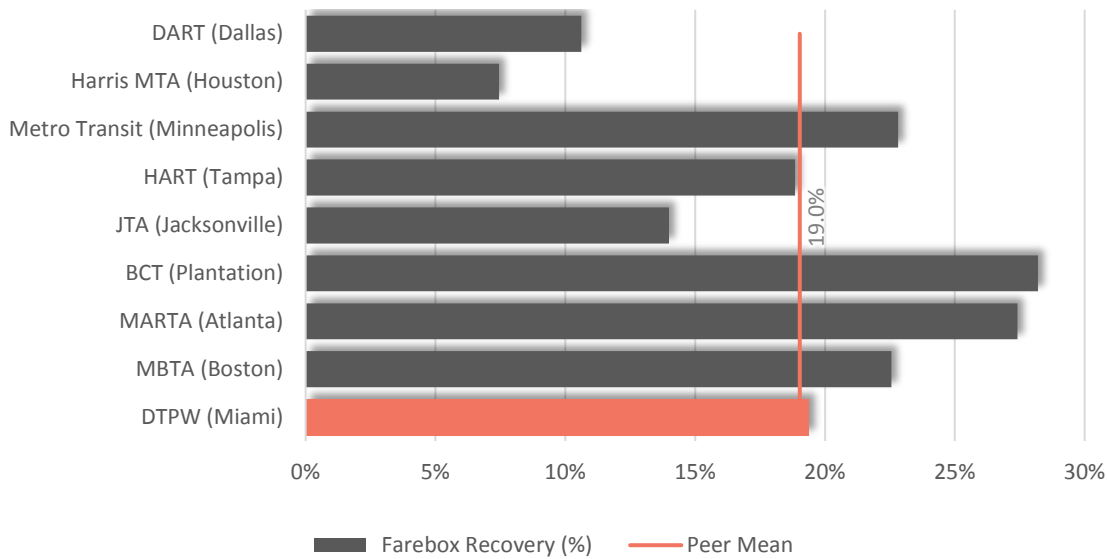
Performance Measure	2013	2014	2015	2016	2017	2018	Trend
Farebox Recovery Ratio (%)	28.6%	27.7%	25.5%	24.4%	19.1%	17.1%	↘
Route Miles	1,983	2,003	2,050	2,035	2,241	2,053	↗
Unlinked Passenger Trips	78,892,846	77,356,941	72,757,836	65,539,767	58,383,786	51,759,916	↘
Average Age (yrs.) of Bus Fleet	9.52	10.52	10.93	11.30	11.55	N/A	↗
Passenger Miles Traveled	442,301,250	451,411,327	415,852,203	358,674,249	358,974,382	326,460,926	↘
Average Passenger Trip Length	5.6	5.8	5.7	5.5	6.1	6.3	↗
Vehicle Revenue Hours	2,426,669	2,432,923	2,418,109	2,466,039	2,502,559	2,099,041	↘
Vehicle Revenue Miles	28,936,033	28,953,282	28,750,157	28,270,367	28,377,228	27,212,944	↘
Passenger Trips per Revenue Hour	32.5	31.8	30.1	26.6	23.3	24.7	↘
Passenger Trips per Revenue Mile	2.7	2.7	2.5	2.3	2.1	1.9	↘
Operating Expense Per Passenger Trip	\$3.86	\$4.18	\$4.71	\$5.40	\$6.35	\$6.91	↗
Operating Expense Per Revenue Hour	\$125.35	\$132.88	\$141.85	\$143.54	\$148.24	\$170.46	↗
Weekend Service Availability (Revenue Hours)	9,032	9,132	9,012	9,056	9,463	7,249	↘
Total Operating Expenses	\$304,180,600	\$323,275,649	\$342,999,039	\$353,975,359	\$370,984,500	\$357,811,284	↗
Maintenance Expenses	\$85,141,374	\$88,325,197	\$91,880,930	\$98,855,137	\$104,636,064	\$123,896,295	↗

Data Source: 2013-2017 NTD and 2018 unvalidated NTD data from DTPW. Data for the Trend analysis combines motorbus and commuter bus modes.

4.4.1 Farebox Recovery Ratio

Figure 4-2 presents the peer comparison for the bus farebox recovery ratio, which is the percentage of total operating costs recuperated by fares. The farebox recovery ratio illustrated in the peer analysis uses 2017 NTD data for motorbus mode only. DTPW's farebox recovery ratio is slightly above the peer mean, below only those for BCT, MARTA, MBTA, and Metro Transit. Also shown is DTPW's farebox recovery trend from 2013 to 2018, which has declined more than 40% during this period.

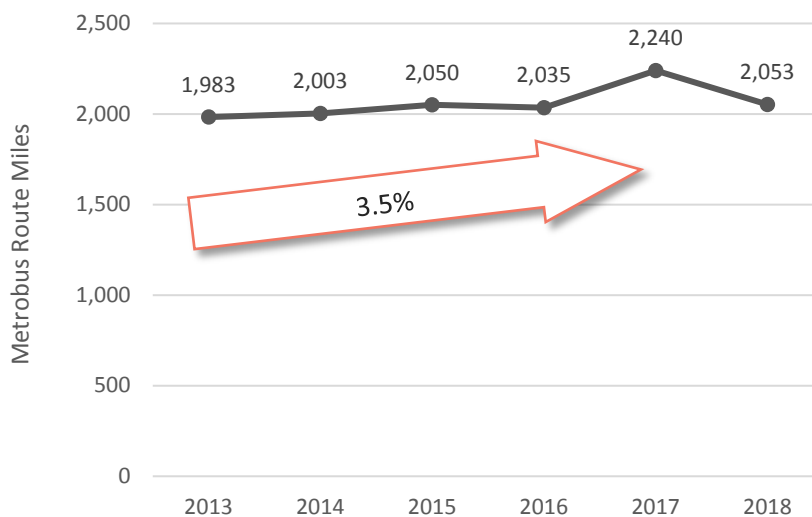
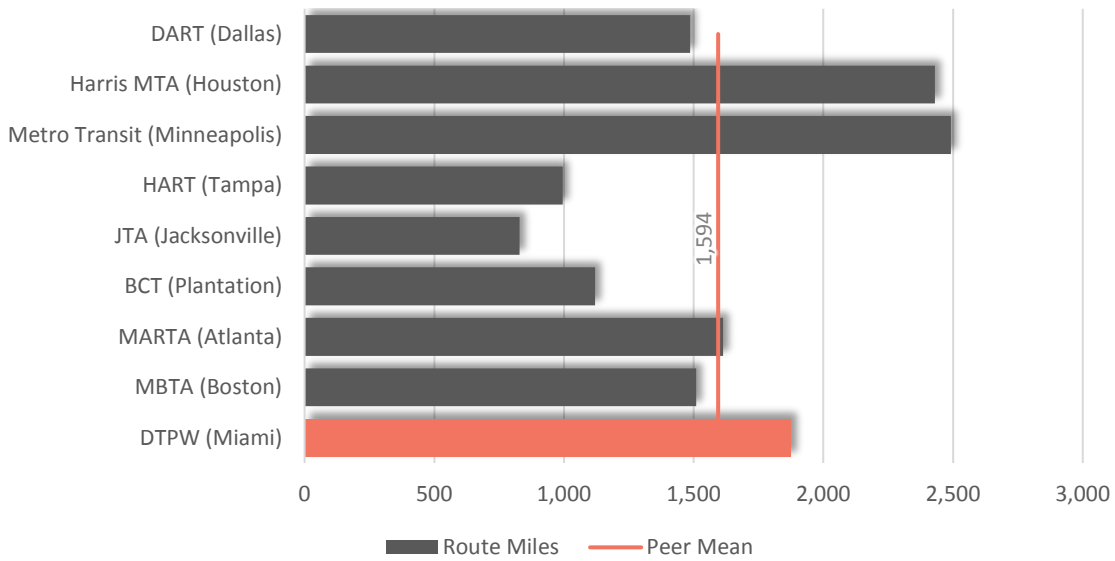
Figure 4-2: Bus Farebox Recovery Ratio



4.4.2 Route Miles

Figure 4-3 summarizes the peer group bus route miles and the peer mean using 2017 NTD data, as well as DTPW’s total route miles from 2013 to 2017 using validated NTD data and 2018 prevalidated NTD data provided by DTPW. Note that DTPW’s services are indicated as “MDT” in the peer analysis figures throughout this report to remain consistent with the service brand identified in the NTD. As the graphic shows, DTPW’s Metrobus service provides more route miles than most of the peer agencies, except Harris MTA and Metro Transit. The overall trend for route miles is a 3.5% increase from 2013 to 2018. DTPW’s route miles gradually increased from 2013 to 2016, and then peaked at 2,240 miles in 2017, before decreasing to 2,053 miles.

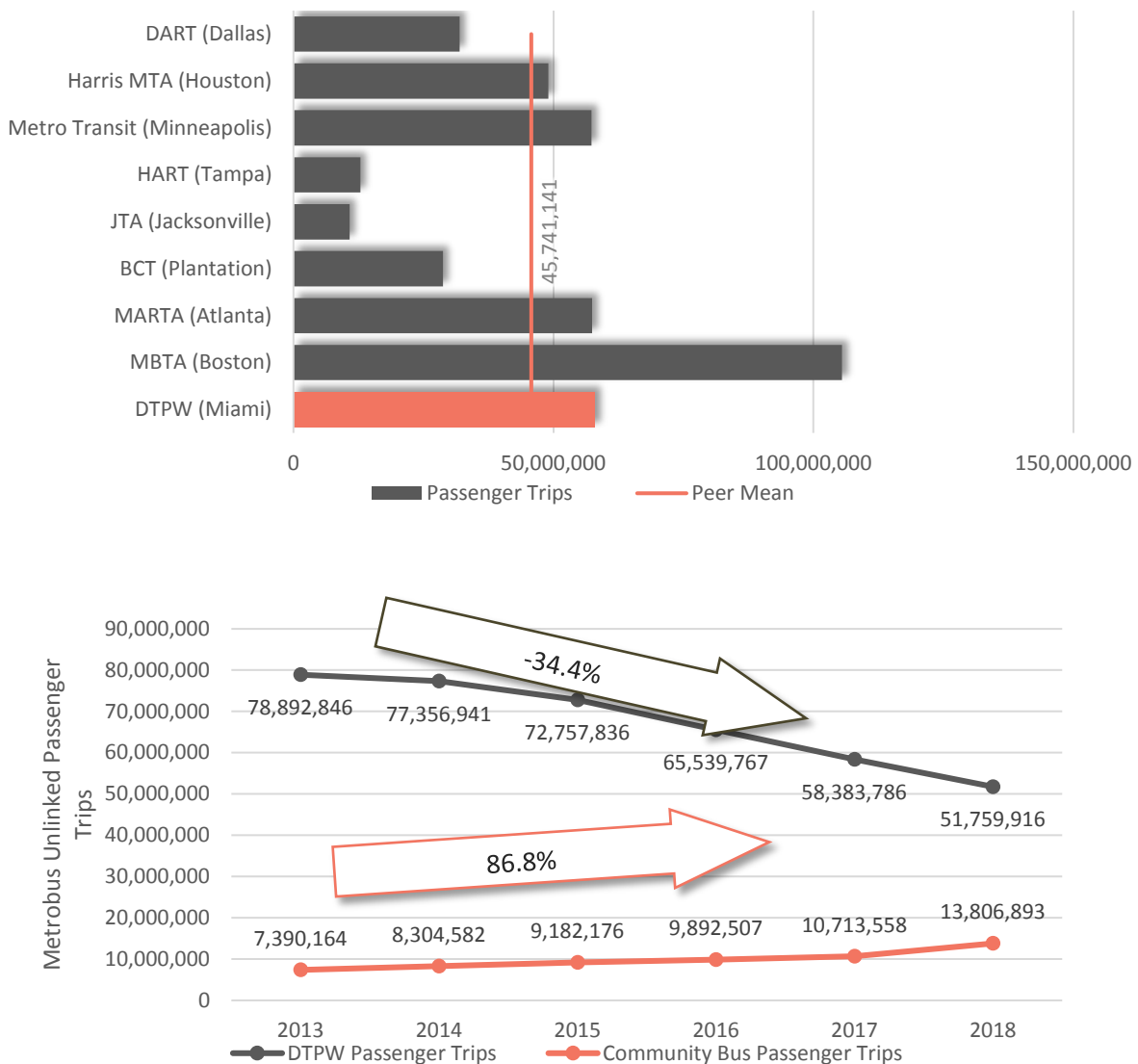
Figure 4-3: Bus Route Miles



4.4.3 Bus Unlinked Passenger Trips

Figure 4-4 shows 2017 unlinked passenger trips, also known as ridership, for DTPW and its peer agencies. As the graphic shows, DTPW's Metrobus service has the highest unlinked passenger trips in the peer group after MBTA. DTPW's Metrobus service is most like Harris MTA, Metro Transit, and MARTA in terms of the number of unlinked passenger trips. It is important to note that in 2017, DTPW served significantly more passengers than any of the other Florida transit systems in its peer group. Although DTPW's total ridership decreased 34.4% from 2013 to 2018, ridership on municipal circulators increased 86%, representing an absolute increase of over 6.4 million community bus riders during that time. This increase, however, only slightly offsets the overall decrease of 27.1 million passenger trips on the DTPW Metrobus system. Other trends such as the growing use of transportation networking companies (TNC), an improved economy, and the increase of automobile ownership contribute to the ridership declines seen throughout the nation. A 2019 FDOT report, *Understanding Ridership Trends in Transit*, suggests that "over 30% of the change in ridership on transit in Miami-Dade in 2016 could have been the result of diversion of trips to TNC."

Figure 4-4: Bus Unlinked Passenger Trips

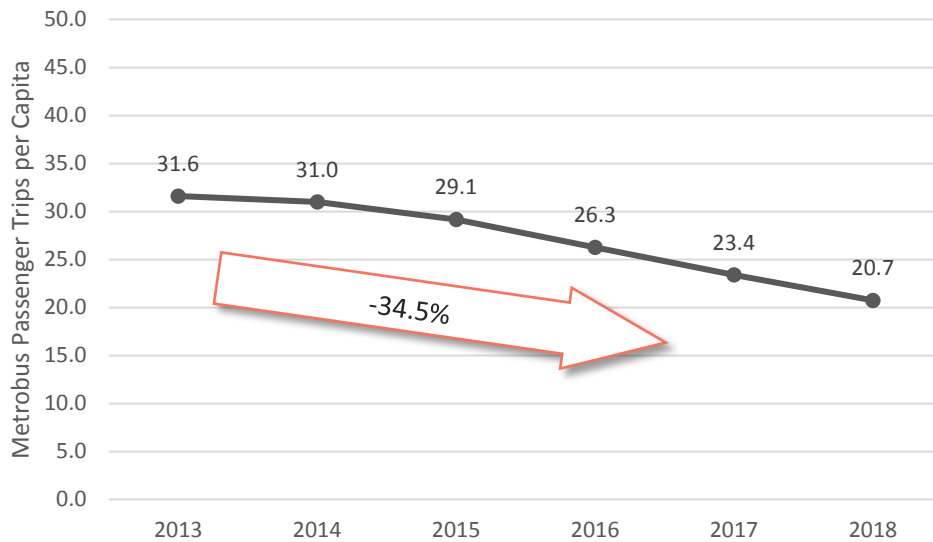
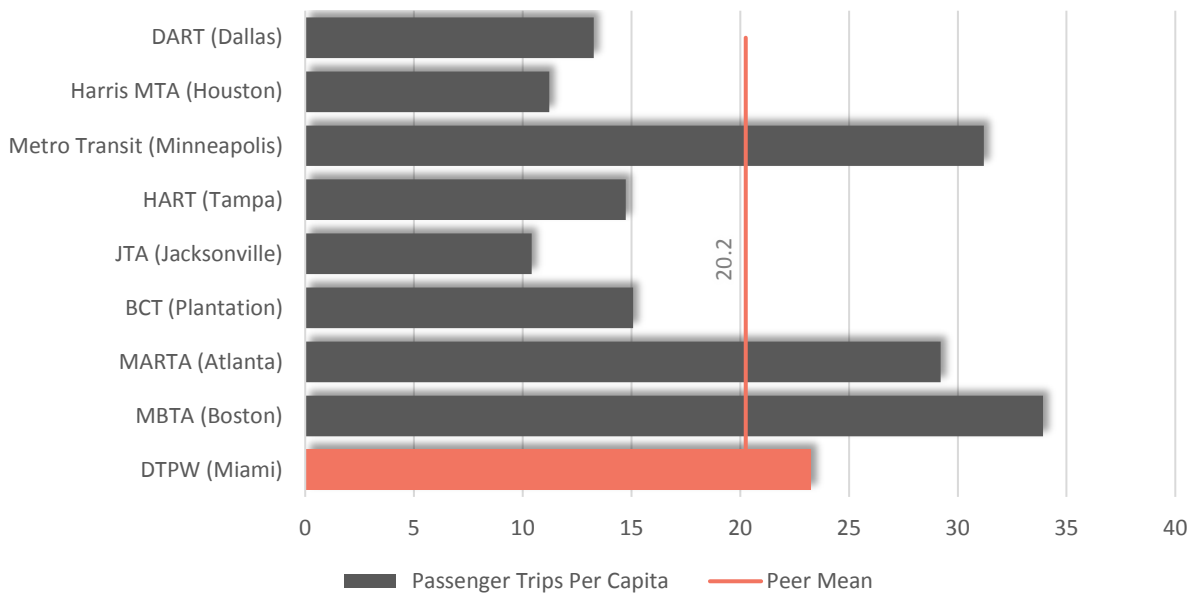


Community Bus Data Source: CITT 17/18 Ridership Data (Draft)

4.4.4 Passenger Trips per Service Area Capita

Figure 4-5 shows bus passenger trips per service area capita for the peer agencies and DTPW's six-year trend. DTPW ranks 20% above the peer group mean for bus passenger trips per service area capita. From the trend perspective, Metrobus passenger trips per service area capita decreased annually, resulting in an overall 34.5% decline from 2013 to 2018 from 31.6 to 20.7 passenger trip per capita.

Figure 4-5: Bus Passenger Trips per Service Area Capita

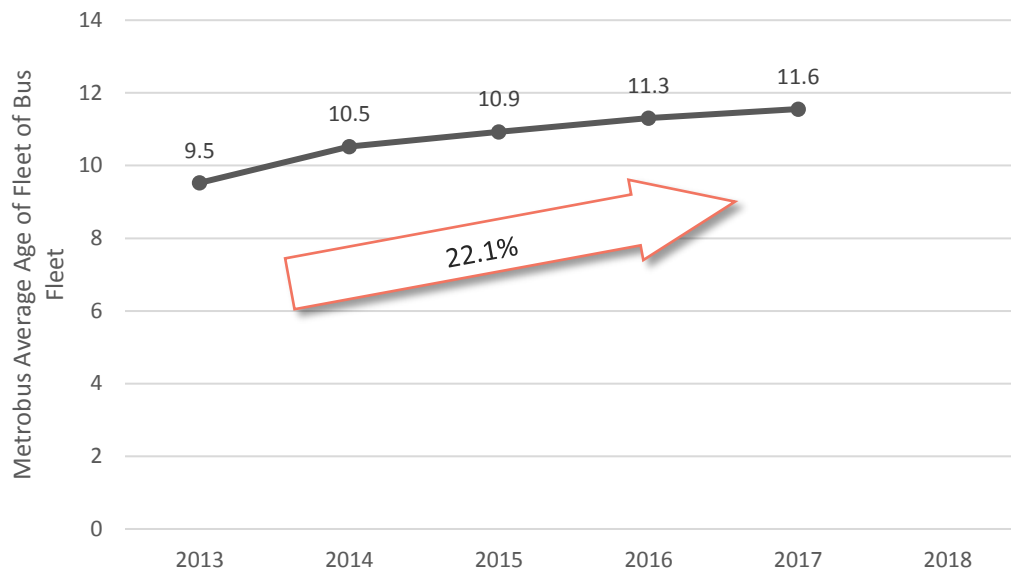
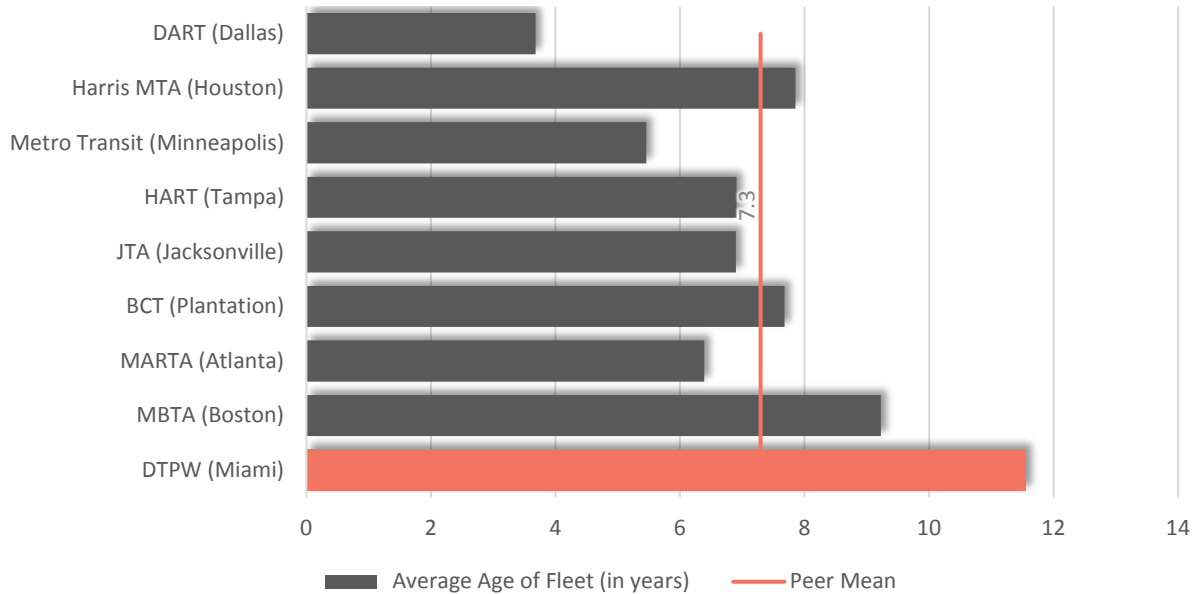


*Due to variance in reporting methods, service area population measure not equitable across all modes.

4.4.5 Average Age (yrs.) of Bus Fleet

Figure 4-6 shows the average age of the bus fleet. Average age is based on the vehicle’s manufacture year, or re-build year if applicable. At an average age of 11.6 years, DTPW’s bus fleet is older than all its peers in 2017. The trend in this indicator has increased more than 22% since 2013. Although 2018 fleet inventory data did not permit calculation of average age, DTPW staff indicated that new buses recently added to the fleet will help reduce fleet age.

Figure 4-6: Average Age of Bus Fleet

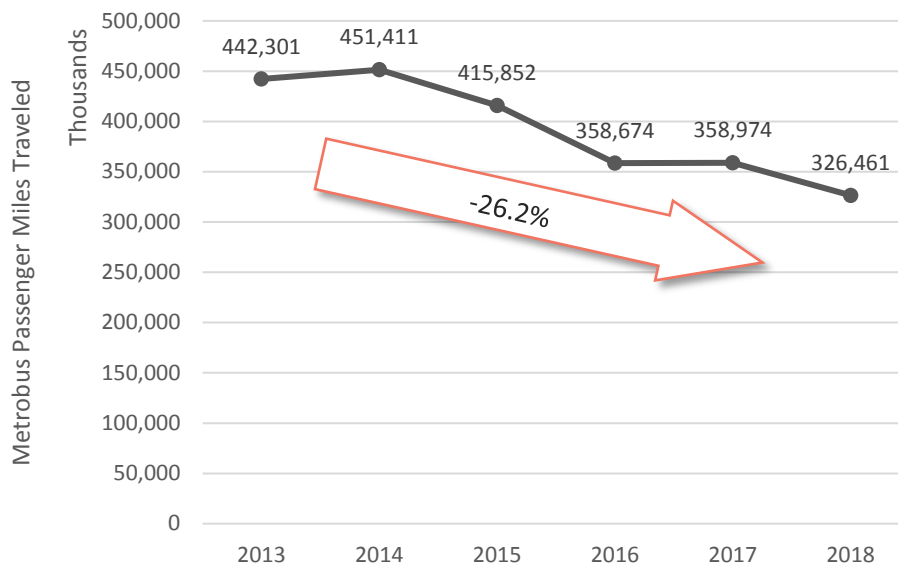
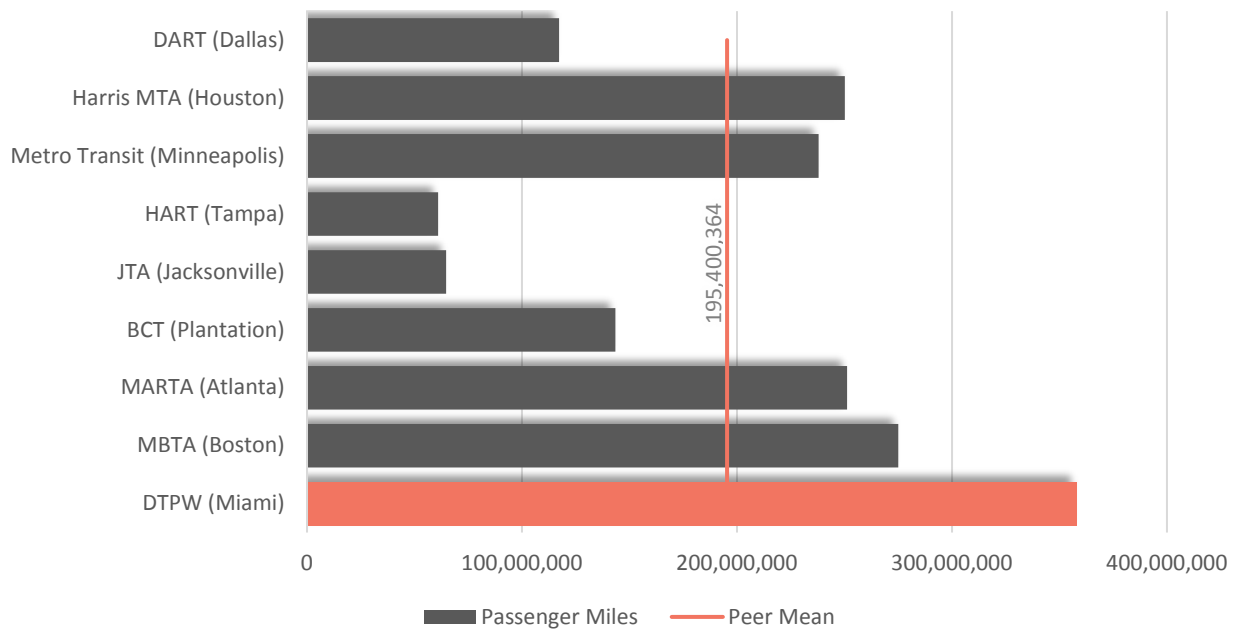


2018 NTD data not available at the time of this report

4.4.6 Passenger Miles Traveled

Figure 4-7 shows bus passenger miles traveled. DTPW’s system provides more passenger miles than its peer group. Given that DTPW’s total passenger trips are lower compared to some of its peers, this indicates that its customers make longer trips than their counterparts using peer bus service. Longer routes include five 95 Express routes operated by DTPW, which serve the suburbs in Miami and Broward and connect to major activity centers such as the Health District and Downtown Miami. Metrobus experienced an overall 26.2% decrease in passenger miles traveled from 2013 to 2018, which generally follows the trend in ridership.

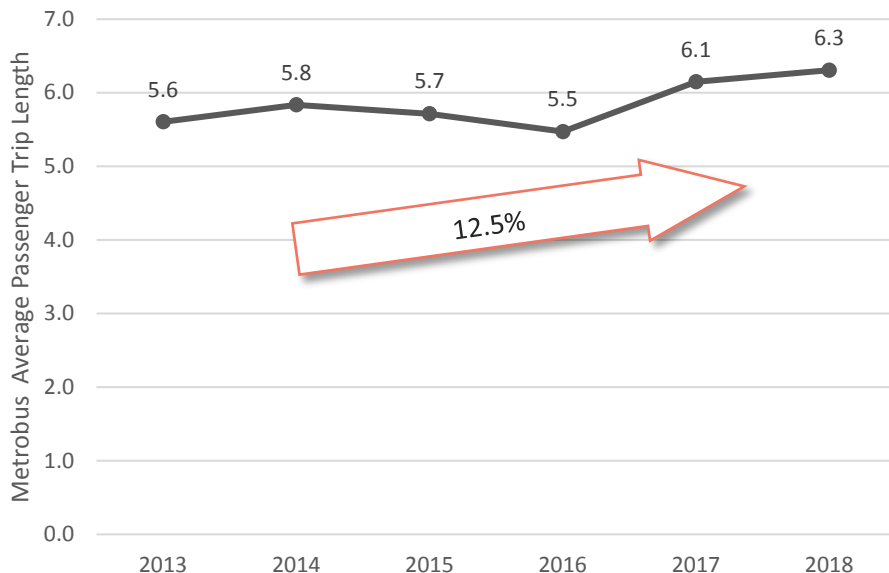
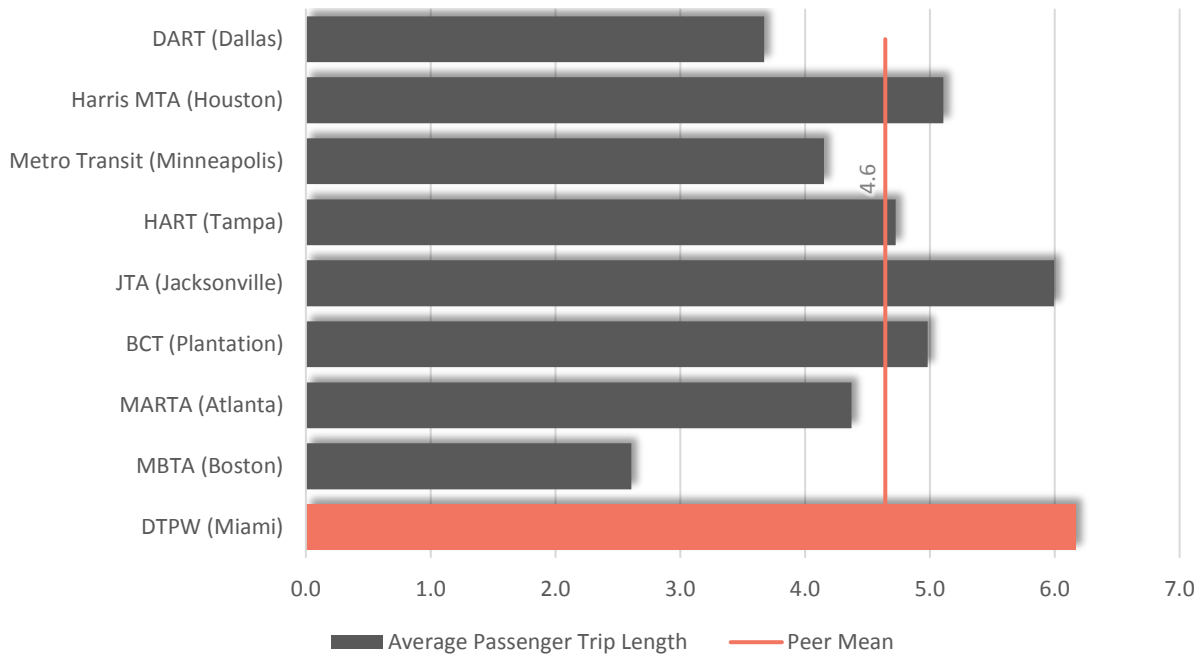
Figure 4-7: Bus Passenger Miles Traveled



4.4.7 Average Passenger Trip Length

Figure 4-8 shows average passenger trip length. Similar to passenger miles traveled, DTPW had the highest average passenger trip length in the peer group in 2017, again suggesting that transit riders in Miami-Dade County travel longer distances. The average passenger trip length for DTPW Metrobus riders has fluctuated from 2013 to 2018, with an overall increase of 12.5%.

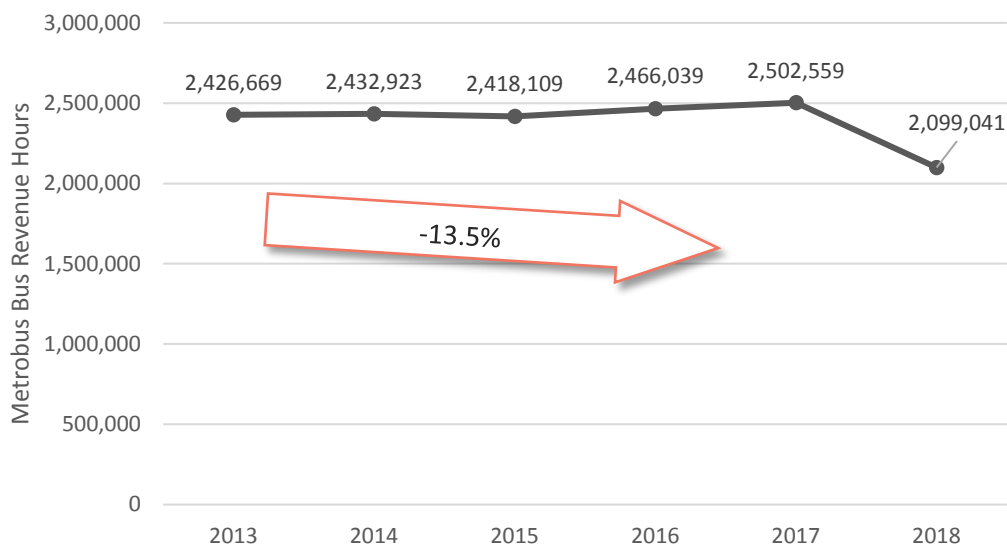
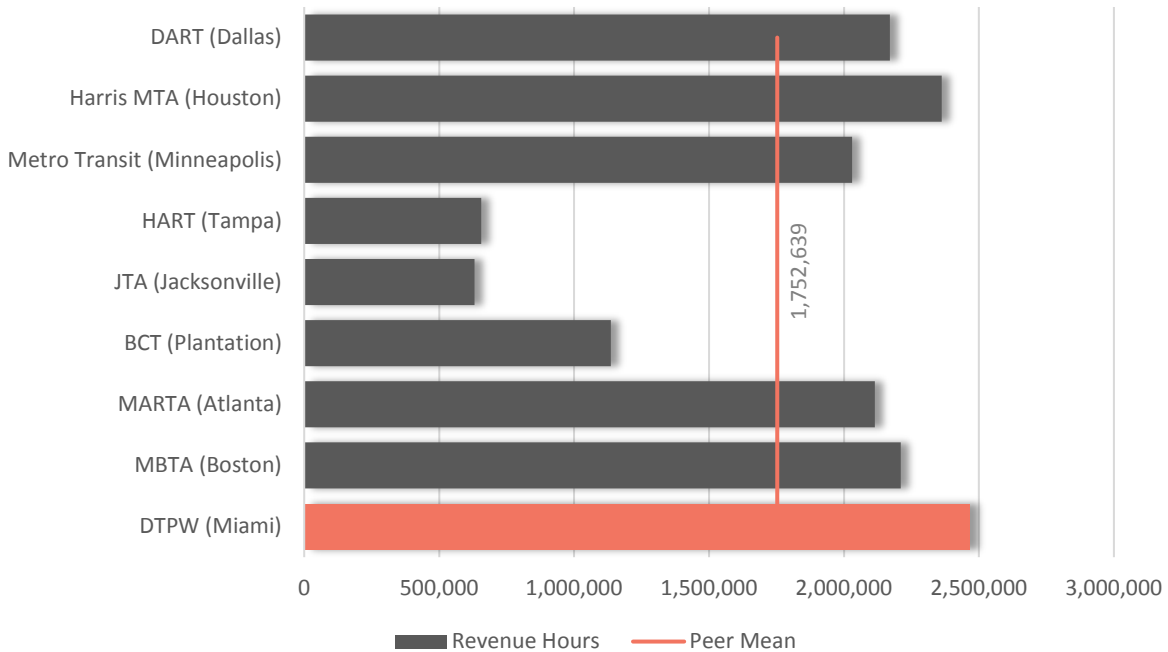
Figure 4-8: Average Bus Passenger Trip Length



4.4.8 Bus Revenue Hours

Figure 4-9 shows the total bus revenue hours for the peer group. DTPW had the highest bus revenue hours in the peer group, 41% above the peer mean. Historically, DTPW increased the total amount of bus revenue hours, until 2018, when it decreased to 2,099,041, representing a 13.5% service reduction since 2013.

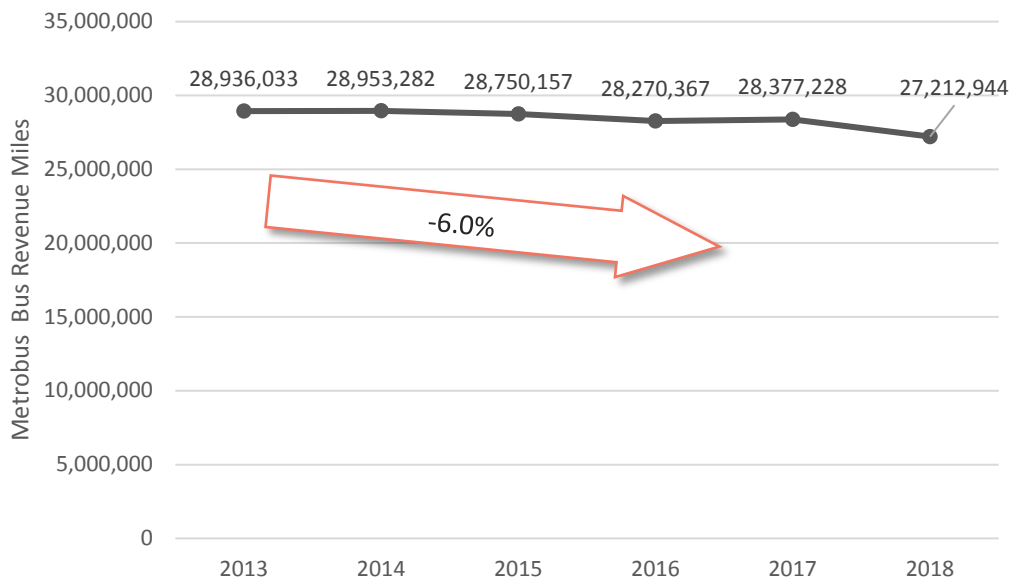
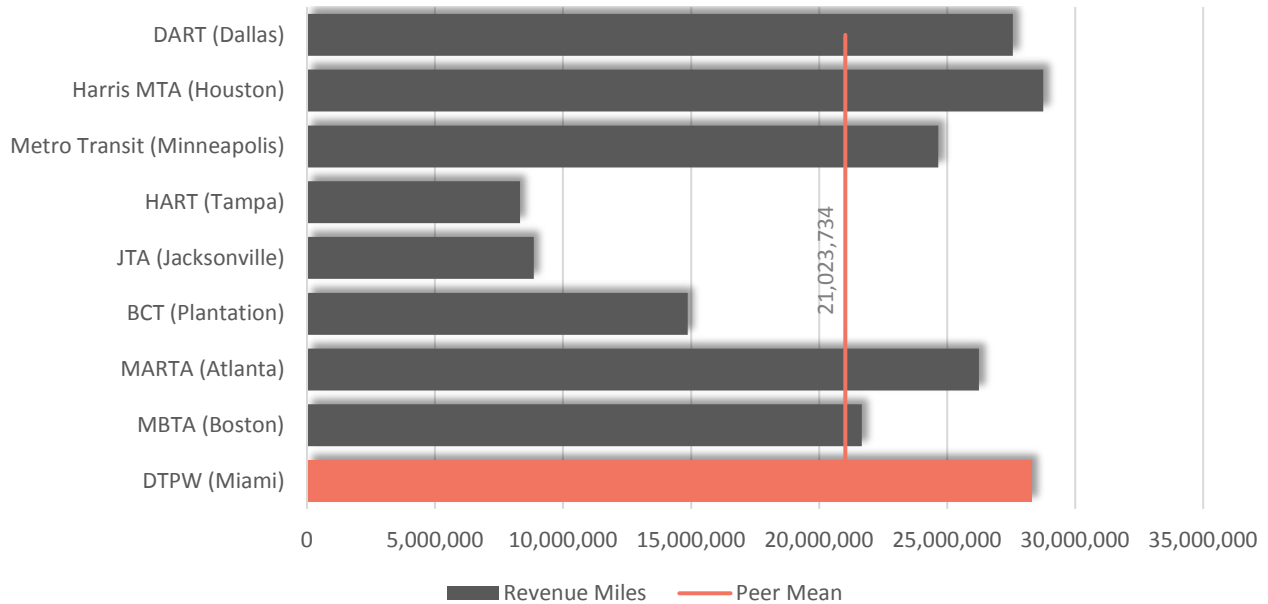
Figure 4-9: Bus Revenue Hours



4.4.9 Bus Revenue Miles

Figure 4-10 shows total bus revenue miles for the peer group in 2017 and DTPW's historical performance. DTPW recorded the second highest revenue mileage of the peer group, after Harris MTA. However, bus revenue miles have decreased 5.95% overall from 2013 to 2018.

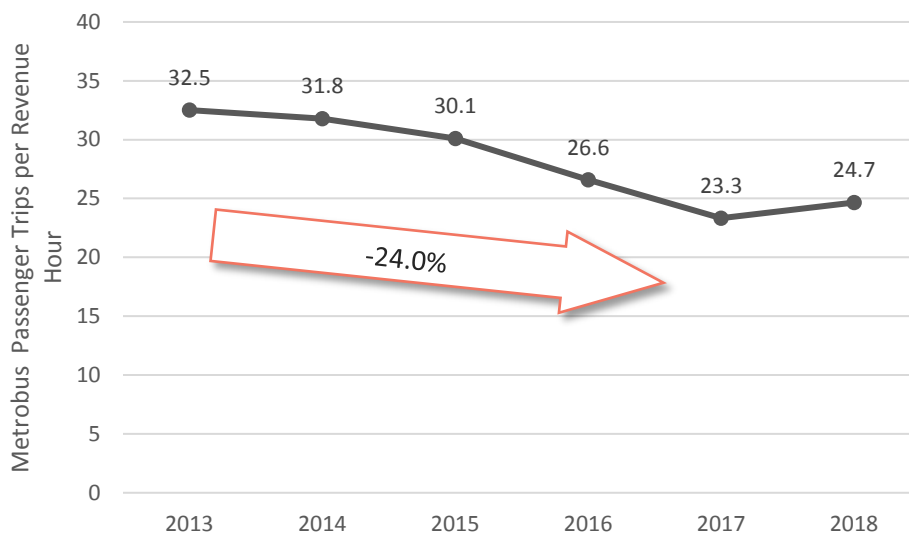
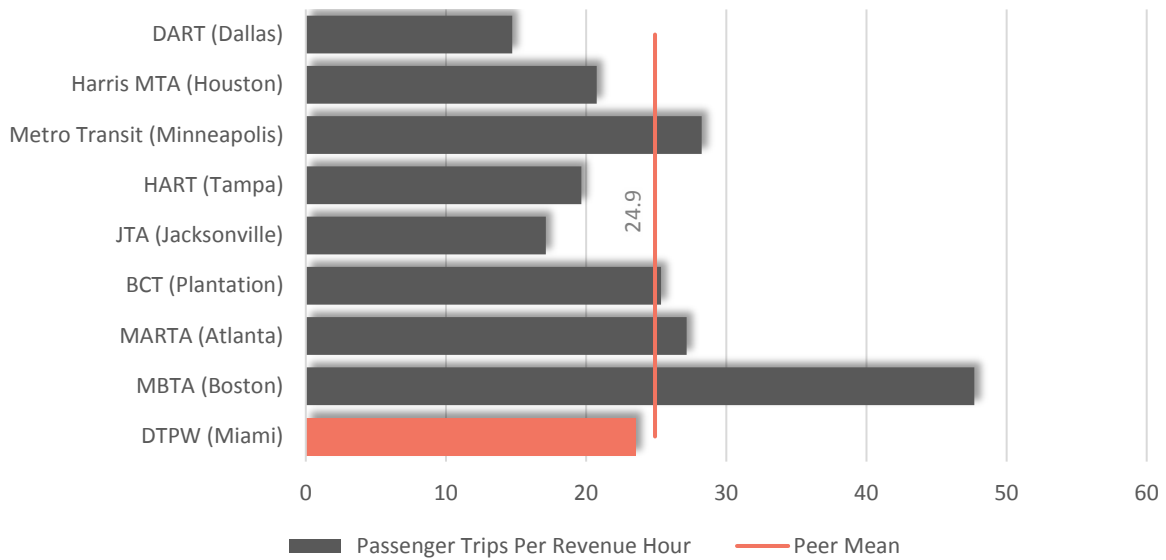
Figure 4-10: Bus Revenue Miles



4.4.10 Passenger Trips per Revenue Hour

Figure 4-11 shows the average number of passenger trips per revenue hour for the peer group. DTPW operates slightly below the peer mean of 24.9 passenger trips per revenue hour, ranking behind MBTA, BCT, MARTA, and Metro Transit. DTPW's passenger trips per revenue hour decreased annually from 2013 and 2017, before increasing in 2018, due to the reduction in revenue hours that took place in 2018. DTPW's total annual bus passenger trips per revenue hour decreased 24.0% overall in the six-year period.

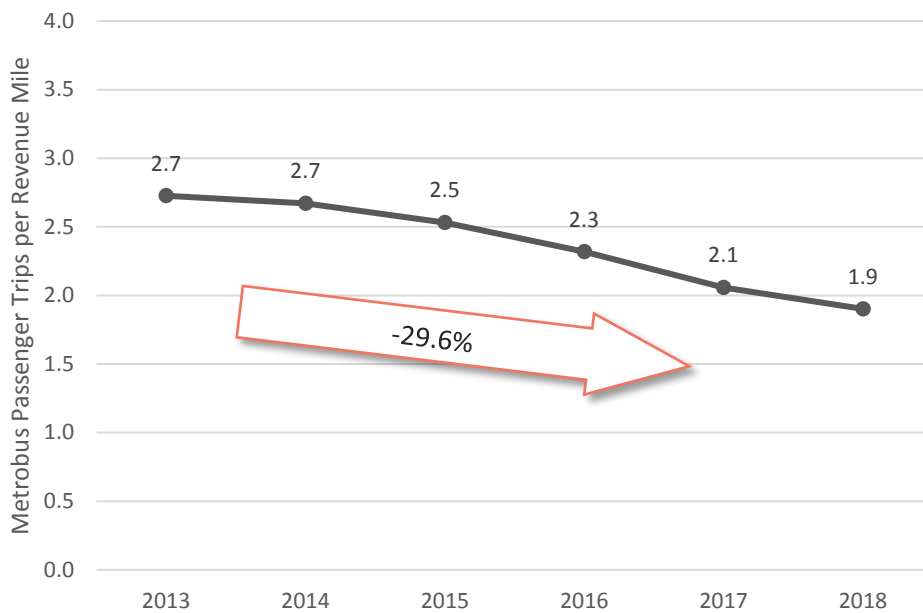
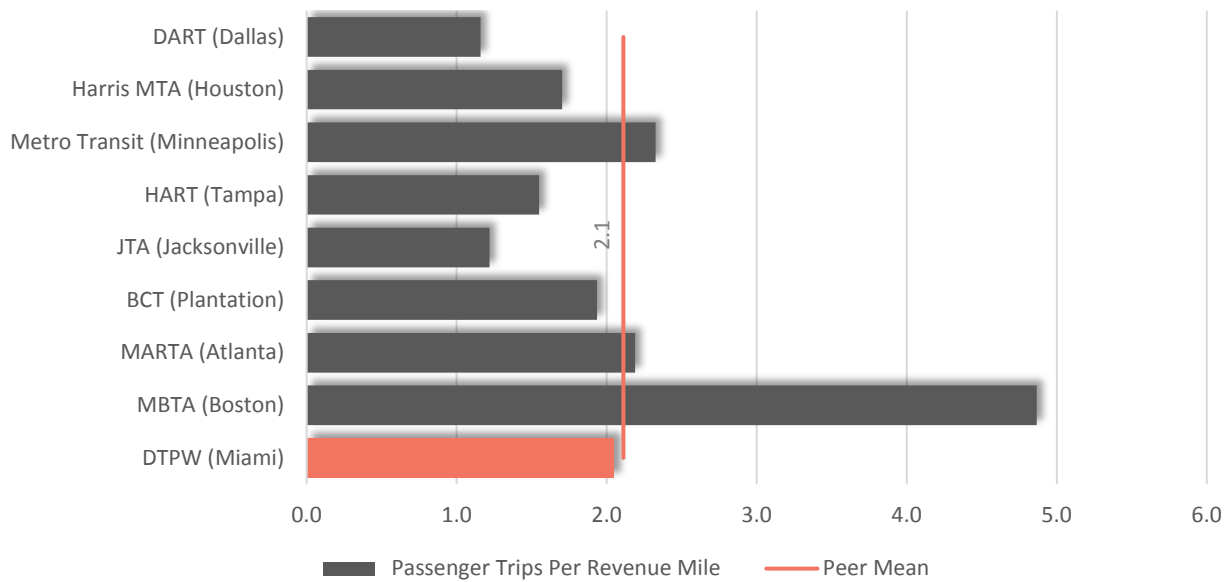
Figure 4-11: Bus Passenger Trips per Revenue Hour



4.4.11 Passenger Trips per Revenue Mile

Figure 4-12 shows the average number of passenger trips per revenue mile in 2017. DTPW operated slightly below the peer mean, and about the same as MARTA and BCT. From a trend perspective, passenger trips per revenue mile has steadily decreased, with an overall decline of 29.6% from 2013 to 2018, primarily due to the corresponding decline in passenger trips.

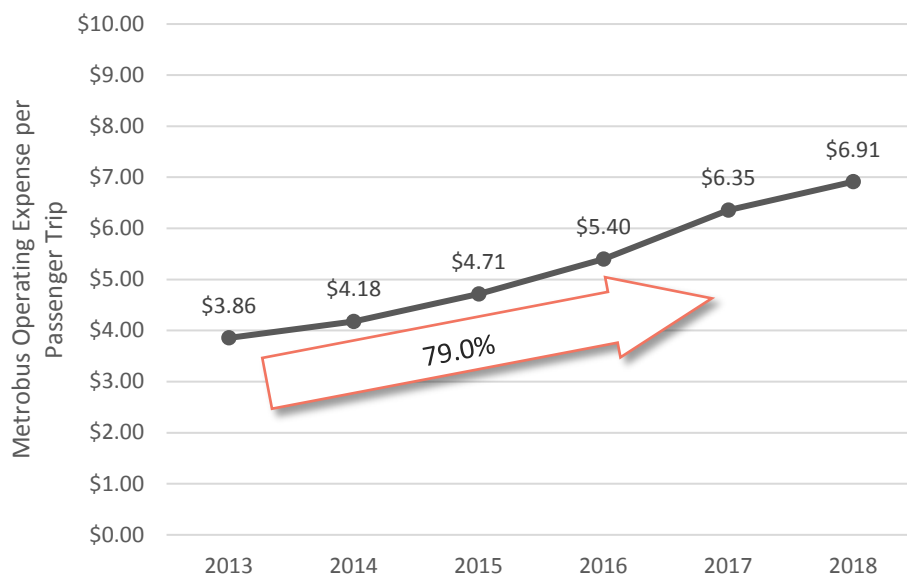
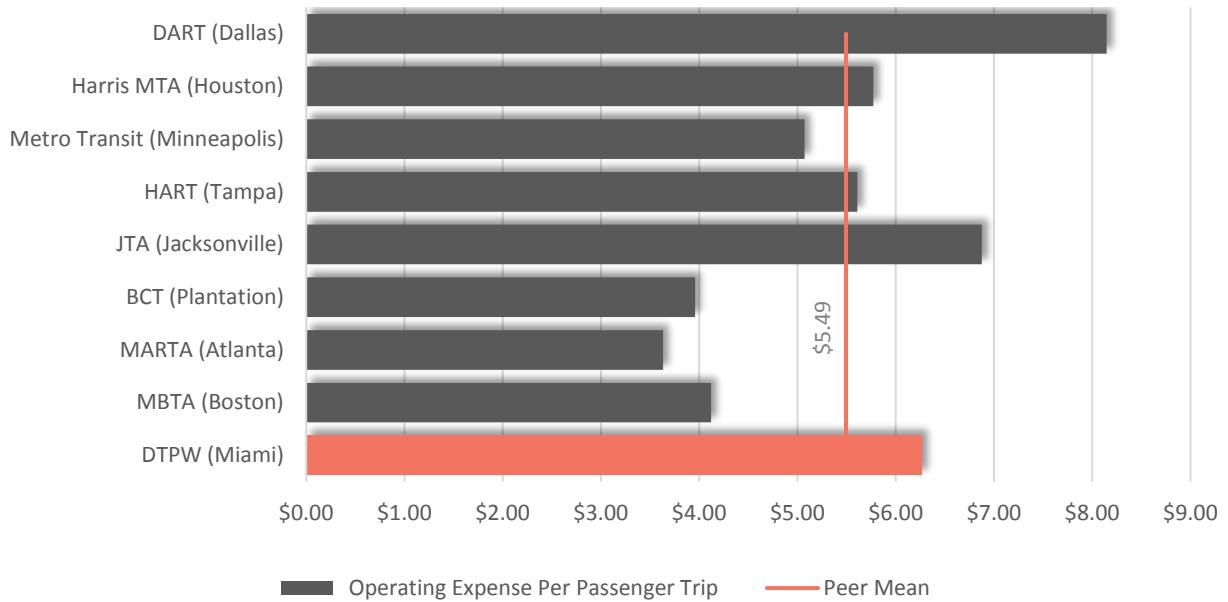
Figure 4-12: Passenger Trips per Revenue Mile



4.4.12 Operating Cost per Passenger Trip

Operating cost per passenger trip illustrates cost efficiency. Figure 4-13 shows operating cost per passenger trip for DTPW and its peer agencies. DTPW’s operating cost per passenger trip was \$6.26 in 2017, 14% above the peer mean. Over time, DTPW’s cost per trip also has steadily increased, growing nearly 80% to \$6.91 per trip in 2018 (commuter bus, purchased transportation and directly operated fixed-route service included).

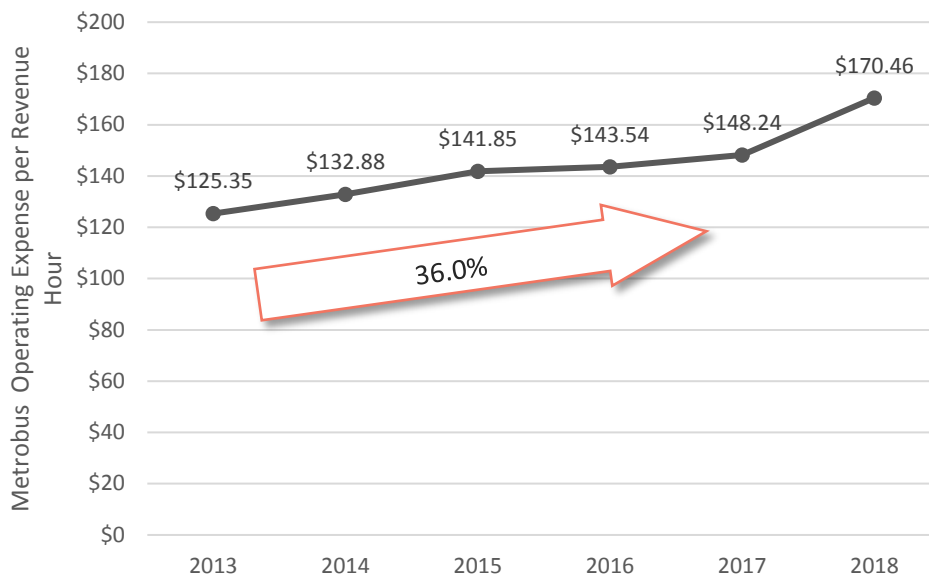
Figure 4-13: Bus Operating Cost per Passenger Trip



4.4.13 Operating Cost per Bus Revenue Hour

Operating cost per revenue hour is also an important measure of cost efficiency. In 2017, DTPW had the second highest operating cost per bus revenue hour in the peer group, as shown in Figure 4-14. DTPW’s operating cost was \$148.24 per bus revenue hour in 2017 (commuter bus, purchased transportation and directly operated fixed-route service included), 15% higher than the peer group mean. Also, operating expense per revenue hour has continued to increase, growing about 36% from 2013 to 2018.

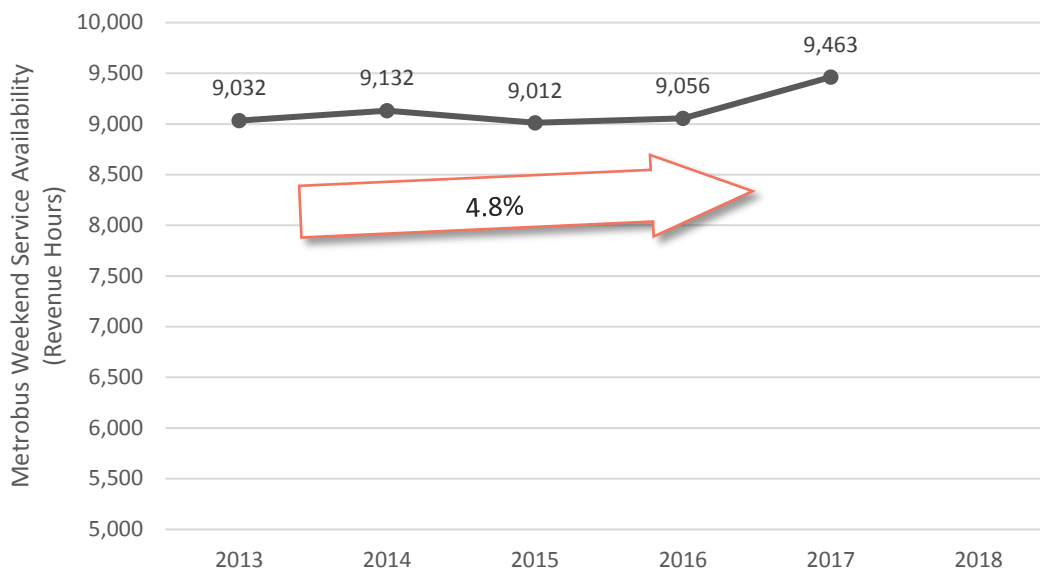
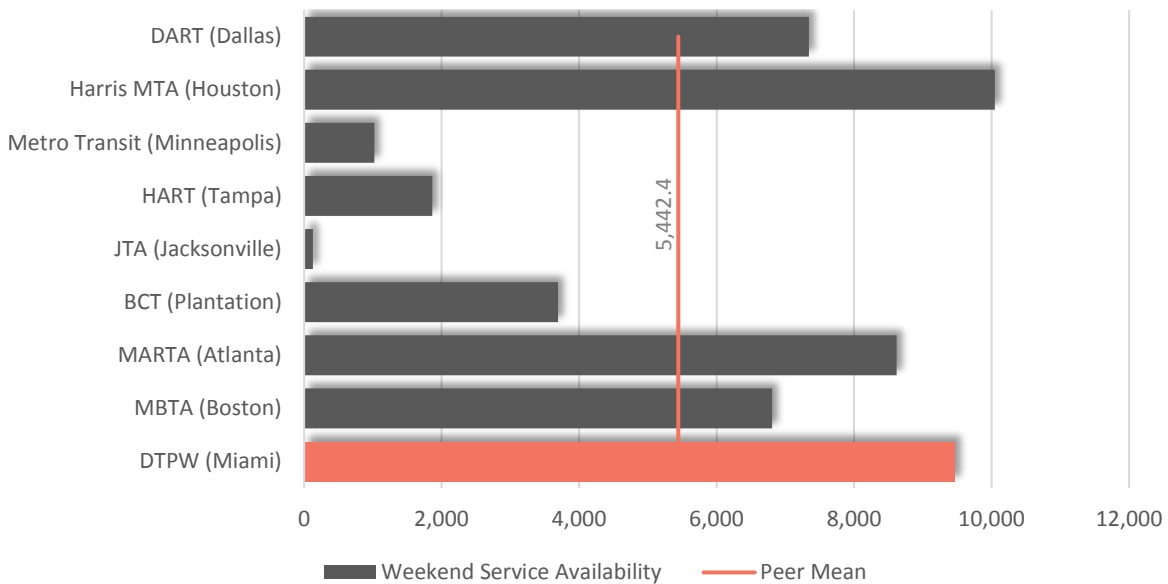
Figure 4-14: Bus Operating Cost per Bus Revenue Hour



4.4.14 Weekend Service Availability (Revenue Hours)

Figure 4-15 shows revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. DTPW has the second highest weekend service availability in 2017, measured by revenue hours. DTPW was 74% above the peer mean and ranked similar to Harris MTA and MARTA. Weekend service availability has increased 4.8% from 2013 to 2017. As 2018 NTD data was in the process of validation at the time of this report, 2018 weekend revenue hours were excluded from this analysis due to potential outlier information.

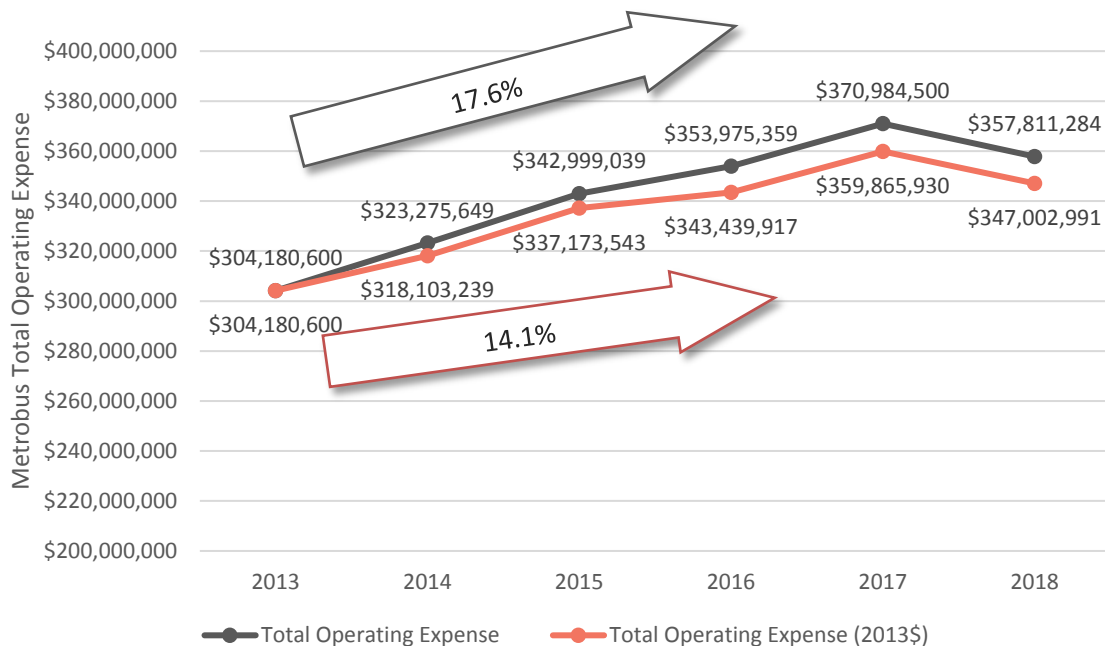
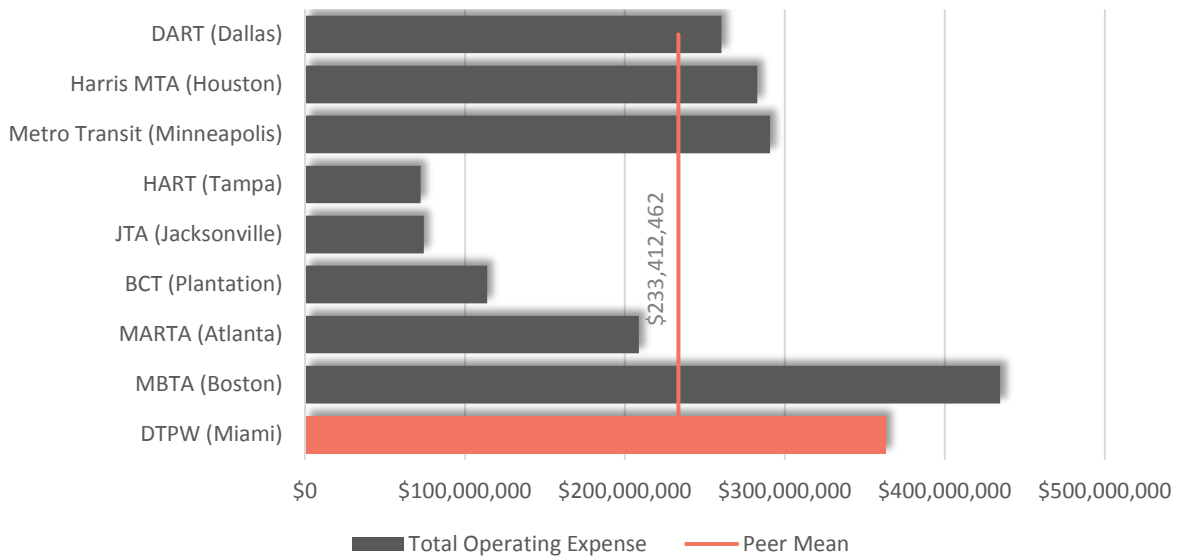
Figure 4-15: Bus Weekend Service Availability



4.4.15 Operating Expenses

Figure 4-16 shows bus operating expenses for DTPW and its selected peers. DTPW's total operating expense for directly operated Metrobus in 2017 was over \$363 million, which is above the peer mean and second highest in the group. Total motorbus operating expenses, including purchased transportation and commuter bus service, have increased annually since 2013, to \$357.8 million in 2018, representing an overall increase of 17.6%. When accounting for inflation, however, this increase is about 14%.

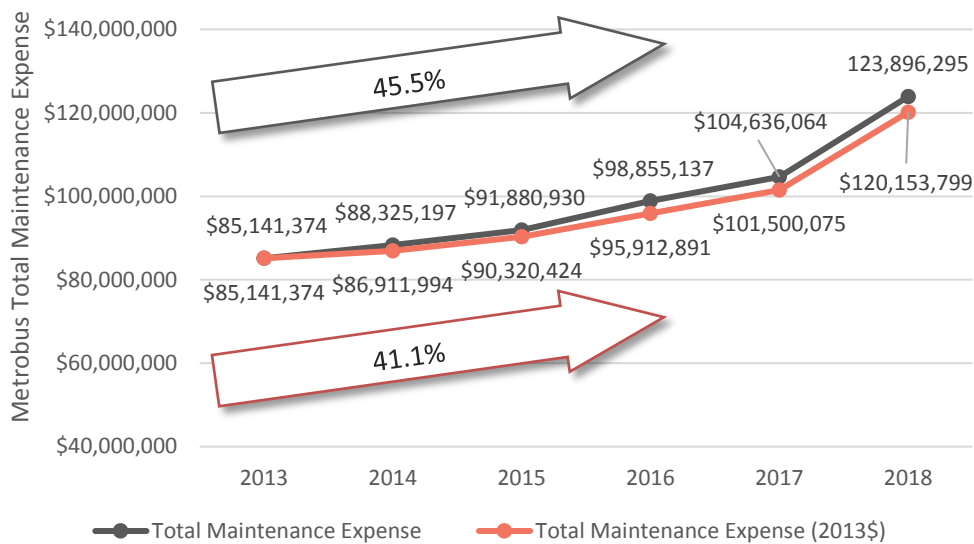
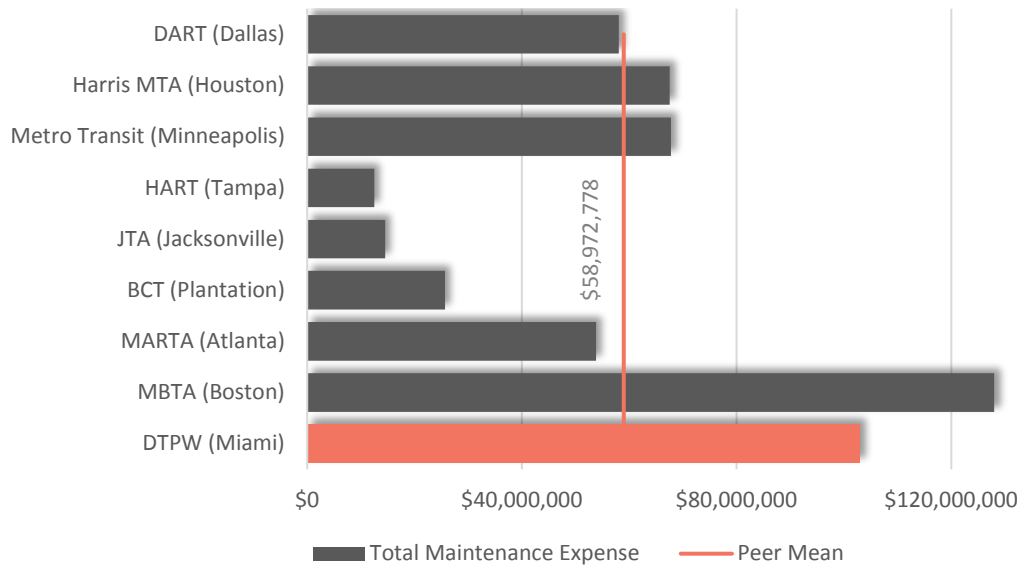
Figure 4-16: Bus Operating Expenses



4.4.16 Maintenance Expenses

Maintenance expenses are a subset of total operating expenses in the data provided by NTD. Figure 4-17 presents the total maintenance expenses for DTPW and its selected peers in 2017. DTPW’s maintenance expenses are 75% above the peer mean, the highest after MBTA. As shown in the trend, DTPW’s maintenance expenses have increased 45.5% overall from 2013 to 2018.

Figure 4-17: Bus Maintenance Expenses



4.5 Heavy Rail Peer and Trend Analysis

Figure 4-18 lists DTPW and the heavy rail peers selected for comparison. DTPW is the only Florida transit agency providing heavy rail service. Table 4-4 compares statistics for DTPW’s heavy rail service (Metrorail) with the selected peer agencies that operate heavy rail. Table 4-5 presents the trend analysis, which provides an opportunity to assess how service is changing over the six most recent years of operation. These analyses identify potential areas of service improvement that are further examined in Chapter 7: Situation Appraisal.



Figure 4-18: DTPW Metrorail and Peer Agencies



Figure 4-18: DTPW Metrorail and Peer Agencies (continued)

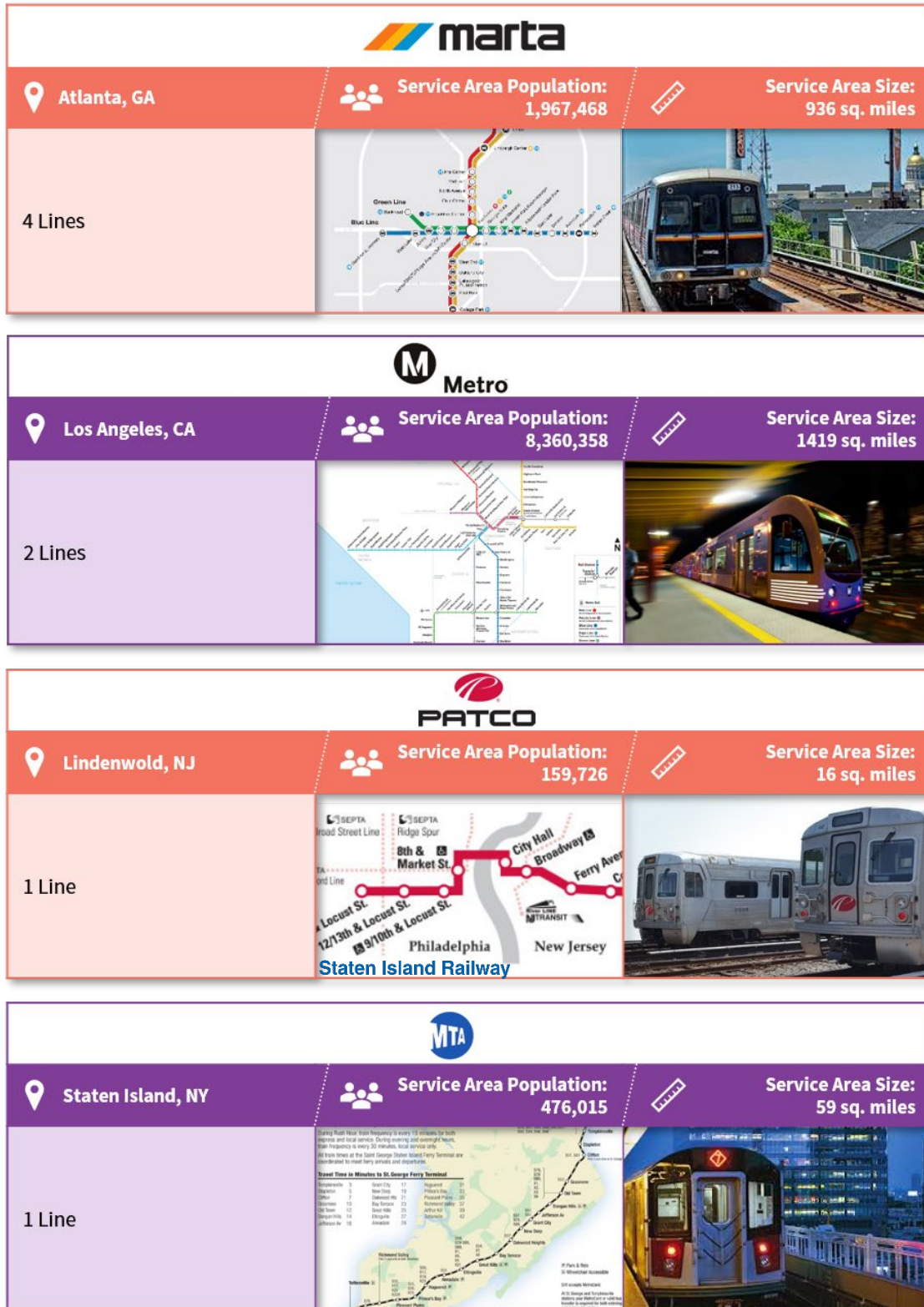


Figure 4-18: DTPW Metrorail and Peer Agencies (continued)

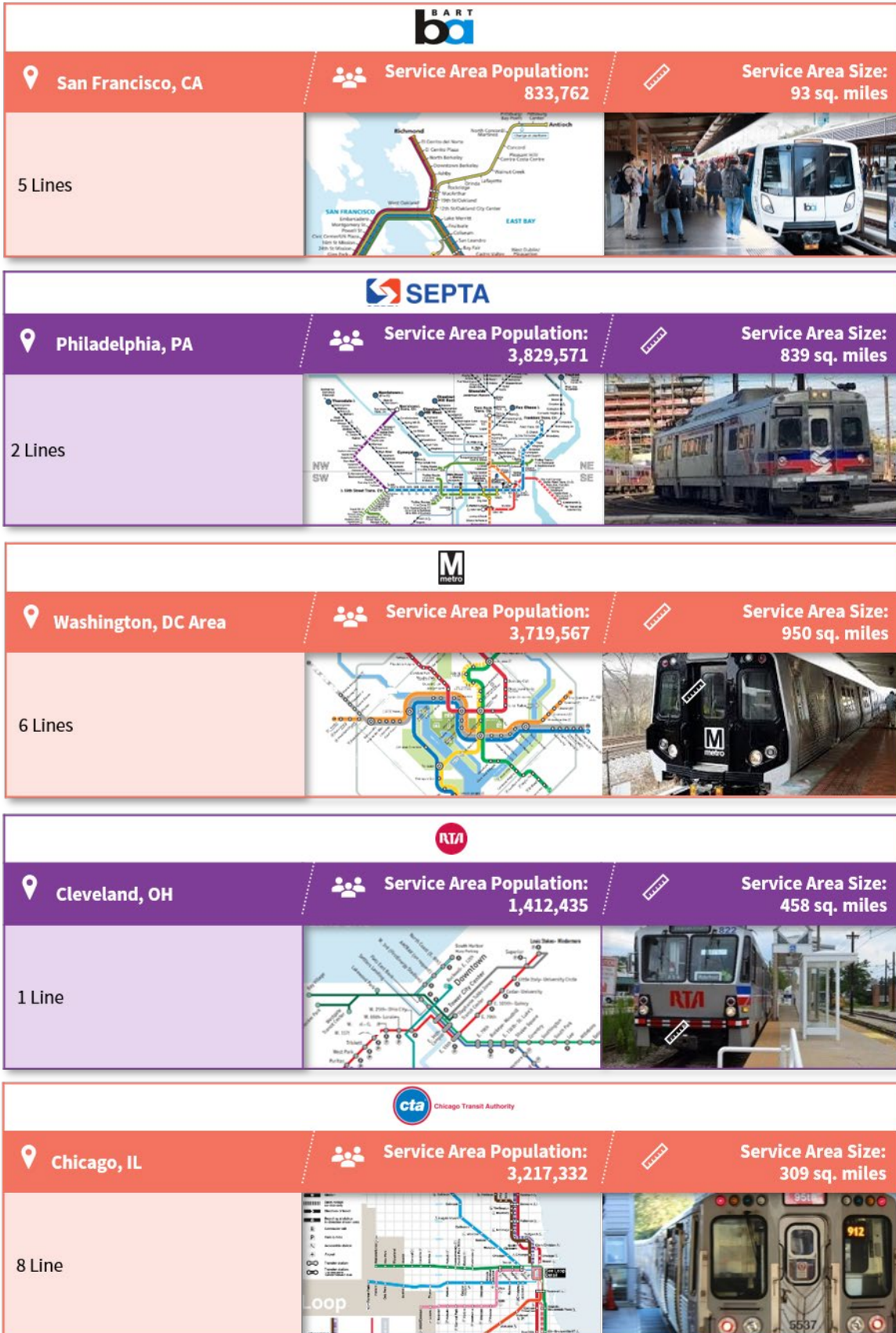




Table 4-4: Metrorail Peer Comparison

Agency	DTPW (Miami)	PATCO (Lindenwold)	SIRTOA (Staten Island)	SEPTA (Philadelphia)	WMATA (Washington DC)	MARTA (Atlanta)	GCRTA (Cleveland)	CTA (Chicago)	BART (San Francisco)	LACMTA (Los Angeles)	Peer Mean
Farebox Recovery Ratio (%)	15.9	52.0	12.4	50.3	52.6	40.3	19.7	48.7	77.5	22.0	39.2
Route Miles	49.8	31.5	28.6	74.9	234.2	96.1	38.1	207.8	218.3	31.9	101.1
Unlinked Passenger Trips	19,984,735	10,839,059	8,251,126	93,879,889	227,053,037	68,280,860	5,904,814	230,204,047	131,810,212	45,632,924	84,184,070
Average Age (yrs.) of Rail Fleet	35.0	9.2	6.4	7.7	6.9	6.9	33.0	16.6	37.6	21.0	18.0
Passenger Miles Traveled	151,178,900	96,952,223	51,461,325	344,859,706	1,326,262,650	468,811,412	37,907,589	1,359,029,663	1,808,935,691	228,179,477	587,357,863
Average Passenger Trip Length	7.6	8.9	6.2	3.7	5.8	6.9	6.4	5.9	13.7	5.0	7.0
Vehicle Revenue Hours	360,670	140,890	175,611	906,207	3,208,614	840,494	139,891	4,089,367	2,143,892	321,242	1,232,688
Vehicle Revenue Miles	7,857,582	4,377,946	2,634,342	16,799,585	78,379,605	22,334,168	2,611,263	73,612,276	75,237,775	7,010,664	29,085,521
Passenger Trips per Revenue Hour	55.4	47.7	27.2	25.3	17.1	19.7	42.2	56.3	61.5	142.1	49.4
Passenger Trips per Revenue Mile	2.5	4.9	2.2	1.9	1.2	1.5	2.3	3.1	1.8	6.5	2.8
Operating Expense Per Passenger Trip	\$5.08	\$4.73	\$8.55	\$2.15	\$4.37	\$2.78	\$6.27	\$2.62	\$4.69	\$3.54	\$4.49
Operating Expense Per Revenue Hour	\$281.38	\$363.82	\$401.57	\$222.97	\$309.37	\$225.95	\$264.72	\$147.72	\$288.58	\$502.92	\$300.90
Weekend Service Availability (Revenue Hours)	1,643	389	764	3,272	11,127	2,973	682	15,020	6,853	1,637	4,436
Total Operating Expenses	\$101,483,951	\$51,259,116	\$70,519,413	\$202,060,773	\$992,646,766	\$189,912,832	\$37,031,444	\$604,098,753	\$618,691,516	\$161,559,460	\$302,926,402
Maintenance Expenses	\$50,586,545	\$21,520,534	\$43,938,954	\$82,708,025	\$332,741,393	\$80,727,138	\$25,226,525	\$276,388,911	\$232,756,024	\$62,500,722	\$120,909,477
Employee Comparison (Full Time Equivalents)	583	325	289	1,354	5,107	1,487	338	3,670	2,695	650	1,650

Data Source: 2017 National Transit Database



Table 4-5: DTPW Metrorail 2013-2018 Trend

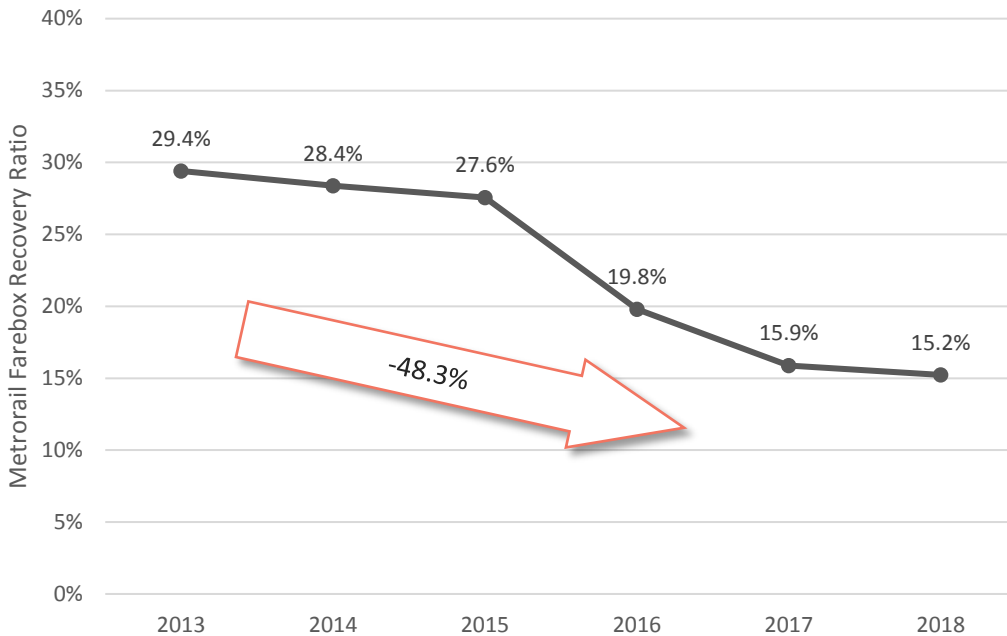
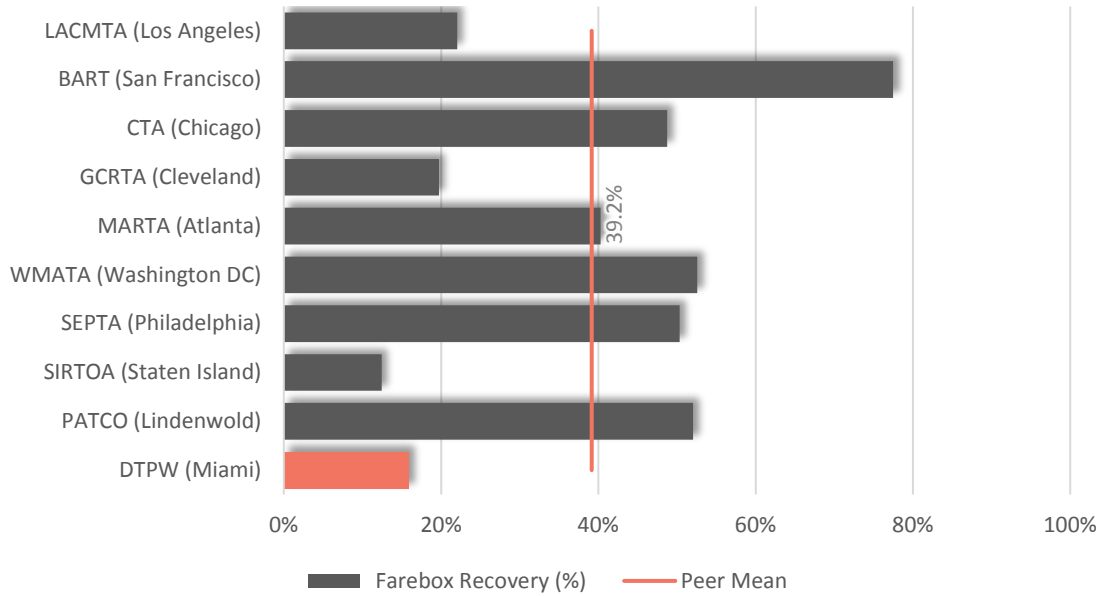
Performance Measure	2013	2014	2015	2016	2017	2018	Trend
Farebox Recovery Ratio (%)	29.4	28.4	27.6	19.8	15.9	15.2	↘
Route Miles	49.8	49.8	49.8	49.8	49.8	49.8	No Change
Unlinked Passenger Trips	21,198,687	21,751,409	21,910,609	21,461,039	19,984,735	19,150,308	↘
Average Age (yrs.) of Rail Fleet	31.0	32.0	33.0	34.0	35.0	17.8	↘
Passenger Miles Traveled	155,169,094	159,954,088	161,987,105	157,122,071	151,178,900	139,494,732	↘
Average Passenger Trip Length	7.32	7.35	7.39	7.32	7.56	7.28	↘
Vehicle Revenue Hours	356,046	361,509	372,670	367,915	360,670	339,929	↘
Vehicle Revenue Miles	7,884,786	7,976,759	8,306,783	8,189,085	7,857,582	7,384,249	↘
Passenger Trips per Revenue Hour	59.5	60.2	58.8	58.3	55.4	56.3	↘
Passenger Trips per Revenue Mile	2.7	2.7	2.6	2.6	2.5	2.6	↘
Operating Expense Per Passenger Trip	\$3.66	\$4.16	\$4.43	\$4.51	\$5.08	\$4.97	↗
Operating Expense Per Revenue Hour	\$218.19	\$250.10	\$260.23	\$262.95	\$281.38	\$292.05	↗
Weekend Service Availability (Revenue Hours)	1352	1342	1338	1343	1643	1345	↘
Total Operating Expenses	\$77,684,301	\$90,413,013	\$96,978,769	\$96,742,980	\$101,483,951	\$99,275,231	↗
Maintenance Expenses	\$38,682,584	\$42,516,618	\$45,161,245	\$47,636,784	\$50,586,545	\$56,996,680	↗

Source: 2013-2017 NTD Data and 2018 Unvalidated NTD data from DTPW

4.5.1 Farebox Recovery

As shown in Figure 4-19, DTPW's farebox revenue of 15.9% is 59% below the peer mean. DTPW has a similar farebox recovery ratio as SIRTOA in Staten Island. Since 2013, the Metrorail farebox recovery ratio has declined more than 48% to a six-year low of 15.2%.

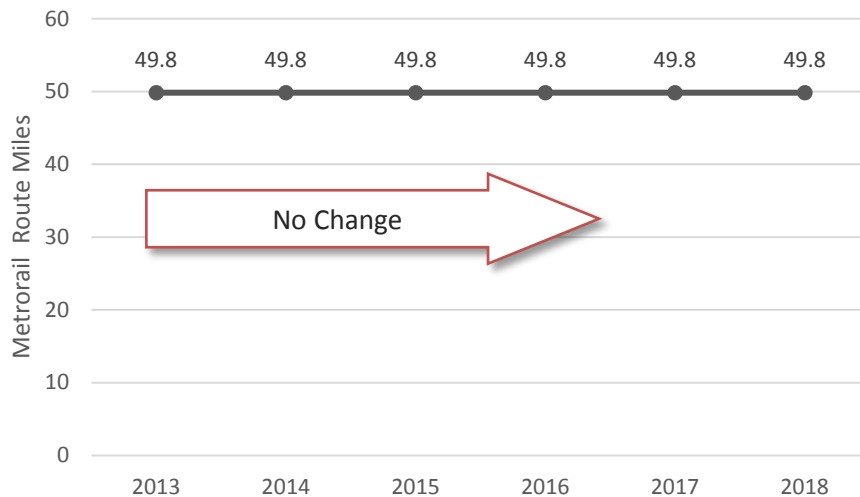
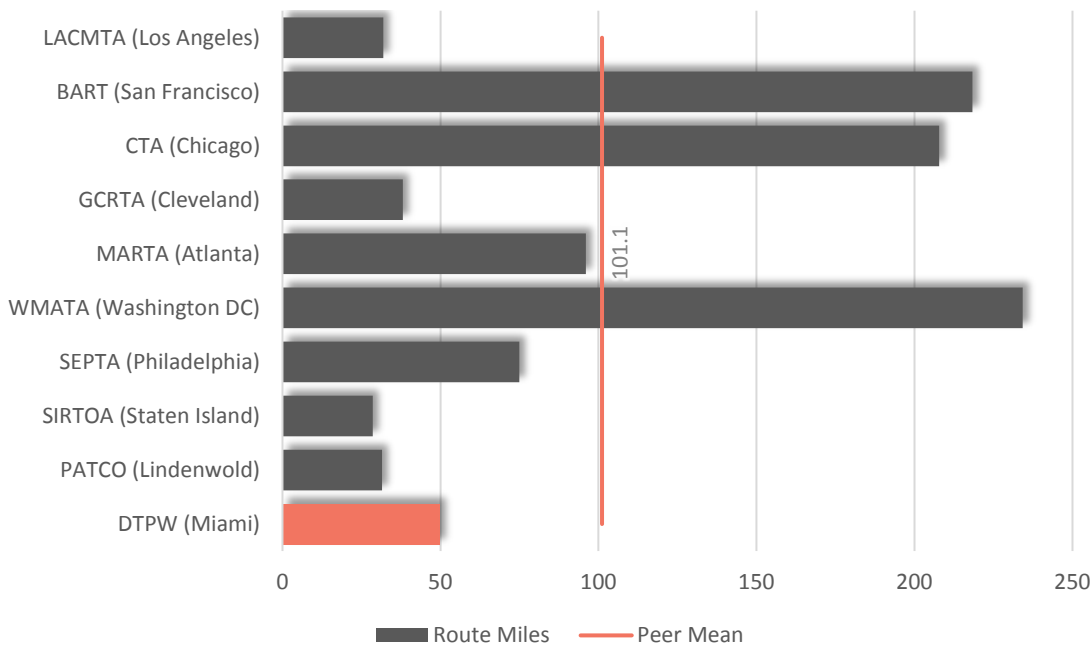
Figure 4-19: Heavy Rail Farebox Recovery (%)



4.5.2 Route Miles

Figure 4-20 shows the number of heavy rail route miles operated in 2017 by DTPW and its peer agencies. DTPW ranks sixth in the peer group, significantly lower than the peer mean. The agencies with the highest number of heavy rail route miles operate several more rail lines than DTPW, including BART, CTA, and WMATA. Metrorail route miles have remained constant at 49.8 miles between 2013 and 2018.

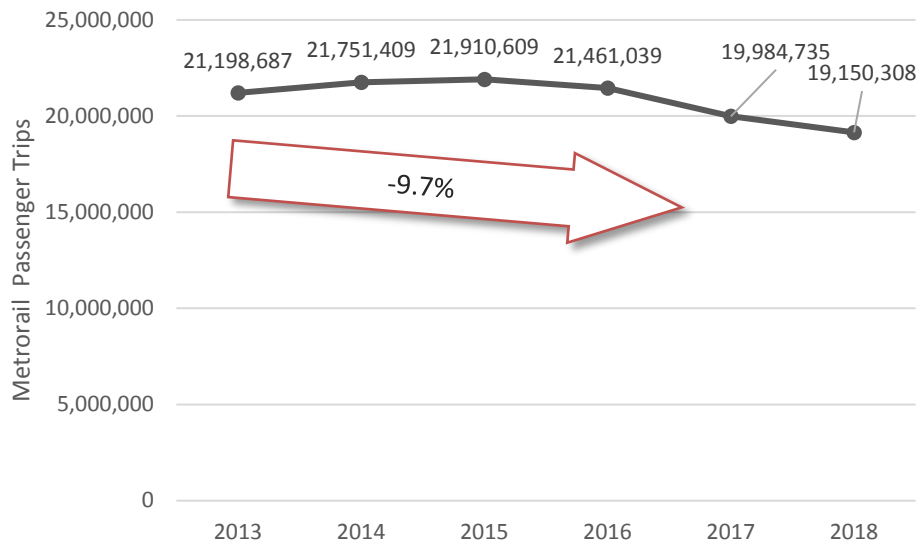
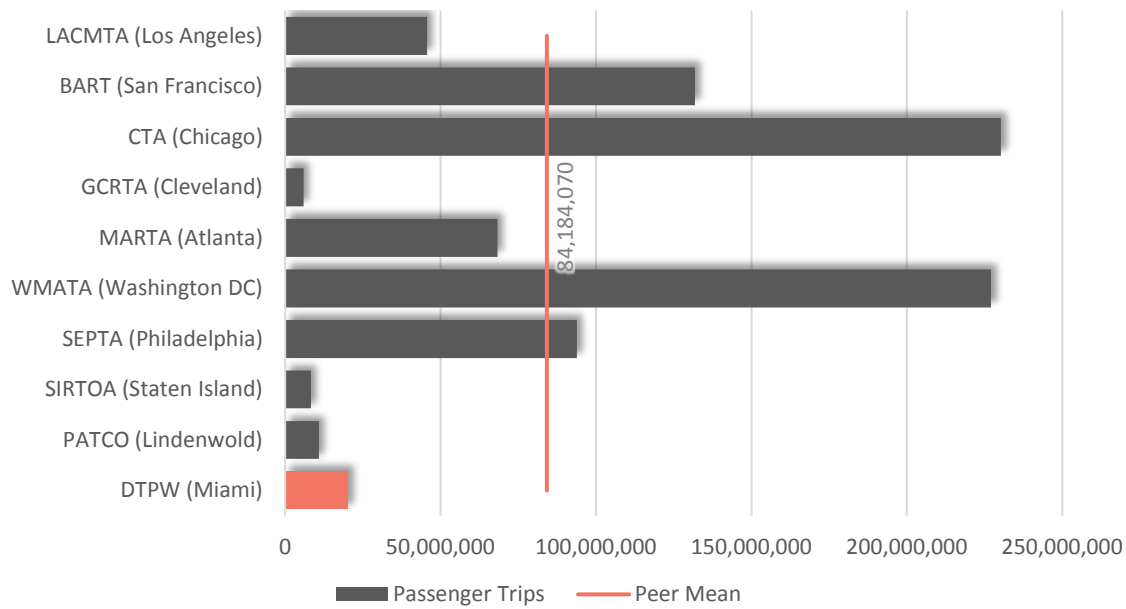
Figure 4-20: Heavy Rail Route Miles



4.5.3 Unlinked Passenger Trips

Figure 4-21 graphically displays the number of unlinked passenger trips for DTPW and each of the rail peer agencies. DTPW's annual unlinked passenger trip totals ranked among the lowest of its peers. Similar to DTPW, GCRTA, PATCO, and SIRTOA reported substantially lower annual unlinked passenger trips, with each operating only one heavy rail line. Metrorail ridership peaked in 2015, before declining to 19,150,308 passenger trips in 2018. The overall decline in ridership is 9.7% between 2013 and 2018.

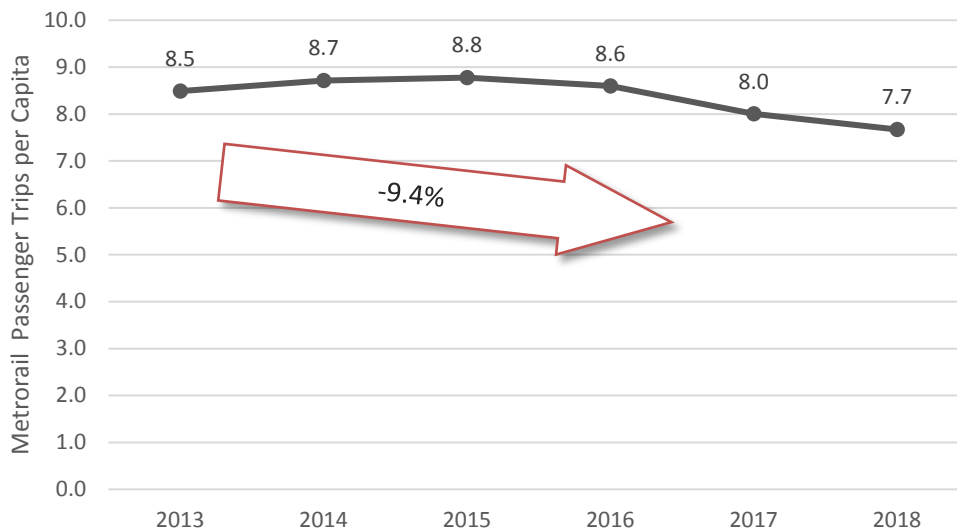
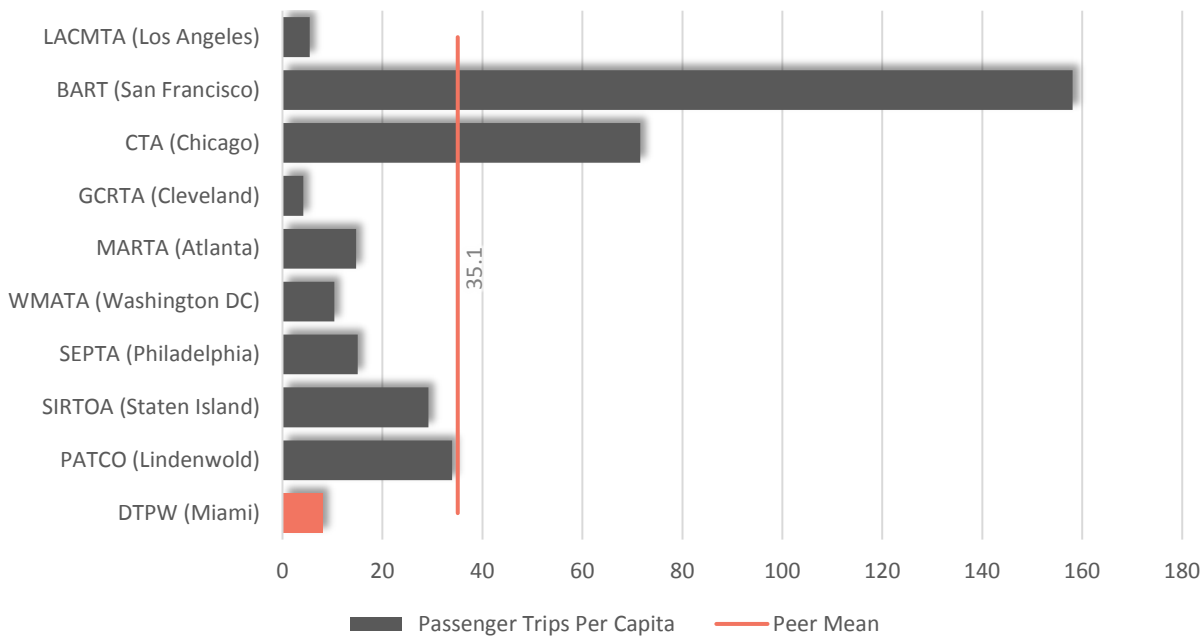
Figure 4-21: Heavy Rail Unlinked Passenger Trips



4.5.4 Passenger Trips per Service Area Capita

Figure 4-22 shows heavy rail passenger miles traveled on a per-capita basis. DTPW’s Metrorail system carries one of the lowest passenger trips per service area capita of the peer agency group. Metrorail passenger trips per capita increased from 2013 to 2015 and then declined from 2015 to 2018, showing an identical trend to the case for total ridership. Overall, passenger trips per service area capita decreased 9.4%.

Figure 4-22: Heavy Rail Passenger Trips per Service Area Capita

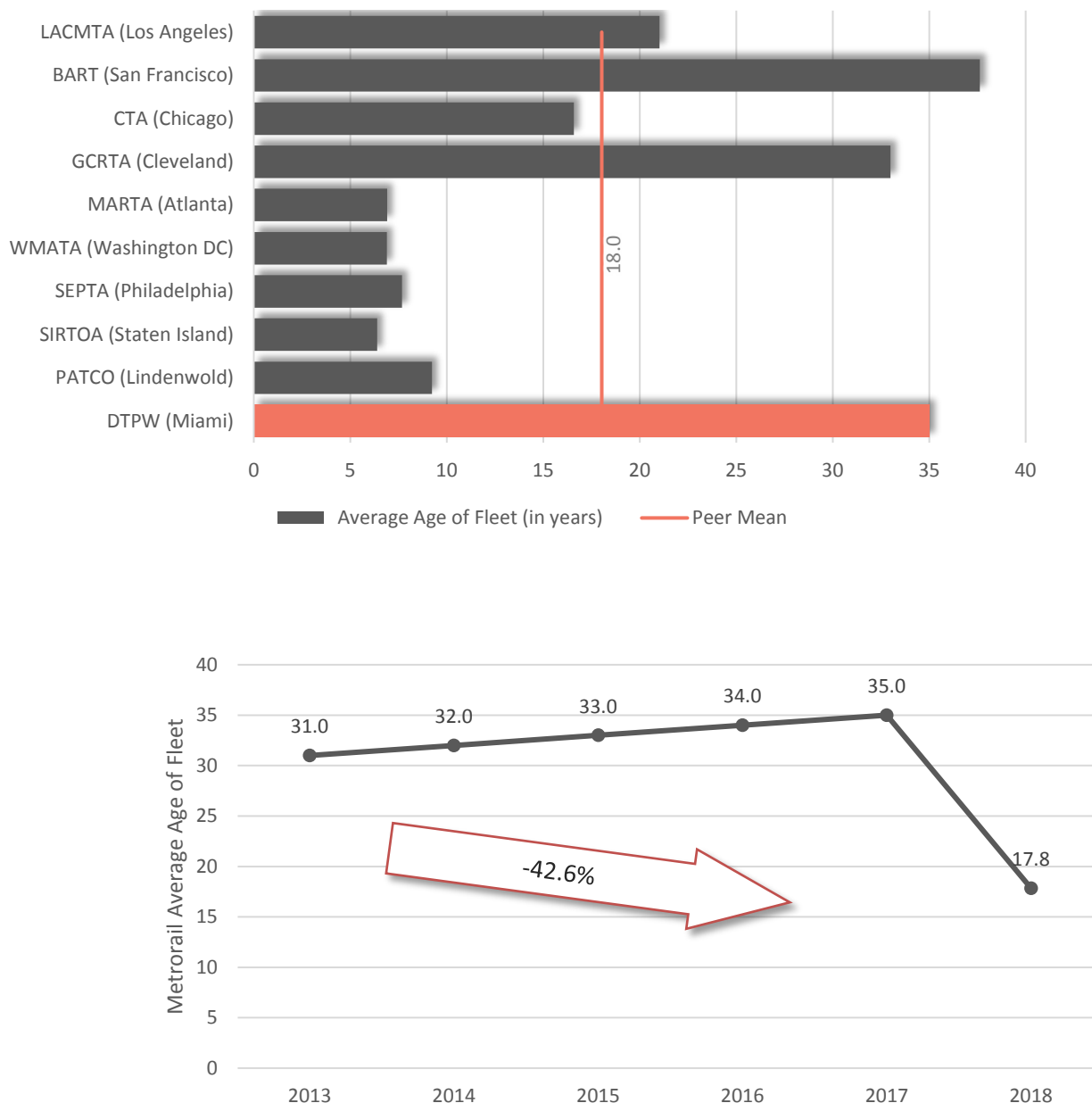


*Due to variance in reporting methods, service area population measure not equitable across all modes.

4.5.5 Average Age (years) of Heavy Rail Fleet

Figure 4-23 shows the average age of the heavy rail fleet for DTPW and its peers. Average age is based on the vehicle's manufacture year, or re-build year if applicable. If a vehicles' manufacture year or re-build year were not reported by the agency, those vehicles were not included in the calculation. DTPW had the second oldest heavy rail fleet on average in 2017, after BART. In Fall 2017, DTPW received its first new rail cars since Metrorail commenced service in the 1980s. This influx of new vehicles is reflected in the trend. As shown, Metrorail's average age of fleet increased from 2013 to 2017, but declined to 17.8 years in 2018 due to the 44 new vehicles that were purchased. DTPW will replace its entire fleet over the next several years.

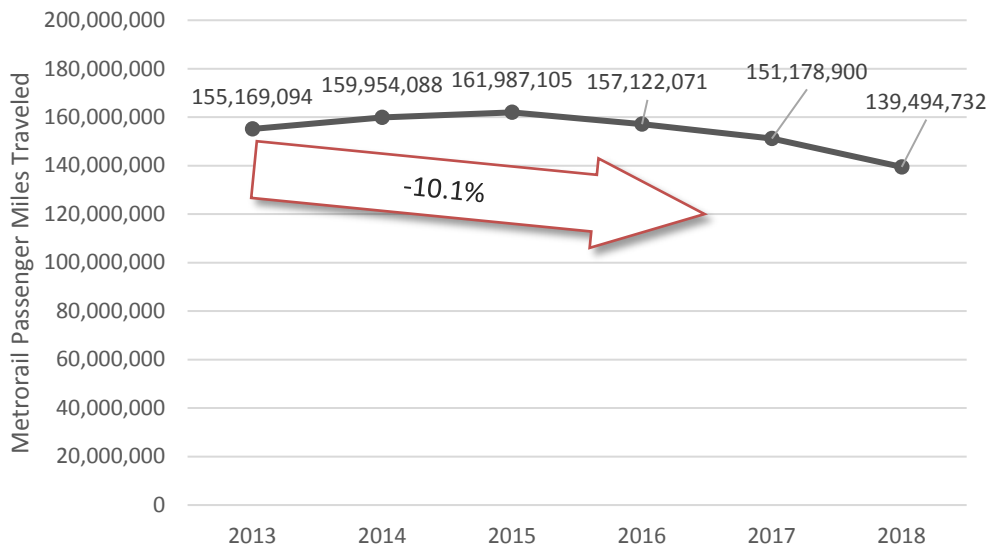
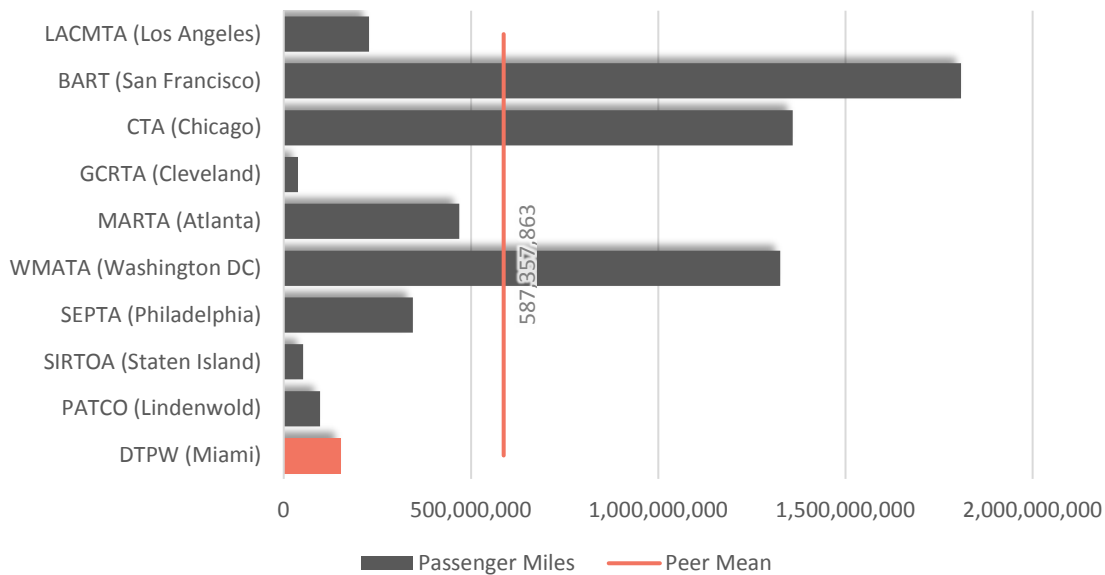
Figure 4-23: Average Age (years) of Heavy Rail Fleet



4.5.6 Passenger Miles Traveled

Figure 4-24 depicts 2017 DTPW Metrorail annual passenger miles traveled and the same for its peer systems. DTPW reported the fourth lowest total passenger miles traveled in the peer group, a similar pattern to total passenger trips. Over time, Metrorail passenger miles traveled increased from 2013 to 2015, before decreasing more significantly from 2015 to 2018. Passenger miles traveled decreased 10.1% overall from 2013 to 2018.

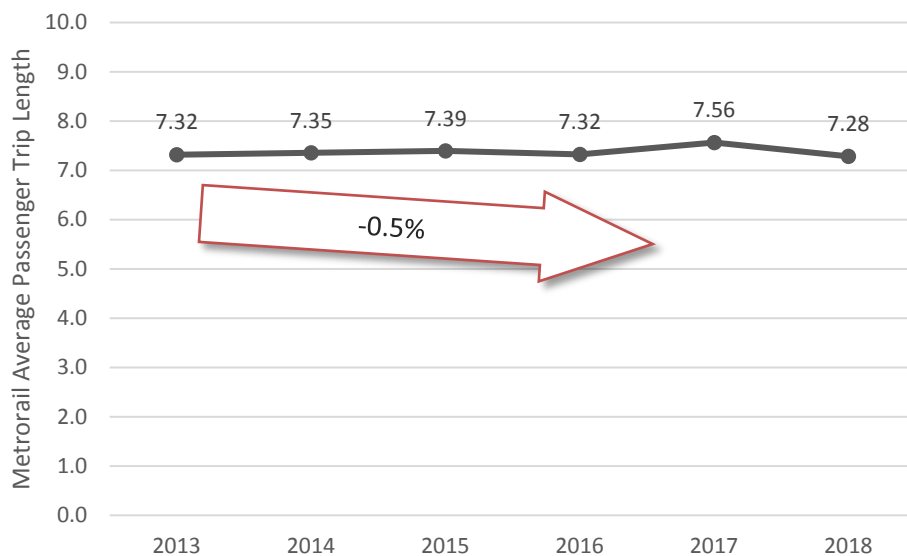
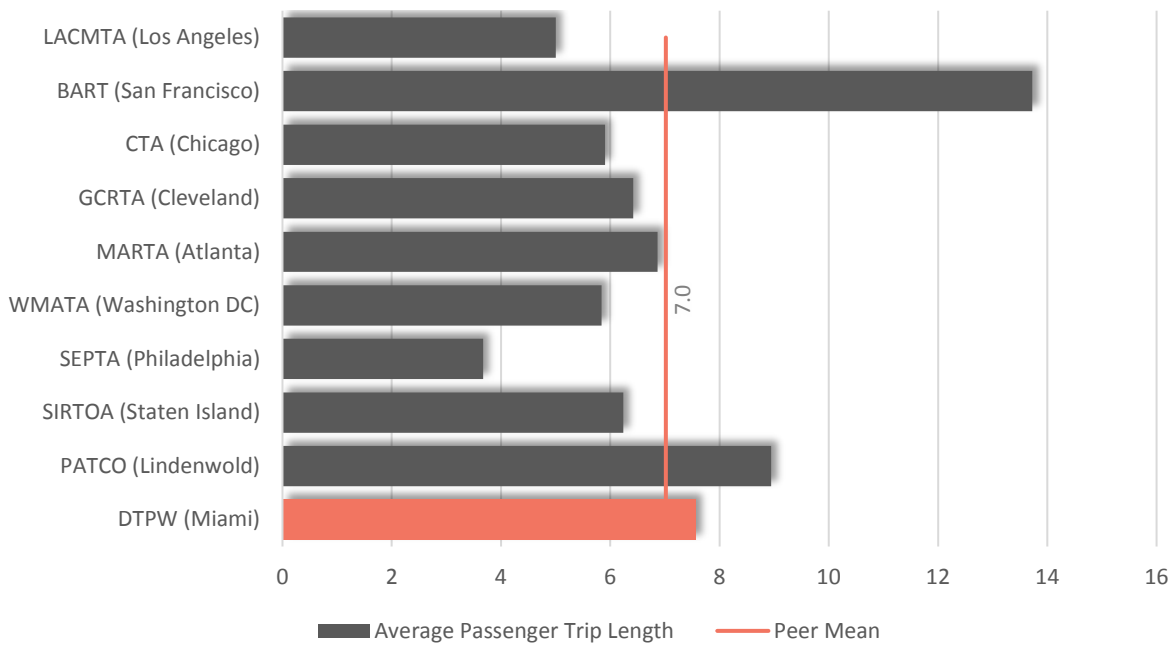
Figure 4-24: Heavy Rail Passenger Miles Traveled



4.5.7 Average Passenger Trip Length

Figure 4-25 shows the heavy rail average passenger trip length for DTPW and its peer group. DTPW’s average rail passenger trip length ranks as the third highest after BART and PATCO and is above the peer mean. While Metrorail’s average passenger trip lengths have fluctuated slightly between 2013 and 2018, the overall trend has reflected only an overall decline of 0.5% during that period.

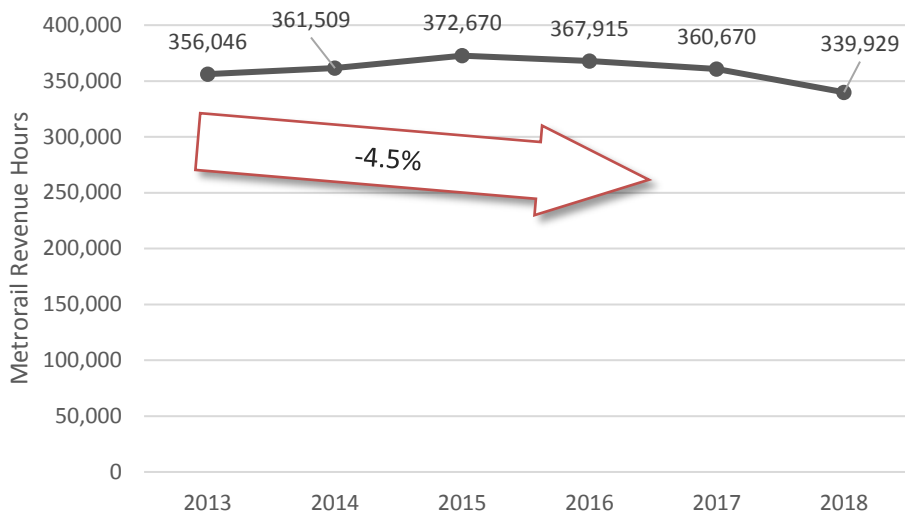
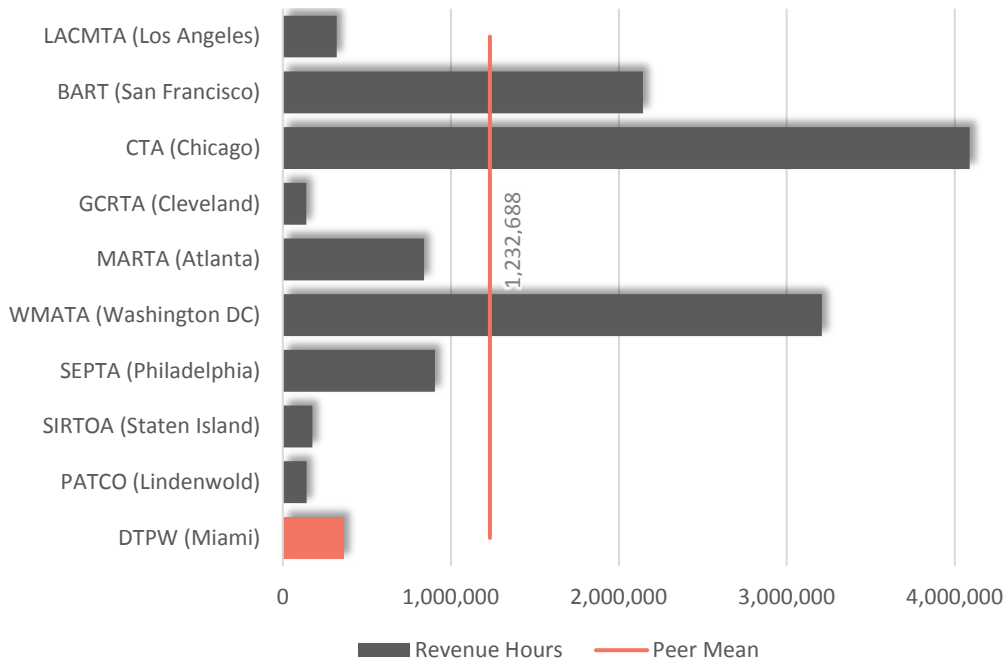
Figure 4-25: Heavy Rail Average Passenger Trip Length



4.5.8 Revenue Hours

Figure 4-26 shows DTPW and its peer agencies' heavy rail vehicle revenue hours. Similar to unlinked passenger trips, DTPW ranked among the lowest for heavy rail revenue hours, at 70% below the peer mean. Over time, Metrorail revenue hours increased from 2013 to 2015 and then declined from 2015 to 2018, representing an overall decrease of 4.5% in the six-year period.

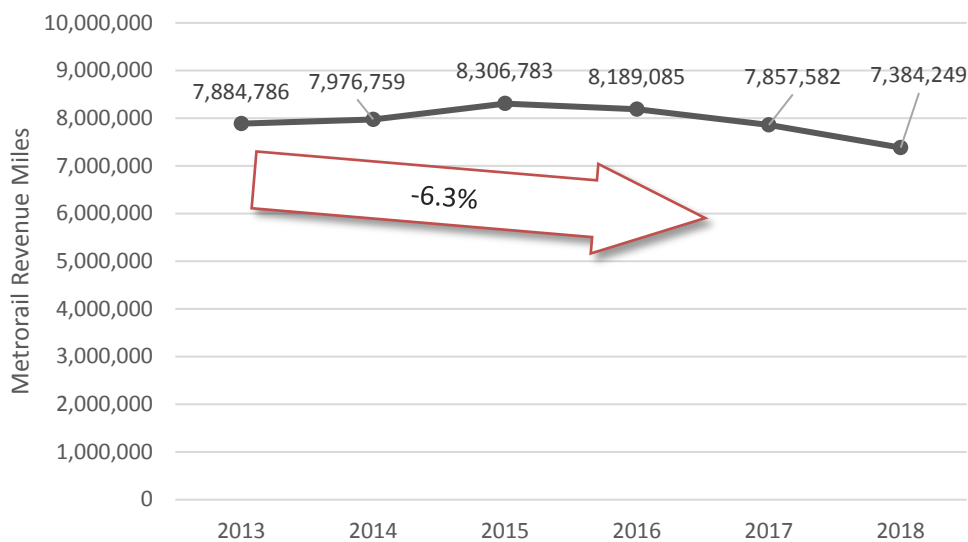
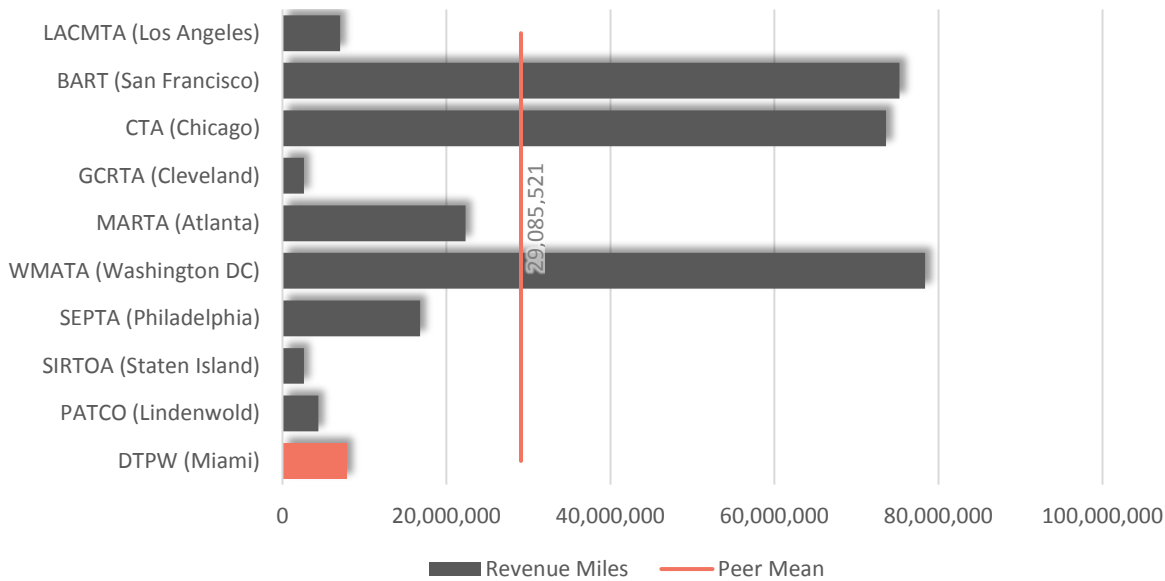
Figure 4-26: Heavy Rail Revenue Hours



4.5.9 Revenue Miles

Figure 4-27 shows DTPW and its peer agencies' annual heavy rail vehicle revenue miles. DTPW operates only a fraction of the revenue miles compared to BART, CTA, and WMATA, with a level of service that is more similar to LACMTA in terms of heavy rail vehicle revenue miles. Like the case for revenue hours, Metrorail revenue miles increased from 2013 to 2015 before decreasing from 2015 to 2018, representing an overall decrease of 6.3% in the six-year period.

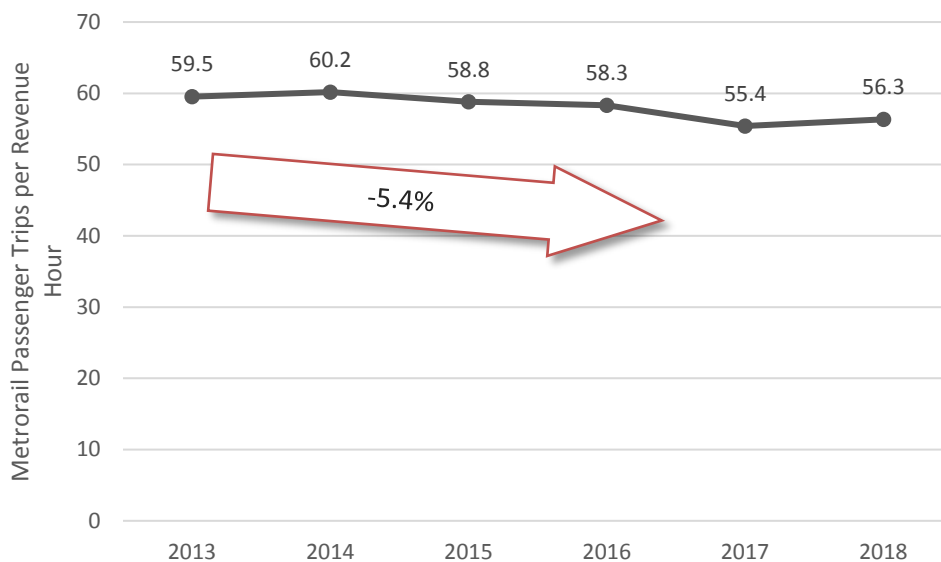
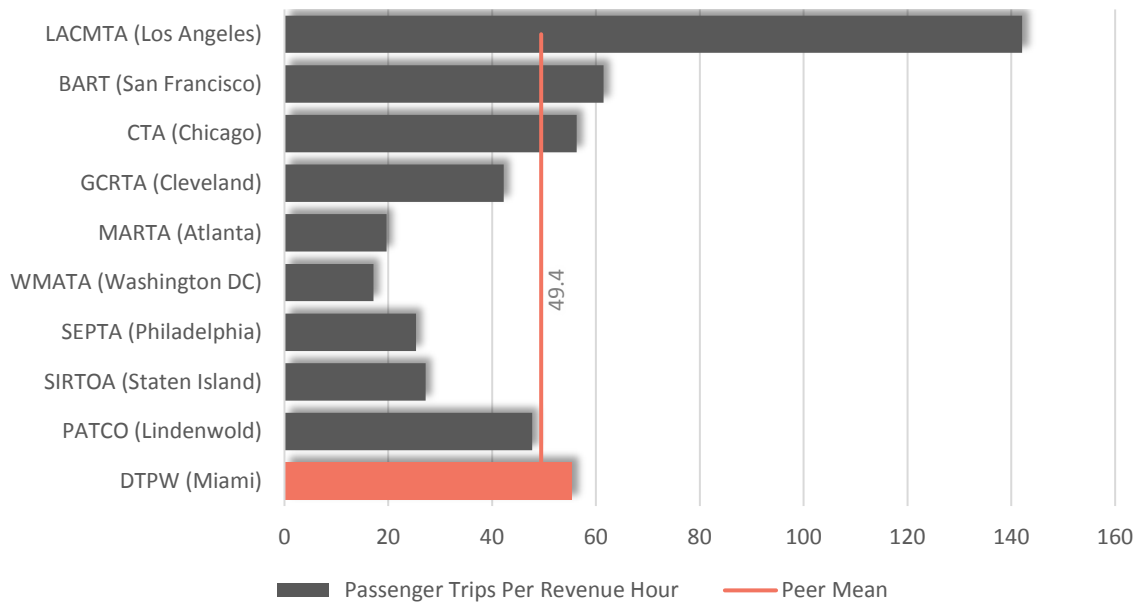
Figure 4-27: Heavy Rail Vehicle Revenue Miles



4.5.10 Passenger Trips per Revenue Hour

Figure 4-28 shows the heavy rail passenger trips per revenue hour for DTPW and its peer group. DTPW’s Metrorail annual passenger trips per revenue hour metric performed similarly to BART, CTA, and PATCO in 2017. DTPW was only 12.1% above the peer mean of 49.4 passenger trips per revenue hour. Over time, while Metrorail’s annual passenger trips per revenue hour metric has decreased overall 5.4% from 2013 to 2018, it has shown a positive trend in 2018.

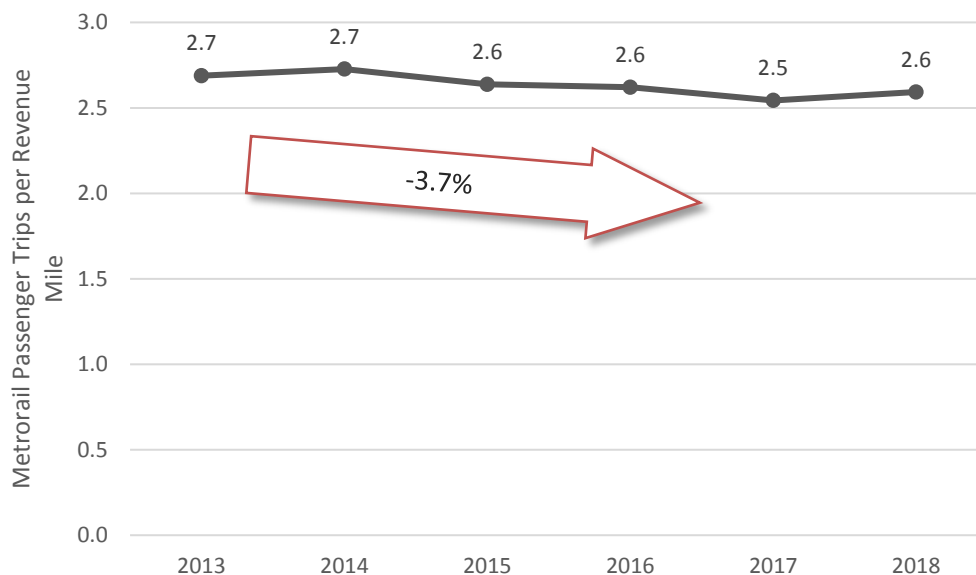
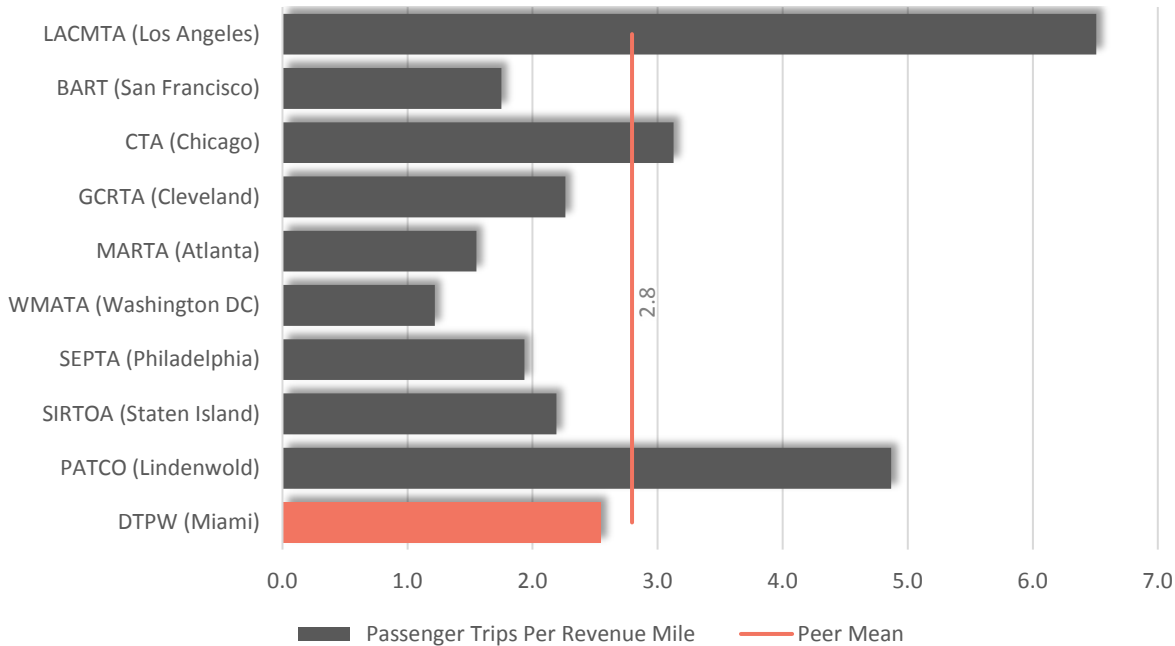
Figure 4-28: Heavy Rail Passenger Trips per Revenue Hour



4.5.11 Passenger Trips per Revenue Mile

As shown in Figure 4-29, DTPW’s annual trips per revenue mile ratio ranks 9% below the peer mean for heavy rail passenger trips per revenue mile. Metrorail trend reflects an overall decline of 3.7% from 2013 to 2018; however, like trips per hour, it has registered a slight positive upturn in 2018.

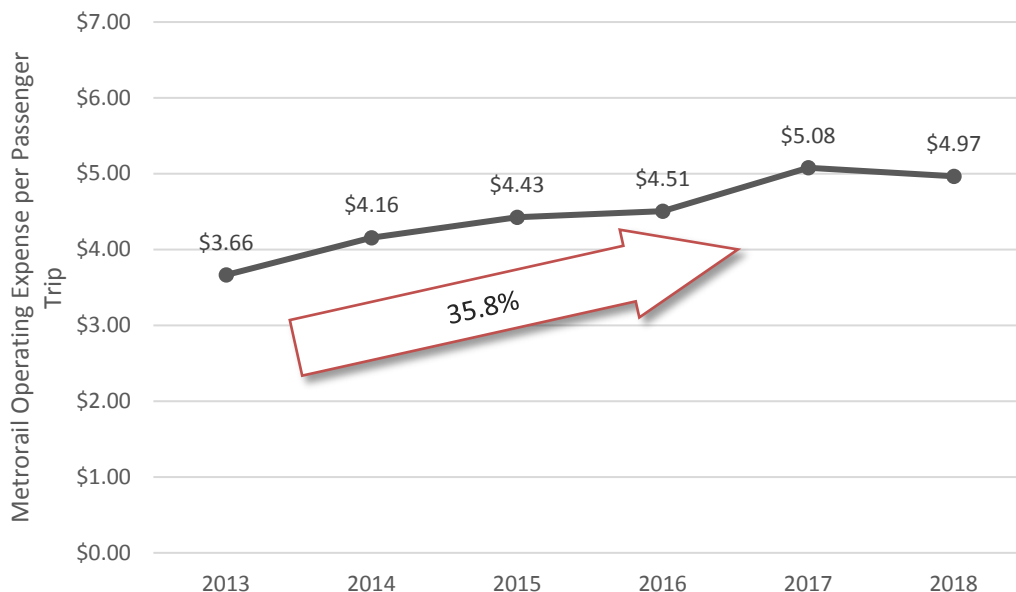
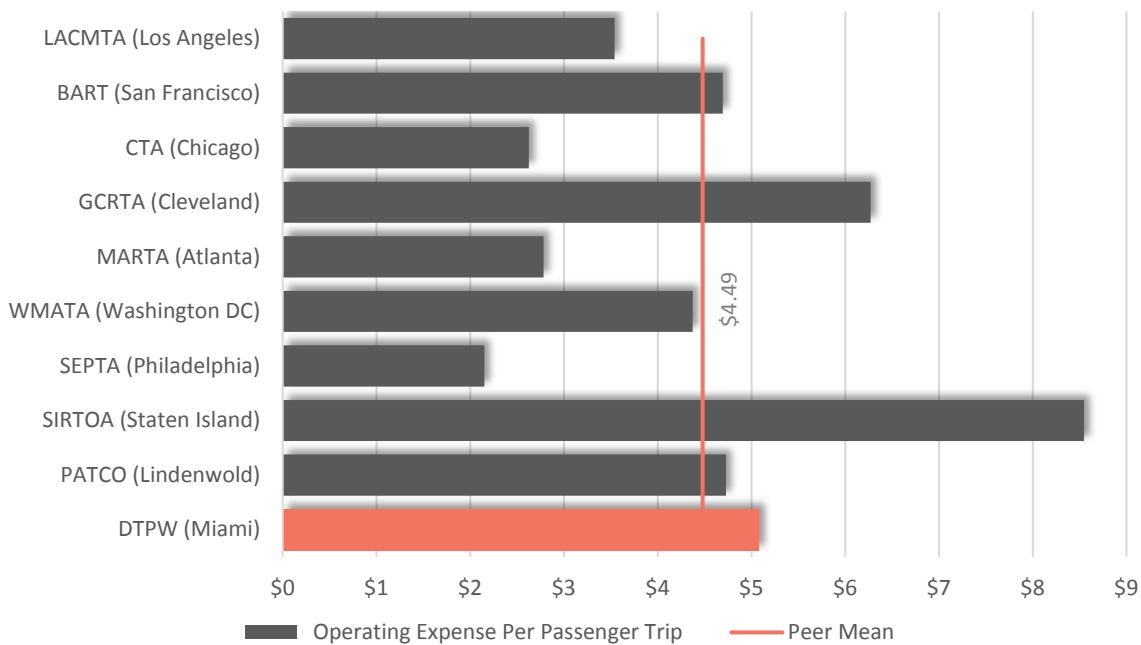
Figure 4-29: Heavy Rail Passenger Trips for Revenue Mile



4.5.12 Operating Cost per Passenger Trip

Figure 4-30 shows the heavy rail annual operating cost per passenger trip for DTPW and its peer group. In 2017, DTPW had the third highest annual operating cost per passenger trip in the peer group, 13.4% above the peer mean. Over time, Metrorail annual operating expense per passenger trip has consistently increased between 2013 and 2018, from \$3.66 to \$4.97 per passenger trip, representing a nearly 36% increase overall.

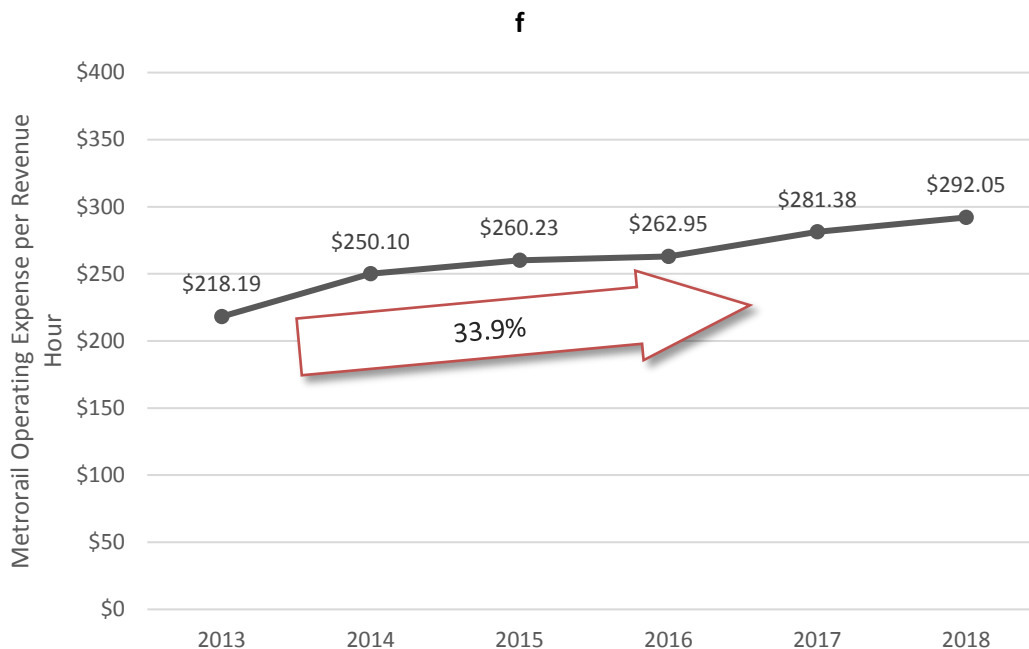
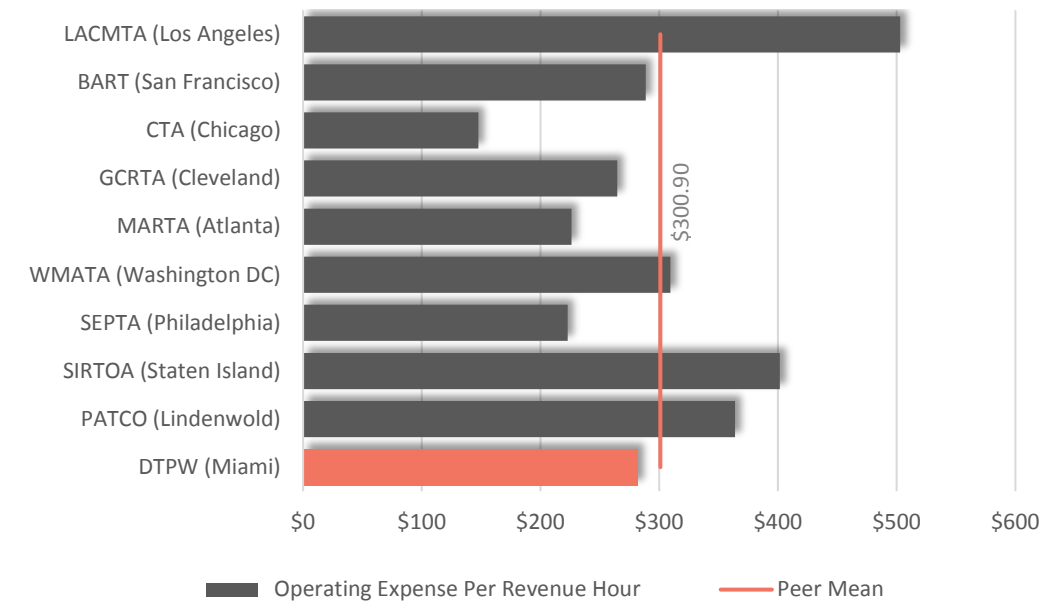
Figure 4-30: Heavy Rail Operating Cost per Passenger Trip



4.5.13 Operating Cost per Revenue Hour

Figure 4-31 shows 2017 operating cost per revenue hour measures for DTPW and the selected peers. DTPW's operating cost per revenue hour is slightly below the peer mean of \$300.90 per revenue hour. Similar to operating cost per passenger trip, Metrorail's operating cost per revenue hour increased from 2013 to 2018, by nearly 34%.

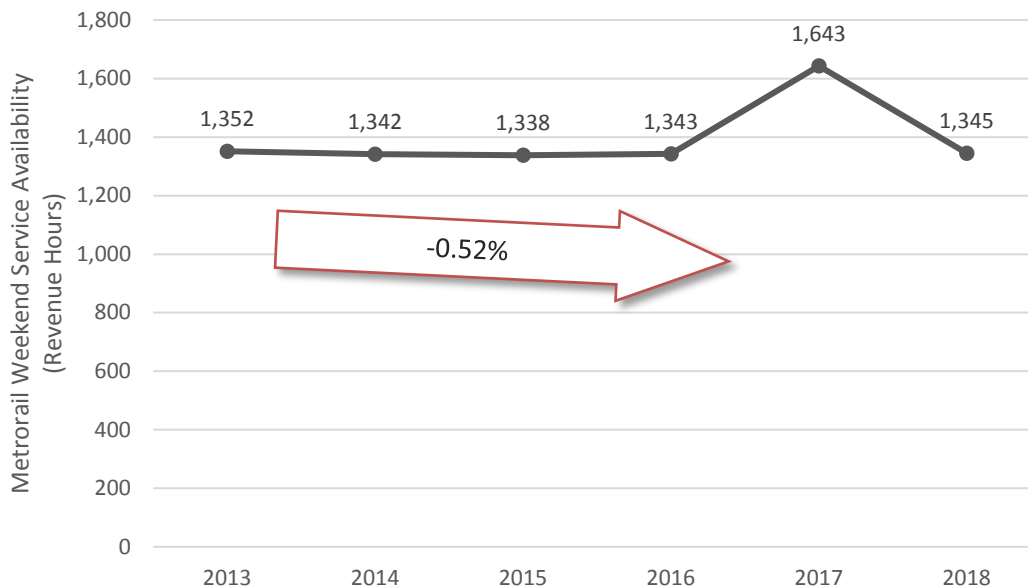
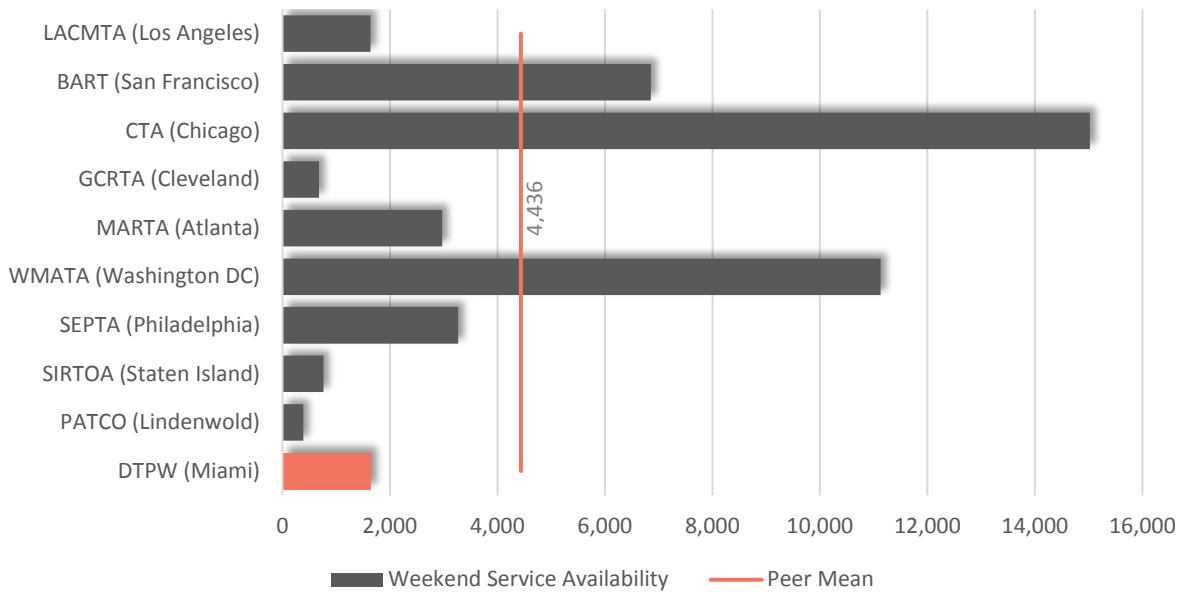
Figure 4-31: Heavy Rail Operating Cost per Revenue Hour



4.5.14 Weekend Service Availability

Figure 4-32 shows the heavy rail weekend service availability during a typical weekend (Saturday and Sunday) for DTPW and its peer group, measured in annual revenue hours. DTPW provides the fifth highest revenue hours during average weekends. Metrorail's weekend service availability fluctuated between 2013 and 2018, peaking to 1,643 revenue hours in 2017, before decreasing to 1,345 in 2018. Overall, only a slight decrease of 0.52% in revenue hours occurred in the six-year period.

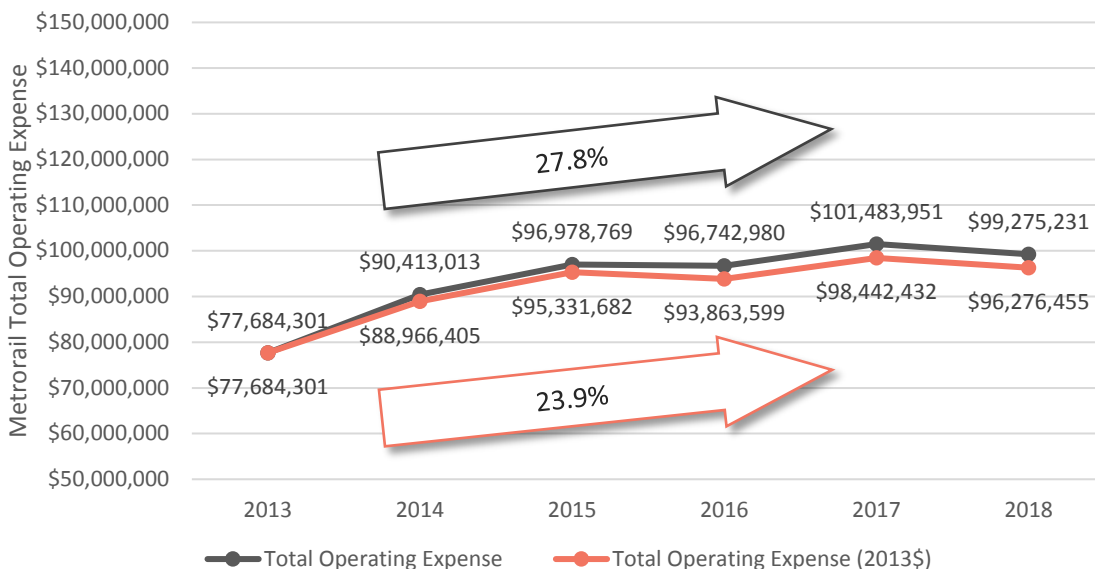
Figure 4-32: Heavy Rail Weekend Service Availability



4.5.15 Operating Expenses

Figure 4-33 shows operating expenses for heavy rail for DTPW and its selected peers. MDT's total operating expenses for Metrorail in 2017 were most similar in level to those for GCRTA, SIRTOA, and PATCO, the same agencies that provide similar levels of rail service as measured by revenue miles and hours. Metrorail's total operating expense increased 27.8% between 2013 and 2018; however, this increase is only about 24% when inflation is considered.

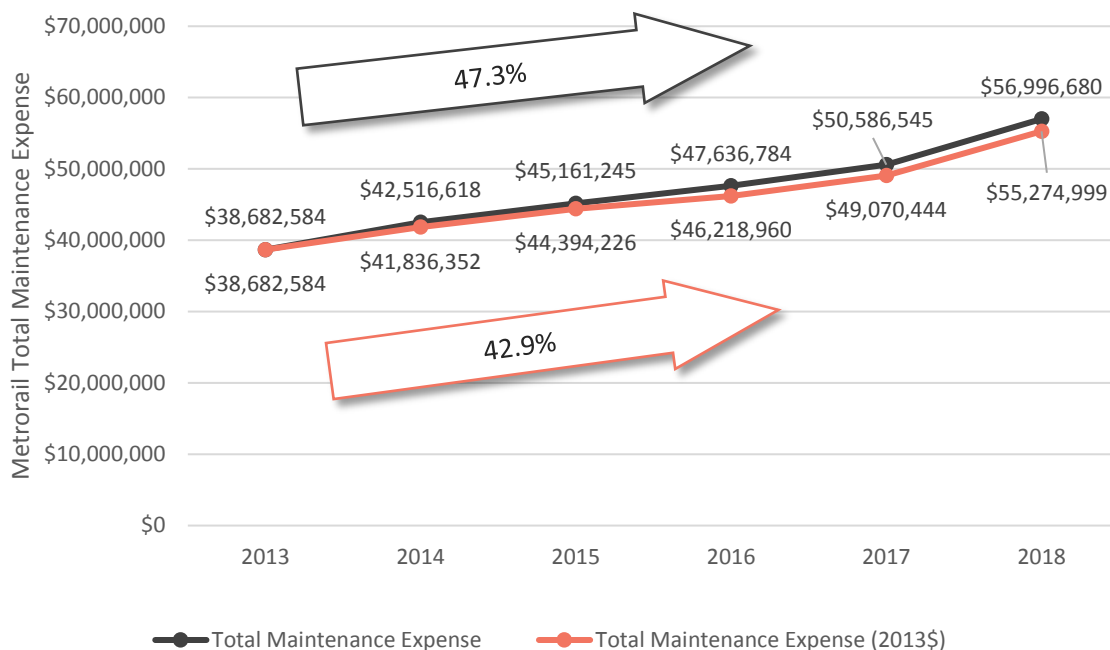
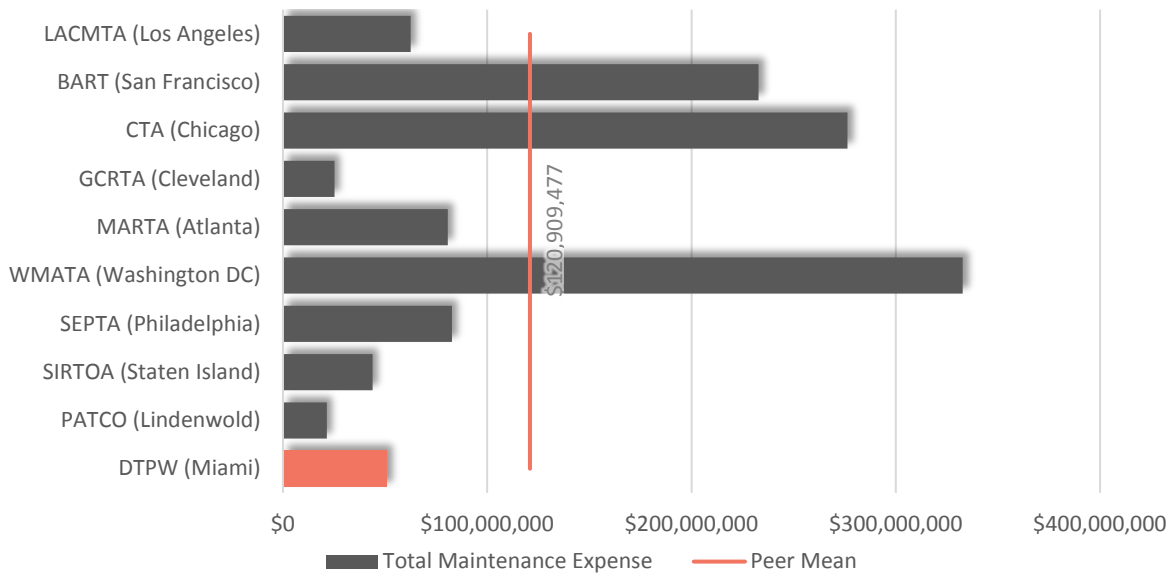
Figure 4-33: Heavy Rail Total Operating Expense



4.5.16 Maintenance Expenses

Maintenance expenses are a subset of total operating expenses in the data provided by NTD. Figure 4-34 shows the total rail maintenance expenses for DTPW and its selected peers. DTPW's maintenance expenses are ranked the fourth lowest among its selected peers, 58% below the peer mean. Compared to operating expenses, Metrorail maintenance expenses have increased at a higher rate (more than 47%) between 2013 and 2018, likely impacted by the old rail fleet that DTPW began replacing within the last year.

Figure 4-34: Heavy Rail Maintenance Expenses



4.6 Automated Guideway Peer and Trend Analysis

Few agencies in the US operate automated guideway systems. As a result, only three other peers are available for this comparison, Jacksonville Transportation Authority (JTA), West Virginia University Personal Rapid Transit, and Detroit Transportation Corporation (DTC), as summarized in

Figure 4-35. Each of these systems differs from one another and from DTPW’s Metromover in terms of operation, fare collection, and the areas and cities they serve. Metromover has the youngest fleet of the people mover systems, serves the largest and most dense downtown area of the peer cities, and is the only system that connects directly to a heavy rail system that provides a connection to a regional commuter rail system. The differences between the systems and the cities they serve make comparisons relatively difficult.



Figure 4-35: DTPW Metromover and Peer Agencies



Table 4-6 compares statistics for the peer agencies for automated guideway service, or people mover service. Conclusions based on those comparisons should be regarded as being far less definitive than the conclusions drawn from comparisons with the peer groups in the areas of bus, heavy rail, or demand response service.

Table 4-6: Metromover Peer Comparison

Agency	DTPW (Miami)	WVU PRT (Morgantown)	JTA (Jacksonville)	DTC (Detroit)	Peer Mean
Farebox Recovery Ratio (%)	n/a	127.6	n/a	7.7	67.6
Route Miles	8.5	6.3	5.4	2.9	5.8
Unlinked Passenger Trips	9,463,403	2,064,004	1,053,621	2,212,661	3,698,422
Average Age (yrs.) of Fleet	8.1	44.0	18.2	31.0	25.3
Passenger Miles Traveled	8,834,353	3,812,870	748,071	2,958,328	4,088,406
Average Passenger Trip Length	0.93	1.85	0.71	1.34	1.21
Vehicle Revenue Hours	110,057	94,409	14,247	47,889	66,651
Vehicle Revenue Miles	1,151,369	681,711	155,943	559,639	637,166
Passenger Trips per Revenue Hour	86.0	21.9	74.0	46.2	57.0
Passenger Trips per Revenue Mile	8.4	3.1	6.8	4.0	5.6
Operating Expense Per Passenger Trip	\$3.03	\$2.66	\$5.77	\$8.21	\$4.92
Operating Expense Per Revenue Hour	\$260.55	\$58.15	\$426.60	\$379.26	\$281.14
Weekend Service Availability (Revenue Hours)	597	107	0	232	234
Total Operating Expenses	\$28,675,295	\$5,489,610	\$6,077,710	\$18,162,430	\$14,601,261
Maintenance Expenses	\$15,694,867	\$2,493,945	\$2,985,455	\$5,026,160	\$6,550,107
Employee Comparison (Full Time Equivalents)	183	40	40	132	99

Data Source: 2017 National Transit Database

Table 4-7 provides an overview of the Metromover in terms of operating trends in the most recent six years.

Table 4-7: DTPW Metromover 2013-2018 Trend

Agency	2013	2014	2015	2016	2017	2018	Trend
Farebox Recovery Ratio (%)	N/A	N/A	N/A	N/A	N/A	N/A	No Change
Route Miles	8.5	8.5	8.5	8.5	8.5	9.0	↗
Unlinked Passenger Trips	9,643,713	9,983,055	9,937,592	10,318,149	9,463,403	8,802,523	↘
Average Age (yrs.) of Fleet	8.3	9.3	6.2	7.1	8.1	9.1	↗
Passenger Miles Traveled	9,472,348	9,270,429	9,590,649	9,334,896	8,834,353	8,038,902	↘
Average Passenger Trip Length	0.98	0.93	0.97	0.90	0.93	0.91	↘
Vehicle Revenue Hours	119,842	129,595	111,106	116,604	110,057	108,676	↘
Vehicle Revenue Miles	1,222,385	1,332,110	1,133,951	1,189,377	1,122,584	1,180,490	↘
Passenger Trips per Revenue Hour	80.5	77.0	89.4	88.5	86.0	81.0	↗
Passenger Trips per Revenue Mile	7.89	7.49	8.76	8.68	8.43	7.46	↘
Operating Expense Per Passenger Trip	\$2.33	\$2.62	\$2.81	\$2.66	\$3.03	\$3.19	↗
Operating Expense Per Revenue Hour	\$187.64	\$202.00	\$251.32	\$234.96	\$260.55	\$258.26	↗
Weekend Service Availability (Revenue Hours)	542	648	520	588	597	452	↘
Total Operating Expenses	\$22,487,177	\$26,178,144	\$27,923,030	\$27,396,983	\$28,675,295	\$28,066,947	↗
Maintenance Expenses	\$12,287,490	\$13,422,695	\$14,098,843	\$14,907,399	\$15,694,867	17,444,359	↗

Data Source: 2017 National Transit Database and 2018 Unvalidated NTD data from DTPW

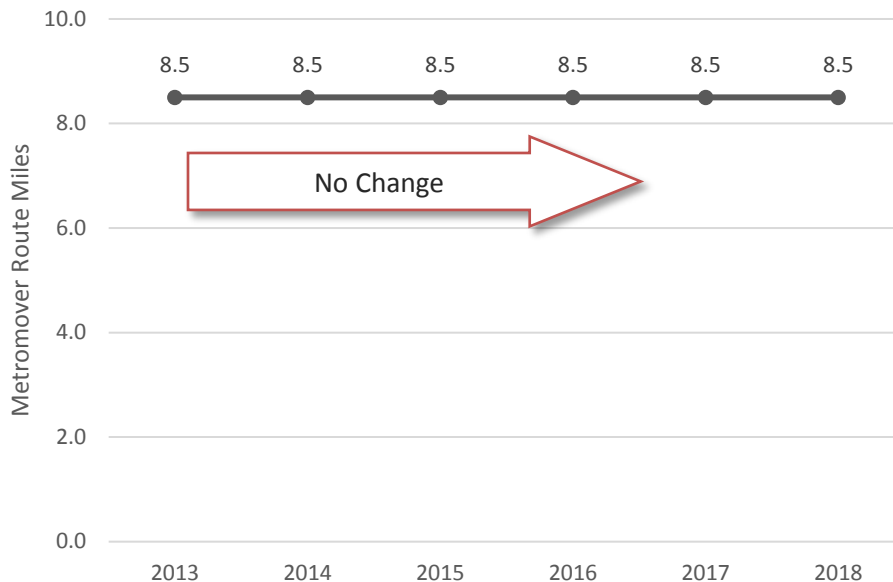
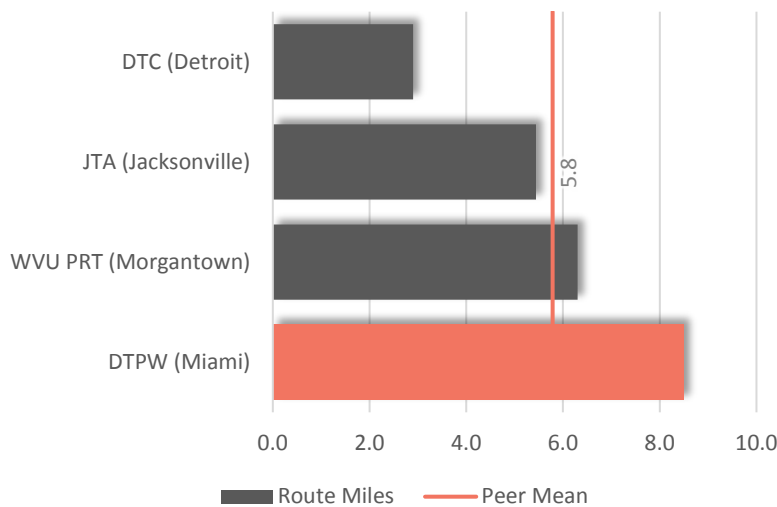
4.6.1 Farebox Recovery

After passage of Miami-Dade County’s People’s Transportation Plan, DTPW’s Metromover system became a free-fare service in 2004. Therefore, farebox recovery ratios are not reported.

4.6.2 Route Miles

As Figure 4-36 illustrates, DTPW’s automated guideway system operates more route miles than the selected peer agencies, providing 8.5 route miles of service from 2013 to 2018.

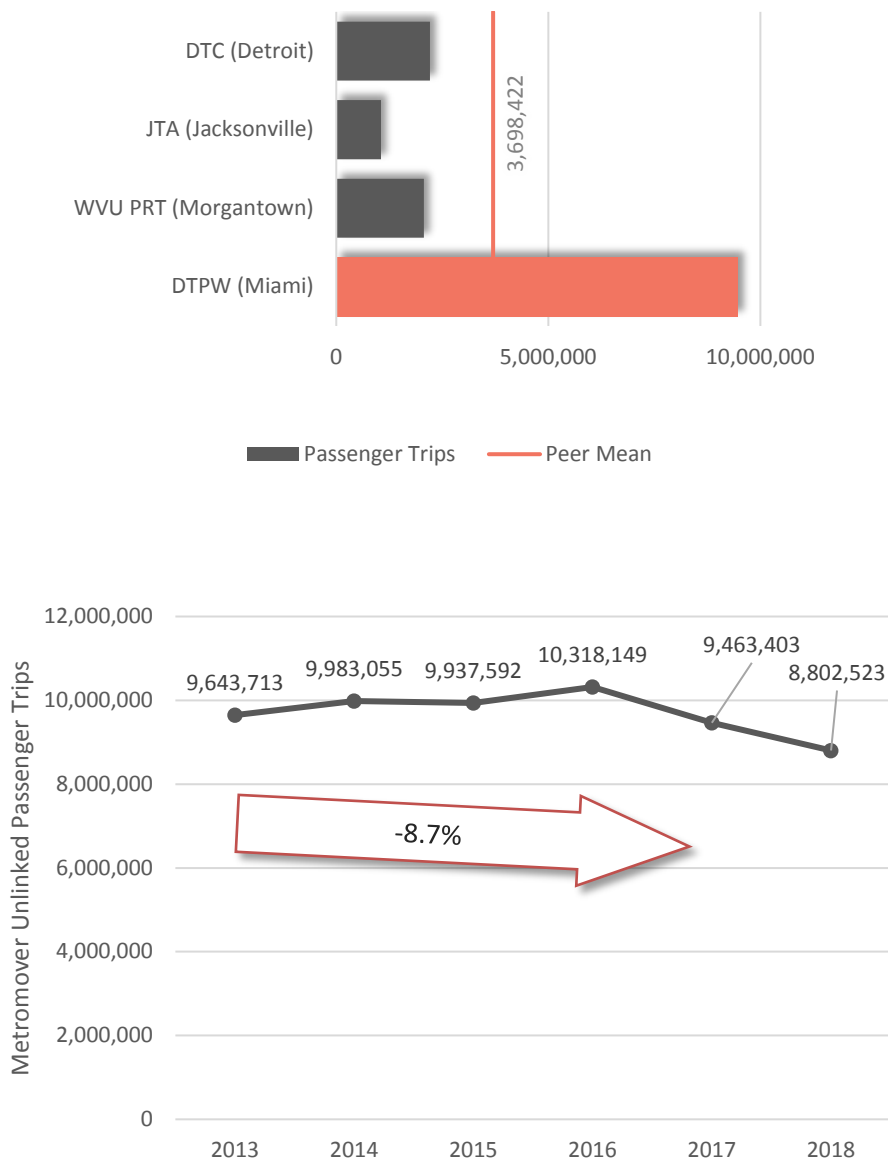
Figure 4-36: Automated Guideway Route Miles



4.6.3 Unlinked Passenger Trips

Figure 4-37 shows the number of unlinked passenger trips for DTPW and its selected peers. In 2017, DTPW’s Metromover system handled more than 9.4 million unlinked passenger trips, the highest among its peers. Metromover ridership peaked in 2016 with over 10.3 million passenger trips before declining to 8.8 million trips in 2018. Overall, passenger trips have declined 8.7% in the six most recent years of operation.

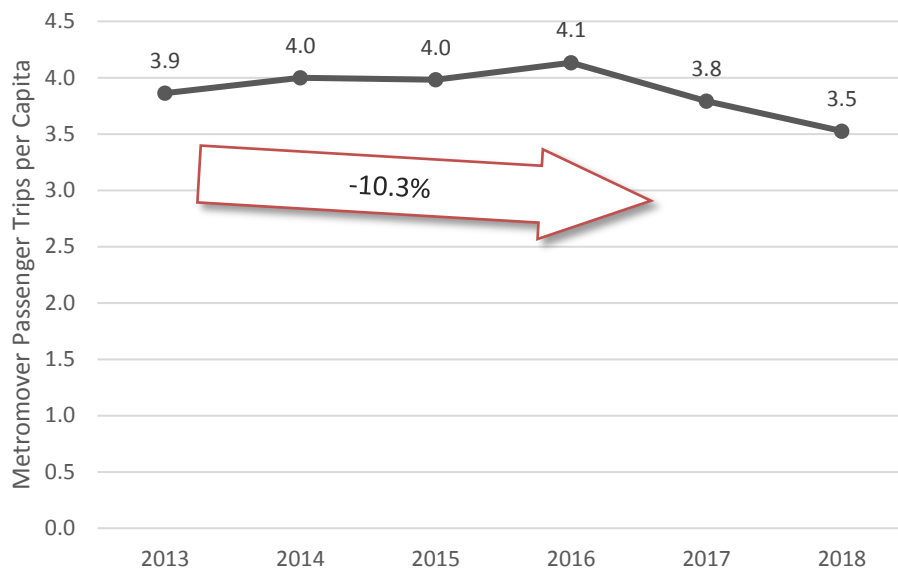
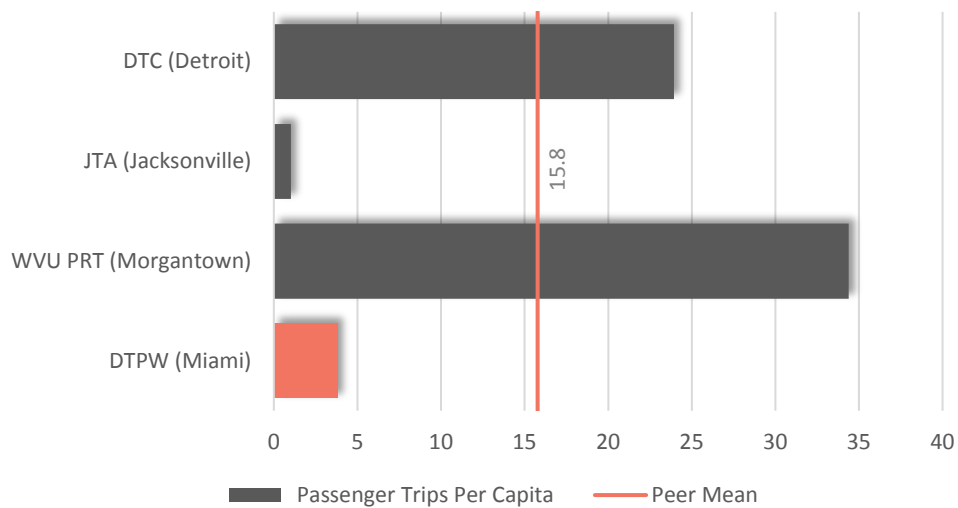
Figure 4-37: Automated Guideway Unlinked Passenger Trips



4.6.4 Passenger Trips per Service Area Capita

Figure 4-38 shows the unlinked passenger trips per service area capita for DTPW and its selected peers. Metromover ranks above JTA but 76% below the peer mean. DTC’s high rank is driven by its small service area population, while WVU PRT is driven by the land use patterns surrounding the university. It is important to note that reporting for service area capita may not be equitable across these modes, as agencies like DTPW and JTA included the service area capita of the entire fixed-route system. Metromover passenger trips per capita declined at the same rate as passenger trips since the reported service area population has not changed throughout the six-year period.

Figure 4-38: Automated Guideway Unlinked Passenger Trips per Service Area Capita

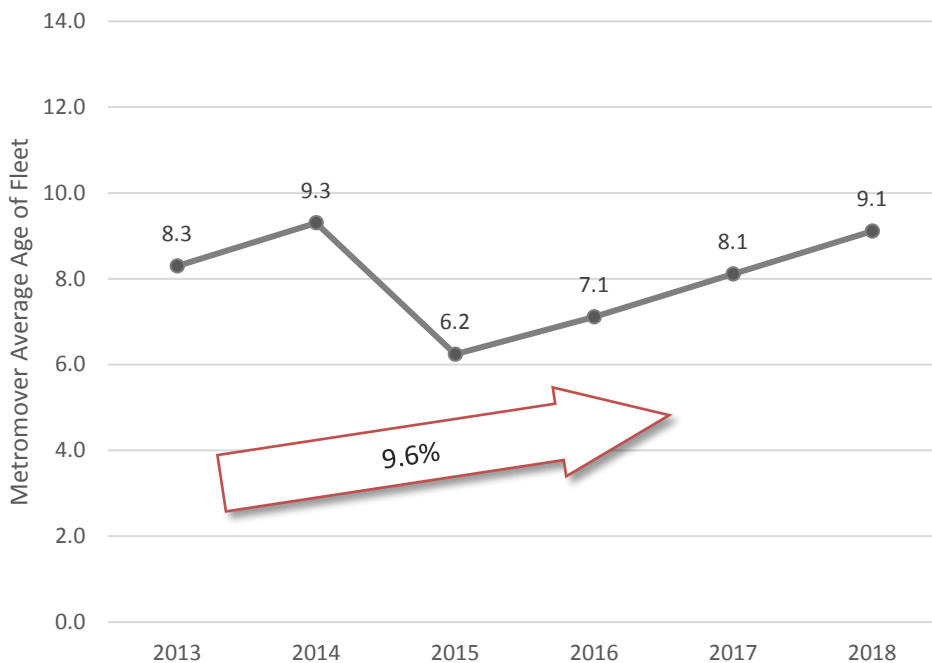
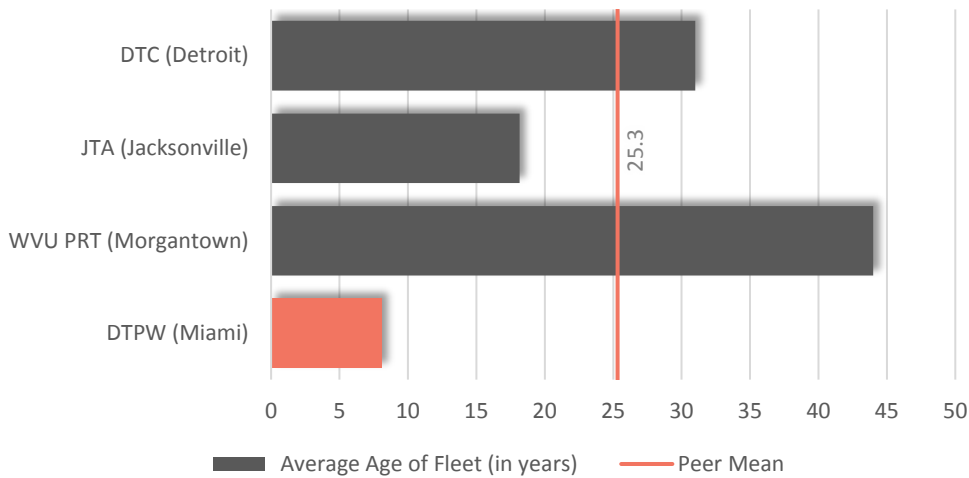


**Due to variance in reporting methods, service area population measure may not be equitable across all modes.*

4.6.5 Average Age (yrs.) of Fleet

Figure 4-39 shows the average age of DTPW's and its peers' automated guideway fleet. DTPW has the youngest fleet in the peer group with an average age of 8.1 years, substantially below the peer mean. The addition of several new cars in 2015 decreased the average of the Metromover fleet to 6.2 years. Since 2015 no new vehicles have been added to the fleet, and the average age of the fleet has annually increased by approximately one year .

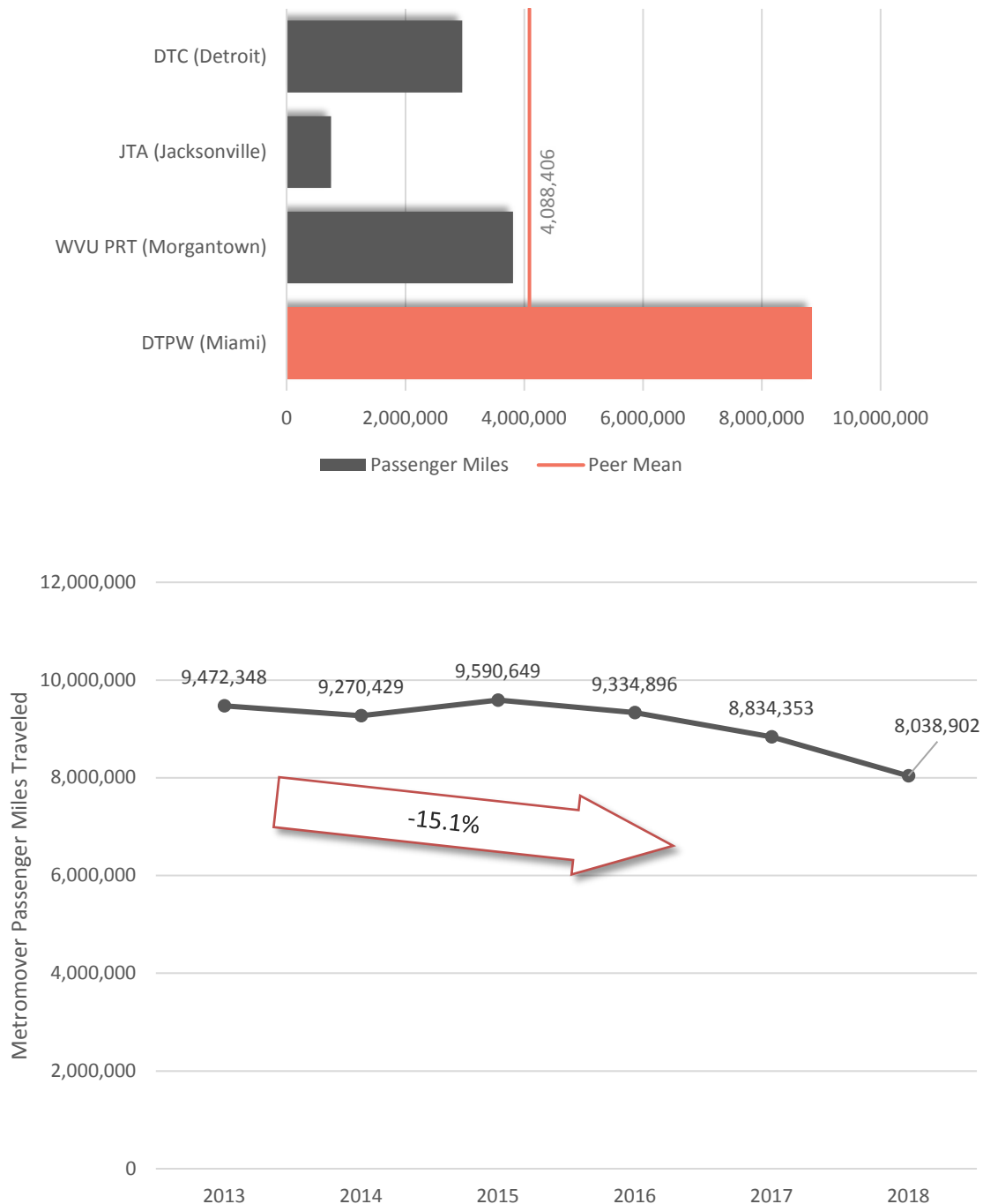
Figure 4-39: Average Age (years) of Automated Guideway Fleet



4.6.6 Passenger Miles Traveled

As indicated in Figure 4-40, DTPW has the highest number of annual passenger miles traveled when compared to the rest of the peer group, recording over 8.8 million passenger miles traveled in 2017. However, Metromover annual passenger miles traveled has decreased 15.1% from 2013 to 2018.

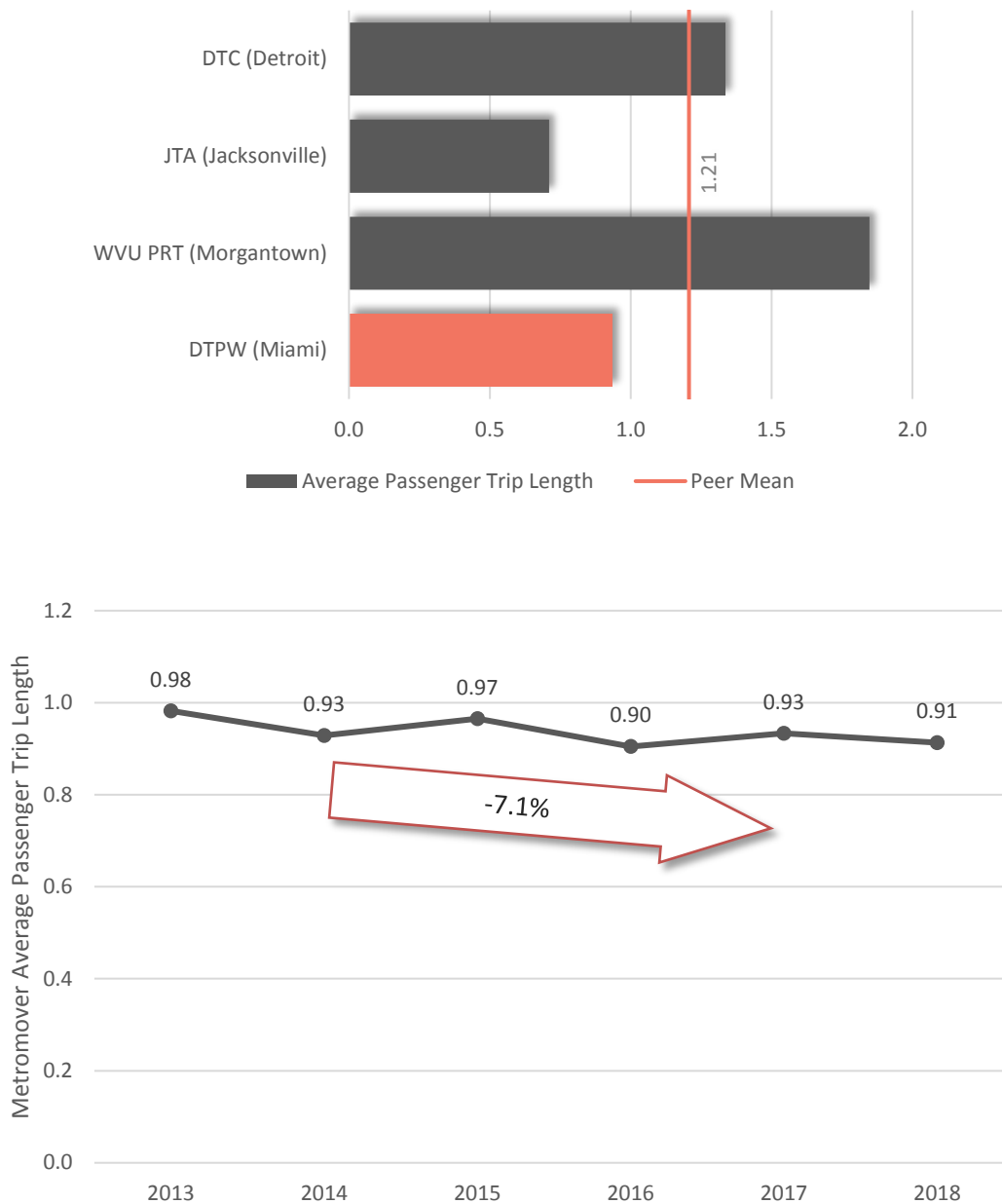
Figure 4-40: Automated Guideway Passenger Miles Traveled



4.6.7 Average Passenger Trip Length

Figure 4-41 shows the average trip length of DTPW’s Metromover system and the selected peers. The average passenger trip length is 22% below the peer mean of 1.21 miles per trip. The average passenger trip length of Metromover riders fluctuated slightly from 2013 to 2018 between 0.90 and 0.98 miles, with an overall decrease of 7.1% in the six-year period.

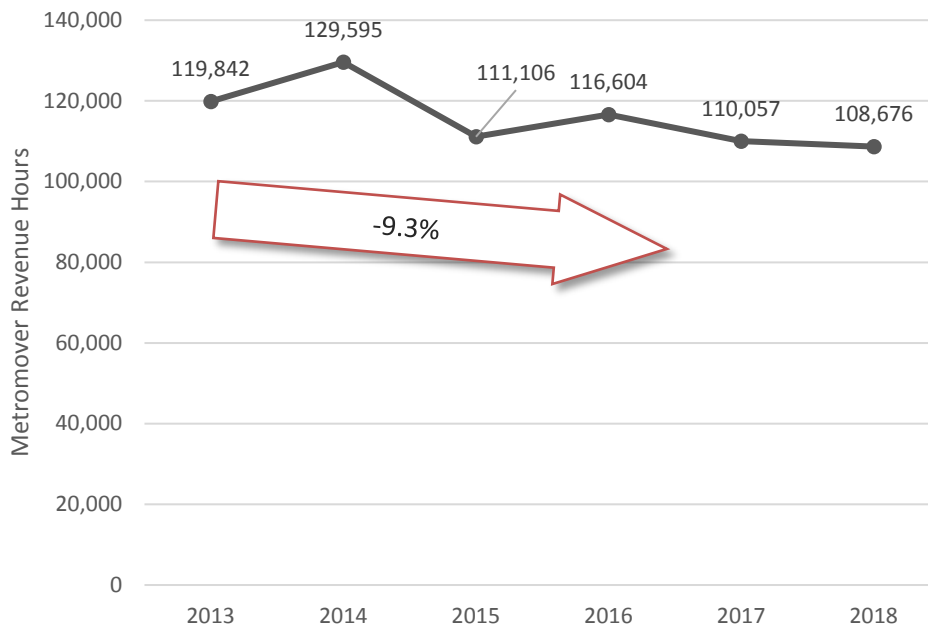
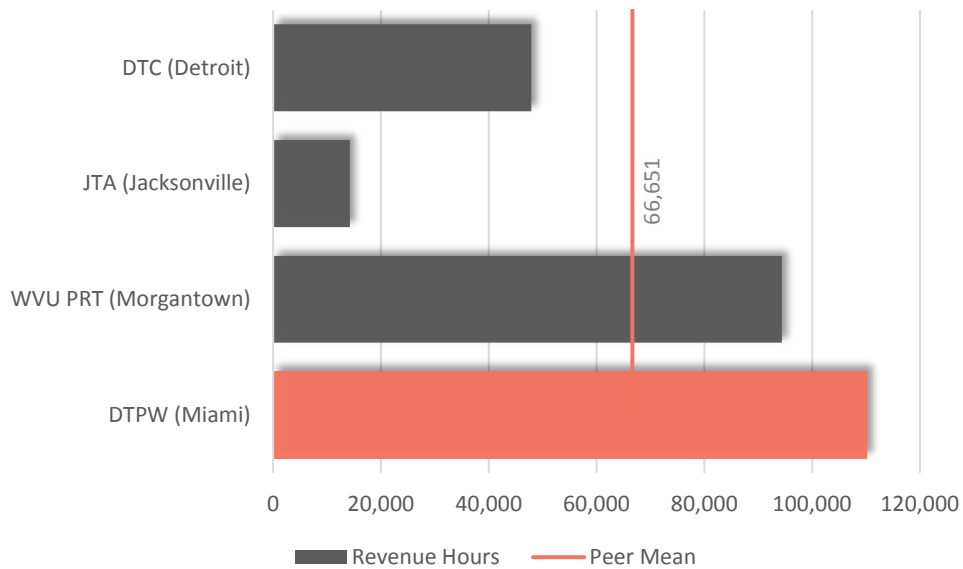
Figure 4-41: Automated Guideway Average Passenger Trip Length (miles)



4.6.8 Revenue Hours

Figure 4-42 shows the automated guideway vehicle revenue hours for DTPW and its peers. As of 2017, DTPW operates more automated guideway revenue hours than its peers. Examining the trend for this metric, Metromover revenue hours decreased 9.3% overall from 2013 to 2018.

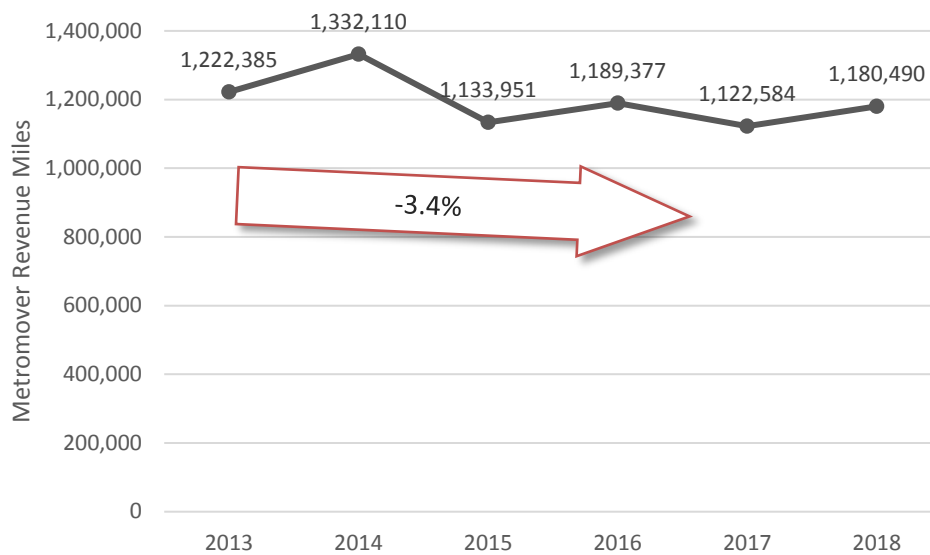
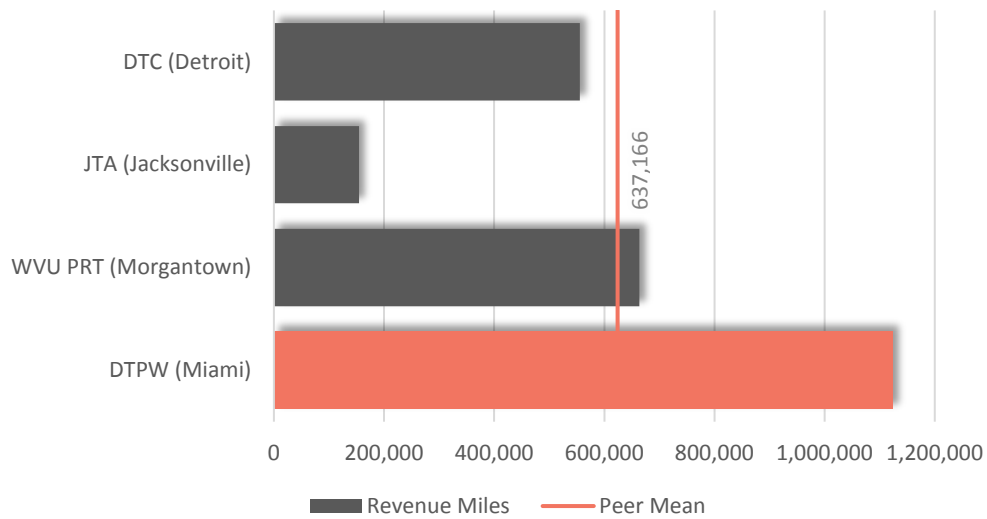
Figure 4-42: Automated Guideway Revenue Hours



4.6.9 Revenue Miles

Figure 4-43 shows the automated guideway revenue miles for DTPW and its peer agencies. Revenue miles and revenue hours are both measures of service supply, with one based on distance of total travel for a mode and the other relationally based on the time it takes to travel the total distance indicated for that mode. DTPW provided the most revenue miles of service than its three peers. Over time, Metromover total revenue miles have decreased 3.4% between 2013 and 2018.

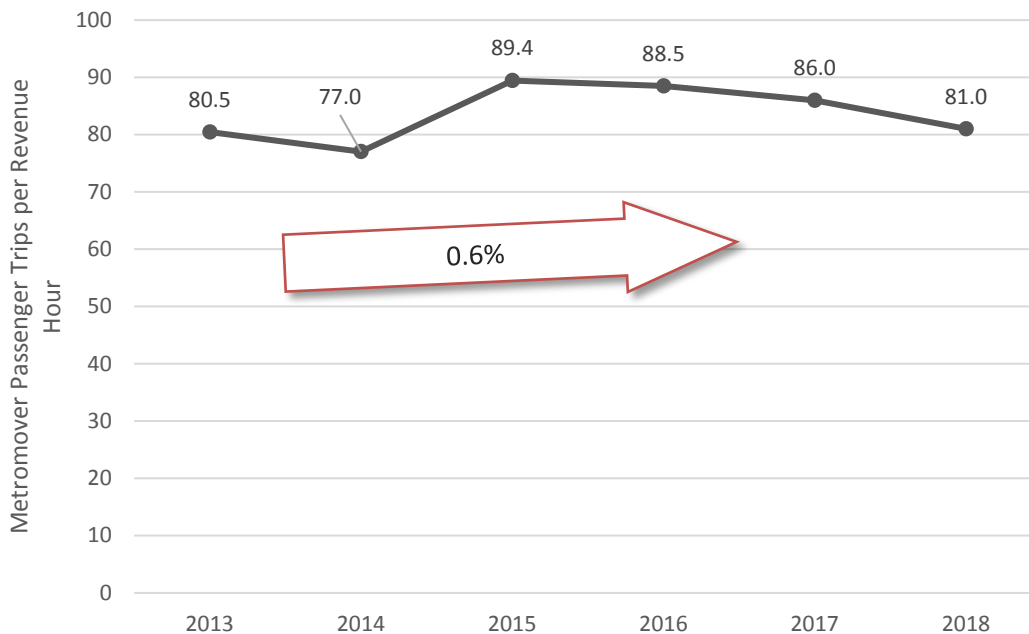
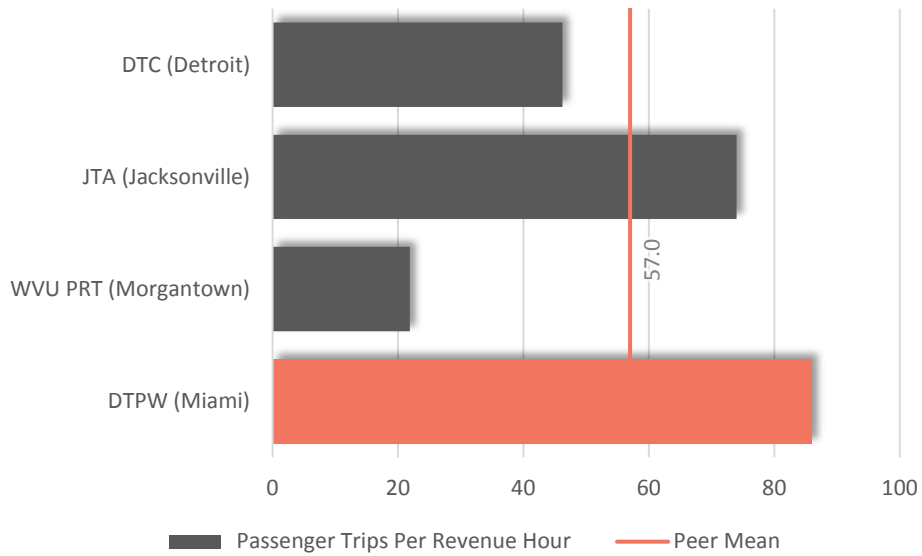
Figure 4-43: Automated Guideway Revenue Miles



4.6.10 Passenger Trips per Revenue Hour

Passenger trips per revenue hour for DTPW and its peer agencies are shown in Figure 4-44 for the automated guideway mode. DTPW ranks first in its peer group, followed by JTA. Metromover passenger trips per revenue hour increased only 0.6% between 2013 and 2018, with a decreasing trend since 2015. The reduction in revenue hours in 2015, noted previously, led to the peak in this trip per hour measure in 2015.

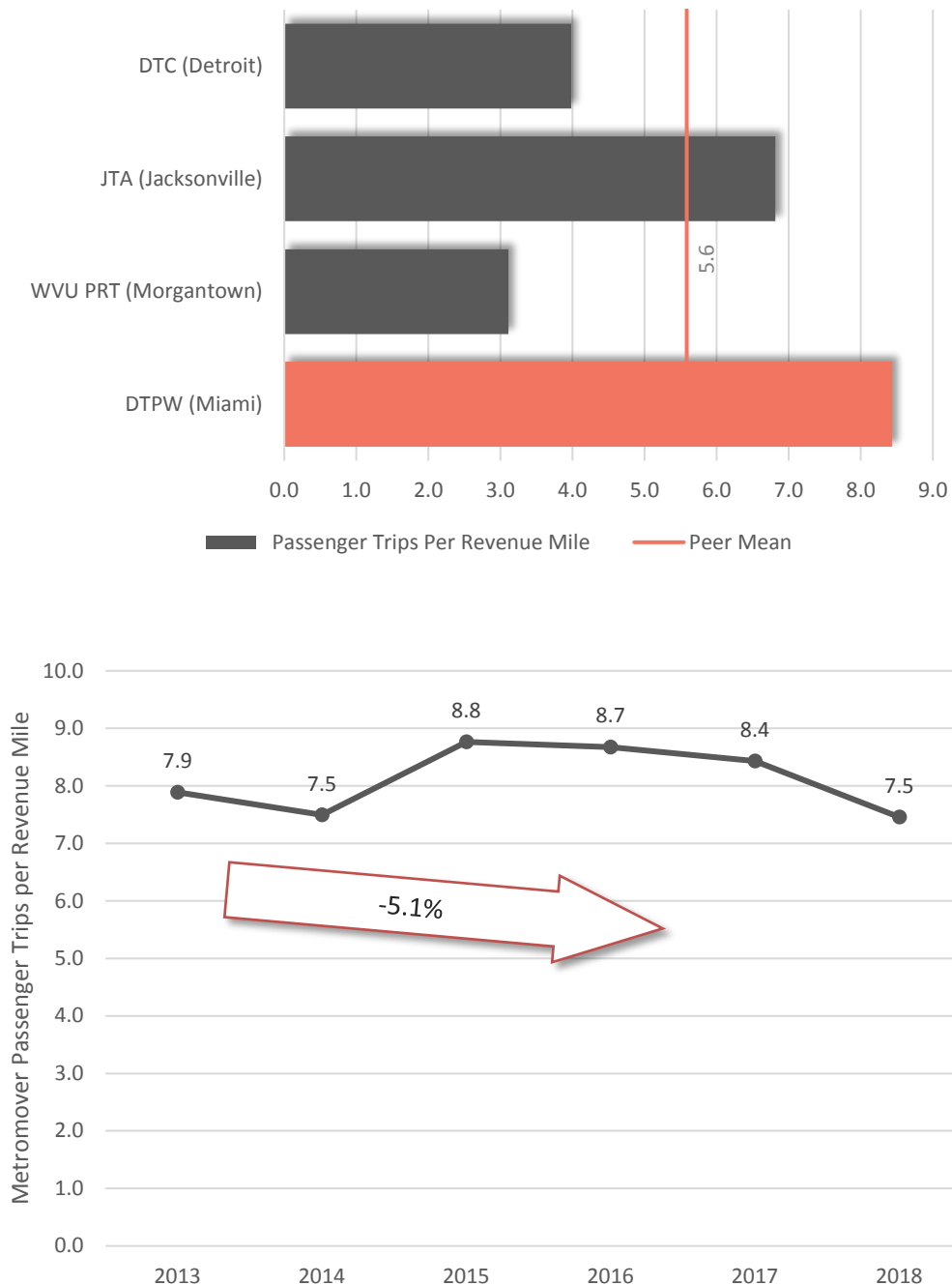
Figure 4-44: Automated Guideway Passenger Trips per Revenue Hour



4.6.11 Passenger Trips per Revenue Mile

Figure 4-45 shows the passenger trips per revenue mile for DTPW and its peer agencies. Similar to passenger trips per revenue hour, DTPW ranks first in its peer group, 51% above the peer mean. However, this measure exhibits a modest decline between 2013 and 2018 (5.1%).

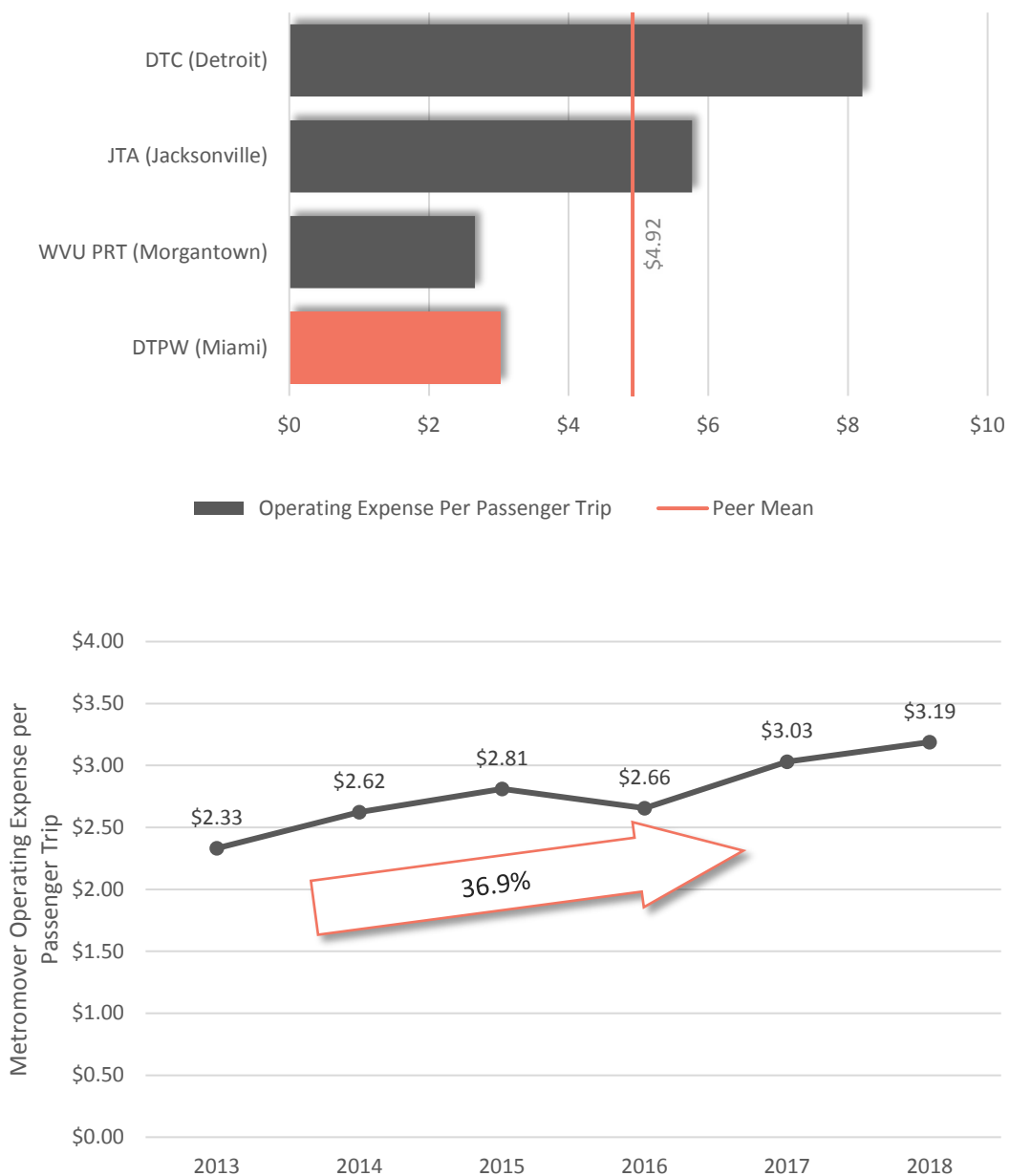
Figure 4-45: Automated Guideway Passenger Trips per Revenue Mile



4.6.12 Operating Cost per Passenger Trip

Operating cost per passenger trip illustrates cost efficiency. Figure 4-46 shows the automated guideway operating cost per passenger trip for DTPW and its peer agencies. DTPW operates at a cost per trip level that is 38% below the peer mean, recording an average operating cost of \$3.03 per passenger trip in 2017. Despite this positive peer comparison, increasing operating costs combined with declining passenger trips between 2013 and 2018 have resulted in an overall increase of 36.9% in Metromover’s operating expense per passenger trips during this six-year period.

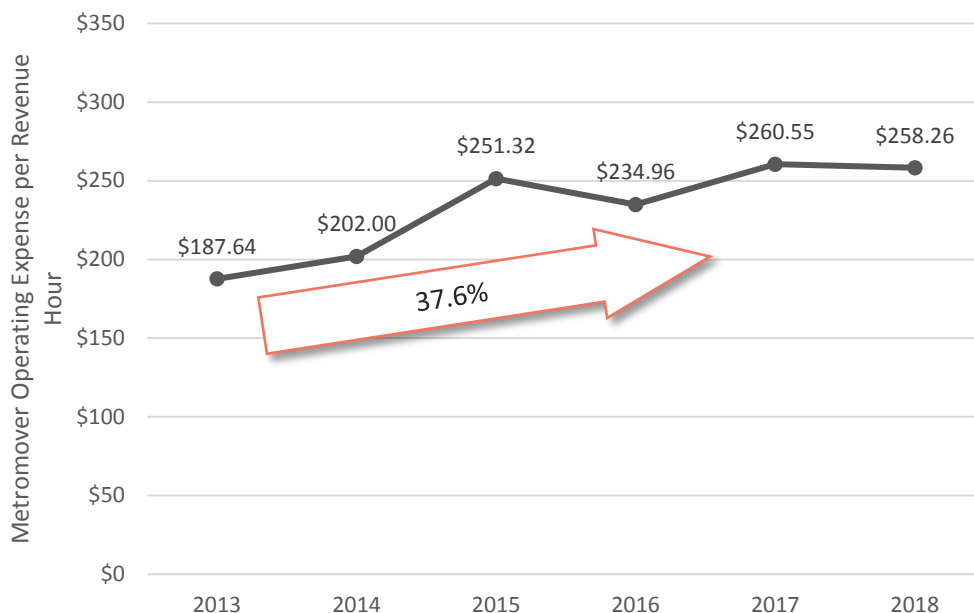
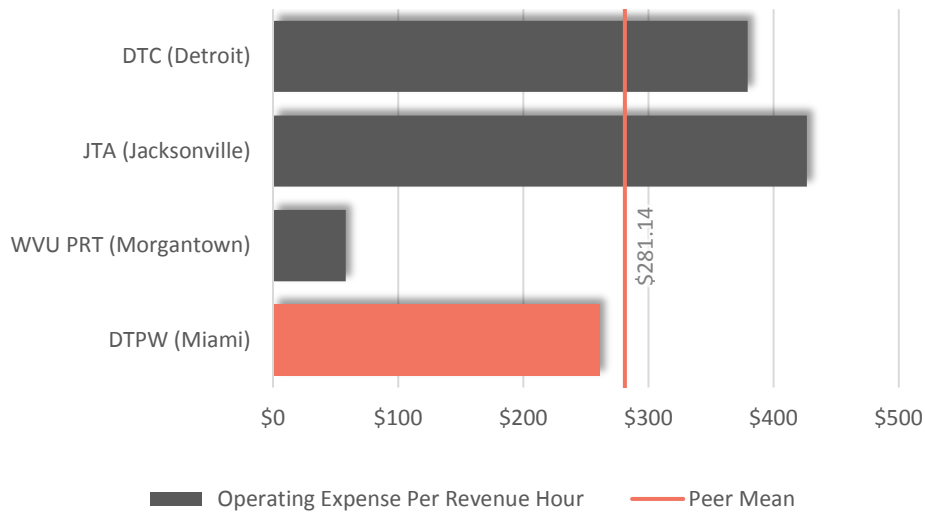
Figure 4-46: Automated Guideway Operating Cost per Passenger Trip



4.6.13 Operating Cost per Revenue Hour

Operating cost per revenue hour is another measure of cost efficiency. Figure 4-47 shows the operating cost per revenue hour of DTPW and its peer group. DTPW operates slightly below the peer mean of \$281.14 per revenue hour. Over time, Metromover’s operating expense per revenue hour metric experienced a similar trend to that for operating cost per passenger trip, increasing 37.6% overall from 2013 to 2018.

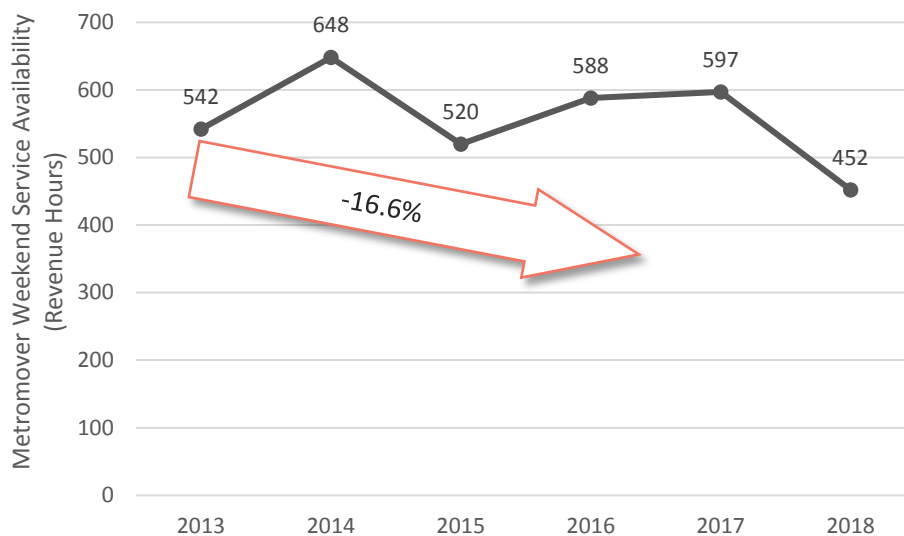
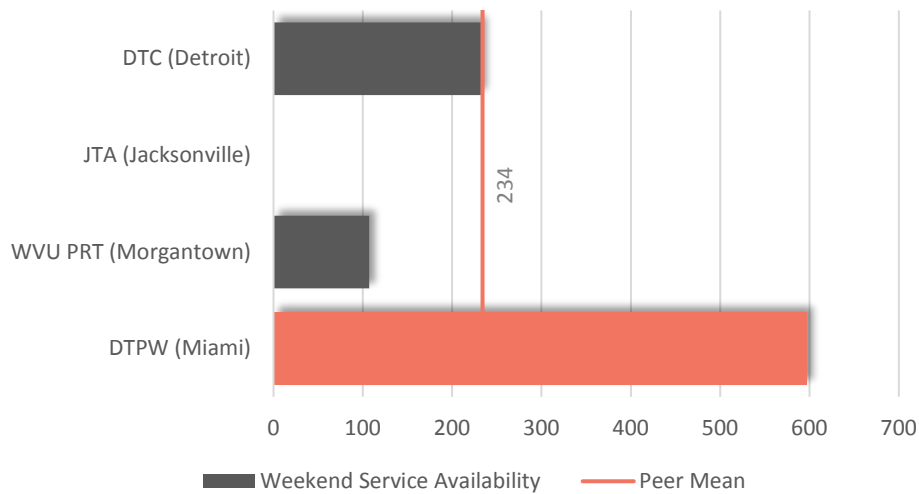
Figure 4-47: Automated Guideway Operating Cost per Revenue Hour



4.6.14 Weekend Service Availability

Figure 4-48 shows revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. Although JTA offers weekend Skyway service for special events, no hours of service were reported as a part of typical weekend service. As the graphic shows, DTPW provides significantly more Metromover weekend service than all three of its peers. However, weekend service availability for Metromover has decreased 16.6% overall between 2013 and 2018.

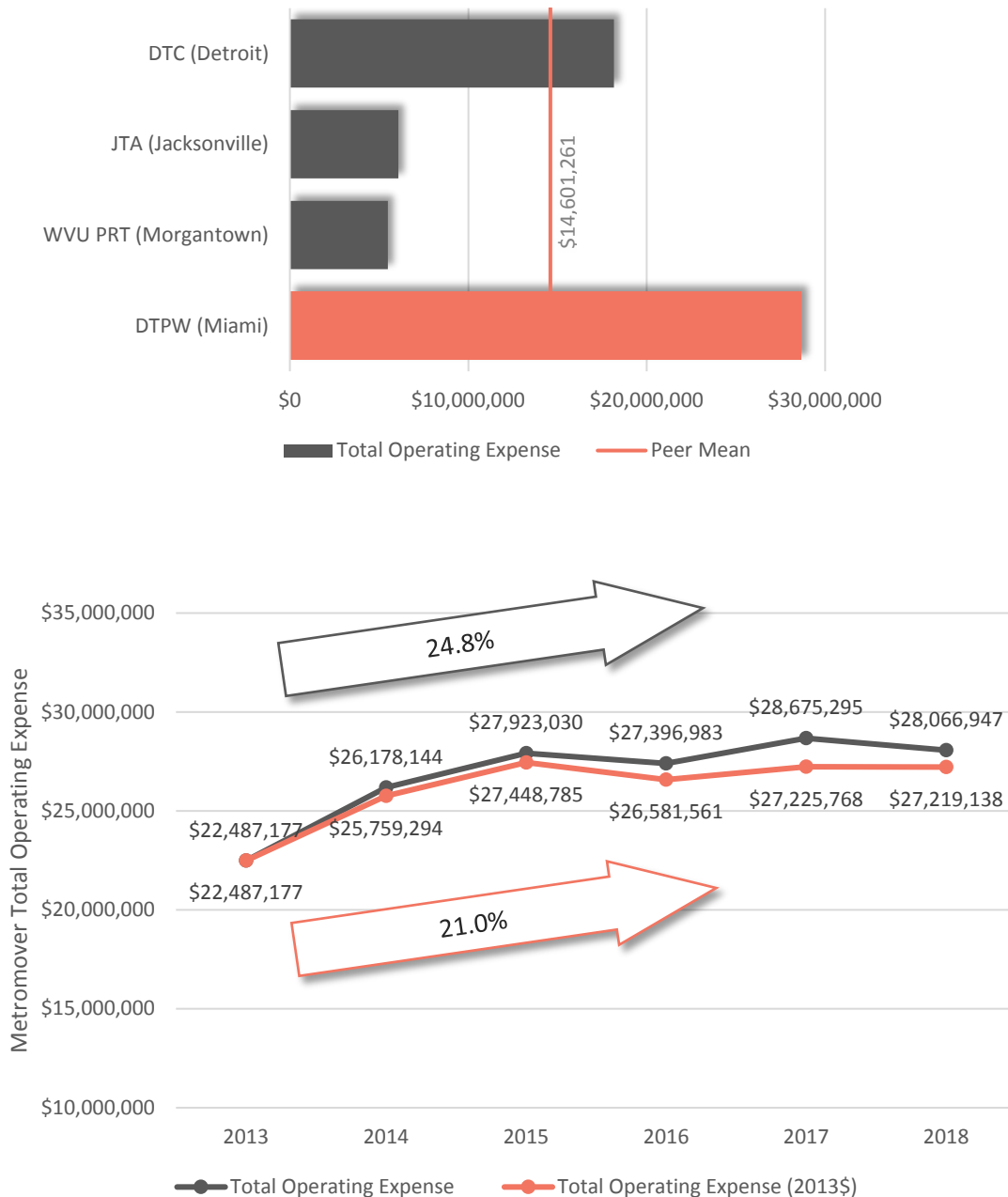
Figure 4-48: Automated Guideway Weekend Service Availability



4.6.15 Operating Expenses

Figure 4-49 shows total operating expenses for automated guideway service for DTPW and its selected peers. In 2017, DTPW's total operating expenses for its Metromover system was close to \$28.7 million, the highest of its peer group. Over the past six years, total Metromover operating expenses have increased 24.8% from 2013 to 2018, and 21.0% overall when taking inflation into account.

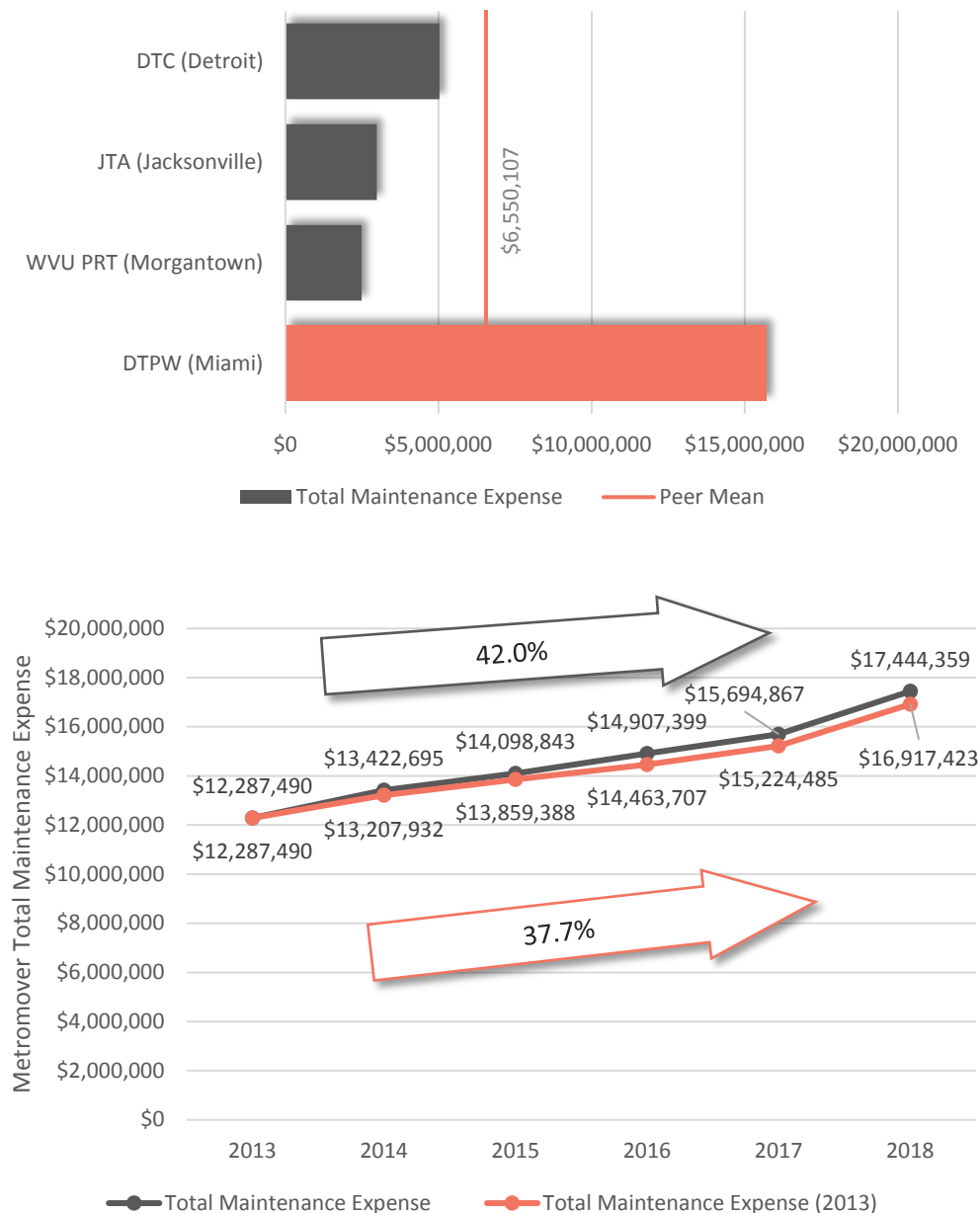
Figure 4-49: Automated Guideway Operating Expenses



4.6.16 Maintenance Expenses

Maintenance expenses are a subset of total operating expenses in the data provided by NTD. Figure 4-50 shows maintenance expenses for automated guideway service for DTPW and its selected peers. In 2017, DTPW's maintenance expenses were more than twice that of its selected peers, topping over \$15.6 million, which is roughly proportionate to its scale in terms of vehicle revenue hours. Looking at the trend in this indicator, Metromover maintenance expenses increased 42% between 2013 and 2018, and just under 38% when inflation is considered.

Figure 4-50: Automated Guideway Maintenance Expenses





4.6.17 Farebox Recovery

After passage of Miami-Dade County's People's Transportation Plan, DTPW's Metromover system became a free-fare service in 2004. Therefore, farebox recovery ratios are not reported.



4.7 Demand Response Peer and Trend Analysis



Figure 4-51: Special Transportation Service Peer Agencies summarizes DTPW and the peer agencies selected for the demand response-related analysis. The selection process for this mode examined location of headquarters, as well as service area population and service area size. Table 4-8 compares statistics for DTPW's Special Transportation Service (STS) to the peer agencies included in this analysis. Demand response service in Miami is impacted by the relatively larger percentage of elderly people in DTPW's service area, many of whom are eligible to use demand response service as described in Chapter 3: Existing Services.

Table 4-9 presents the 2013-2018 trends in operating and service statistics for the six most recent years of DTPW's demand response service.

Figure 4-51: Special Transportation Service Peer Agencies

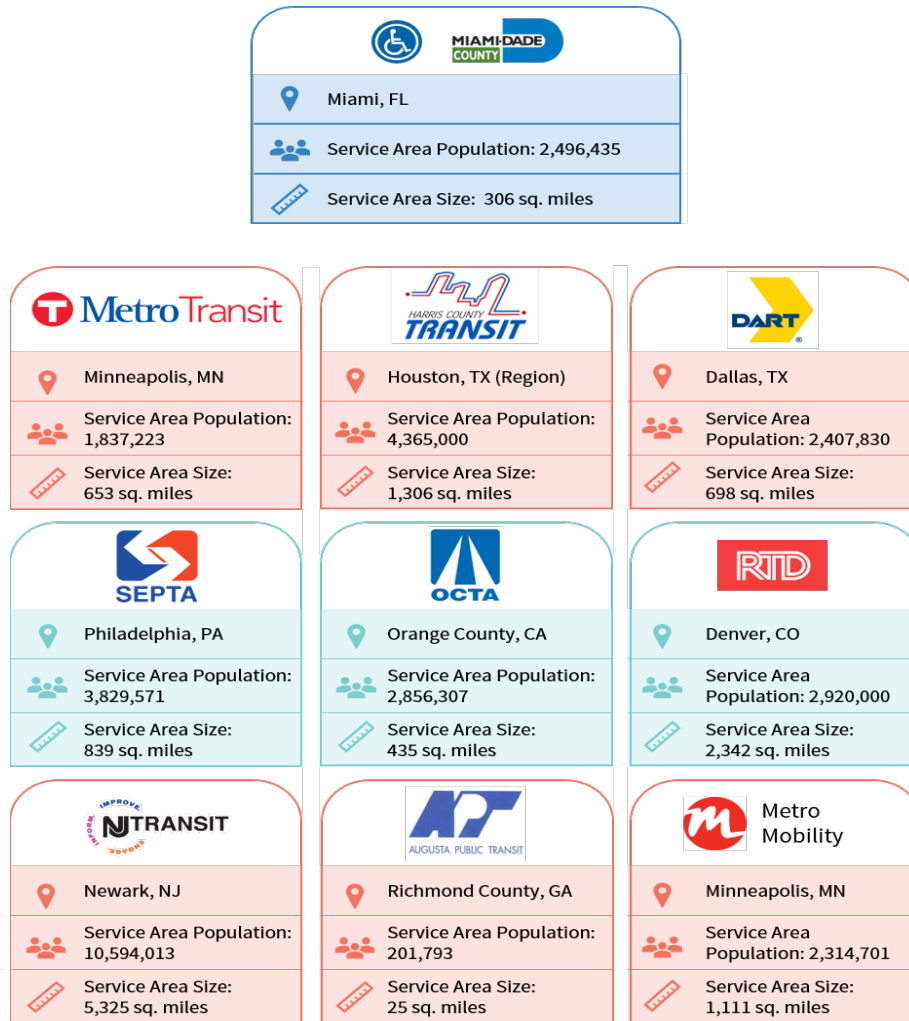




Table 4-8: Special Transportation Service Peer Comparison

Agency	DTPW (Miami)	NJ Transit (Newark)	SEPTA (Philadelphia)	APT (Richmond County, GA)	Metro Mobility (St. Paul)	Harris MTA (Houston)	DART (Dallas)	RTD (Denver)	OCTA (Orange County, CA)	Peer Mean
Farebox Recovery Ratio (%)	11.7	3.6	9.2	5.8	8.9	3.9	6.7	9.6	9.3	7.6
Unlinked Passenger Trips	1,633,236	1,610,072	1,704,463	26,440	2,176,790	1,669,729	339,471	1,215,468	1,475,934	1,316,845
Average Age (yrs.) of Demand Response Fleet	3.8	2.9	3.4	3.4	2.2	1.6	4.7	2.3	2.5	3.0
Passenger Miles Traveled	21,038,219	9,898,392	12,173,363	140,066	25,160,614	18,532,714	4,076,199	10,585,859	16,656,225	13,140,183
Average Passenger Trip Length	12.88	6.15	7.14	5.30	11.56	11.10	12.01	8.71	11.29	9.57
Vehicle Revenue Hours	1,105,810	920,219	1,070,395	15,797	1,153,352	1,034,654	172,457	724,579	702,803	766,674
Vehicle Revenue Miles	13,016,158	15,341,120	11,184,357	184,062	20,819,290	16,371,554	2,184,728	11,348,658	11,542,910	11,332,537
Passenger Trips per Revenue Hour	1.48	1.75	1.59	1.67	1.89	1.61	1.97	1.68	2.10	1.75
Passenger Trips per Revenue Mile	0.125	0.105	0.152	0.144	0.105	0.102	0.155	0.107	0.128	0.125
Operating Expense Per Passenger Trip	\$30.80	\$60.29	\$37.36	\$39.88	\$29.49	\$29.75	\$38.23	\$43.47	\$47.51	\$39.64
Operating Expense Per Revenue Hour	\$45.50	\$105.48	\$59.49	\$66.74	\$55.66	\$48.01	\$75.25	\$72.92	\$99.78	\$69.87
Weekend Service Availability (Revenue Hours)	3,669	2,802	2,369	32	3,054	3,003	198	1,243	1,107	1,942
Total Operating Expenses	\$50,311,740	\$97,067,992	\$63,679,395	\$1,054,320	\$64,200,843	\$49,674,936	\$12,977,363	\$52,834,110	\$70,126,555	\$51,325,250
Maintenance Expenses	\$7,262,034	\$19,664,582	\$13,524,407	\$256,231	\$6,964,934	\$9,983,062	\$186,569	\$14,079,802	\$13,231,823	\$9,461,494

Data Source: 2017 National Transit Database





Table 4-9: DTPW Special Transportation Service 2013-2018 Trend

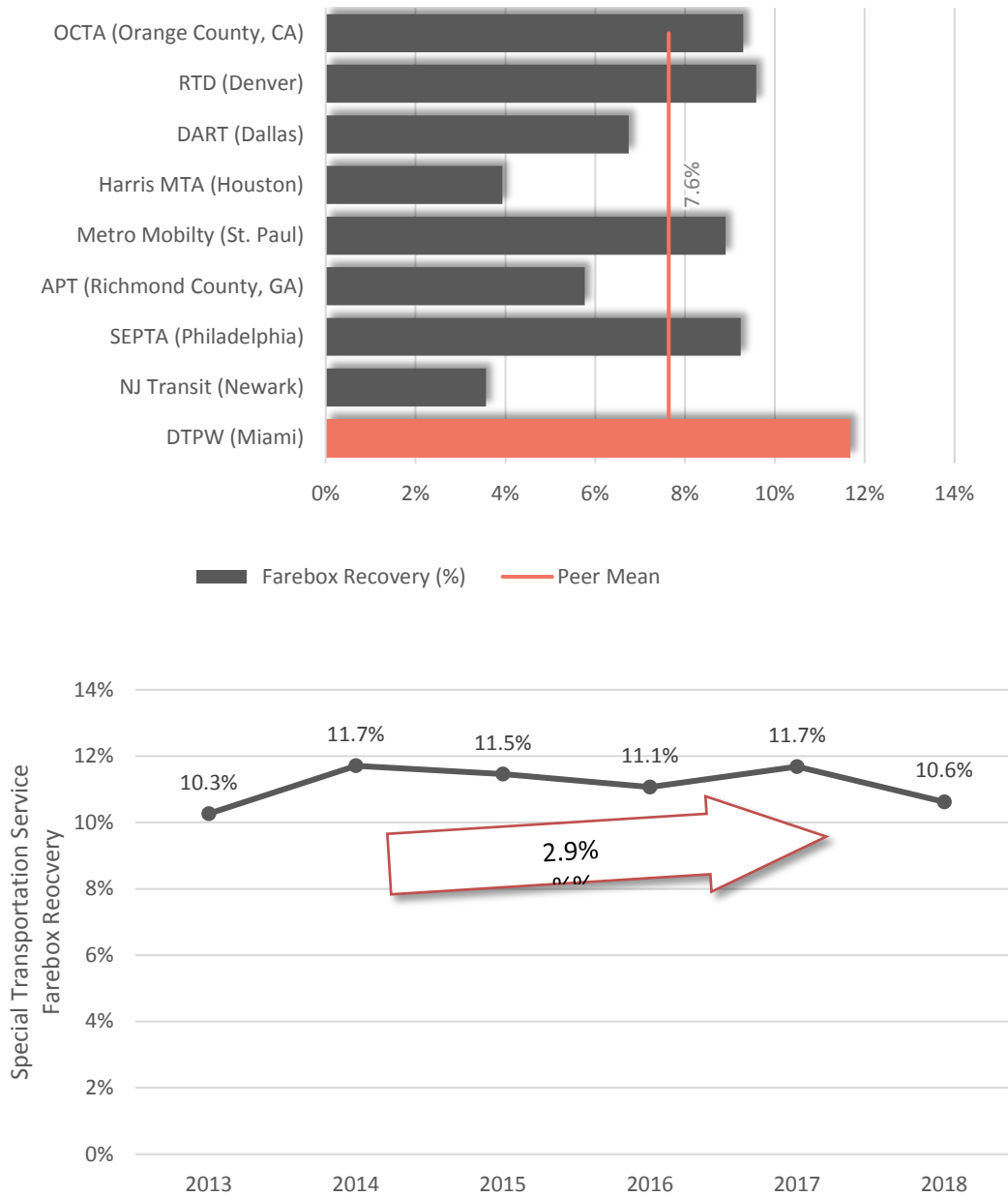
Agency	2013	2014	2015	2016	2017	2018	Trend
Farebox Recovery Ratio (%)	10.3	11.7	11.5	11.1	11.7	10.6	↗
Unlinked Passenger Trips	1,706,940	1,679,570	1,650,969	1,643,345	1,633,236	1,743,023	↗
Average Age (yrs.) of Demand Response Fleet	1.9	2.2	2.5	3.1	3.8	4.0	↗
Passenger Miles Traveled	21,753,921	19,414,170	21,008,571	21,288,787	21,038,219	21,152,232	↘
Average Passenger Trip Length	12.74	11.56	12.72	12.95	12.88	12.14	↘
Vehicle Revenue Hours	1,067,817	942,636	1,067,809	1,093,260	1,105,810	1,070,714	↗
Vehicle Revenue Miles	14,680,035	12,940,349	14,159,764	13,339,934	13,016,158	12,509,097	↘
Passenger Trips per Revenue Hour	1.60	1.78	1.55	1.50	1.48	1.63	↗
Passenger Trips per Revenue Mile	0.12	0.13	0.12	0.12	0.13	0.14	↗
Operating Expense Per Passenger Trip	\$26.80	\$27.26	\$30.31	\$31.08	\$30.80	\$31.98	↗
Operating Expense Per Revenue Hour	\$42.84	\$48.57	\$46.86	\$46.72	\$45.50	\$52.05	↗
Weekend Service Availability (Revenue Hours)	3000	3048	3177	3644	3669	3468	↗
Total Operating Expenses	\$45,742,809	\$45,785,241	\$50,033,828	\$51,071,628	\$50,311,740	\$55,734,369	↗
Maintenance Expenses	6,368,128	6,366,934	6,958,451	7,159,038	7,262,034	7,927,985	↗

Source: 2013-2017 NTD Data and 2018 Unvalidated NTD data from DTPW

4.7.1 Farebox Recovery

Figure 4-52 compares the demand response farebox recovery ratio for DTPW and its selected peers. DTPW's demand response service performs at the top of its peer group in this measure, 53% above the peer mean. Trend-wise, Special Transportation Service's farebox recovery ratio fluctuated between 10.3 and 11.7% in the most recent six-year period, with an overall increase of 2.9%.

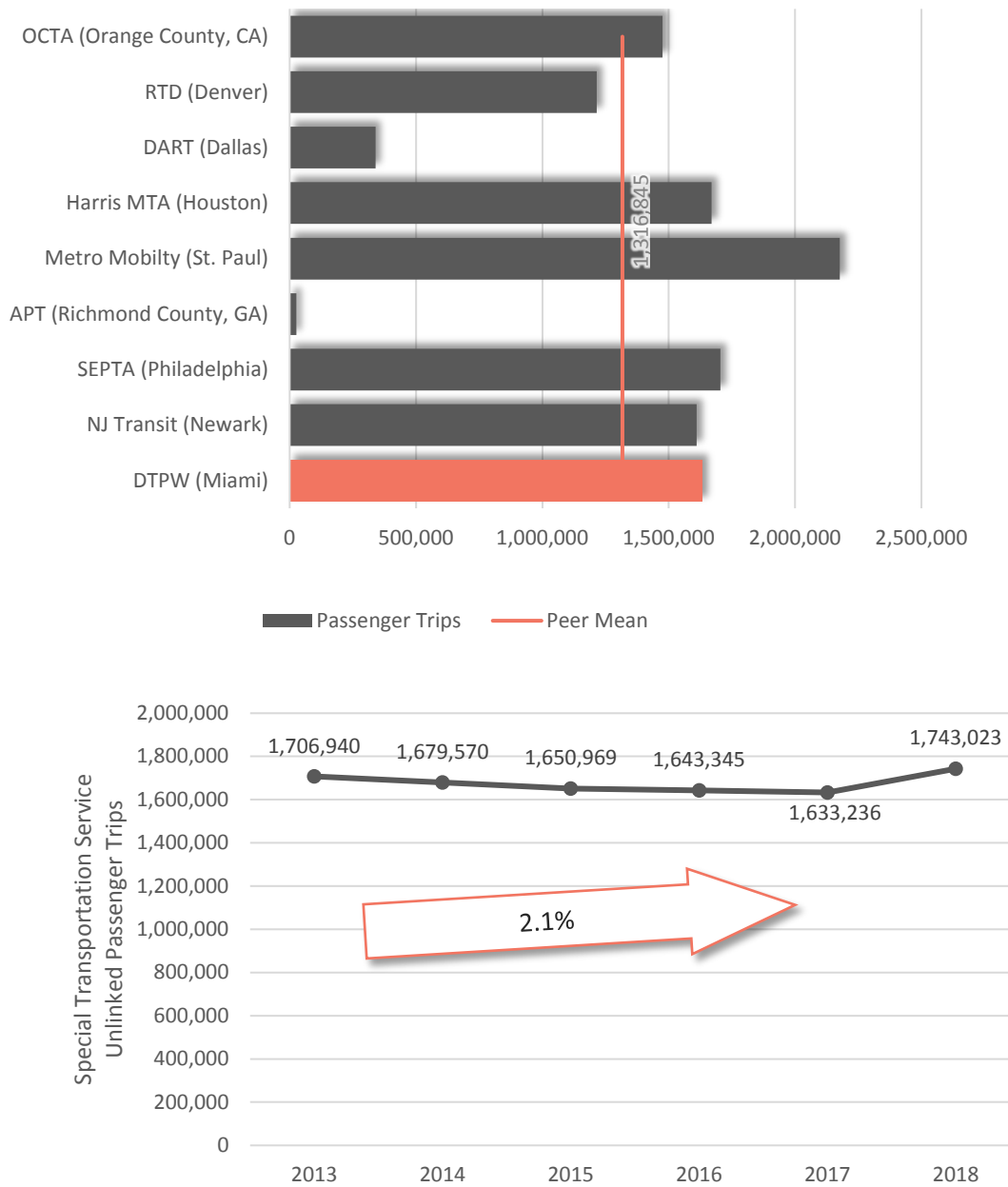
Figure 4-52: Demand Response Farebox Recovery Ratio



4.7.2 Unlinked Passenger Trips

Figure 4-53 compares unlinked passenger trips for DTPW and its demand response peers. In 2017, DTPW's demand response service handled more than 1.6 million passenger trips, 24% more than the peer mean. Note that DART and APT provide significantly less service than the peer group, and, therefore, rank the lowest in passenger trips and other service supply measures seen later in this section. As a result, the peer mean for the per-trip measures may be skewed. STS passenger trips decreased annually from 2013 to 2017 before spiking back up above 2013 levels in 2018, representing an overall 2.1% increase in passenger trips.

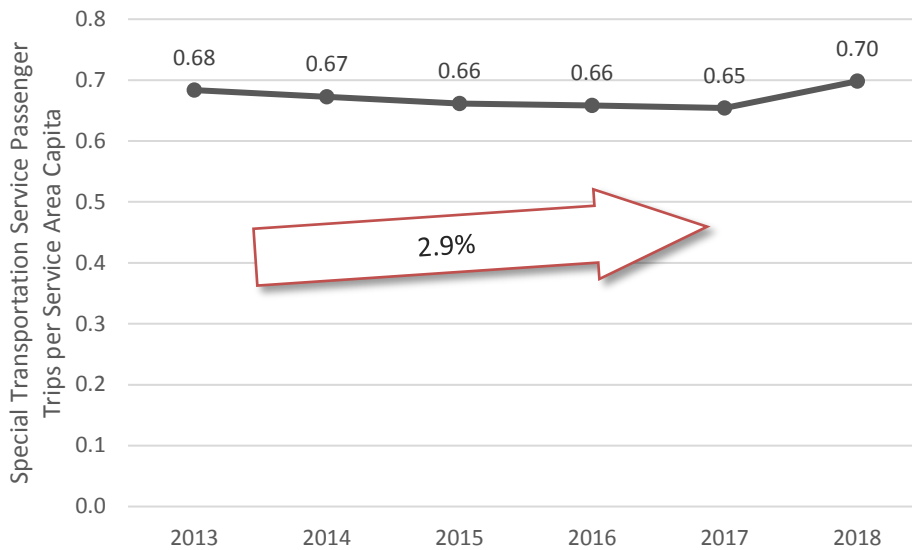
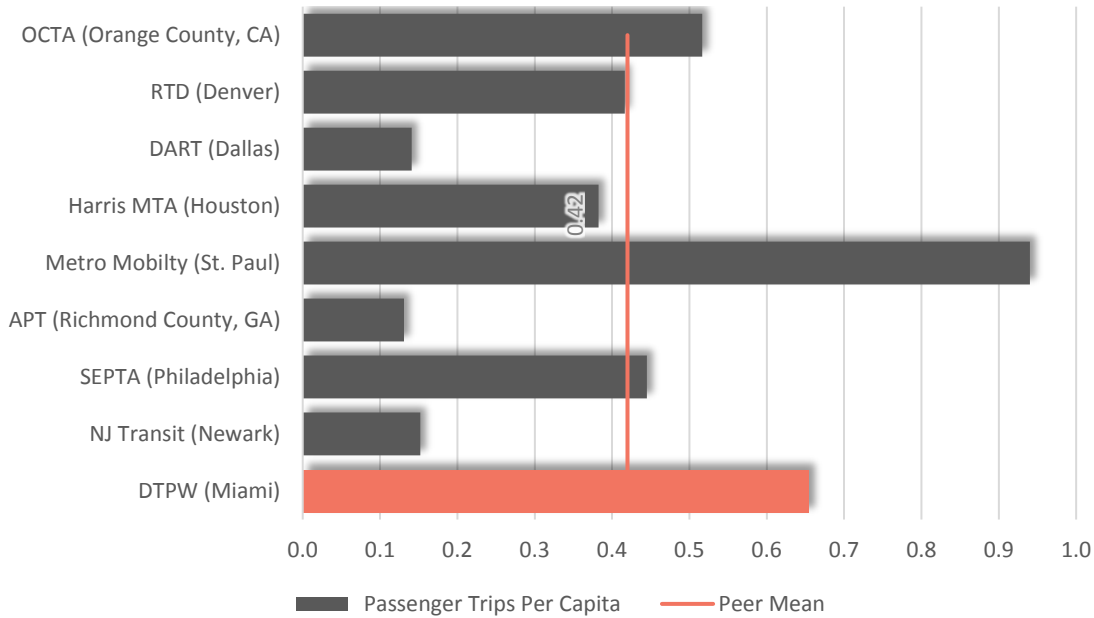
Figure 4-53: Demand Response Unlinked Passenger Trips



4.7.3 Passenger Trips per Service Area Capita

Figure 4-54 shows the passenger trips per service area capita of the nine peer agencies. DTPW is 56% above the peer mean of 0.42 passenger trips per capita. Since service area population for DTPW has remained constant in the NTD report for each of the last six years, the passenger trips per service area capita has increased at the same rate as total demand response ridership, 2.9% overall.

Figure 4-54: Demand Response Passenger Trips per Service Area Capita

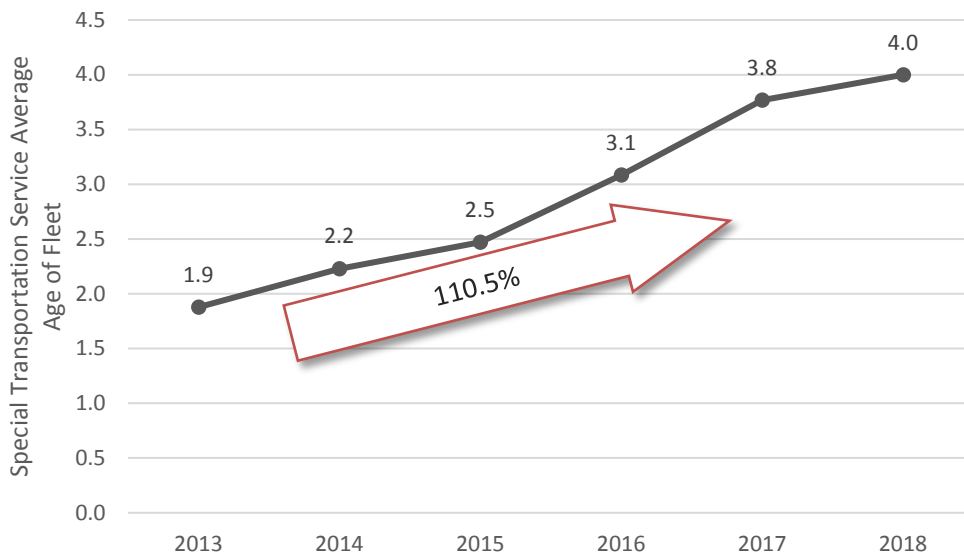
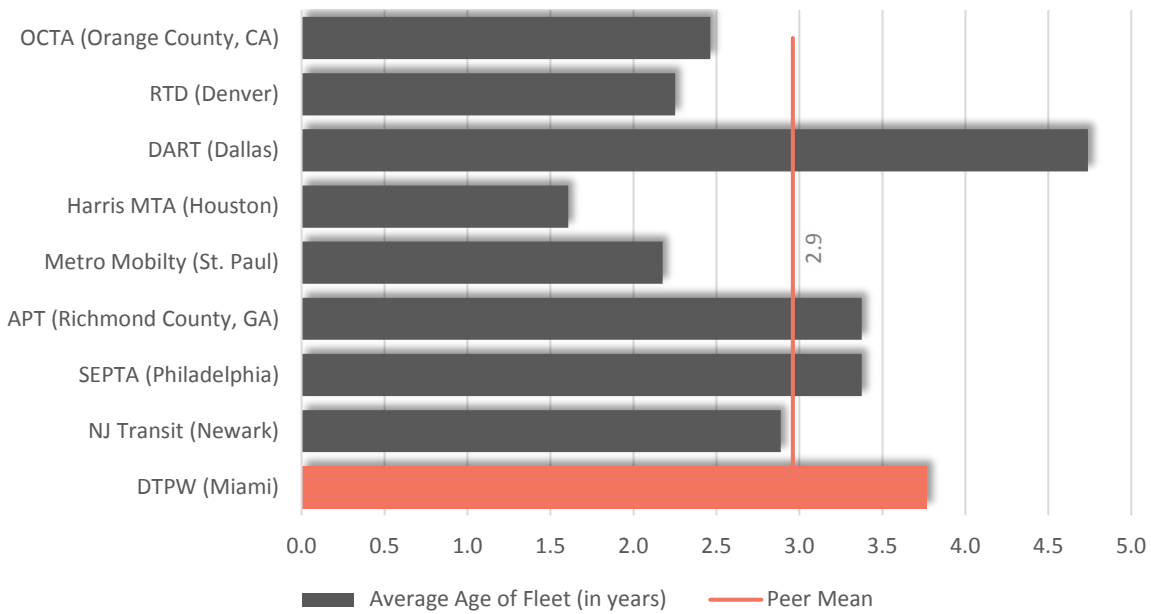


**Due to variance in reporting methods, service area population measure may not be*

4.7.4 Average Age (yrs.) of Demand Response Fleet

Figure 4-55 shows the average age of DTPW's and the peer agencies' demand response fleets. DTPW's fleet is older than all its peers, with the exception of DART. The average age of the Special Transportation Fleet has increased gradually from 1.9 years to 4.0 years between 2013 and 2018.

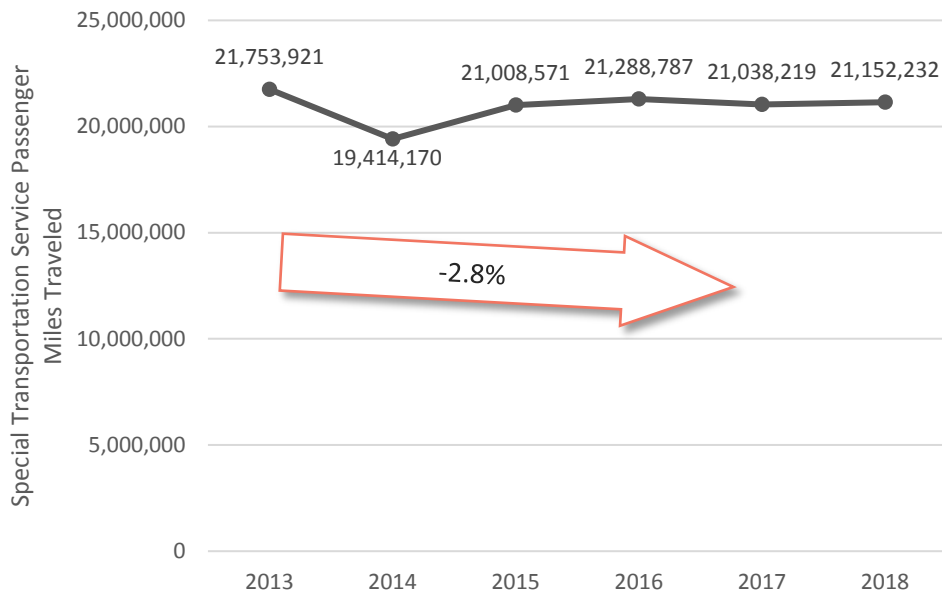
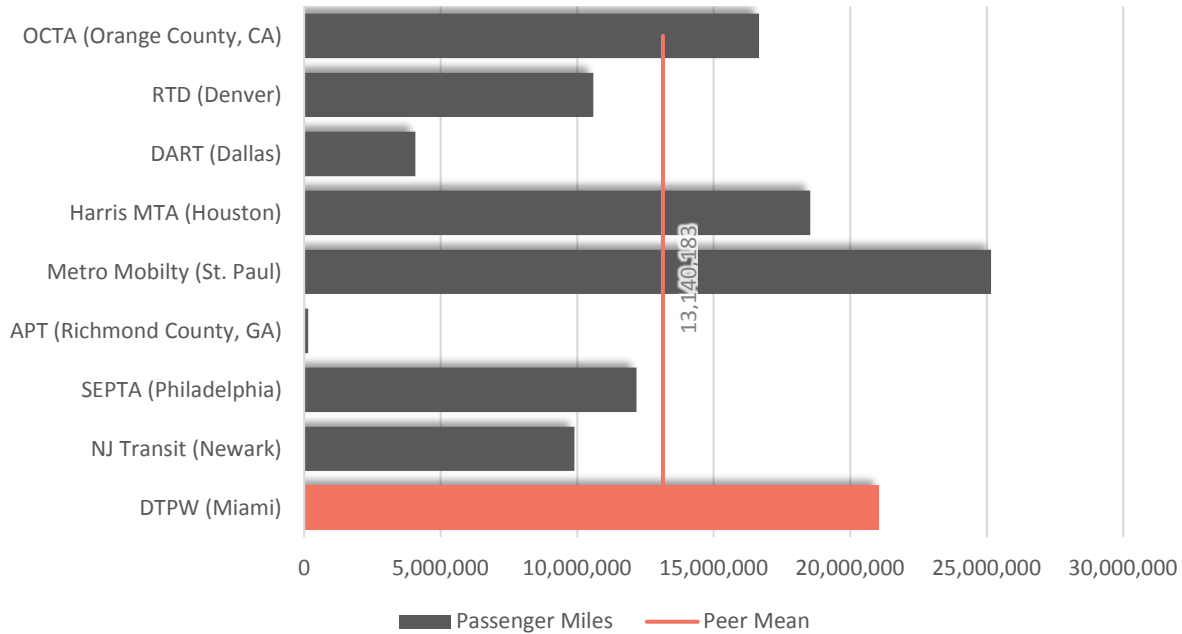
Figure 4-55: Average Age (years) of Demand Response Fleet



4.7.5 Passenger Miles Traveled

Figure 4-56 shows passenger miles traveled for DTPW and the peer agencies, with DTPW’s 21.0 million passenger miles traveled being well above all peers, except Metro Mobility. Special Transportation Service passenger miles traveled dropped in 2014, the same year that vehicle miles and revenue miles reduced significantly. By 2018, passenger miles traveled nearly rebounded to 2013 levels, representing a 2.8 decrease overall.

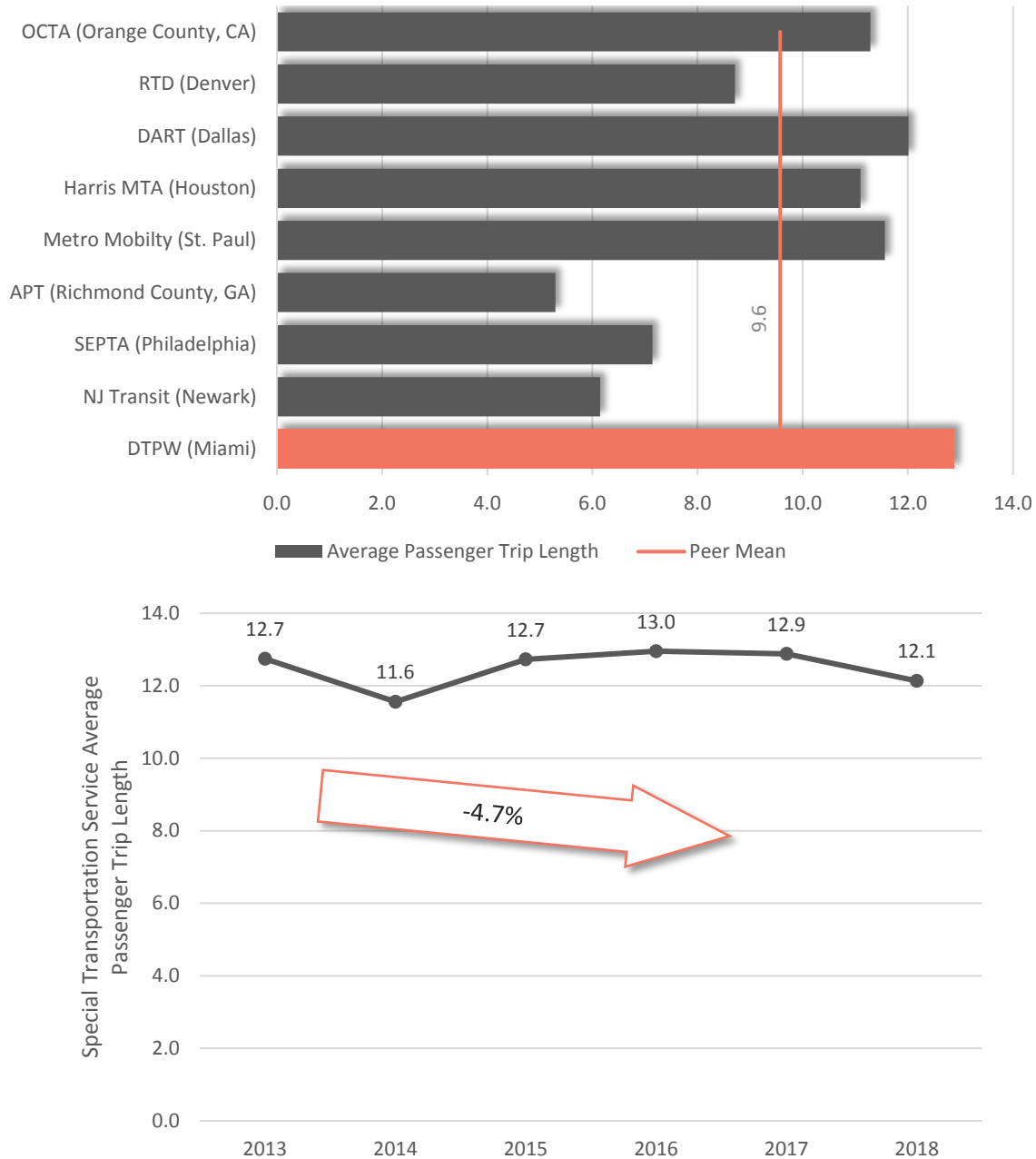
Figure 4-56: Demand Response Passenger Miles Traveled



4.7.6 Average Passenger Trip Length

Figure 4-57 shows the peer performance for the demand response average passenger trip length. DTPW ranks the highest in the peer group with an average of 12.88 miles per trip. Similar to the trend for passenger miles traveled, the average length of Special Transportation Service trips decreased from 2013 to 2014, and grew again thereafter, though it again has dropped in 2018. Overall, the trend in this measure is a 4.7% decline from 2013 to 2018.

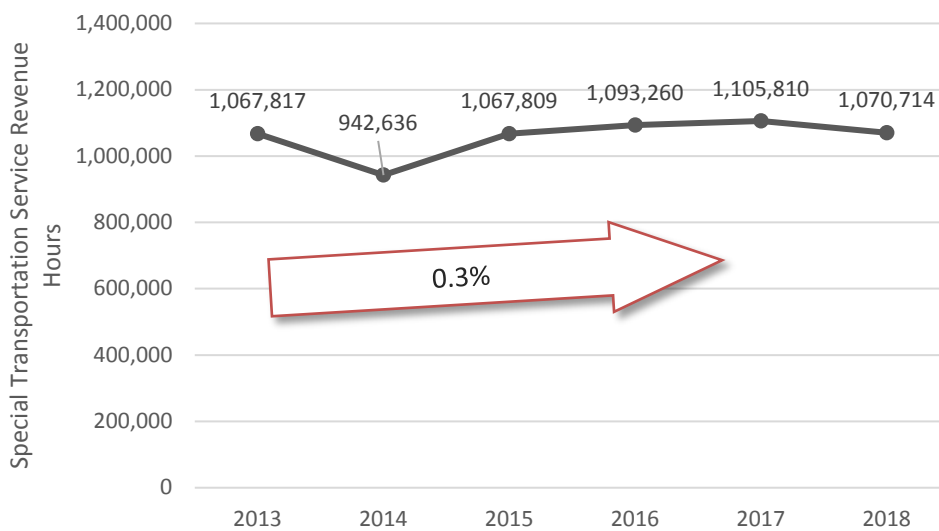
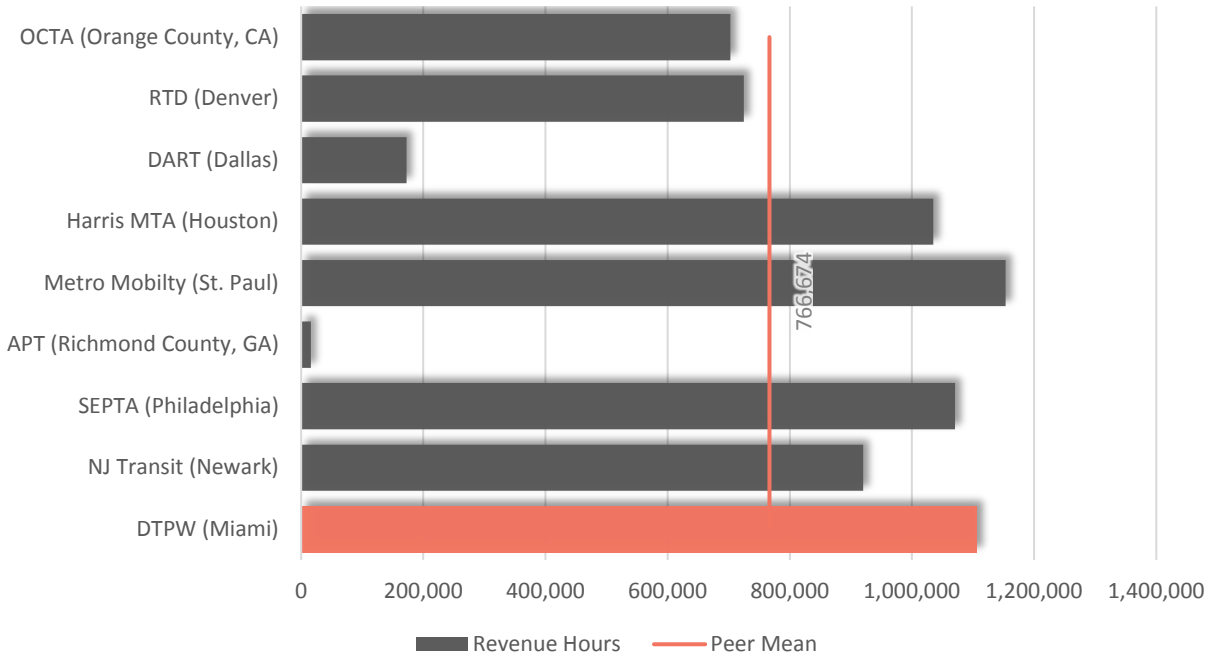
Figure 4-57: Demand Response Average Passenger Trip Length



4.7.7 Revenue Hours

Figure 4-58 shows the demand response revenue hours for DTPW and its peer group. DTPW recorded over 1.1 million revenue hours in 2017, the second highest in the peer group and 44% more than the peer mean. Special Transportation Service revenue hours experienced a similar pattern to passenger miles, dipping in 2014 before increasing back to 2013 levels and beyond thereafter. Overall, this indicator grew about 0.3% between 2013 and 2018.

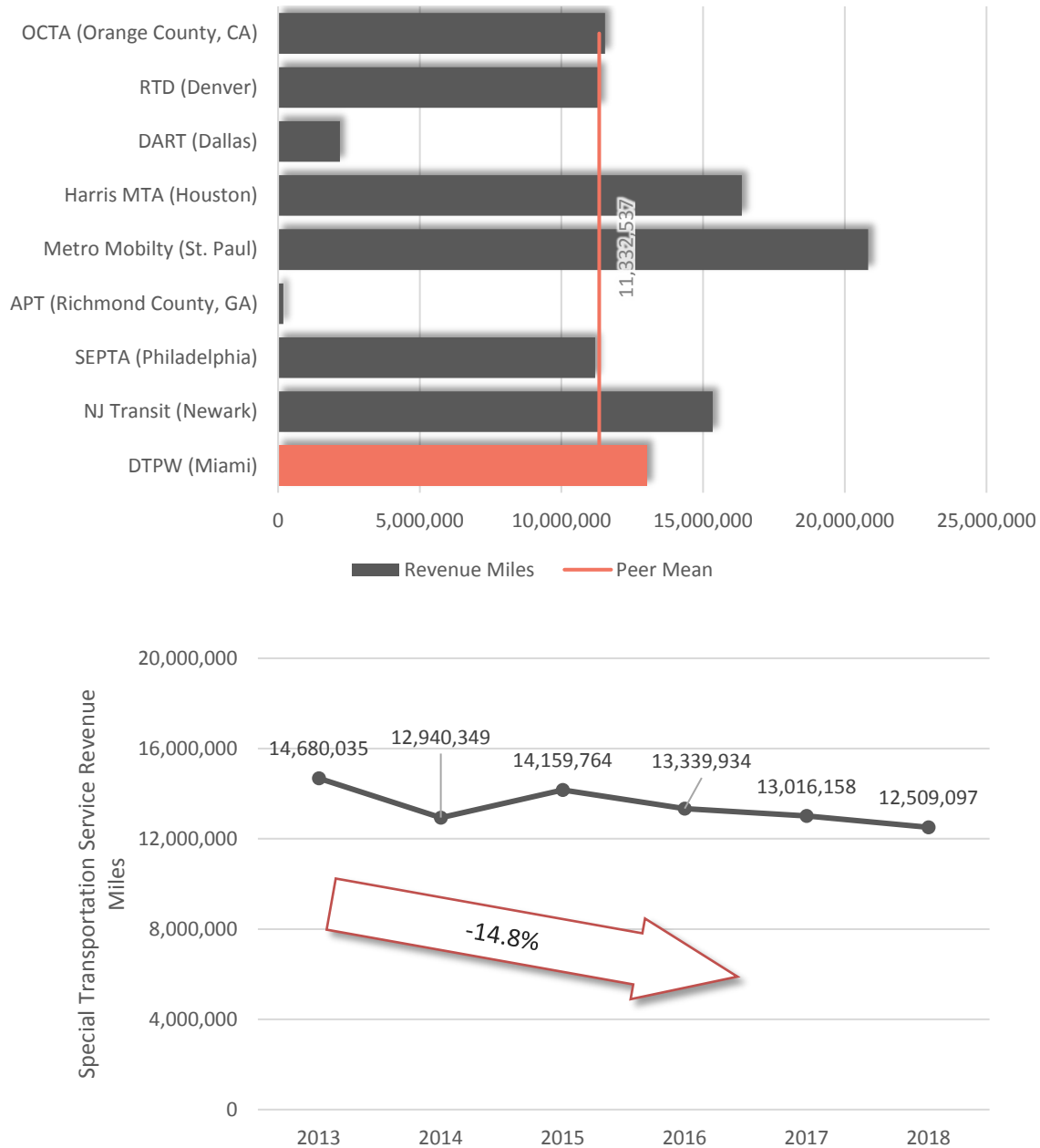
Figure 4-58: Demand Response Revenue Hours



4.7.8 Revenue Miles

Figure 4-59 shows the peer comparison for demand response revenue miles. DTPW's 2017 revenue miles are 14% above the peer mean, just behind Metro Mobility, Harris MTA, and NJ Transit. From the trend perspective, Special Transportation Service revenue miles have decreased 14.8% overall from 2013 to 2018.

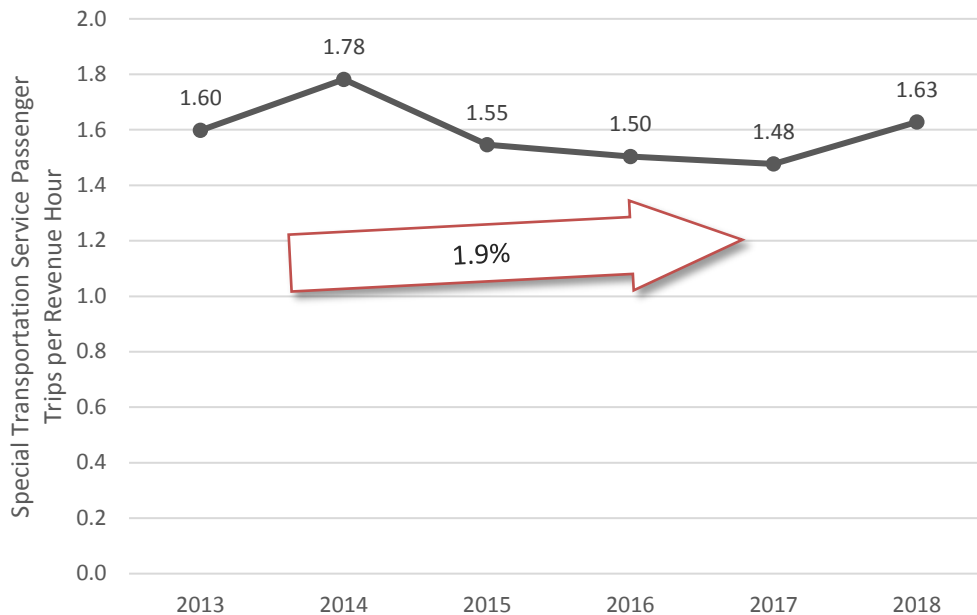
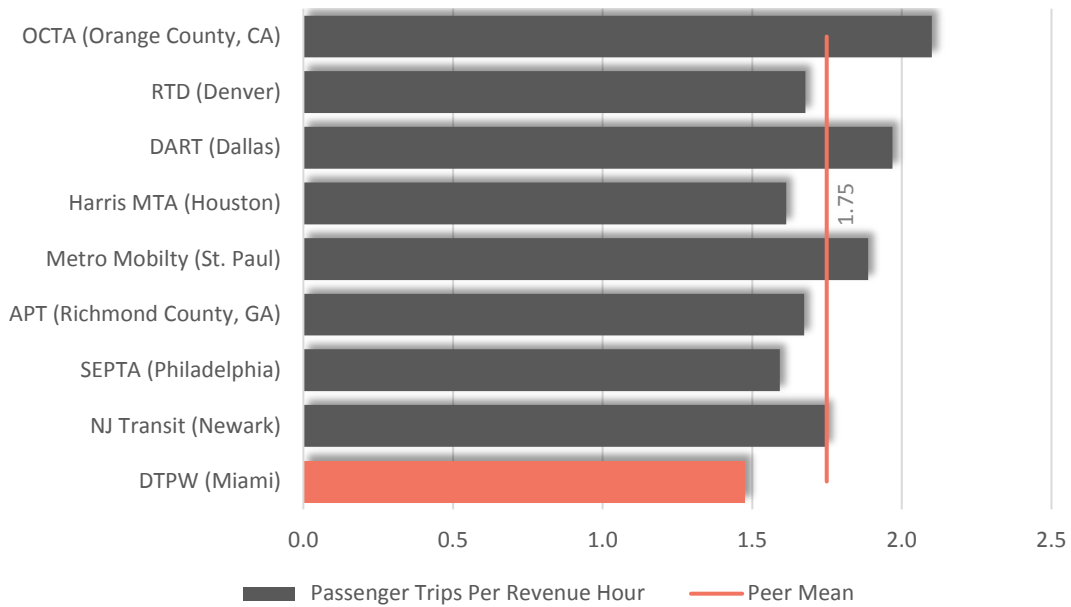
Figure 4-59: Demand Response Revenue Miles



4.7.9 Passenger Trips per Revenue Hour

In terms of productivity measured by passenger trips per revenue hour, DTPW’s demand response service ranked the lowest in the peer group, but is only 16% below the peer mean, as shown in Figure 4-60. Special Transportation Service’s service consumption as measured by these trips per hour metric also experienced a slight improvement of 1.9% overall between 2013 and 2018.

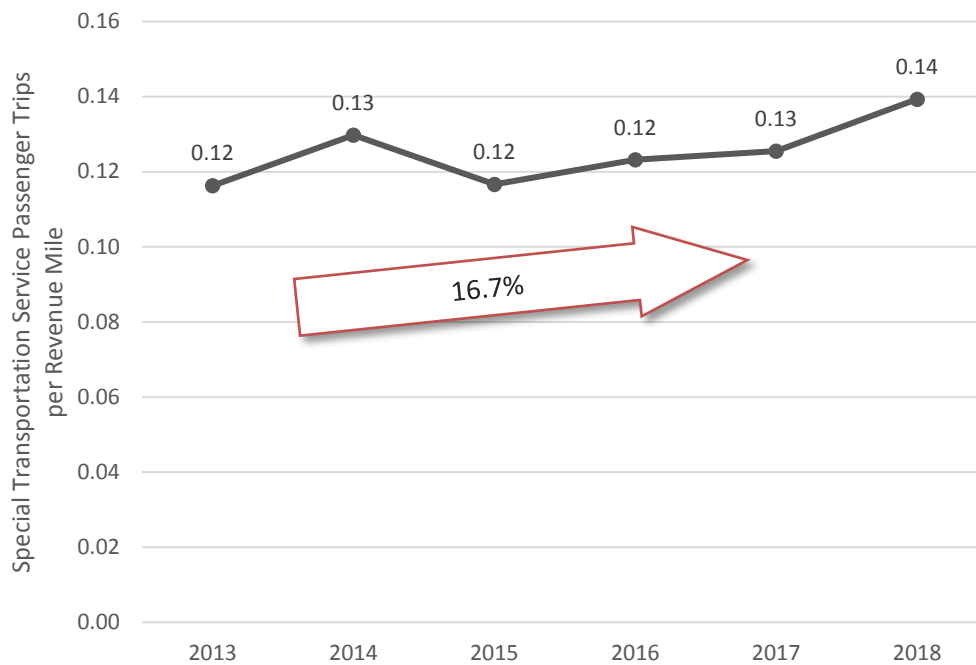
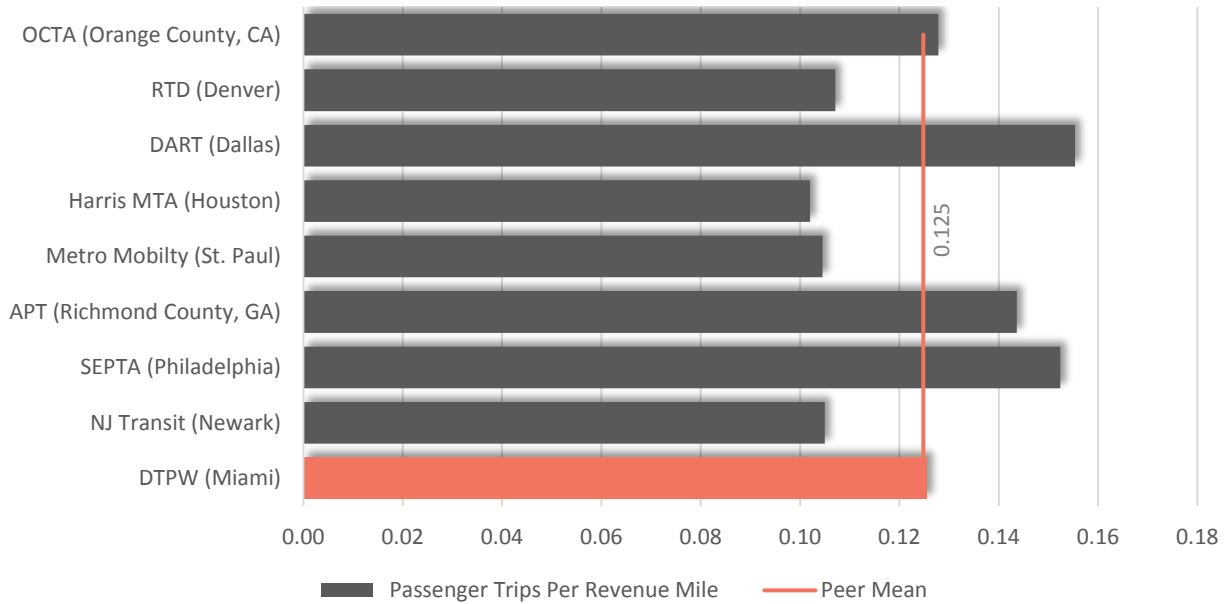
Figure 4-60: Demand Response Passenger Trips per Revenue Hour



4.7.10 Passenger Trips per Revenue Mile

DTPW is performing at the same level as the peer mean for demand response passenger trips per revenue mile, as shown in Figure 4-61. Also positive is that Special Transportation Service effectiveness levels with respect to the trips per mile measure increased 16.7% overall between 2013 and 2018.

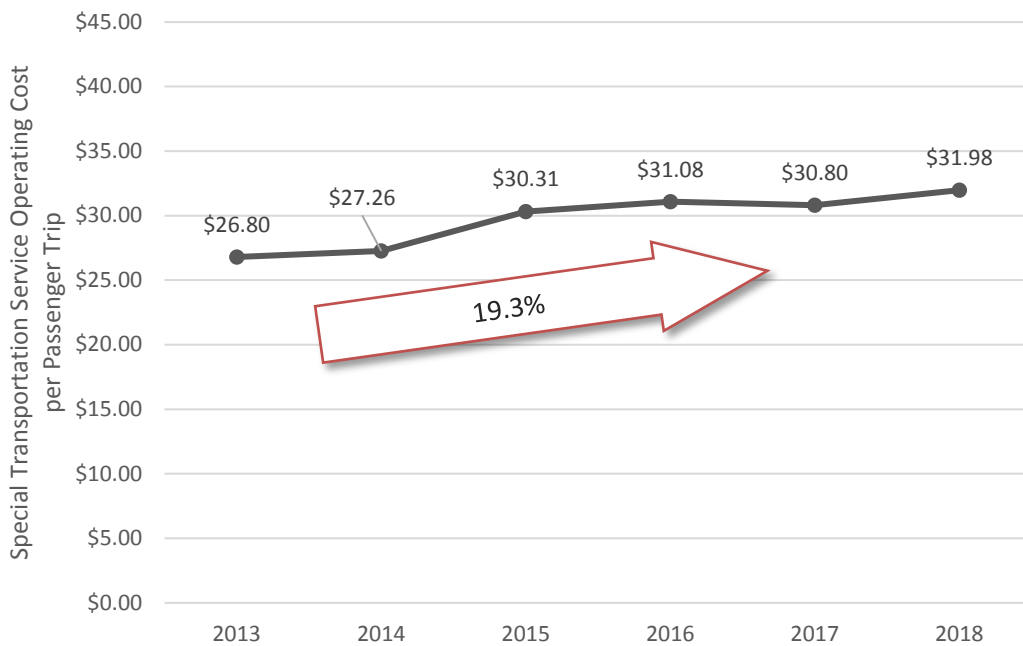
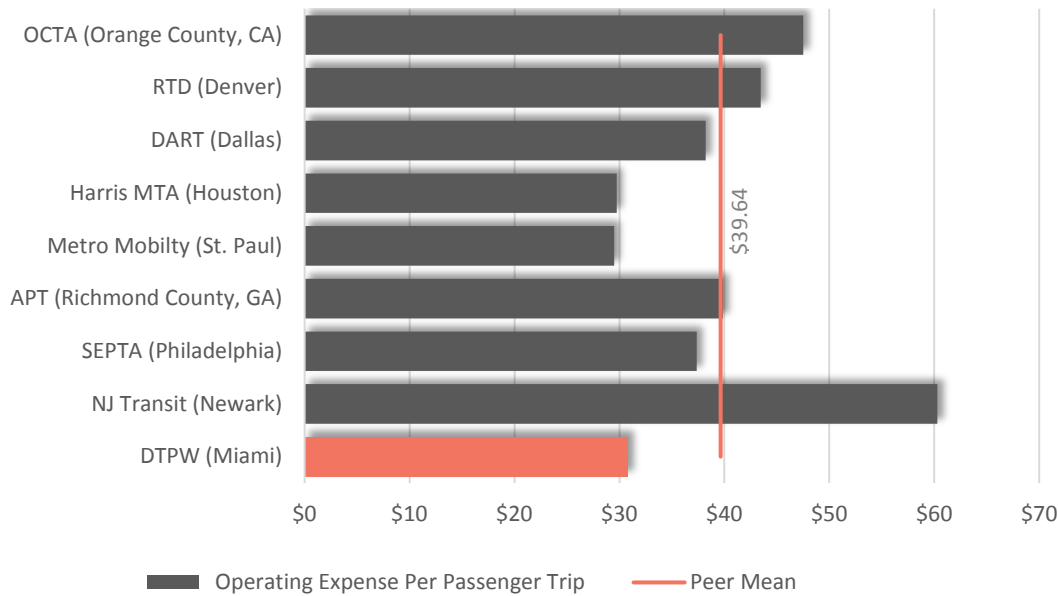
Figure 4-61: Demand Response Passenger Trips per Revenue Mile



4.7.11 Operating Cost per Passenger Trip

The operating cost per passenger trip for DTPW’s demand response service was \$30.80 in 2017. DTPW is performing well below the peer mean for operating cost for passenger trip, as shown in Figure 4-62. Special Transportation Service experienced a 19.3 increase overall in operating expense per passenger trip between 2013 and 2018.

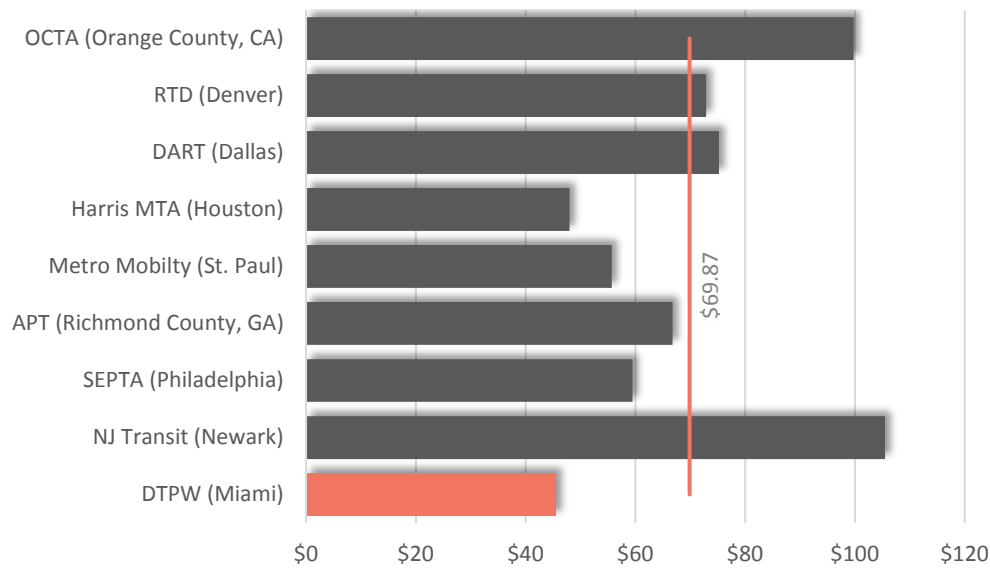
Figure 4-62: Demand Response Operating Cost per Passenger Trip



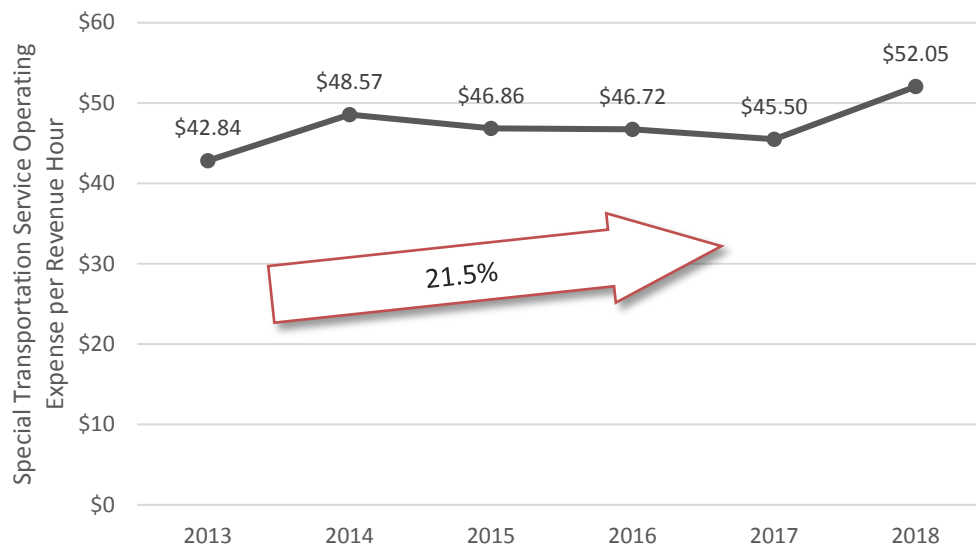
4.7.12 Operating Cost per Revenue Hour

In 2017, DTPW had the lowest operating expense per revenue hour for the demand response mode in the peer group, as shown in Figure 4-63. However, similar to the cost per mile measure presented previously, Special Transportation Service experienced a 21.5% increase in operating cost per revenue hour between 2013 and 2018.

Figure 4-63: Demand Response Operating Cost per Revenue Hour



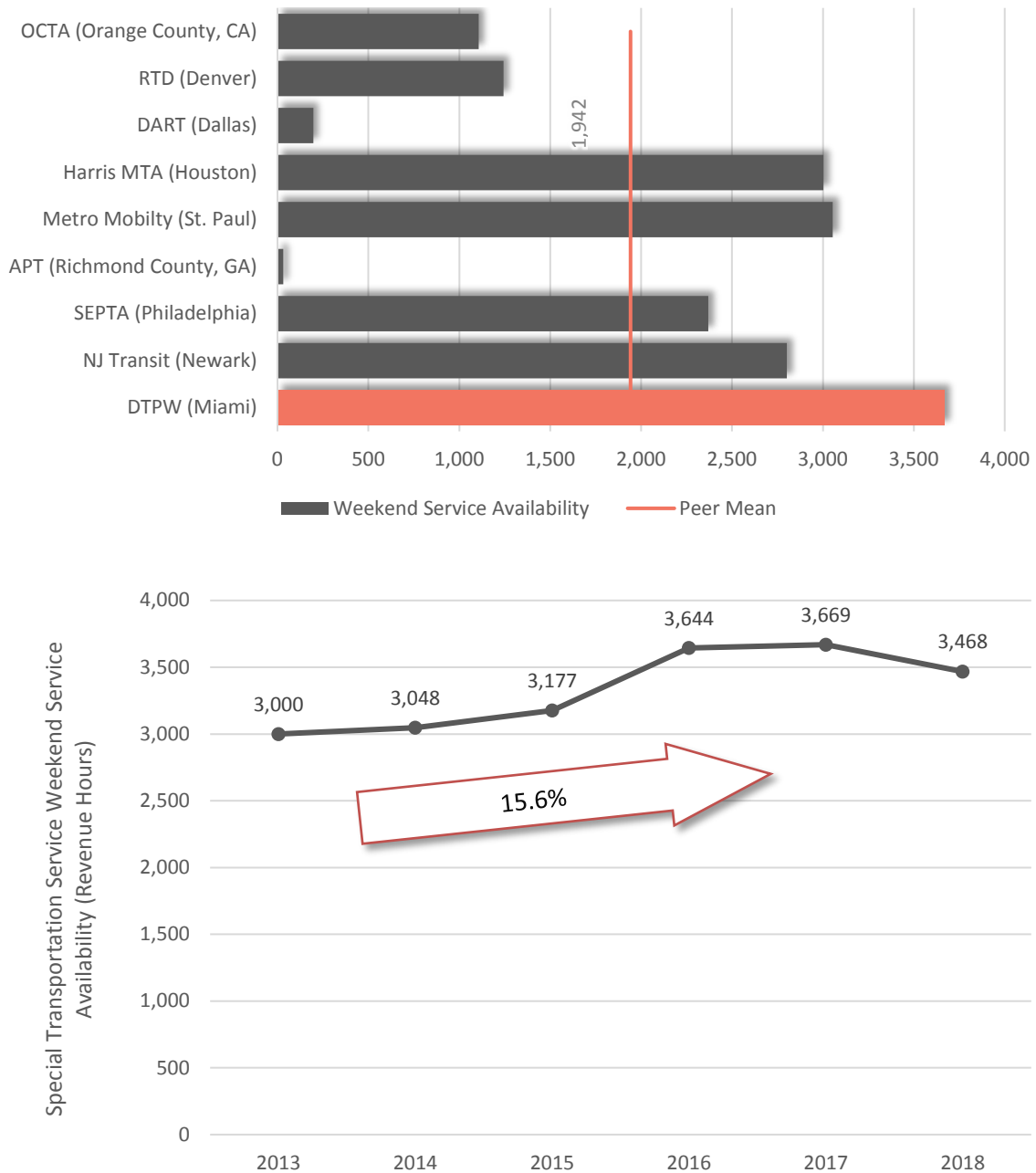
■ Operating Expense Per Revenue Hour — Peer Mean



4.7.13 Weekend Service Availability

Figure 4-64 shows revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. As the graphic shows, in 2017, DTPW provided more demand response weekend service than all its peers. In terms of trend, weekend service availability for Special Transportation Service has experienced a growth of 15.6% more weekend revenue hours between 2013 and 2018.

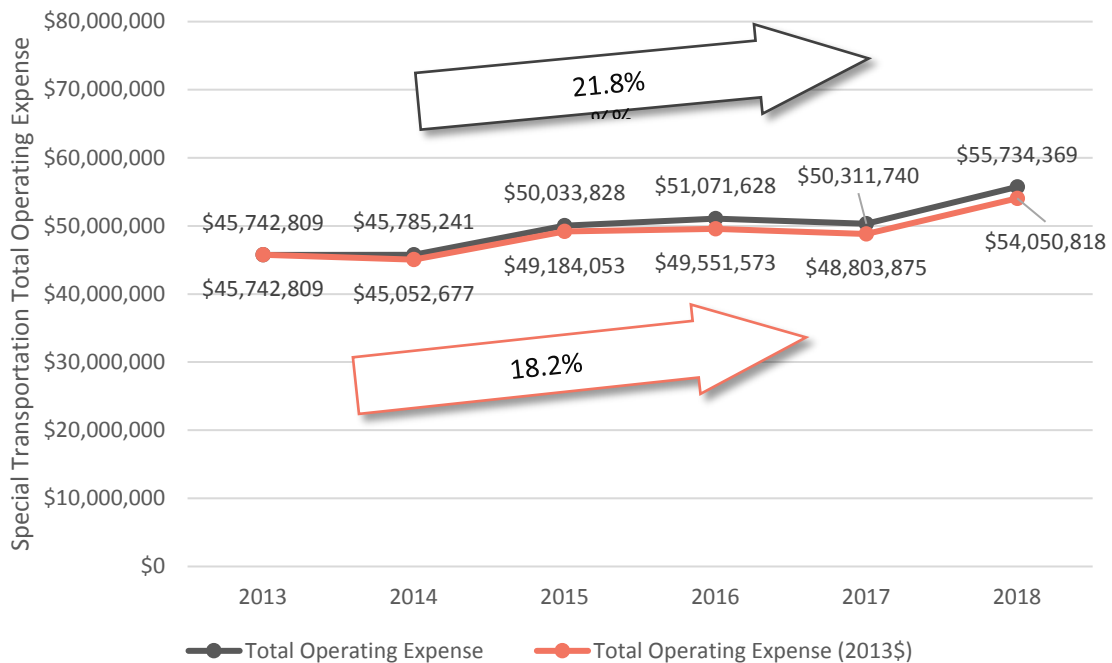
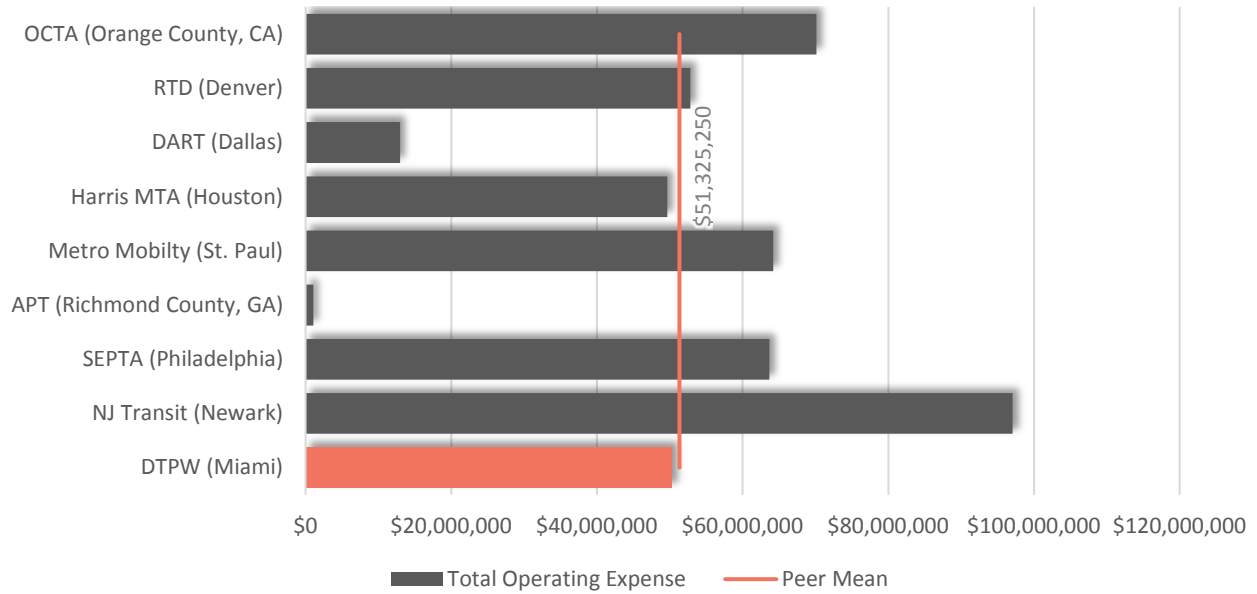
Figure 4-64: Demand Response Weekend Service Availability



4.7.14 Operating Expenses

As indicated in Figure 4-65, DTPW’s total demand response operating expenses are slightly below the peer mean. Overall, operating expenses for Special Transportation Service increased 21.8% between 2013 and 2018; however, this increase drops to 18.2% over the six-year period when inflation is removed.

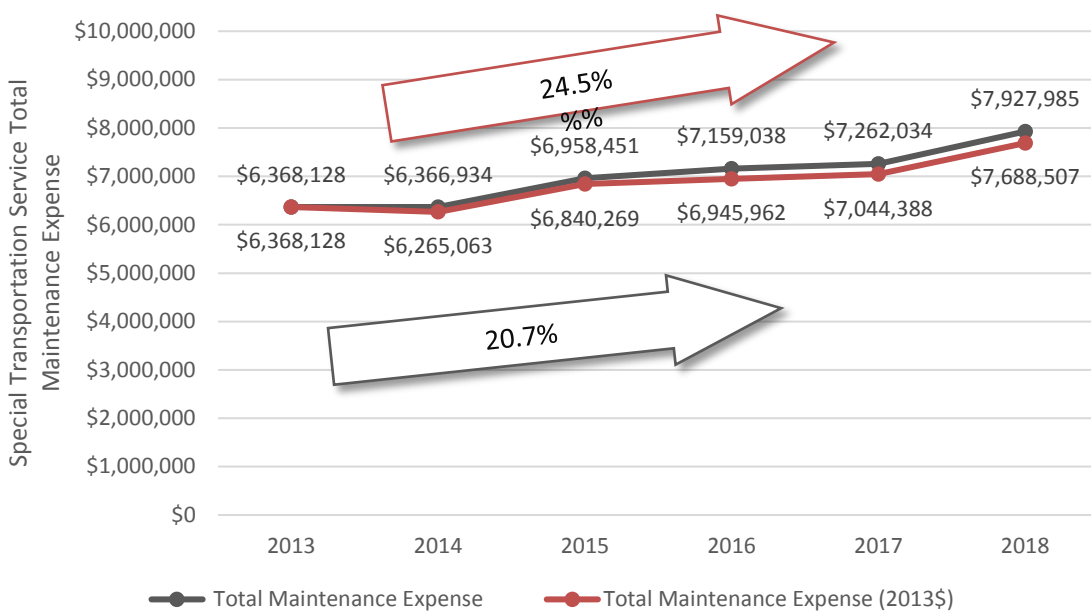
Figure 4-65: Demand Response Total Operating Expenses



4.7.15 Maintenance Expenses

Maintenance expenses are a subset of total operating expenses in the data provided by NTD. Figure 4-66 shows the total maintenance expenses for DTPW and its peer group in 2017 for the demand response mode. DTPW's total maintenance expenses for demand response services are 23% below the peer mean. Overall, total maintenance expenses for Special Transportation Service increased 24.5% between 2013 and 2018. Accounting for inflation, the increase in total maintenance expense is only 20.7% during this same period.

Figure 4-66: Demand Response Total Maintenance Expenses





5 CIVIC ENGAGEMENT AND OUTREACH

5.1 Introduction

Civic Engagement is a critical component of DTPW's TDP process. DTPW has engaged in a multi-pronged effort to ensure that feedback is obtained from residents throughout Miami-Dade County in pursuit of the continued implementation of the People's Transportation Plan (PTP). The FDOT approved Public Involvement Plan (PIP) outlines the coordination efforts DTPW engaged in to provide opportunities for public input and consensus building around the vision the TDP represents. These activities include information desks at public events, interactive presentations, survey distribution, and more. Public input is collected year-round, and feedback that misses the deadline for one TDP is included in the feedback for the following year.

This chapter describes the outreach activities DTPW took part in to inform this TDP Major Update.

5.2 Branding

Figure 5-1: Current Major Update MDT10Ahead Brand



MDT10Ahead is the branding used for this major update. This brand was initially created by DTPW's Marketing division during the last Major Update, prepared in 2015, and used in each of the subsequent four annual updates prepared between 2016 and 2018. The repeated use of the brand over the past five years has given it a considerable degree of recognition, therefore DTPW opted to continue the use of the brand for this major update cycle. The branding has been used on public notifications, social media posts, on the document itself, and on the survey outreach efforts. The color scheme for the TDP has changed from one year to the next - this year's colors are black, white, and light red as shown above in Figure 5-1. The covers for the past major and annual updates are depicted in Figure 5-2.

Figure 5-2: Past Major Update and Annual Update Branding Efforts



5.3 Civic Engagement Plan

DTPW developed a Civic Engagement Plan (CEP) as part of the TDP process. This document identifies outreach strategies that were employed during the TDP process. DTPW prepared and submitted the CEP to the local FDOT office for review and approval on February 14, 2019. The TDP was revised to incorporate comments received from FDOT and was ultimately approved by FDOT on April 24, 2019.

The CEP is a comprehensive summary of the outreach program, including a description of the project team, and stakeholders. It identifies activities, including the branding effort, public meetings, how printed and electronic materials are handled, and describes the online survey that was developed. The CEP also identifies potential Advisory Review Committee (ARC) representatives. Thirty stakeholders were contacted to serve on the ARC, consisting of a combination of internal DTPW departments, and community stakeholders. The CEP is included in the Appendix of this document.

5.4 Advisory Review Committee

An ARC was assembled to guide the direction of the TDP. The ARC provided input on how the study was undertaken and offers suggestions and feedback on completed work. A table summarizing the individuals and groups who attended the ARC is depicted here in Table 5-1. A complete list of all invitees, including those who declined to participate in the ARC are included in Appendix A.1. The ARC met on two occasions, first in February 2019, and a second time in May.

Table 5-1: Participating ARC Members

Stakeholder	Representative
DTPW Rail Services	Buford Whitaker
DTPW Bus Services	Derrick Gordon
Citizens Independent Transportation Trust (CITT)	Monica Cejas
Miami-Dade Transportation Planning Organization (TPO)	Tewari Edmonson
DTPW Highway	Gaspar Miranda
Miami-Dade Expressway Authority	Mayra Diaz
Miami-Dade County Regulatory and Economic Resources – Planning & Zoning	Vinod Sandanasamy
Miami-Dade County Parks and Recreation	Mark Heinicke
Miami-Dade County Bike-Pedestrian	Eric Tullberg
Agency for Persons with Disabilities	Rosa Llaguno
City of Miami Downtown Development Authority (DDA)	Patrice Gillespie Smith
Urban Health Solutions Urban Health Partnerships	Andrea Iglesias
South Florida Commuter Services	Jeremy Mullings
DTPW Infrastructure Engineering & Maintenance	Robert McClellan
DTPW Performance Analysis	Carlos de la Torre
DTPW Safety and Security	Eric Muntan
DTPW Marketing	Bobbie Chrichton

5.5 Presentations

The 2020-2029 TDP 10Ahead Major Update was presented to various county and regional boards and committees. A summary of the committees that the TDP team is attending is depicted in Table 5-2.

Table 5-2: TDP Board and Committee Presentation Schedule

Event	Date
TPO Citizens' Transportation Advisory Committee (CTAC)	Wed September 11, 2019
TPO Transportation Planning Technical Advisory Committee (TPTAC)	Wed September 25, 2019
Transportation Disadvantaged Coordination Board	Tue October 8, 2019
SFRTA Planning Technical Advisory Committee (PTAC)	Wed October 16, 2019
BCC Transportation and Finance (TAF) Meeting	Wed December 11, 2019
CITT Board Meeting	Wed October 23, 2019
Board of County Commissioners	Tue December 17 2019
Submit Draft TDP to FDOT District 6	Tue October 1, 2019
Submit Final TDP to FDOT District 6	Tue December 31, 2019

5.6 Survey

A survey administered by DTPW was conducted from May to August 2019 to collect information on demographics, travel behavior, and service needs of current transit riders and the non-riding public. The method used for surveying the public was an electronic and mail-in paper-based survey instrument. A copy of the survey instrument is available in the Appendix.

5.6.1 Survey Instrument

The survey instrument was developed through an in-depth discussion between project stakeholders. The survey questions cover two key areas. The first concentrates on assessing satisfaction with DTPW's existing services. Questions on this topic identify frequency of usage of specific services and the general satisfaction with these services. The second focus area asks respondents to prioritize improvements to the system by ranking different amenities from "Very Important" to "Not Important."

The electronic survey consisted of 26 questions, and the mail-in-paper-based survey included of 14 questions. Surveys were made available in three languages: English, Spanish and Creole.

5.6.2 Survey Administration

Surveys were distributed through various methods. The electronic survey was made available on the TDP website (<https://www.miamidade.gov/transit/mdt-10-ahead.asp>), and was promoted through partner agencies, social media, and newsletters. The paper-based survey instrument was distributed at a variety of public outreach events and at transit stations. Some of the public outreach events included:

- The county's Bike to Work Day event, hosted at the University Metrorail Station on March 1st;
- Florida International University's Graham Center Community Days Event, at the Modesto A. Maidique campus on May 8th;
- The University of Miami Community Traffic Safety Program's enforcement and education event on May 16th;
- The Greater Miami Chamber of Commerce's 2019 Impact Goals Conference on June 13th;
- FDOT's SR 968/Flagler St Premium Transit PD&E Study public workshops held July 25th, 26th, and 27th; and
- Miami-Dade County's Cool Summer Series events on July 17th and August 6th.

Physical surveys were made available at brochure holders at all 22 Metrorail stations, Dadeland Mall, Aventura Mall, and the main Branch of the Miami-Dade Public Library System.

5.6.3 Social Media Outreach

DTPW developed a comprehensive social media outreach campaign, utilizing the in-house resources of its Marketing Department staff to spread the word about the Transit Development Plan. The marketing team developed a social media schedule with programmed messages to go out on a regular basis over the course of the TDP outreach campaign. Weekly Tweets and Facebook posts were posted to DTPW's social media handles on Twitter and Facebook. Messages were developed in English, Spanish, and Creole, in order to cover a broad swath of the public in the county.

5.6.4 Transit Intercept Survey

In addition to the outreach described above, transit intercept surveys were conducted on-site at high-ridership transit stations and stops along high-ridership routes between June and August 2019. Ridership numbers for bus routes, bus stops, and Metrorail and Metromover stops were considered when developing the outreach effort. Surveys were distributed on weekdays during the morning and evening peak commuting hours of 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM.

5.7 Survey Results

A total of 3,835 surveys were collected during the outreach period. Table 5-3 summarizes surveys by how they were collected. DTPW continually accepts feedback that will be incorporated into the TDP process. If feedback is received outside of the commenting period for this update, the feedback will be incorporated into the next annual update.

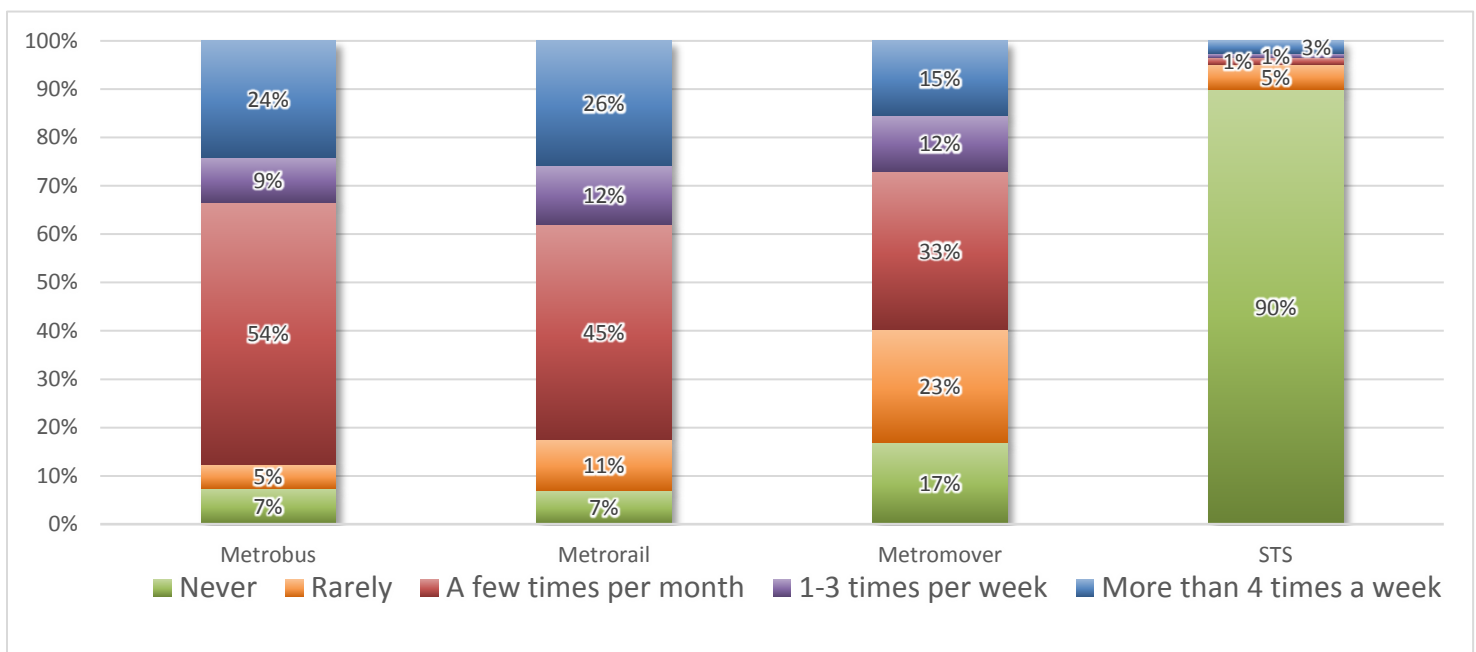
Table 5-3: Summary of Survey Completions

Survey Type	Total Collected
Web Surveys Completed	1,265
Survey Brochures Collected	2,570
Total Number of Surveys Completed	3,835

A summary of the survey responses is presented here. A full overview of the survey responses is available in Appendix A.4.

Respondents were asked how often they used Miami-Dade Transit services. The data reveals that of the four transit modes provided by Miami-Dade DTPW, Metrobus and Metrorail are the two most popular modes. With 88% and 82% of responders saying they used Metrobus and Metrorail once a month, they outpace the more condensed Metromover system which only 58% of responders said they use at least once a month. Of survey respondents, the Special Transportation Services (STS) was the most rarely used service, as it is a more specialized service. Figure 5-3 summarizes the responses to this question.

Figure 5-3: How Often Do You Use Miami-Dade Transit Services?



Respondents were also asked to identify which destinations DTPW could serve better. Respondents were given two ways to answer: first, respondents were given a list of destination types such as shopping centers, healthcare facilities, or the beach, from which they could choose multiple options. Of the respondents who listed destinations that could be served better, the beach, shopping centers/malls and colleges/universities were mentioned about half of the time. UM/Jackson Hospital and county parks were mentioned the least with fewer than 30% of all responses mentioning them. A summary of answers to this question are shown in Figure 5-4. Secondly, respondents were also given the option to write-in destinations that transit could serve better. These results were processed and used to create a word cloud which is shown in Figure 5-5.

Figure 5-4: Which of the following destinations could Miami-Dade Transit serve better?

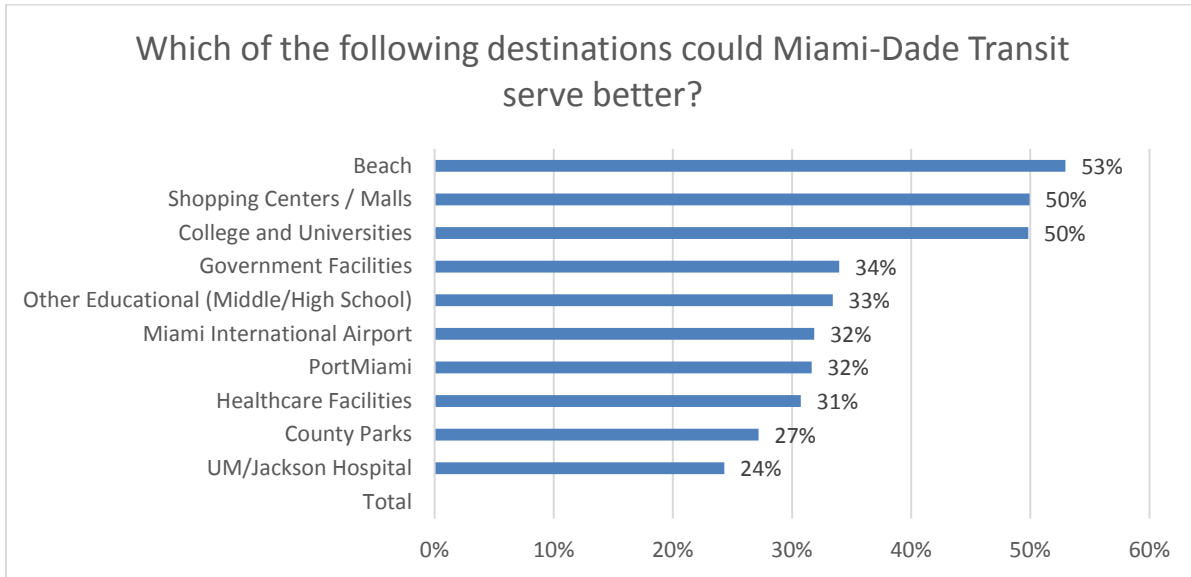
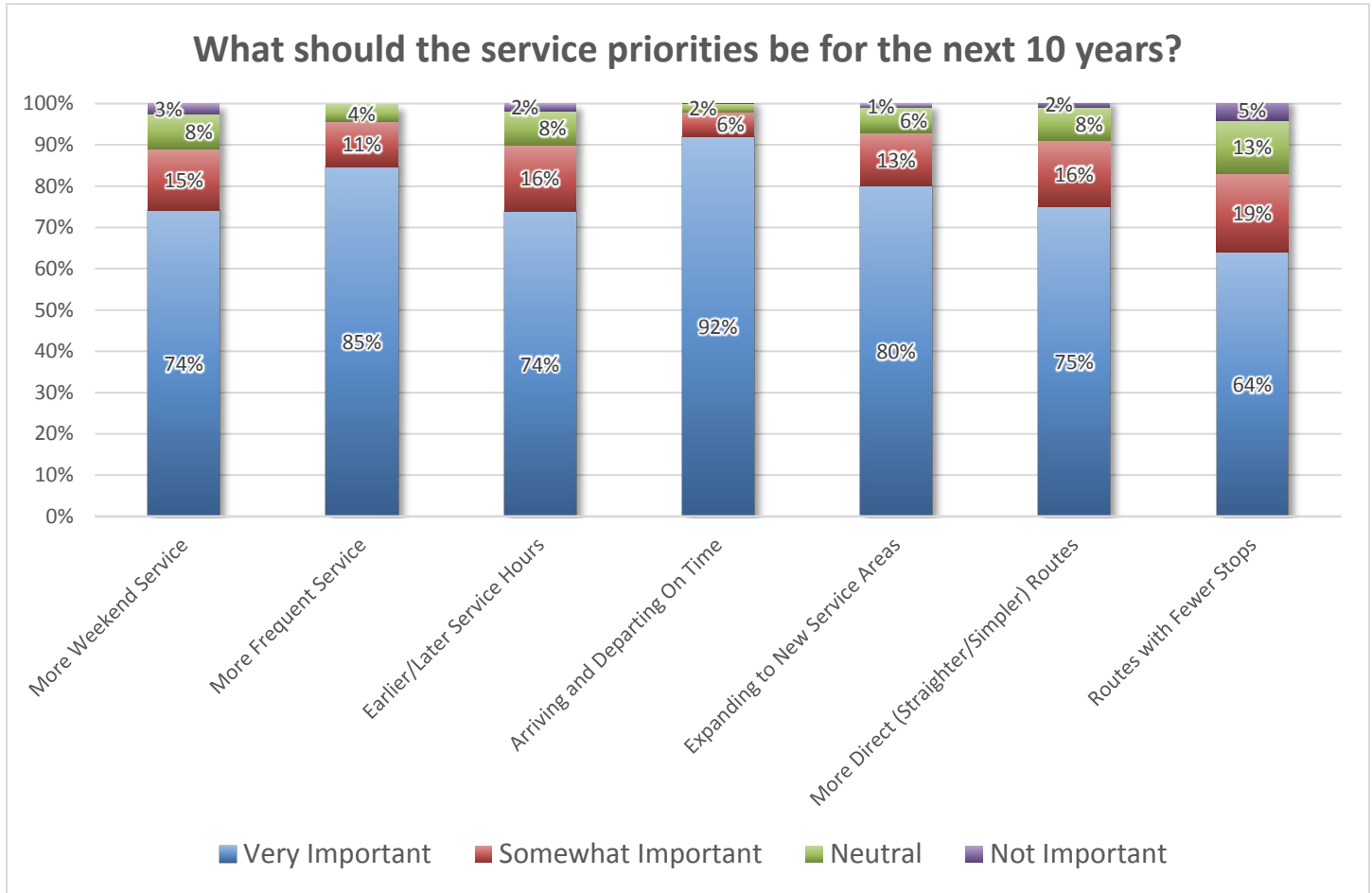
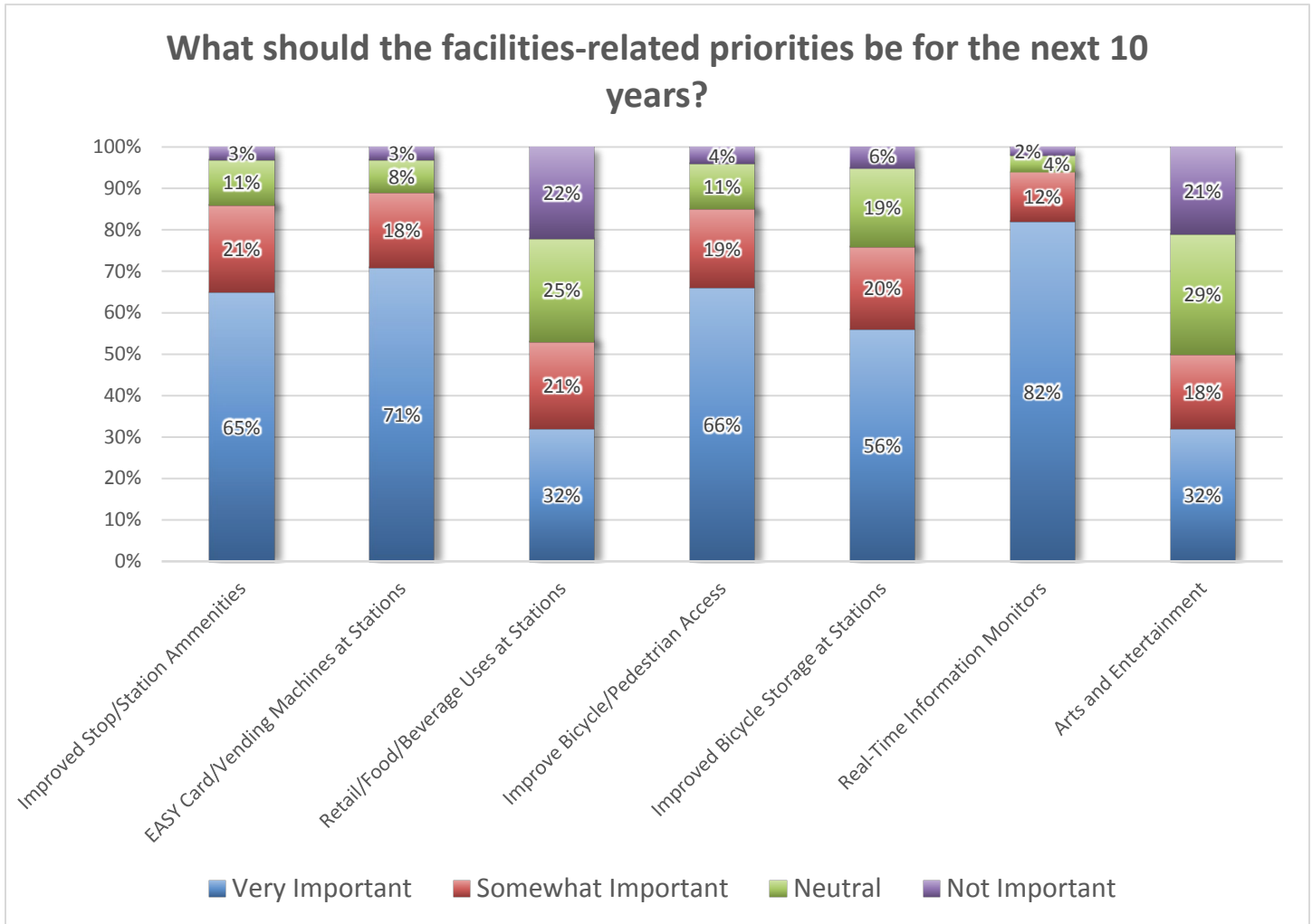


Figure 5-6: 10-Year Service Priorities



Respondents were also asked what priorities should be for transit facilities. Respondents indicated that providing real-time information monitors and EASY Card/vending machines were very important priorities. Additionally, improved bicycle/pedestrian access and bicycle storage at stations was shown to have a high importance, as well as improved amenities like canopies and furnishings. Offering retail/food/beverage uses and providing arts and entertainment did not receive as much support, with more respondents providing a lower importance. Figure 5-7 shows the full results for this question.

Figure 5-7: 10-Year Facility Priorities



5.8 Public Hearing

In addition to the various public outreach efforts described in this chapter, DTPW will submit the TDP Major Update for a public hearing at the Miami-Dade County Board of County Commissioners (BCC) meeting on November 19, 2019. Members of the public will have the opportunity to provide their feedback on the document at this meeting.

5.9 Conclusion

DTPW prepared a comprehensive public outreach program as a part of the *MDT10Ahead* TDP Major Update. Input was solicited at numerous events, at dozens of transit facilities, and across social media to ensure robust public participation was included in this plan. The completed surveys are the principal documentation of the feedback received by the Department. Survey data indicates that Metrobus and Metrorail are the two most heavily used modes in DTPW’s system. Survey respondents report a need for better access to the beach, shopping centers, colleges and universities. Survey respondents also value on-time service, improved service frequency and service area expansion. This survey feedback is factored into the goals and objectives for DTPW’s services and will be monitored over the next cycle of annual TDP updates.



6 GOALS & OBJECTIVES

This chapter identifies DTPW's overall goals and specifies objectives to achieve these goals. Each objective is assigned one or more measures, and corresponding targets to achieve. These goals provide DTPW with an established framework for realizing its larger mission and vision while maintaining the accountability necessary to ensure that DTPW's vision of the future is grounded and achievable. The measures established herein allow the department to track progress and accomplishments over the course of the next several TDP annual updates.

Established goals are consistent with and help realize the policy vision at the federal, state, and county levels. DTPW consulted the Miami-Dade County Strategic Plan (2012), the FY 2018-2019 DTPW Business Plan, the Miami-Dade County Business Plan, and the 2040 Miami-Dade TPO Long-Range Transportation Plan, in crafting these goals and objectives. By maintaining consistency with these plans, the TDP also captures the public involvement process which contributed to their development, building upon the public feedback which influenced the development of these goals and objectives. Moreover, the measures in this chapter are consistent with the federal government's long-term funding program, FAST Act, and FDOT's Florida Transportation Plan (FTP).

The TDP Advisory Review Committee (ARC) reviewed the goals at the first ARC meeting in February 2019, where the group provided revisions to existing goals and input on new goals. The new goals and objectives were then developed from the feedback obtained from the ARC and internal DTPW stakeholders. In addition, the goals and objectives in this chapter are broadly consistent with the feedback obtained through the public outreach efforts that are documented in Chapter 5, and the measures reflect as much, including expressed desires for improved on-time performance, and increased service frequency.

The following are general definitions of the terms used in this chapter:

- **Goal** – A long-term end, toward which programs or activities are ultimately directed.
- **Objective** – A specific, measurable, intermediate end that is achievable and allows measurement of progress toward a goal.
- **Measure** – An estimate or assessment of the extent of improvement or progress toward a goal.
- **Target** – a defined performance indicator.

DTPW's Mission Statement

The foundation of these goals and objectives serve to meet the Department's overall vision and mission for the administration, management and provision of transit services. DTPW's Mission Statement is to: ***“Plan for, operate, and maintain a clean, safe, reliable and convenient transportation system that effectively enhances mobility in Miami-Dade County.”***

6.1 Improve Transit System Convenience and Reliability

Goal 1: Improve Transit System Convenience and Reliability		
Objective	Measure	Target
1) Increase miles of transit infrastructure	Infrastructure miles of fixed guideway, exclusive ROW or express lanes in Miami-Dade County	Increase Currently: 35.1 miles
2) Improve service availability	Percentage of missed pullouts	0%
	Mean distance between service failures	Metrorail: ≤ 39,000 miles Metrobus: ≤ 4,000 miles Metromover: ≤ 6,000 miles
	CAD/AVL installed and functioning on all transit service vehicles	100%
	On-Time Performance	Metrorail: ≥95% (2018 projected value: 93%) Metrobus: ≥78% (2018 projected value: 70%) STS: ≥ 90% (2018 projected value: 89%)
3) Improve customer satisfaction with DTPW service	Number of customer complaints per 100,000 boardings (per mode)	Metrorail: ≤ 1.5 Metrobus: ≤ 1.5 Metromover: ≤ 0.5 STS: ≤ 0.5
4) Provide riders with more information	Real time ETA signage at multimodal stations and high ridership stops	Completed by November 2019
	Real time information available for 3rd party app developers, including GTFS and GTFS RT	Publish GTFS and GTFS RT
	Percent of transit service vehicles with wi-fi capability	Metrorail: 100% Metrobus: 100% Metromover: 100%
	Enhance real time info on DTPW application	By FY 2020
5) Align transit service coverage with passenger demand	Average weekday boardings per mode	Metrorail: 65,000 Metrobus: 151,000 Metromover: 27,000
	Revenue Hours of Transit Service	Metrorail: 360,670 Metrobus: 2,466,000 Metromover: 110,057 STS: 1,105,000
	Committed bus service adjustments / improvements	80% consistency with adjustments planned in previous TDP

6.2 Improve Customer Service

Goal 2: Improve Customer Service		
Objective	Measure	Target
1) Prepare and release an annual transit satisfaction survey	Completion of survey	Survey completed annually
2) Conduct regular on-board passenger surveys	Completion and frequency of survey	Survey conducted at least every 5 years Currently: Last completed in April 2013
3) Conduct dedicated transit outreach programming	Number of outreach activities per year	≥ 6
	Promotion of annual survey via social media	Monitor number of social media endorsements related to the annual survey
4) Increase regional coordination	Coordination meetings with BCT, PalmTran and Tri-Rail	≥ 90% attendance at regional transportation service meetings
	Tri-County Fare System Implementation/Cross Promotion	Seamless transit fare system in operation by 2020

6.3 Maximize Operational Safety and Security

Goal 3: Maximize Operational Safety and Security		
Objective	Measure	Target
1) Reduce transit vehicle accidents	Bus accident rate per 100,000 miles	≤ 3.778 per 100,000 miles
	Preventable bus accident rate per 100,000 miles	≤ 1.50 per 100,000 miles
2) Make transit vehicles and facilities secure environments for customers	Number of transit facilities with camera surveillance	≥ 54 facilities
	Number of transit vehicles with camera surveillance	≥ 1,025 transit vehicles
	Number of security post inspections	≥ 800 per month
	Number of systemwide NTD Reportable Part One (1) Crimes (Serious) per 100,000 riders (monthly moving average)	≤ 0.3 per 100,000 riders
	Number of systemwide NTD Reportable Part Two (2) Crimes (Petty) per 100,000 riders (monthly moving average)	≤ 1.62 per 100,000 riders

6.4 Enhance Integration of Transit Services to Support the Economy

Goal 4: Enhance the Integration of Transit Services to Support the Economy		
Objective	Measure	Target
1) Increase density of Transit Oriented Development (TOD) at DTPW Metrorail, Transitway and park-and-ride stations through Public Private Partnerships (P3)	Committed square feet of commercial space in P3 TODs	Increase Currently: 2.075 million
	Number of committed residential units in P3 TODs	Increase Currently: 3,933
2) Provide transit access to major attractors in Miami-Dade County	Miles of service within 1/4 mile of attractors	Healthcare: 50 miles Tourist Attractors: 300 miles Education: 100 miles Employment Areas: 40 miles Retail Centers: 90 miles
3) Improve access to universities and colleges	Catchment area of routes which connect to major universities and colleges	220.69 square miles

6.5 Provide Transit Services that Reduce Impact on the Environment

Goal 5: Provide Transit Services that Reduce the Impact on the Environment		
Objective	Measure	Target
1) Increase percentage of fleet that uses alternative fuels	Percent of fleet that uses alternative fuels	Increase Currently: 59%
2) Incorporate solar panels on DTPW facilities	Complete a study to assess potential of installing solar panels on DTPW-owned facilities	Complete assessment by 2024
	Partner with utilities and solar advocacy groups to install solar panels at DTPW facilities	Coordinate to investigate possible programs by 2020

6.6 Maximize Use of All Funding Sources

Goal 6: Maximize Use of All Funding Sources		
Objective	Measure	Target
1) Achieve a sustainable transit financial plan that maximizes existing funding and pursues innovative and new funding sources	Status of transit financial plan	Apply for state and federal grant
2) Reduction in operations unit cost per revenue mile	Change in cost per revenue mile	10% reduction over five years
	Change in cost per revenue hour	10% reduction over five years
3) Identify alternative project delivery methods	Alternate Delivery projects: Public-Private Partnerships, Transportation Infrastructure Finance and Innovation Act (TIFIA), State Infrastructure Bank Loans, Design Build, Operate and Maintain, and Design Build Finance Operate and Maintain	Completion of two projects delivered by alternative methods by 2024
4) Increase passenger fare revenue	Farebox Recovery Ratio	Increase
	Conduct a fare policy analysis and evaluate alternate fare models (distance/zone models)	Conduct study

6.7 Expand Transit Services

Goal 7: Expand Transit Services		
Objective	Measure	Target
1) Implement the Strategic Miami Area Rapid Transit (SMART) Plan Rapid Transit Network	Beach Corridor East-West Corridor Kendall Corridor North Corridor Northeast Corridor South Corridor	Progress toward Three Milestones: 1. Locally Preferred Alternative (LPA); 2. Inclusion of the SMART Plan projects in the TDP and other planning documents; 3. Implementation of the projects upon funding availability.
2) Implement the SMART Plan Bus Express Rapid Transit (BERT) Network	Flagler Corridor South Miami-Dade Express Northwest Miami-Dade Express Southwest Miami-Dade Express Florida's Turnpike Express (North) Florida's Turnpike Express (South) Beach Express North Beach Express Central Beach Express South	Progress towards Three Milestones: 1. LPA (as needed); 2. Inclusion of the SMART Plan projects in the TDP and other planning documents; 3. Implementation of the projects upon funding availability.
3) Increase service frequency on high demand bus routes	Number of route improvements or adjustments to top 10 routes	Increased frequency on at least 10% of top 10 routes from previous year

6.8 Enhance Integration Across Transit Systems and Connectivity Between Modes

Goal 8: Enhance Integration and Connectivity of Transit Systems Across Modes		
Objective	Measure	Target
1) Improve local, first/last mile connectivity and convenience	Incorporate recommendations from the TPO Study <i>First Mile - Last Mile Options with High Trip Generator Employers</i>	Develop action plan to incorporate recommendations by 2024
2) Improve Regional Connectivity	Number of routes connecting to regional transit (MIC, Miami Central, Tri-Rail, Amtrak, and Greyhound services)	Increase Currently: 25 (7, 22, 32, 37, 42, 57, 77, 95, 10, 110, 112, 132, 135, 146, 150, 155, 195, 196, 211, 238, 277, 297, 338, Metrorail, Metromover)
3) Improve service accessibility for non-motorized modes and users	Implement bike share at all Metrorail and Metromover stations	100% of stations by 2024
	Integrate bike share payments into EASY network	Complete by 2024
	Increase bicycle parking at all Metrorail and Metromover stations	237 installed by 2024
4) Reduce reliance on park-and-ride facilities by providing additional access options to DTPW transit facilities	Establish partnerships first/last mile service providers	5 partnerships established by 2024

6.9 Ensure Equity in Transit Services

Goal 9: Ensure Equity in Transit Services		
Objective	Measure	Target
1) Reduce dependence on STS by improving service for transit dependent population	Increase route miles serving areas with a high density of persons with a disability	10% growth by 2024 Currently: 399 miles
	Increase percentage of DTPW stops that are ADA accessible	100% by 2024 Currently: 48.6%
	Implement travel training program to teach passengers with disabilities how to use fixed route service	Implement training program by 2024

6.10 Maintain Existing Transit System in a State of Good Repair

Goal 10: Maintain Existing Transit System in a State of Good Repair		
Objective	Measure	Target
1) Increase capital expenditure on Infrastructure Renewal Program (IRP)	10% of deferred maintenance of funded IRP projects	10% achieved
2) Reduce Average Fleet Age	Average Metrobus fleet age	≤ 7.5 years Currently 11.5 years
	Average Metrorail fleet age	≤ 12 years Currently 17.8 years
	Average Metromover fleet age	≤ 15 years Currently 9.1 years

6.11 Goals and Objectives Monitoring

The goals and objectives are consistent with the department's business plan. DTPW's performance is measured through the Business Plan, the Asset Management Plan and other procedures established by the Department to align our goals and objectives with our performance measures. Moreover, the goals and objectives laid out in this chapter will be monitored over the course of the next several years. This TDP major update will be revisited annually until the next major update in 2025. During each of these annual update reports, the agency will describe how well it is adhering to the elements laid out in this chapter.

6.12 Conclusion

The goals and objectives laid out in this chapter illustrate the intended direction of DTPW's growth, and how DTPW will provide mobility solutions as Miami-Dade County continues to evolve. Future annual updates to the TDP will include a measurement and assessment of DTPW's success in achieving these targets. The purpose of this exercise is to ensure that DTPW is striving to continually improve its services through relevant and measurable objectives.



7 SITUATION APPRAISAL

The situation appraisal section provides an appraisal of factors within and outside the provider that affect the provision of transit services. This section includes an evaluation of organizational issues, technological innovations, the effects of land use regulations, support or hindrance of transit service, socioeconomic trends, state and local transportation plans, and other governmental actions and policies. It also includes an estimation of transit demand from the Southeast Florida Regional Planning Model (SERPM).

7.1 DTPW Organization

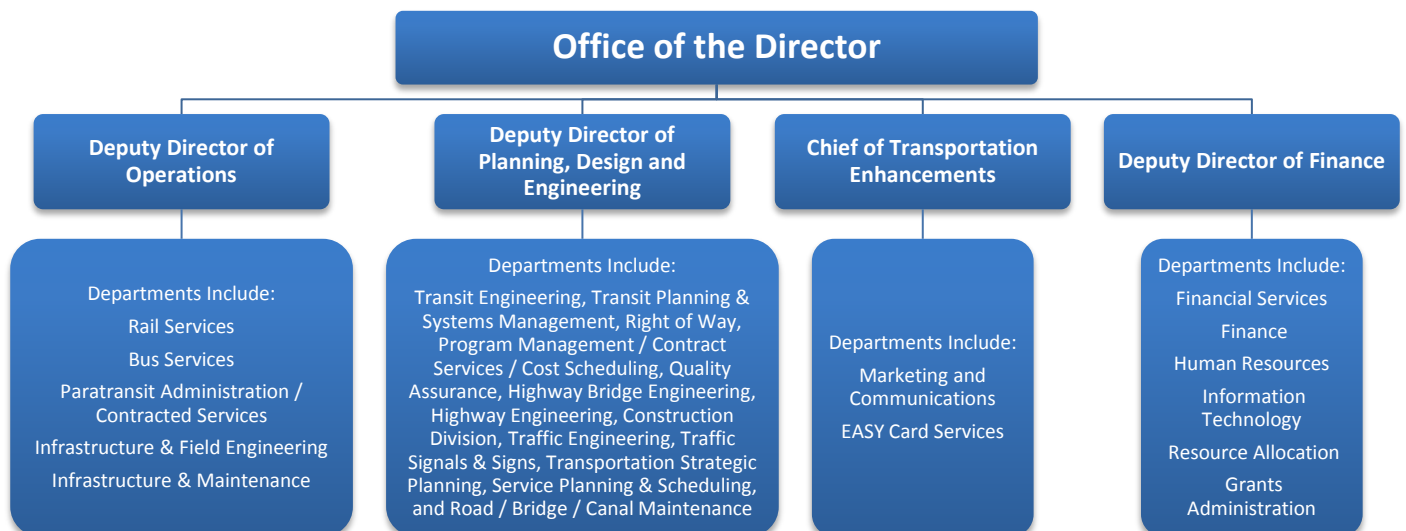
DTPW operates as a part of the Miami-Dade County government. DTPW was created in February 2016 when Miami-Dade Transit merged with the Public Works Department. The department is led by a Director, Deputy Director of Operations, Deputy Director of Finance, Deputy Director of Planning, Design & Engineering, and a Chief of Transportation Enhancements, as shown in Figure 2-3. Auxiliary departments include External Affairs, Civil Rights & Labor, Safety & Security, and Performance Analysis. A more detailed organization chart that details the working levels of DTPW is included in the Appendix.

7.1.1 Overview of New Organization, Function, and Roles

DTPW operates the 15th largest public transit system in the United States, and the largest in Florida. This includes the Metrobus fleet which operates approximately 28.9 million revenue miles throughout Miami-Dade County; the electrically-powered, elevated, 25-mile rapid transit Metrorail system; the 4.4-mile elevated Metromover; and the paratransit service (Special Transportation Service) that meets the needs of the disabled.

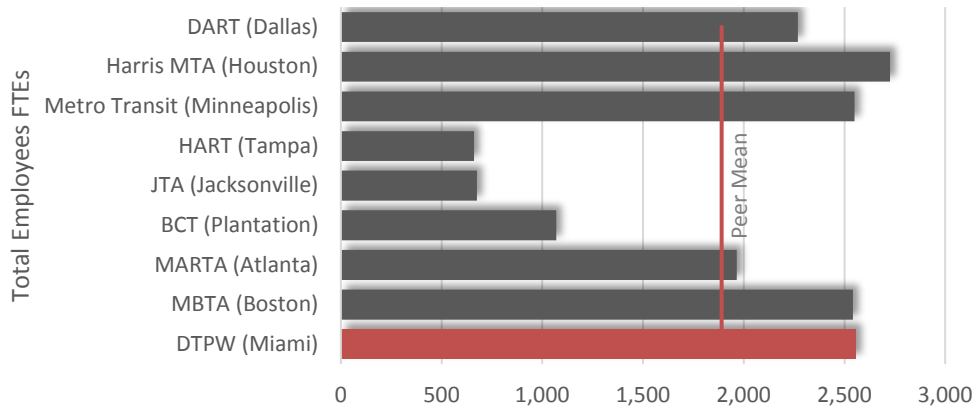
Since merging Transit and Public Works, DTPW aims to maximize synergy in traffic control management and surface transit operations. The Department provides all traffic signals countywide, along with all traffic control signs, street signage, pavement markings and all county and state-owned street lights. DTPW builds, operates and maintains movable and fixed bridges, swales, roadway surface repairs, guardrails, and along county road rights-of-way, as well as operating and maintaining the Rickenbacker and Venetian Causeways. DTPW keeps Miami safe by managing the county storm water utility for flood and water quality protection and maintaining the secondary canal system. Permits for all work within rights-of-way and code enforcement of unpermitted work is handled by the Public Works division.

Figure 7-1: DTPW Organization



A review of DTPW staffing levels was conducted by comparing National Transit Database (NTD) data against peers across the nation. The data indicated that DTPW has a higher number of full-time staff than peer agencies in Florida, but a similar level of staffing to national peers such as Massachusetts Bay Transportation Authority (MBTA) in Boston and Metro Transit in Minneapolis.

Figure 7-2: Total Full Time Equivalent Employees



Source: 2017 NTD Data

7.1.1.1 Transit Information

DTPW is continuously working to expand and improve access to transportation information through the deployment of dynamic message displays with arrival times at major bus terminals and WAZE Connected Citizens Program (CCP). DTPW joined CCP in 2016. Through this program their General Transit Feed Service (GTFS) data is publicly available, which is used by Google, Microsoft, Apple and several others in their trip planning and mapping systems. DTPW also has an agreement with Waze (owned by Google) to provide real-time government-reported data on construction, crashes, road closures, and broken-down buses. In return, DTPW is provided user-generated information and real-time data from Waze’s system.

7.1.2 Existing Funding Sources

DTPW relies on several revenue sources to operate its transit services. These sources are described in detail in the Financial Plan (Chapter 9). Overall, funding comes from three broad categories - Transit Proprietary Revenue (including farebox recovery); State Grant Revenue (including the transportation disadvantage program); and Local Revenue (including general funding maintenance of effort, and the PTP surtax).

7.1.2.1 Transit Fares – Farebox Revenue

Table 7-1: Farebox Recovery Ratio by Mode (FY 2018)

Mode	Farebox Recovery Ratio (%)
Metrobus	17.0%
Metrorail	15.2%
STS	10.6%
System-Wide	15.2%

Source: DTPW National Transit Database Facts at a Glance Report, Jan. 2019

7.1.2.2 Alternative Funding Sources

DTPW is exploring alternative revenue sources to help operate and maintain the existing transit system. As additional rapid transit corridors are developed, operation and maintenance costs will increase, which makes the need to identify alternative revenue sources more important. DTPW already derives revenue from several alternative funding sources such as Public Private Partnerships (P3s), land leases in TODs, and micro land leases.

DTPW has implemented successful P3 partnerships within the transit network. A notable example of a successful P3 was the redevelopment of the Brickell City Centre Metromover Station. Located within the envelope of the Brickell City Centre project, the Metromover station was integrated into the overall vision of the commercial development. Once the project was completed, Metromover passengers could seamlessly move from the Metromover platform directly to the City Centre attractions, which include retail, restaurant, lodging, and residential components. This P3 partnership resulted in the renovation of a transit station at no cost to DTPW.

Leveraging the property that DTPW owns at mass transit stations creates an opportunity to enlist the private sector in creating TODs. These projects integrate a mix of commercial and residential uses, including several that include affordable housing components. Several projects have been completed in recent years, with more ready to break ground in the coming years. A summary of existing and upcoming TODs are summarized in Chapter 3, Overview of Existing DTPW Services, Section 3.12.

Micro land leases entail the leasing of small square footages of land at DTPW facilities. Micro leases provide the opportunity for businesses to conduct operations on DTPW land. Examples of micro land leases could include bikeshare, e-mobility stations, and car share parking space leases. DTPW currently has a contract with a bikeshare company to install stations at DTPW stations. Rollout of that program is currently in development.

7.2 Technology/Innovation

DTPW seeks to utilize new technologies and innovative practices to improve service quality and overcome challenges as they emerge.

7.2.1 New Metrorail Cars

The entire Metrorail fleet is currently being replaced with brand new Hitachi vehicles being manufactured at a custom-built plant in Medley, Florida. The new vehicles feature upgrades such as an open layout with fewer barriers, built-in bike racks, new air conditioning systems, security cameras, and computerized announcements. In 2018, 42 new cars were tested for a total of 44 new cars in revenue service with all additional vehicles scheduled to enter service by July 2020. The new trains have already made an impact by improving both service reliability and overall riding experience.

7.2.2 New CNG Buses

In 2018, DTPW began to replace 300 of the 773-vehicle bus fleet with new 40-foot Compressed Natural Gas (CNG) vehicles. The new CNG buses are being placed into service at a rate of approximately 20 per month, and all are scheduled to be in service by fall 2019. These new buses will greatly improve reliability while simultaneously reducing emissions.

7.2.3 Technologies being explored for SMART Corridors

Part of the coordinated effort taking place to develop and enact the SMART Plan involves “right-sizing” the transit mode for each proposed corridor. To this end, a wide variety of technologies are being independently

analyzed for suitability in the Miami-Dade transportation environment. These include:

- Heavy Rail (Metrorail Extension)
- Light Rail
- Bus Rapid Transit (BRT) using alternative fuels and intelligent transportation systems (ITS)
- Automated People Mover (APM) similar to the Metromover
- Monorail
- Low-Speed Maglev
- Commuter and/or Hybrid Rail

7.2.4 Transit Tracker App

For years DTPW has maintained the Transit Tracker app for both iOS and Android devices. This app displays real-time arrival and departure information for Metrorail, Metromover, and Metrobus, as well as many other features including rider alerts, service updates, bus stop look-up, STS Connect, and integration with other apps such as EASY Pay, Pay by Phone, and MDT Transit Watch.

7.2.5 Emerging First/Last Mile Options

7.2.5.1 Ridesharing

On-demand ride-hailing services such as Uber and Lyft have become ubiquitous in recent years and have emerged as a viable first/last mile solution. Using smart phone apps, passengers can request a private vehicle or share their vehicle for a discounted price. Early research regarding the impacts of ride-hailing services on transit usage suggest that transit ridership declines when ride-hailing emerges as an alternative.

7.2.5.2 E-Mobility (Bikes, scooters, freebee style vehicles)

The gradual progression of batteries and electric motor technology has brought about a new type of transportation: e-mobility. Ranging from skateboards and scooters all the way to multi-passenger carts such as those operated by Freebee, e-mobility solutions provide cheap, quiet, clean, environmentally friendly transportation for short trips.

While some individuals choose to purchase their own electric bicycle, scooter, or skateboard as a form of first/last mile transportation, the more popular option that has emerged is for dockless shared vehicles. A QR code and/or control panel on the vehicles serve as the docking interface, and the remaining controls are conducted using a smart phone application. Riders are charged a fee for unlocking the vehicle, then a small fee per minute of usage. Regulations regarding dockless shared vehicles are still emerging, but a pilot program is currently underway for six companies (Bird, Bolt, Jump, Lime, Lyft and Spin) to operate within a limited area that includes downtown Miami, Coconut Grove, Morningside and Edgewater.

7.2.6 Connected/Autonomous Vehicles (CAV)

As technology continues advancing and multiple companies target 2021 to come to market with fully autonomous taxi services, a future with self-driving vehicles has begun to look like an inevitability. Miami-Dade County is on the forefront of this technological development, playing host to Ford's Argo AI autonomous vehicle testing beginning in 2018. The state of Florida has also taken steps to stay at the front of the pack, as the first state to legalize driverless vehicles.

7.2.6.1 Connected-Autonomous Vehicle (CAV) Program

In 2016, DTPW launched the CAV Program by forming a CAV Task Force with the mission of “enhancing interagency dialogue and collaboration, and to facilitate CAV project development and deployment within Miami-Dade County”. At a September 2016 task force meeting, a representative from Ford Motor Company Innovation Lab expressed how pleased they were to see the level of effort for this initiative.

7.2.6.2 Ford Argo AI Testing

In February of 2018, Miami-Dade County and Ford Motor Company announced that Ford would be launching their first self-driving vehicle pilot business, in addition to business pilot programs with Domino’s Pizza, Postmates, and five small local businesses, designed to study consumer interactions with vehicles that will one day be self-driven. The autonomous vehicle operations terminal was placed near Downtown Miami, in the most challenging real-world environment AV’s have ever been deployed in. Since beginning these pilots, the test area has been expanded, to include parts of Miami Beach. Ford now plans to deploy 100 driverless vehicles by the end of 2019, including in the Miami test area.



7.2.6.3 2019 State Law Update

In May of 2019, the Florida State Legislature passed a bill legalizing driverless cars and on-demand autonomous vehicle networks, an evolution of existing ridesharing platforms. This is the first law of its kind in the nation, as all other implementations of autonomous vehicles have been legally required to include a human back-up driver with the ability to instantly seize control of the vehicle from the computer. This legislation paves the way for innovative pilot projects to make their way to Florida as dozens of companies invest billions of dollars to explore new CAV technologies.

7.3 Intergovernmental and Stakeholder Coordination

DTPW works closely with the Federal Transit Administration (FTA), the Florida Department of Transportation (FDOT), the Miami-Dade TPO, Miami-Dade County Department of Regulatory and Economic Resources (RER), the CITT, Broward County Transit (BCT), the South Florida Regional Transportation Authority (SFRTA), local municipalities, citizen advocacy groups, and other transportation stakeholders. DTPW has also worked closely with the Miami Dade Expressway Authority (MDX) in the past and will continue to work closely with this agency or its successor, pending the resolution of recent state-enacted legislation. All responsibilities currently assigned to MDX are expected to be assumed by its successor. DTPW also collaborates and partners with local, state, and federal agencies to ensure regulatory compliance and cooperation on large scale infrastructure initiatives.

7.3.1 Local and Regional Agencies

7.3.1.1 Express Bus

DTPW coordinates regional express bus services with FDOT, BCT and MDX. DTPW staff participates in the monthly Planning Technical Advisory Committee (PTAC) Regional Express Bus Subcommittee meetings as well as the 595 Express Bus Service Workshop meetings. These meetings bring FDOT District Four and Six, SFRTA, DTPW, and BCT staffs together to discuss the implementation of express buses on managed lanes.

DTPW currently operates five express bus routes in the managed lanes of I-95, providing service from park-and-ride locations in Broward County and at the Golden Glades interchange in Miami-Dade. Service operates

during peak periods to downtown Miami, the Civic Center/Health District, and Doral. Additional express bus routes are planned for the managed lanes of I-75. Schedules for the express buses on I-95 and I-75 are closely coordinated with BCT, which they provide service on and which they will provide service on. Express bus services also operate on and SR-874 (Don Shula Expressway) connecting to HEFT (providing express bus service from 344th Street to the Dadeland South Metrorail Station). These services are coordinated by MDX.

7.3.1.2 Bus on Shoulder

The current express bus services on and SR-874 (Don Shula Expressway) began with bus on shoulder pilot projects that became permanent services. DTPW has also been working with MDX on the development of bus on shoulder service along its other facilities, however implementation will require continued coordination.

7.3.1.3 Dolphin Park-and-Ride

DTPW worked with both MDX and FDOT on the construction of a park-and-ride facility located west of Dolphin Mall to support the express bus service operating on the SR-836 (Dolphin Expressway). The facility is operated and maintained by MDX.

7.3.1.4 Regional Fare Interoperability Study

In March 2017 DTPW along with BCT, Palm Beach Transit and the SFRTA began collaborating on an interoperable transit fare system. The system would allow fare payment to all four agencies via mobile devices, on transit vehicles and/or at key transfer locations. Upcoming infrastructure developments will allow for the EASY Card and EASY Pay mobile app - as well as other alternative payment methods - to be used across all four agencies, allowing riders to load cash value onto their transit cards and ride anywhere in South Florida. Final installation of the regionally interoperable ticketing system is scheduled for 2018-19. Once implemented, this will improve customer convenience, decrease boarding times, and boost on-time performance.

7.3.1.5 Strategic Miami Area Rapid Transit (SMART) Plan

The SMART Plan was officially adopted and endorsed in 2016 by the Miami-Dade TPO Governing Board. It brings together DTPW, the TPO, FDOT, CITT and MDX. The strategy involves implementing rapid transit services on six SMART corridors supported by the SMART Plan's Bus Express Rapid Transit (BERT) network. Approximately 75% of the workforce in Miami-Dade County works within a two-mile radius of the SMART corridors. Additionally, approximately 63% of the county's population resides within that same area. Studies for all six corridors are underway and expected to be completed in 2019. DTPW is coordinating with the TPO on both transit and land use studies in support of the SMART Plan.

7.3.1.6 Broward Transportation Surtax

DTPW coordinates with CITT on the use of Miami-Dade's transportation surtax funds. With the November 2018 passage of a similar surtax in Broward, DTPW anticipates additional activity from BCT and an increase in coordination as additional inter-county connections may boost ridership for both agencies.

7.3.1.7 Tri-Rail, Downtown Link, and Coastal Link

DTPW currently coordinates with SFRTA to provide connections to the existing Tri-Rail service. An FDOT study to expand Tri-Rail's service to downtown Miami via the FEC railway, known as Coastal Link, has been underway for several years. The proposed service would provide commuter rail service from downtown Miami at the Downtown Intermodal Terminal (east of the Government Center Metrorail Station) to the entire Tri-Rail service area via the FEC railway. The Downtown Miami Link is the first step in implementing the Tri-Rail Coastal Link.

The Downtown Link will connect the existing mainline Tri-Rail service at the Tri-Rail Metrorail Transfer station to Virgin MiamiCentral, a six-block transit-oriented development with a train station, two residential towers, offices and retail space. The station was built with two tracks to accommodate Tri-Rail trains and three tracks for Brightline/Virgin trains. The Downtown Link is scheduled for implementation at the end of 2019 and will require Metrobus schedule coordination with new train schedules.

7.3.1.8 Community Circulators

Circulators, shuttles, and trolleys are typically operated by local municipalities in Miami-Dade County. These services provide short connections between activity centers or act as feeder routes to other transit services. There are currently 33 circulators routes that are operated by 27 local municipalities and DTPW. Municipalities are required to execute interlocal agreements with the county to avoid duplication of service and ensure that transit operations continue to complement each other. In addition, DTPW can work with local municipalities to create and publish General Transit Feed Specification (GTFS) data, which can be used by software developers to create programs and apps that communicate important transportation information to the public in real time.

7.3.1.9 Comprehensive Planning and Development Review Process

The efficiency and effectiveness of transit services are heavily influenced by land development patterns. Transit agencies can influence land use patterns by participating in comprehensive planning and the development review process to ensure new development is more transit supportive. DTPW coordinates with Miami-Dade County RER by providing input on various transit impacts of Comprehensive Development Master Plan (CDMP) Amendments. Furthermore, various measures are being applied to monitor progress and assess achievement of the various objectives contained in the Mass Transit Sub-element of the CDMP for the Evaluation and Appraisal Report (EAR).

DTPW reviews and approves concurrency applications in all areas of unincorporated Miami-Dade County for mass transit levels of service as per County Ordinance 89-66, Administrative Order 4-85, and Section 33-G of the Miami-Dade County Code.

The local municipalities within Miami-Dade County have varying levels of effectiveness regarding transit supportive policies. While DTPW participates in the development planning process in unincorporated Miami-Dade County, the agency may have a limited role in the planning process of local municipalities. Partnerships and outreach to local municipalities will help in achieving more transit supportive land development codes and comprehensive plan policies.

7.3.1.10 Miami Intermodal Center

The Miami Intermodal Center is a transit hub connected to Miami International Airport which provides multimodal connections to Tri-Rail, Metrorail, and intercity bus service. The MIC achieved substantial completion in February 2015. Tri-Rail began operating commuter rail service two months later in April, and Greyhound began operations after another two months in June. Amtrak has not yet begun operations due to errors in construction that resulted in insufficient platform length.

7.3.2 State and Federal Agencies

DTPW primarily coordinates with FDOT and FTA for funding and project implementation. As previously discussed, coordination with FDOT occurs on express bus operations, the Miami Intermodal Center, and implementation of the SMART Plan. DTPW also coordinates with FDOT on Public Transit Block Grants, the Transportation Disadvantaged Trust Fund, and a variety of other funding programs indicated in the Funding and Financing Sources chapter of this document.

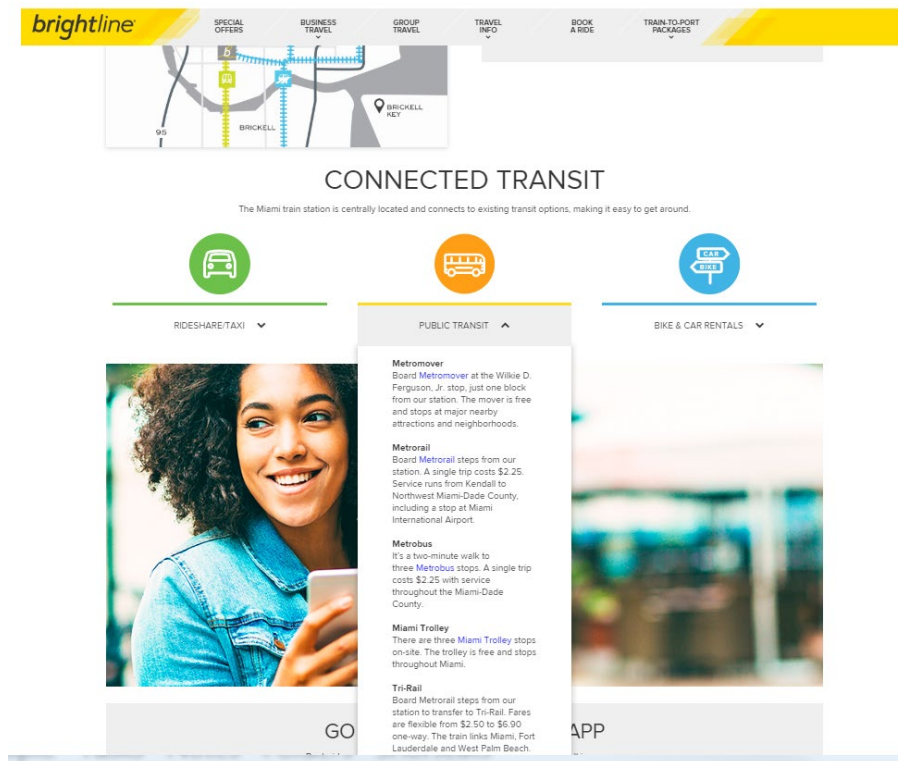
Coordination with FTA is focused on federal funds, such as Section 5307 Formula Grants and Section 5309 Discretionary Grants. As the SMART Plan moves into implementation, DTPW will be required to coordinate more closely with FTA if Capital Improvement Grants are pursued as the transit operating agency is typically the lead sponsor for those applications. If FDOT is the sponsor, then DTPW will still be significantly involved as the financial rating is based upon DTPW’s financial status as the operator.

7.3.3 Private Entities

7.3.3.1 Brightline / Virgin Trains

Brightline, now known as Virgin Trains, began higher speed rail service in Miami-Dade County in May 2018. The Miami train station, named Virgin MiamiCentral is located at 600 NW 1st Avenue. While this service has the potential to attract new riders to use nearby transit services like Metrobus, Metrorail and Metromover, Brightline heavily promotes the use of its partner transportation networking company, Lyft, as a first-mile last-mile connection for its riders. Brightline broke ground on construction to its Orlando route in June 2019. Future connections to Orlando and Tampa have the potential to increase transit demand for DTPW and will make transit connections to beach areas even more critical.

Figure 7-3: Transit Information on Brightline Website



7.4 Plans & Policy

As part of the situation appraisal, a review was conducted of the plans, programs, policies, and studies at the federal, state, county, and municipal level which influence DTPW. This review identifies the factors that may be relevant to the continued operation and growth of the transit agency. An overview and summary of the key considerations for each item are included in the following table.



Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
Fixing America's Surface Transportation (FAST) Act	Federal	October 2015	US DOT	Five-year funding for nation's surface transportation infrastructure, including transit systems and rail transportation network. Provides long-term certainty and more flexibility for states and local governments, streamlines project approval processes, maintains strong commitment to safety.	<ul style="list-style-type: none"> Increases dedicated bus funding by 89% over life of bill. Provides both stable formula funding and competitive grant program to address bus and bus facility needs. Reforms public transportation procurement to make federal investment more cost effective and competitive. Consolidates and refocuses transit research activities to increase efficiency and accountability. Establishes pilot program for communities to expand transit through use of public-private partnerships. Provides flexibility for recipients to use federal funds to meet state of good repair needs. Provides for coordination of public transportation services with other federally-assisted transportation services to aid in mobility of older adults and individuals with disabilities.
Clean Air Act of 1990	Federal	Revisions to National Ambient Air Quality (NAAQS) proposed in 2010; not yet implemented	US Environmental Protection Agency (EPA)	Act and subsequent amendments determine NAAQS for six pollutants, including carbon monoxide and ozone.	<ul style="list-style-type: none"> Miami-Dade County currently classified as attainment area. Enhanced transit options reduce travel by single-occupant vehicle (SOV), helping Miami-Dade County remain classified as attainment area.
Title VI and Environmental Justice (EJ) Circulars	Federal	EJ Circular, effective August 15, 2012; Title VI Circular, effective October 1, 2012	US DOT, FTA	EJ Circular issued by FTA provides recipients of FTA financial assistance with guidance for incorporating EJ principles into FTA-funded plans, projects, and activities. Revised Title VI Circular includes removal of several references to EJ, which are now incorporated into separate EJ Circular, to better understand distinctions between Title VI and EJ.	<ul style="list-style-type: none"> DTPW required to submit Title VI programs every three years as transit provider operating 50 or more fixed-route vehicles in peak service and located in urbanized area of more than 200,000 persons. DTPW also required to evaluate service and fare equity changes or monitor transit service for Title VI impacts. DTPW public involvement plan should incorporate outreach designed to encourage meaningful participation from members of EJ population.
DOT Livability Initiative and Federal Sustainable Communities Program	Federal	Partnership for Sustainable Communities, formed in 2009	US DOT, FTA, US Department of Housing and Urban Development (HUD), EPA	Goal of this joint-initiative is to improve access to affordable housing, better transportation choices, lower transportation costs while protecting environment – essentially making communities throughout US more livable.	<ul style="list-style-type: none"> US DOT and FTA support several policies and initiatives intended to help communities improve livability and overall quality of life, including programs to encourage Transit-Oriented Development (TOD) enhanced mobility options, etc.
Florida Transportation Plan: Horizon 2060 (FTP)	State	2010	FDOT	Looks at 50-year transportation planning horizon and calls for fundamental change in how and where Florida invests in transportation.	<ul style="list-style-type: none"> Supports development of state, regional, and local transit services through series of related goals and objectives, emphasizing new and innovative approaches by all modes to meet needs today and in future.
State of Florida Transportation Disadvantaged 5-Year/ 20-Year Plan	State	November 2007	Florida Commission for the Transportation Disadvantaged (CTD)	Purpose is to accomplish cost-effective, efficient, unduplicated, and cohesive transportation disadvantaged services within its respective service area. Required under Florida Statutes, plan includes: Explanation of Florida Coordinated Transportation System, Five-Year Report Card, Florida Office of Program Policy Analysis, Government Accountability Review, Strategic Vision and Goals, Objectives, and Measures	<ul style="list-style-type: none"> Short-term strategic vision includes developing and field-testing model community transportation system for persons who are Transportation Disadvantaged. Long-range strategic vision includes developing universal cost-effective transportation system with uniform funding system and services designed and implemented regionally throughout state.
FDOT Context Classification	State	August 2014	FDOT	In 2014, FDOT adopted policy calling for planning, design, construction, and operation of context-sensitive system of Complete Streets. To support this policy, FDOT created context classification system to describe land use patterns throughout the state that helps to emphasize need to support all users within complete network of streets according to each street's existing and desired future context and transportation characteristics.	<ul style="list-style-type: none"> Classification of roadways informs FDOT's planning, PD&E, design, construction, and maintenance approach for roadways. Any DTPW TOD stations may be influenced by classifications of surrounding roads, and construction of development may change context classification of adjacent roadways.
2040 Southeast Florida Regional Transportation Plan (RTP)	Regional: Miami-Dade, Broward, Palm Beach	October 2015	Southeast Florida Transportation Council (SEFTC)	Provides prioritized set of highway and transit improvements for Miami-Dade, Broward, and Palm Beach counties recognizing regional characteristics of many travel needs. Miami-Dade's share is \$150,000, with remaining amount being provided in equal parts by Broward and Palm Beach MPOs.	<ul style="list-style-type: none"> Major component of 2040 RTP was development of Regional Transit Vision that connects numerous transit and land use plans to establish regionally-integrated multimodal premium transit network. Identifies one potential new park-and-ride lot and four potential expanded park-and-ride lots in Miami-Dade County. Five future premium bus routes and six future rail routes identified in Miami-Dade County to connect major regional destinations such as Dolphin Mall, FIU, Southland Mall, Dadeland South, Miami Beach, Port Miami, Aventura Mall, MDC, Miami Intermodal Center, and Miami Government Center.



Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
Regional Climate Change Action Plan	Regional	2012	Southeast Florida Regional Climate Change Compact	Collaborative effort among Palm Beach, Broward, Miami-Dade, Monroe counties and their municipalities and partners to develop regional action plan for SE Florida to reduce greenhouse gas emissions and adapt to regional and local impacts of changing climate.	<ul style="list-style-type: none"> Establishes 7 goals to categorize 110 action items identified. One goal is to “reduce greenhouse gas emissions by planning, designing, and prioritizing walkable, affordable communities supported by sustainable multimodal transportation options;” 16 action items associated with goal that address land use policy and multimodal infrastructure investment strategies. Recognizes that there are more than 100 entities in 4-county region that exercise governance over transportation planning, operation, and investment decisions. Continued enhancement of mobility options and land use policy to support alternative modes will require inter-regional coordination among these agencies, including DTPW.
FDOT FY 2019–2023 Work Program	State (specific project list developed for FDOT District 6 and Miami-Dade County)	FDOT Adopted February 14, 2018	FDOT	Five-year work program developed annually by FDOT; project-specific list of transportation activities and improvements developed in cooperation with Miami-Dade TPO and local transportation agencies. Work program must be consistent, to maximum extent feasible, with capital improvement elements of local government comprehensive plans.	<ul style="list-style-type: none"> Summary of transit projects by type of work found in adopted FY 2019–2023 Work Plan compiled for consideration in TDP update. Types of transit demonstration projects programmed in FY 2019–2023 Work Program include Coral Gables Flex Route via electric vehicles, Doral FIU Station Trolley, Miami Flagami Trolley Route, Miami Beach Middle Beach Loop Trolley Route, North Miami new weekend service route, Miami Shores Village Smart Shuttle Service, DTPW I-75 Express Bus Service, North Bay Village Connector, Cutler Bay Express service, Medley Central Commuter Route, Palmetto Bay new transit facility lease and on-demand express service, and Pine Crest on-demand transit circulator. Several programmed urban corridor improvements for DTPW include Flagler Max Bus service route operational costs, Kendall Cruise (Route 288) from Dadeland N Station to SW 162 Ave, South Miami Dade Transitway, and four I-95 Express routes.
Tri-Rail Coastal Link Study	Regional	Project Development Phase	FDOT, FTA, SE Florida Transportation Council, SFRTA, Broward MPO, BCT, Palm Tran, Palm Beach TPA, Miami-Dade TPO, DTPW, Treasure Coast Regional Planning Council (TCRPC), South Florida Regional Planning Council (SFRPC)	Formerly known as South Florida East Coast Corridor (SFECC) Study; proposes reintroducing passenger service along 85-mile stretch of Florida East Coast (FEC) Railway corridor between downtown Miami and Jupiter.	<ul style="list-style-type: none"> DTPW is Project Partner on this study and sits on Executive Steering Committee. Regional corridor would connect to existing bus systems, including BCT, Palm Tran, DTPW, and rail transit systems including Tri-Rail and Metrorail. Eight proposed stations in Miami-Dade, including Aventura, N Miami Beach, N Miami, 79th St (Miami), 55th St (Miami), 36th St (Miami), 11th St (Miami), and Government Center (Miami). Environmental phase of two-year Project Development phase started in 2018 following preparation of necessary technical documentation. Project Development completely funded; construction is not.
All Aboard Florida (Brightline/Virgin Trains USA)	Regional	In operation	Private initiative led by FEC Industries	Privately owned, operated, and maintained intercity higher speed passenger rail service between Miami and West Palm Beach. Ultimate plan extends service along existing FEC between West Palm Beach and Space Coast with creation of new tracks into Orlando.	<ul style="list-style-type: none"> Construction and operation require coordination between FEC and local transit/transportation agencies (including DTPW) regarding connecting service at stations (including currently operating MiamiCentral station). Service between West Palm Beach and Fort Lauderdale stations began January 2018; service to Miami began May 2018. “Phase II” construction between West Palm Beach and Orlando underway. MiamiCentral Station located in Downtown with nearby linkages to Metrorail, Metromover, and Metrobus.
95 Express Managed Lanes (Phase 2)	Regional	In operation	FDOT	95 Express Phase 2 extended existing express lanes north from Golden Glades interchange in Miami-Dade County to Broward Blvd in Broward County.	<ul style="list-style-type: none"> 95 Express Bus operated by DTPW, BCT provides express bus service from Broward County to downtown Miami within current express lanes. Extension of 95 Express lanes from Miami-Dade County line to Broward Blvd allows Metrobus and Tri-Rail connections to BCT’s 95 Express route to travel at higher average travel speeds via uninterrupted express lanes.
I-75 Express Managed Lanes	Regional	In operation	FDOT	Express lanes along 28 miles of I-75 and SR-826 (Palmetto Expressway) corridors, from just south of SR-836 (Dolphin Expressway) in Miami-Dade County to I-595 in Broward County.	<ul style="list-style-type: none"> I-75 Express lanes from SR-826 to I-595 allow regional connections from Broward to Miami-Dade at higher average travel speeds via uninterrupted express lanes.
I-75 Express Bus Service	Service from W Broward/ I-75 area into Miami-Dade County	In late-2019	BCT, in partnership with FDOT, will operate service	Overall purpose of project is to improve mobility, relieve congestion, provide additional travel options, enhance transit services, accommodate future growth and development in region, enhance emergency evacuation, and improve system connectivity between key limited access facilities in South Florida.	<ul style="list-style-type: none"> Express Bus Service operating costs projected to be funded by toll revenue from completed Managed Lanes project. In late 2019, BCT will begin express bus service on I-75 Managed Lanes from Sunrise to MIC. Number, cost, and type of buses to provide this service not yet identified. Future BCT express bus service will allow opportunities for commuters to connect to Metrobus and Metrorail.
Seven50 Regional Plan	Regional: Monroe, Miami-Dade, Broward, Palm Beach, Martin, St. Lucie, and Indian River counties	2014	SFRPC, TCRPC SE Florida Regional Partnership (SFRP)	Voluntary, broad-based, and growing collaboration of more than 200 public, private, and civic stakeholders from SE Florida region. HUD-funded plan led series of public summits, workshops, online outreach, and high-impact studies to identify blueprint for growing SE Florida region into prosperous and desirable place for next 50 years and beyond.	<ul style="list-style-type: none"> Identified need to develop and maintain multimodal, interconnected trade and transportation systems to support a globally-competitive economy and focus on improvement. Created set of future trend analyses, planning strategies, and advisory recommendations for common challenges facing region and long-term, shared vision with measurable goals. Voluntary undertaking requiring incremental steps toward building resilient region spanning topics of economic growth, livability, arts/culture, environment, climate/energy resilience, inclusive leadership.



Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
Regional Transit System Master Plan (RTSMP)	Regional	Adopted 2015	SEFTC	Key component of SEFTC-led 2040 SE Florida Regional Transportation Plan (2040 RTP). Identifies most significant regional investment needed to meet travel demands throughout SE Florida region.	<ul style="list-style-type: none"> Provides thorough analysis of unmet transit travel demands and other regional transit opportunities in three-county region. Proposes “many centers” approach to regional transit to connect smart growth areas with activity centers, focusing on major N-S and E-W corridors.
Regional Interoperability Fare/Mobile Ticketing	Regional	2019–2020	FDOT, BCT, SFRTA, DTPW, Palm Tran	Prior study evaluated regional fare card using smart card technologies for BCT, SFRTA, DTPW, Palm Tran; evaluated business case and total cost drivers associated with realizing technical integration solution. Mobile ticketing-proposed system will allow fare payment via mobile devices on DTPW buses and/or at key transfer locations.	<ul style="list-style-type: none"> SFRTA and DTPW use EASY Pay system; BCT and Palm Tran accept SFRTA transfer ticket. Final installation of Regional Interoperability Fare/Mobile Ticketing scheduled for 2019–2020. Mobile ticketing will improve interoperability with Tri-Rail, DTPW, BCT Palm Tran fare systems, improving customer convenience and assisting with faster boarding times
Miami-Dade County Transportation Disadvantaged Service Plan (TDSP) July 1, 2016 through June 30, 2021, FY 2017–2018 Annual Update	Miami-Dade County		Miami-Dade TPO, Miami-Dade County Board of County Commissioners, DTPW	As required by Florida CTD, contains development, service, cost/revenue allocation, and rate structure justification components. Miami-Dade County Community Transportation Coordinator (CTC) uses TD Trust Fund’s dollars to meet state requirements of providing service to only those TD populations not sponsored or subsidized by any other funding source. Eligible TD population within Miami-Dade County: <ul style="list-style-type: none"> Up to 150% above poverty level Under age 65 Cannot receive SSI benefits Children at Risk population(s) 	<ul style="list-style-type: none"> Miami-Dade County has many sponsored programs currently in place to assist portions of State-recognized TD populations. To assist eligible TD population, two distinct TD Programs established: TD Easy Ticket Program – distribution of EASY Tickets to eligible TD individuals through applicable 501(c)(3) organizations. Recipients receive pre-loaded EASY Tickets, which provide equivalent of one of following: one trip, daily, weekly, and/or a monthly pass, based on need. TD Transit Mobility Easy Card Program – distribution of annual EASY Cards to TD-eligible individuals.
Miami-Dade TPO 2040 Long Range Transportation Plan (LRTP)	Miami-Dade County	2014; update in Progress	Miami-Dade TPO	TPO is federally-mandated agency for metropolitan areas with 50,000+ population for Miami-Urbanized Area; guides transportation process in Miami-Dade County. Primary function to produce and update (every 5 years) LRTP with minimum time horizon of 20 years. LRTP is comprehensive cost-feasible transportation infrastructure plan that includes highway, transit, freight, and non-motorized components, and covers broad range of issues including environment, economic development, mobility, safety, security, quality of life.	<ul style="list-style-type: none"> Additional revenue for new transit projects and their operating and maintenance costs allocated, including 26 improvements for transit such as express bus, enhanced bus, and Bus Rapid Transit (BRT). Flexible funding allocated to construct and implement following projects: <ul style="list-style-type: none"> East-West Corridor (Flagler) Enhanced Bus North Corridor (NW 27 Ave) Enhanced Bus Douglas Road Corridor (37 Ave) Enhanced Bus Kendall Corridor Enhanced Bus Northeast Corridor (Biscayne) Enhanced Bus NW 7 Ave Enhanced Bus North Corridor (NW 27 Ave) BRT with Dedicated Lanes Kendall Park-and-Ride Facility Busway Park-and-Ride Facility Dolphin Station Transit Terminal Palmetto Intermodal Terminal Expected costs for transit in plan years 2020–2040 is \$25.58 billion in capital and O&M costs for transit, 64.9% of total cost feasible budget. DTPW to ensure that transit projects identified in update incorporated into 2045 LRTP Needs Plan, as appropriate.



Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
BCT Connected 2019–2028 TDP Major Update	Broward County	2018	Broward County	State of Florida Public Transit Block Grant (PTBG) Program, enacted by Florida Legislature to provide stable source of funding for public transit; requires public transit service providers to develop and adopt 10-Year TDP per FDOT requirements. Major updates must be completed every 5 years and include assessment of baseline conditions, public involvement plan, ridership estimates. Strategic guide for public transportation in Broward County. Major Update to TDP adopted in 2018. Two implementation plans developed, each with a 10-year and 30-year horizon.	<ul style="list-style-type: none"> • BCT provides various connections to Metrobus and Metrorail via Routes 1, 2, 18, 28, 441, 101, 102, 106, 107, 108, 109, 110, and 114. • Two alternative scenarios for future transit services in Broward County developed: <ul style="list-style-type: none"> ◦ Status Quo Plan focuses on maintaining current service levels based on available funding from existing sources; identifies addition of I-75 Express Route from Sunrise to MIC and employs Mobility on Demand (MOB) services. Regional Interoperability Fare/Mobility Ticketing project will improve customer convenience and boarding times when transferring to DTPW services; scheduled to roll out 2019–2020. ◦ Vision Plan reflects vision for future transit services; will improve system beyond current levels of service and funding capabilities, accounts for Broward County Transportation Surtax revenue that will begin accrual in January 2019. Identifies frequency and service improvements, route realignments, enhanced bus service, new fixed route and express bus service, various facility improvements, other administrative programs and improvements: <ul style="list-style-type: none"> ▪ New local route on Flamingo Road from NW Miami-Dade County to Sawgrass Mills in 2023. ▪ US-441 Rapid Bus route from Sample Road to Golden Glades in 2021. ▪ US-1 Rapid Bus route from Sample Road to Aventura Mall in 2027.
SFRTA Building Stronger Connections TDP FY 2019–2028	Regional	2018	South Florida Regional Transportation Authority	State of Florida PTBG Program, enacted by Florida Legislature to provide stable source of funding for public transit, requires public transit service providers to develop and adopt 10-Year TDP per FDOT requirements. Major updates must be completed every 5 years and include assessment of baseline conditions, public involvement plan, ridership estimates. SFRTA Building Stronger Connections documents investments that SFRTA is committed to making over next 10 years and agency's vision for additional priorities and improvements through FY 2027.	<ul style="list-style-type: none"> • Tri-Rail provides passenger rail service to five stations Miami-Dade, including Golden Glades, Opa-locka, Metrorail Transfer, Hialeah Market, and Miami International Airport. • Downtown Miami Link originally planned to begin service in 2018, now targeted to begin in late 2019. Link will provide more mobility options from Miami-Dade to region. • Miami-River-MIC Capacity Improvement will provide mainline tracks to southernmost 1.25 miles of SFRC corridor from just north of Tri-Rail Hialeah Market Station to Tri-Rail Miami Airport Station at MIC. Will improve travel time and schedules. Project funding extends to FY 2021–2022. • Largest capital expense identified in plan is Tri-Rail Coastal Link expansion at estimated total capital cost of \$800 million in FY 2023–2024. Expansion currently unfunded.
Miami-Dade County Comprehensive Development Master Plan	Miami-Dade County	July 2017	Miami-Dade County Department of Regulatory and Economic Resources	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. County's general objectives and policies address where and how it intends development during next 10–20 years, and delivery of county services to accomplish Plan's objectives.	<ul style="list-style-type: none"> • Land Use Policy objective requires all new development and redevelopment in existing and planned transit corridors and Urban Centers to be planned and designed to promote TOD and transit use, which mixes residential, retail, office, open space, and public uses in safe, pedestrian- and bicycle-friendly environment that promotes mobility for people of all ages and abilities through use of rapid transit services. • Includes objectives to encourage development of wide variety of land uses and activities in nodes around rapid transit stations to promote mobility, produce short trips, minimize transfers, attract transit ridership, and promote travel patterns on transit line. • Specifies several transit-supportive policies for development near rapid transit station sites and their vicinity by addressing issues such as street connectivity, building orientation, walkability, land use, TOD, and density. • Mass Transit sub-element of Transportation Element addresses need to continue to promote and expand public transportation system to increase its role as major component in County's overall transportation system. • Proposed rapid transit corridors include: <ul style="list-style-type: none"> ◦ Beach Corridor from Midtown Miami to Miami Beach Convention Center. ◦ East-West Corridor from MIC to FIU. ◦ Kendall Corridor from the Dadeland area Metrorail stations to Krome Avenue. ◦ North Corridor from the Martin Luther King Jr. Metrorail Station to NW 215th Street. ◦ Northeast Corridor from Downtown Miami to the City of Aventura. ◦ South Dade Transitway from Dadeland South Metrorail Station to SW 344th Street Transit Terminal in Florida City. • 13 proposed premium transit corridors have potential for future bus rapid transit. • Two planned station locations for Metromover system along existing Metromover alignment.
Miami Comprehensive Neighborhood Plan	City of Miami	May 2018	City of Miami	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10–20 years, and delivery of City services to accomplish Plan's objectives.	<ul style="list-style-type: none"> • Establishes Regional Activity Centers and Urban Central Business District on Future Land Use Map to promote mass transit and high-density mix-use development. Includes Buena Vista Yards Regional Activity Center and Health District Regional Activity Center. • Transportation Element encourages transit-supportive environment by establishing Transportation Concurrence Exception Area (TCEA) for entire city, excluding Virginia Key, Watson Island, and uninhabited islands of Biscayne Bay. • Other transit-supportive policies include: <ul style="list-style-type: none"> ◦ Reduced, shared, or alleviated parking requirements within Land Development Regulations for developments located within 1/4 mile of transit corridors or 1/2 mile from Metrorail stations or Metromover stations. ◦ LOS standards that utilize person-trip metrics which consider transit services being provided along corridors. ◦ Encouragement of Multimodal Design Guidelines. ◦ Support for trolley system that provides feeder services and first/last-mile connections to DTPW and Tri-Rail. ◦ Land Development Regulations that ensure blocks are easily walkable. ◦ Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to jointly improve and develop transportation and transit facilities identified across agency plans.



Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
City of Hialeah Comprehensive Plan 2015–2025	City of Hialeah	October 2017	City of Hialeah	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	Transit-supportive Future Land Use Element objectives and policies include: <ul style="list-style-type: none"> • Downtown Urban Center Urban Design Plan that permits mixed land uses, medium and high residential density, and walkable living environment. • Designation of area adjacent to Hialeah Market and Metrorail Transfer Tri-Rail stations as TOD District. • Transit-supportive Transportation Element objectives and policies include: • Exceptions for minimum LOS standards in areas with transit services with peak headways of 20 minutes or less. • Goals, objectives, policies that promote and encourage interagency and intergovernmental coordination to improve and increase use of transit. • Strategies to facilitate dissemination of transit service information, including coordinating with Hialeah employers and distributing information at City-owned and operated facilities. • Protecting and preserving current and future right-of-way for mass transit projects, including within proposed developments.
City of Miami Gardens Comprehensive Development Master Plan	City of Miami Gardens	December 2016	City of Miami Gardens	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	<ul style="list-style-type: none"> • Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve and maximize transit mobility within city, as well as coordination to achieve consistency between plans and programs at regional and state levels. • Multimodal goals, objectives, and policies that positively impact transit services and transit ridership, including improvements to pedestrian infrastructure around existing transit stops. • Coordination of objectives and policies between different elements of Comprehensive Development Master Plan, including Transportation and Land Use Elements, to identify transit-focused corridors and other areas within city. • Coordination between City, County, FDOT, and others encourage transit in the form of bus rapid transit and light rail, as well as multi-modal and transit oriented development. • Elements of the land use goals, objectives, and policies encourage new urban development to be geared towards mixed-use and transit oriented development that will promote integration of smart growth principles and enable livable communities.
City of Miami Beach Year 2025 Comprehensive Plan	City of Miami Beach	April 2011	City of Miami Beach	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	Transit-supportive objectives and policies include: <ul style="list-style-type: none"> • Dedicating section of Transportation Element to identify mass transit-specific objectives and policies that encourage and promote use of public transit, including setting minimum transit service and infrastructure standards and strategies for interagency/intergovernmental coordination to ensure implementation of objectives and policies. • Sections of Transportation Element that identify multimodal and bicycle and pedestrian circulation-specific objectives, policies that positively impact transit services, transit infrastructure, and transit ridership, including pedestrian and bicycle safety, complete streets, and Transportation Demand Management (TDM) strategies. • Strategies to increase non-SOV modal split, including mass transit, and strategies to continuously review effectiveness of these strategies. • Coordination of objectives and policies between different elements of Comprehensive Plan, including Transportation and Land Use elements, to maximize leverage of existing infrastructure and transportation system. • Land use objectives and policies, and using mixed-use and TOD within city to support use of existing and future mass transit system.
City of Homestead Comprehensive Plan	City of Homestead	June 2011	City of Homestead	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	Transit-supportive objectives and policies include: <ul style="list-style-type: none"> • Transportation Element goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve regional access through transit and to maximize available financial resources to improve and expand current transit services. • Multimodal-specific goals, objectives, and policies throughout Transportation Element that positively impact transit services, including TDM strategies. • Identification of performance measures to monitor progress in achieving objectives and policies of plan. • Land Use Element goals, objectives, and policies that encourage downtown mixed-use, compact urban design, and infill development, and accompanying strategies that support use of existing and future transit system in certain areas of city.



Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
City of North Miami Comprehensive Plan	City of North Miami	February 2016	City of North Miami	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	<ul style="list-style-type: none"> • Multimodal goals, objectives, and policies that positively impact transit services and transit ridership, including LOS standards that consider transit services provided along corridors, TDM strategies, and increasing transit modal split within city. Other transit-supportive objectives and goals include: • Transportation Element goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve local and regional access through transit and maximize available financial resources to improve and expand current transit services. • Entire city designated as TCEA; establishes transit impact fee program to improve public transit. • Future Land Use Element goals, objectives, and policies that encourage and facilitate mixed-use, infill, and transit-oriented development and accompanying strategies that support use of existing and future transit system in specific areas of city. Although majority of future land uses designated as low-density residential, area designated as Central Business Commercial on Dixie Highway and NW 125th has potential to become more transit-supportive. • Robust transit-oriented and urban design sections within plan provide detailed guidelines and insight into goals and policies that guide redevelopment and TOD to promote use of public transportation. • Land use designations that guide redevelopment through TOD and livable urban form principles, densities and intensities along designated Planned Corridor Overlays, including NW 7th Ave, NW 119th St, NE 6th Ave, Dixie Highway, Biscayne Blvd, NE 125th/123rd St, and NE 135th St. Creation of a Transit Center Overlay for planned NE 125th St Tri-Rail Coastal Link Station. Creation of Neighborhood Redevelopment Overlay and Planned Corridor Development Overlay supports multimodal goals.
City of Coral Gables Comprehensive Plan	City of Coral Gables	January 2010	City of Coral Gables	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	<p>Transit-supportive objectives and policies include:</p> <ul style="list-style-type: none"> • Multimodal goals, objectives, and policies that positively impact transit services and transit ridership, including LOS standards that consider transit services provided along corridors and TDM strategies. • Establishing Special Transportation Area in area bounded by Tamiami Trail, Flagler St, and city limits on north; Sunset Dr on south; Red Rd on west; and Cartagena Plaza, LeJeune Rd, city limits, and Douglas Rd on east to support intense road and mass transit needs of area. • Continued support of trolley system in conjunction with DTPW, including expansion of trolley system. • Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve consistency between local and regional plans. • Land use goals, objectives, and policies that encourage mixed-use development in downtown and along corridors, such as Central Business District, Downtown Overlay District, and Mixed Use Overlay District. • Infill development strategies that support use of existing and future transit system in specific areas of city.
City of Doral Comprehensive Plan	City of Doral	May 2016 (August 2017 revised)	City of Doral	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	<p>Transit-supportive objectives and policies include:</p> <ul style="list-style-type: none"> • Multimodal goals, objectives, and policies that positively impact transit services and transit ridership, including LOS standards that consider transit services provided along corridors and TDM strategies. • Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit access to major trip generators for city residents. • Strategies and measures to increase non-single occupancy vehicle (non-SOV) modal split, including increasing transit modal split. • Land use goals, objectives, and policies that encourage mixed-use development in downtown and along corridors, as well as redevelopment strategies that support use of existing and future transit system in specific areas of city. • Coordination with DTPW to expand Doral Trolley Circulator System. Develop NW 87th Ave as an exclusive transit feeder route to NW 74th St Metrorail station from downtown Doral and Doral Boulevard.
City of North Miami Beach Comprehensive Plan	City of North Miami Beach	October 2015	City of North Miami Beach	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	<p>Transit supportive objectives and policies include:</p> <ul style="list-style-type: none"> • Multimodal objectives and policies that positively impact transit services, transit infrastructure, and transit ridership, including LOS standards that consider transit services provided along corridors and TDM strategies. • Identifying objectives and policies that impact multiple elements of comprehensive development plan, including transportation and land use elements, to ensure compatibility of said objectives and policies. • Establishment of mixed land uses to encourage mass transit usage in select areas: Fulford Mixed Use Town Center, Mixed Use Neighborhood Center, Mixed Use North Waterfront, Mixed Use South Waterfront, Mixed Use Employment Center, and Mixed Use Corridor. • Establishment of TCEAs to encourage alternative forms of transportation, including transit. In order for a development to qualify for a transportation concurrency exception, the development must be located within the Community Redevelopment Area, the aforementioned mixed land use areas, areas located within ¼ mile of an existing or planned DTPW transit center or bus stop with peak hour headway service of 20 minutes or less, or express bus service. • Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit services and identify potential long-term transit enhancements. • Ongoing evaluation and monitoring of goals, objectives, and policies of Comprehensive Plan and existing transit services to identify any potential improvements and enhancements that positively impact transit usage.

Table 7-2: Plans and Policies

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update / Timeframe	Responsible / Partner Agencies	Overview	Key Considerations for Situation Appraisal
Town of Cutler Bay Growth Management Plan	Town of Cutler Bay	April 2008	Town of Cutler Bay	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	Transit-supportive objectives and policies include: <ul style="list-style-type: none"> • Multimodal goals, objectives, and policies that positively impact transit, including LOS standards that consider transit services provided along corridors and TDM strategies. • Coordinating objectives and policies between different elements of Growth Management Plan, including Transportation and Land Use elements, to establish appropriate transit supportive uses, densities, and designs and to ensure connectivity of transportation system. • Strategies to seek alternative funding mechanisms for mobility improvements, including transit stops, through impact fees. • Land use goals, objectives, and policies that encourage mixed-use and transit-oriented development and redevelopment within specific areas of city and that support use of existing and future transit system. • Multimodal objectives and policies within Land Use Element of Growth Management Plan that positively impact transit services, including use of incentive programs to encourage TOD.
City of Aventura Comprehensive Plan	City of Aventura	April 2010	City of Aventura	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	<ul style="list-style-type: none"> • Future Land Use Element establishes Town Center and three redevelopment areas including Thunder Alley, Hospital District, and Biscayne Blvd (US 1) corridor. Goals, objectives, and policies aim to encourage a mix of uses, TOD, and pedestrian-friendly parking, street, and circulation systems. • Appropriate strategies will be developed to address improvements to Aventura Mall transit terminal and development of Town Center intermodal terminal. • City's local transit system shall operate exclusively within TCEA.
Town of Miami Lakes Adopted Comprehensive Plan	Town of Miami Lakes	December 2003	Town of Miami Lakes	By State statute, each Florida city/county must adopt comprehensive plan and land development regulations to implement comprehensive plan. Establishes broad parameters for government to do detailed land use planning and zoning activities, and functional planning and programming of infrastructure and services. City's general objectives and policies address where and how it intends development during next 10 years, and delivery of City services to accomplish Plan's objectives.	Transit-supportive objectives and policies include: <ul style="list-style-type: none"> • Multimodal goals, objectives, and policies that positively impact transit, including LOS standards that consider transit services provided along corridors and completion of pedestrian infrastructure network within city. • Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit services within city. • Using performance measures to monitor progress in achieving objectives and policies of plan, such as intergovernmental coordination and development application review measures. • Conducting detailed review of all development proposals to ensure appropriate multimodal facilities provided. • Land use goals, objectives, and policies that encourage mixed-use and redevelopment strategies in specific areas of city and that support use of existing and future transit system.

7.5 Socioeconomic Trends

Understanding the growth patterns in socioeconomic trends in Miami-Dade County can help DTPW make effective decisions when planning transit infrastructure. This section provides an overview of population and employment density and growth. The section also explores the socioeconomic demographics that are commonly indicative of population growth.

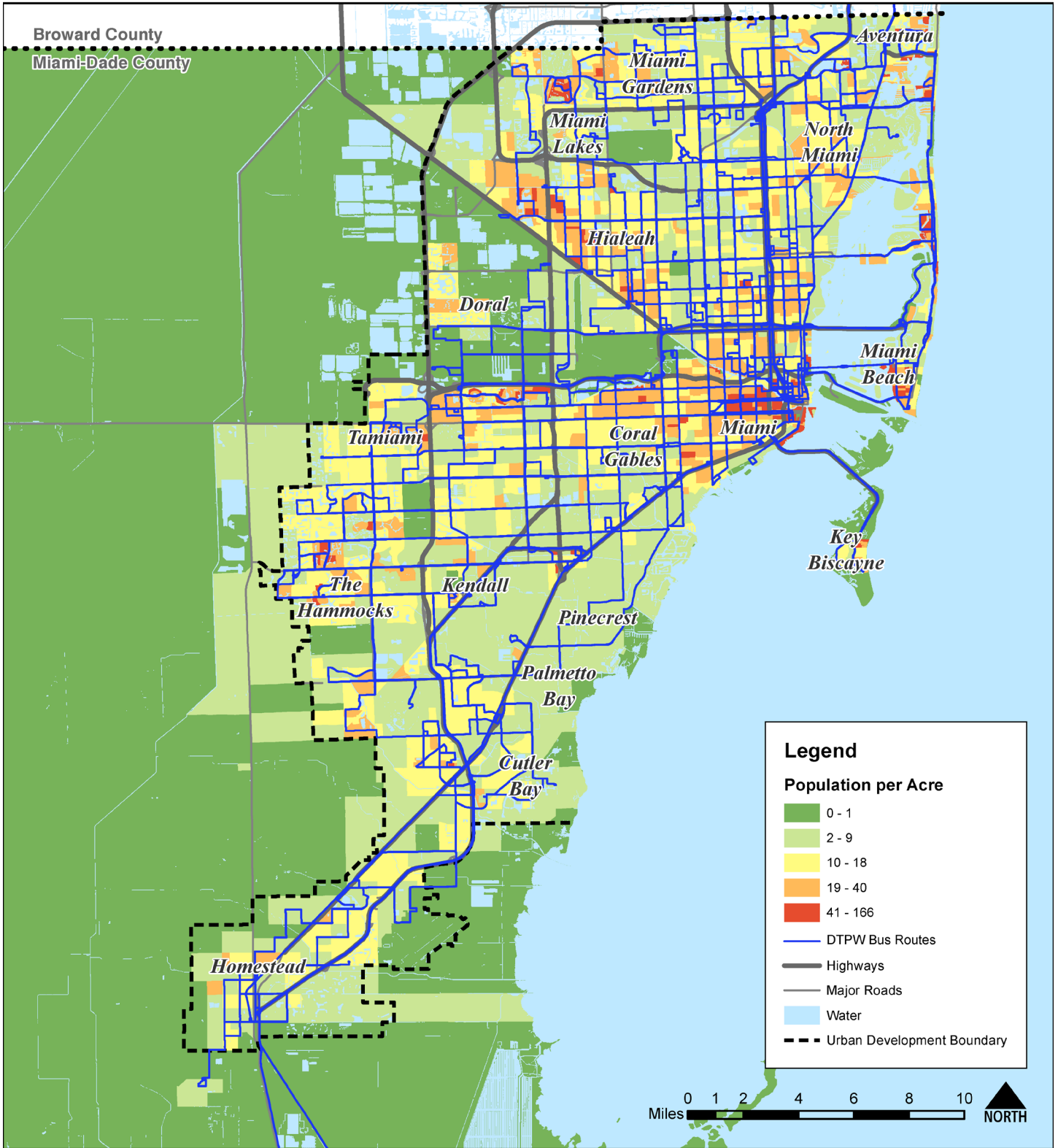
7.5.1 Population Density and Growth

Analysis of population trends was based on the most recent complete dataset available from the U.S. Census Bureau's American Community Survey (ACS) 5-year estimates. Growth figures were based on the change from the 2010 Census. Map 7-1 and Map 7-2 depict this data at the scale of Census Block Groups, the smallest geographical unit for which the census publishes data.

The provision for transit is more effective in areas with high population densities, and these maps reflect an estimation of the community's demand for transit service to residents homes. An overlay of the existing transit system helps to identify any gaps in service by revealing high density areas not served by the existing transit system. Existing population is most concentrated in the area around downtown Miami and throughout Miami Beach. Other high density areas appear in Aventura, Hialeah, West Kendall, and along Flagler Street.

Areas with a growing population are areas that should be considered for transit services expansions because the demand for transit could increase. Between 2010 and 2016, Miami-Dade County population grew by 6.7%, from 2,496,435 to 2,664,418. This growth was accounted for by densification across most of the urbanized area, particularly in the City of Miami between SW 8th Street and SR-836, on Miami Beach, in North Miami, and near the edges of the UDB. The dispersed growth pattern indicates a need to provide higher levels of transit service along the entire span of key corridors in the county.

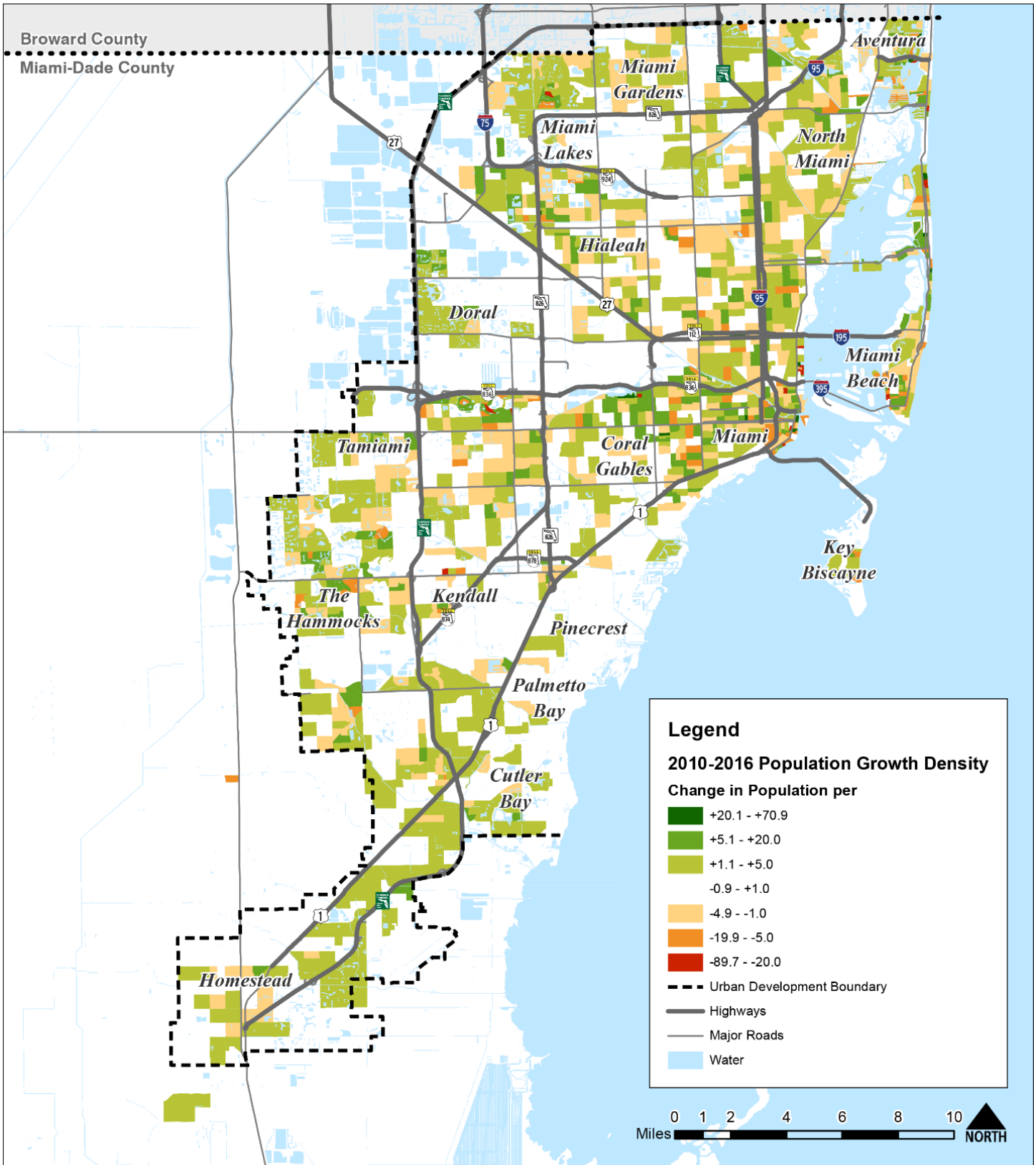
Map 7-1: Population Density



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

Map 7-2: Population Growth



Source: US Census Bureau - 2010 Census and 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

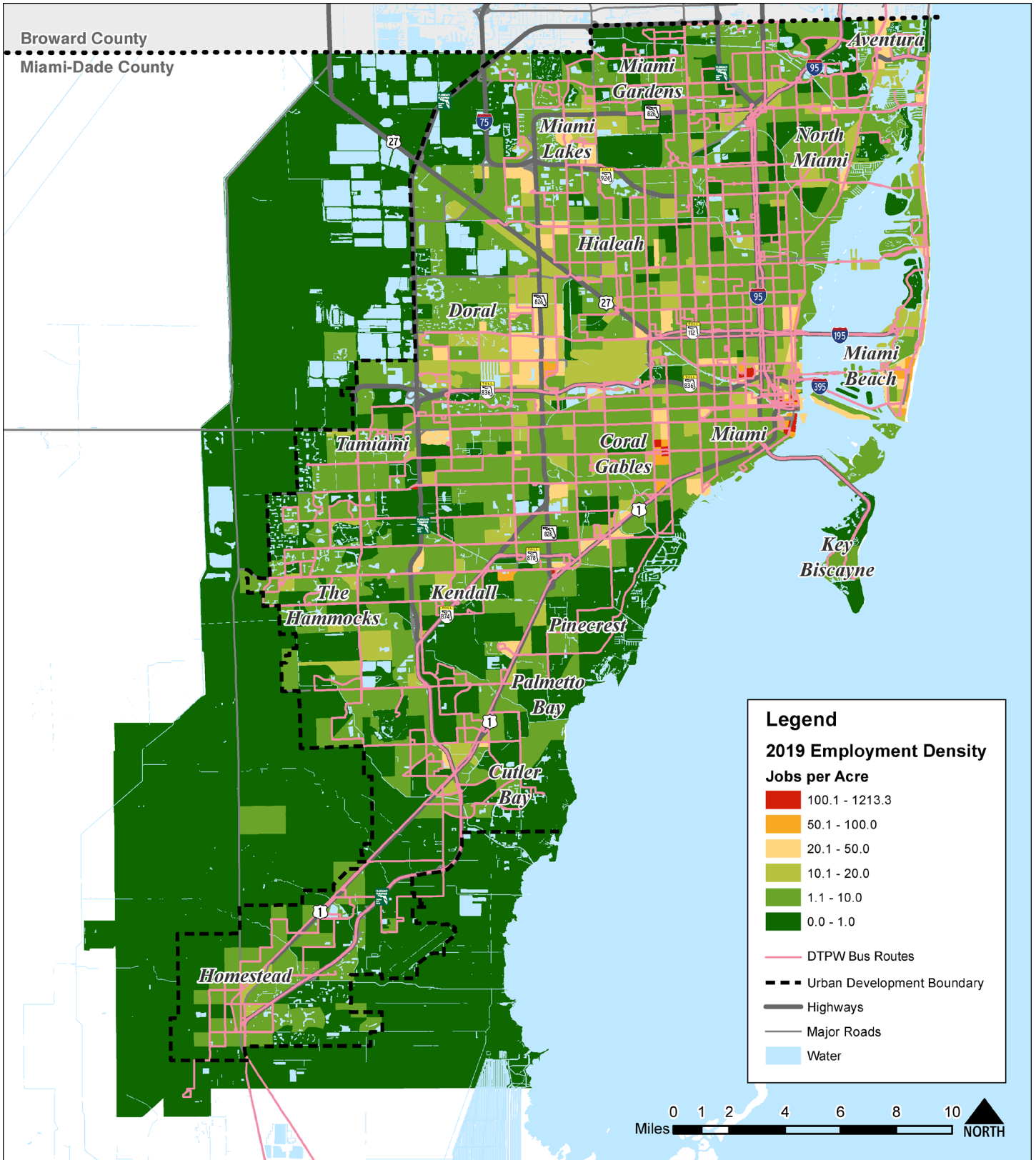
7.5.2 Employment Density and Growth

Analysis of employment trends were performed with data from SERPM 7. This data illustrates employment density throughout the county as well as the growth of employment density between 2010 and 2019. Map 7-3 and Map 7-4 depict this data at the scale of Traffic Analysis Zones (TAZ),

The provision for transit is more effective in areas with high employment densities, and these maps reflect an estimation of the community's demand for transit service to work locations. An overlay of the existing transit system helps to identify any gaps in service by revealing high density locations which are not served by the existing transit system. Existing employment is most densely concentrated in downtown Miami, the Civic Center district, downtown Coral Gables, Dadeland, and Miami Beach. Additional concentrations can be found in the Doral industrial area, Miami Lakes, and scattered throughout the county.

As employment growth continues to surround key corridors throughout the county, higher levels of transit service should be considered in order to effectively connect residents to their jobs. Between 2010 and 2019, employment has grown greatly in the City of Miami, the Civic Center district, Miami Beach, Coral Gables, and throughout the area between SR-836 and Okeechobee Boulevard. Additional moderate employment growth was seen throughout the county, with a small number of TAZs experiencing a slight decrease in employment. Some small TAZs in downtown Miami experienced severe loss of employment density, but these were surrounded by other TAZs which experienced equally severe increases.

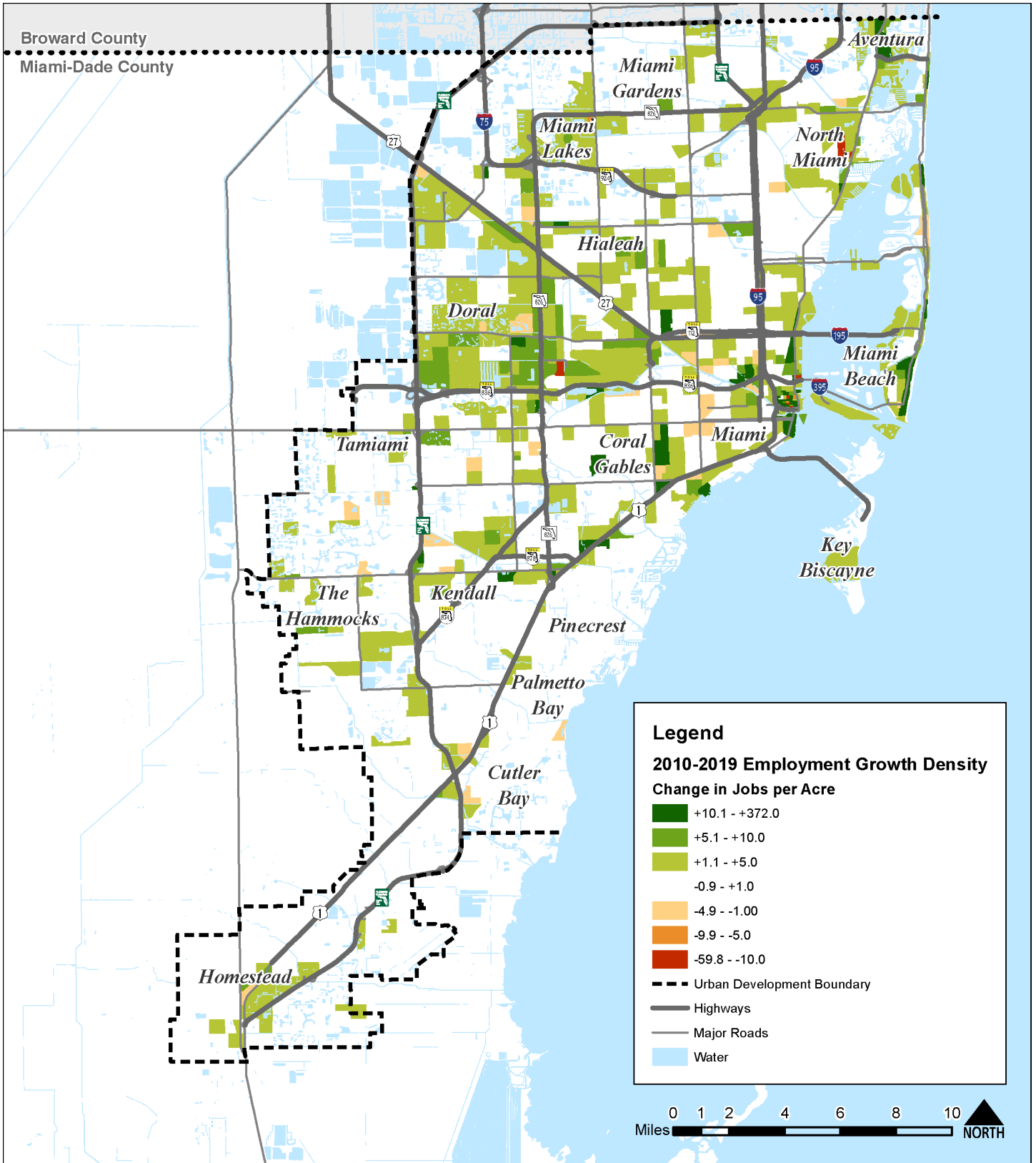
Map 7-3: Employment Density



Source: South East Regional Planning Model 7 (SERPM 7)

Data Resolution: Traffic Analysis Zones (TAZ)

Map 7-4: Employment Growth



Source: South East Regional Planning Model 7 (SERPM 7)

Data Resolution: Traffic Analysis Zones (TAZ)

7.5.3 High Transit Dependence Propensity populations

A transit dependence propensity analysis was performed using the most recent complete dataset available from the US Census Bureau ACS 5-year survey (2016) at the Census Block Group level. This analysis takes into account demographic characteristics of both individuals and households which have previously been established as indicators of increased transit dependence, to identify areas where transit investment will yield the greatest return of ridership. The characteristics used in this analysis are:

- Density of Zero Vehicle Households
- Low Income Households (Under \$30,174)
- Density of Individuals with Disabilities
- Density of Individuals Over 65 Years of Age
- Minority Population
- Gender

Because most of these characteristics are normalized by area, population density is excluded as a stand-alone consideration. This reduces redundancy and exposes variations in high-density areas which would otherwise be overwhelmed and concealed.

7.5.3.1 Zero Vehicle Households

Households without access to a vehicle are the most likely to be transit dependent for their mobility. While some individuals are unable to acquire a car, others choose to live in communities which enable a car-free lifestyle. Regardless of the reason, these individuals depend on the transit system to reach destinations outside of their immediate community.

The largest concentrations of zero vehicle households can be found in walkable mixed use areas as shown in Map 7-5, such as Downtown Miami, Little Havana, and South Beach. Smaller pockets can be identified throughout the City of Miami, and in Homestead, North Beach, Hialeah, and North Miami.

7.5.3.2 Low Income Households

According to the Florida Department of Revenue, the threshold for a low-income household is at \$30,174.

Median household incomes below \$30,174 are shown in Map 7-6. This map indicates large numbers of low income households in Hialeah, Little Havana, North Miami, and Homestead.

7.5.3.3 Disability

The U.S. Census Bureau uses six questions to identify the population with disabilities. Those questions are:

- **Hearing:** Is this person deaf or does he/she have serious difficulty hearing?
- **Visual:** Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?
- **Cognitive:** Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions?

- **Ambulatory:** Does this person have serious difficulty walking or climbing stairs?
- **Self-Care:** Does this person have difficulty dressing or bathing?
- **Independent Living:** Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?

Disabled populations in Miami-Dade reach their highest densities in Little Havana, parts of Miami Beach, and Hialeah. Less acute concentrations of disabled populations occur north of the Miami river in the City of Miami, along the corridor between Flagler and SR 836, and in South Dade around Homestead.

7.5.3.4 Senior Citizens (Age over 65)

Senior Citizens are most densely concentrated along the coast, including Key Biscayne, Brickell, Miami Beach, Bal Harbor, Sunny Isles Beach, and Aventura. Additional major concentrations exist in Little Havana, Hialeah, and along the corridor between Flagler and SR 836.

7.5.3.5 Minority Populations

Minorities are defined by the U.S. Census Bureau as being anyone who is not "White, Non-Hispanic". Miami-Dade is a majority minority county, with most census blocks containing more than 75% minority population. The areas with comparatively low minority population tend to follow the coast from Cutler Bay to Aventura, including Miami Beach and Key Biscayne.

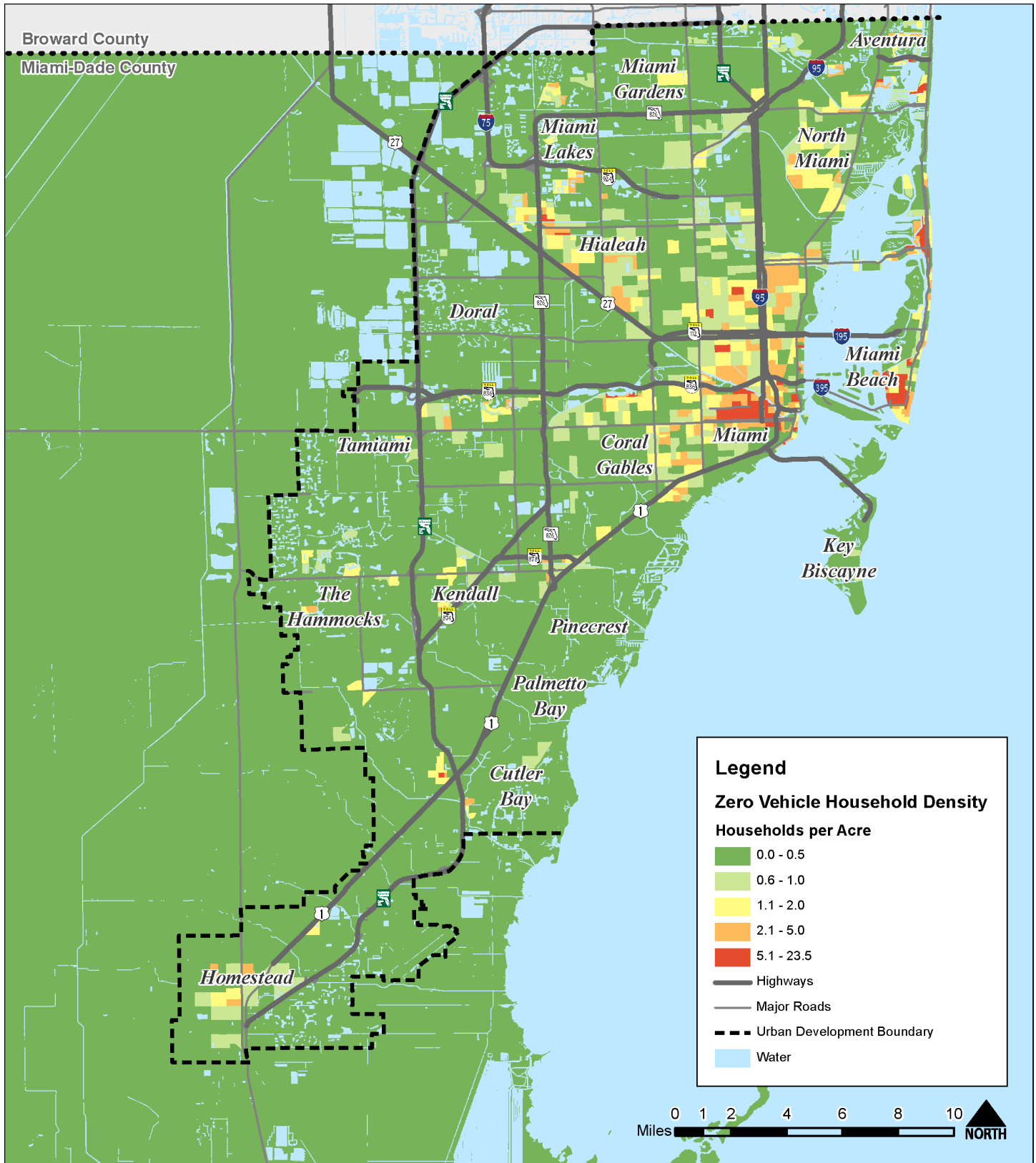
7.5.3.6 Gender Distribution

Multiple studies have found that women show a higher propensity for transit use than men. In Miami-Dade County, inland areas tend to have a slightly higher concentration of women, particularly north of Bird Road and west of NW 27th Avenue, while coastal areas tend to have more men.

7.5.3.7 Combined - Transit Propensity

Overlaying the previous categories onto a single map gives us an indicator of areas where the residents are likely to have a strong propensity to use transit. Many different categories identify similar neighborhoods, and these are strongly indicated on the transit propensity map. Miami Beach and East Little Havana immediately stand out as the areas with the highest transit propensity, followed closely by Hialeah, the City of Miami, and North Miami.

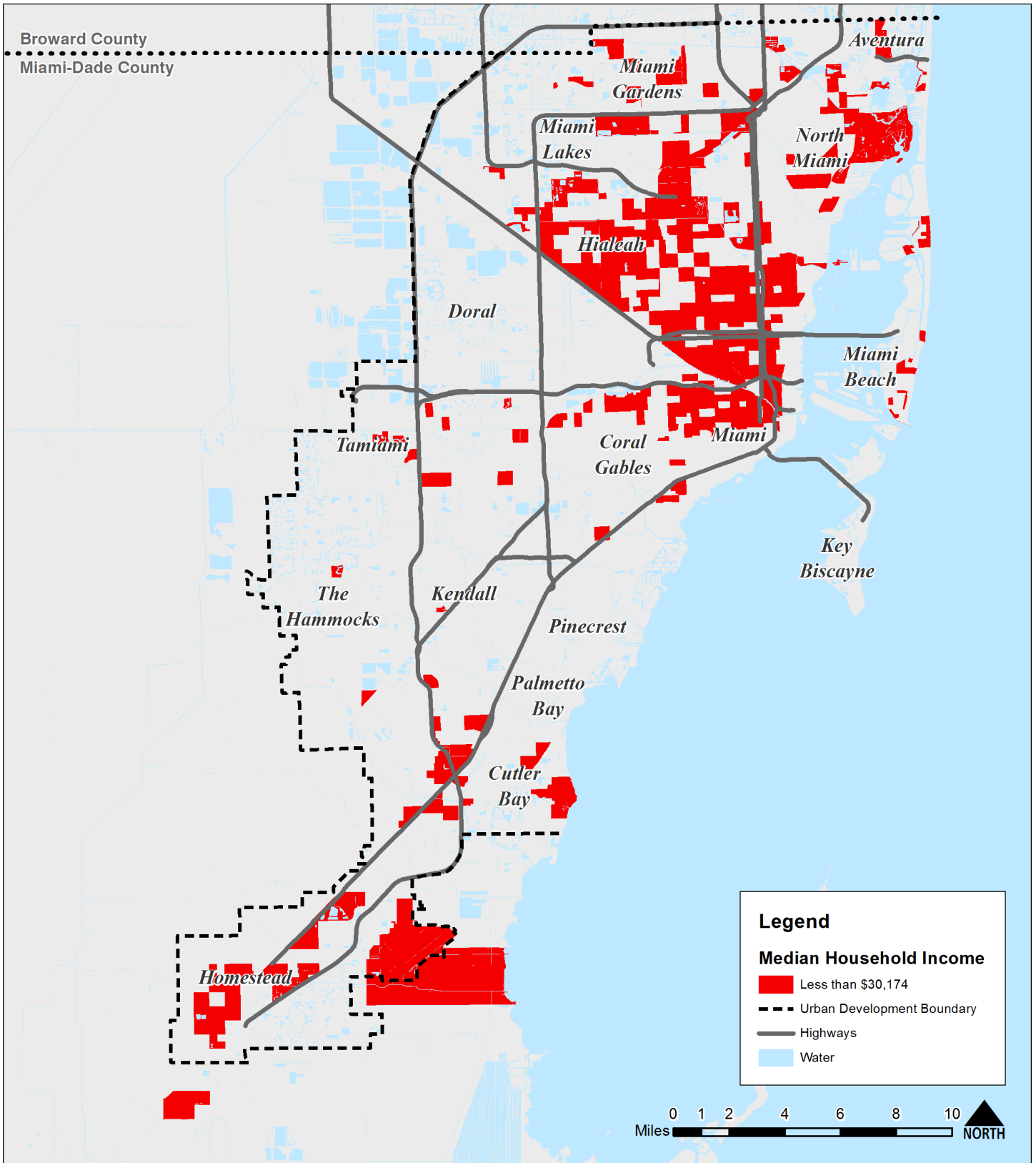
Map 7-5: Zero-Vehicle Household Density



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

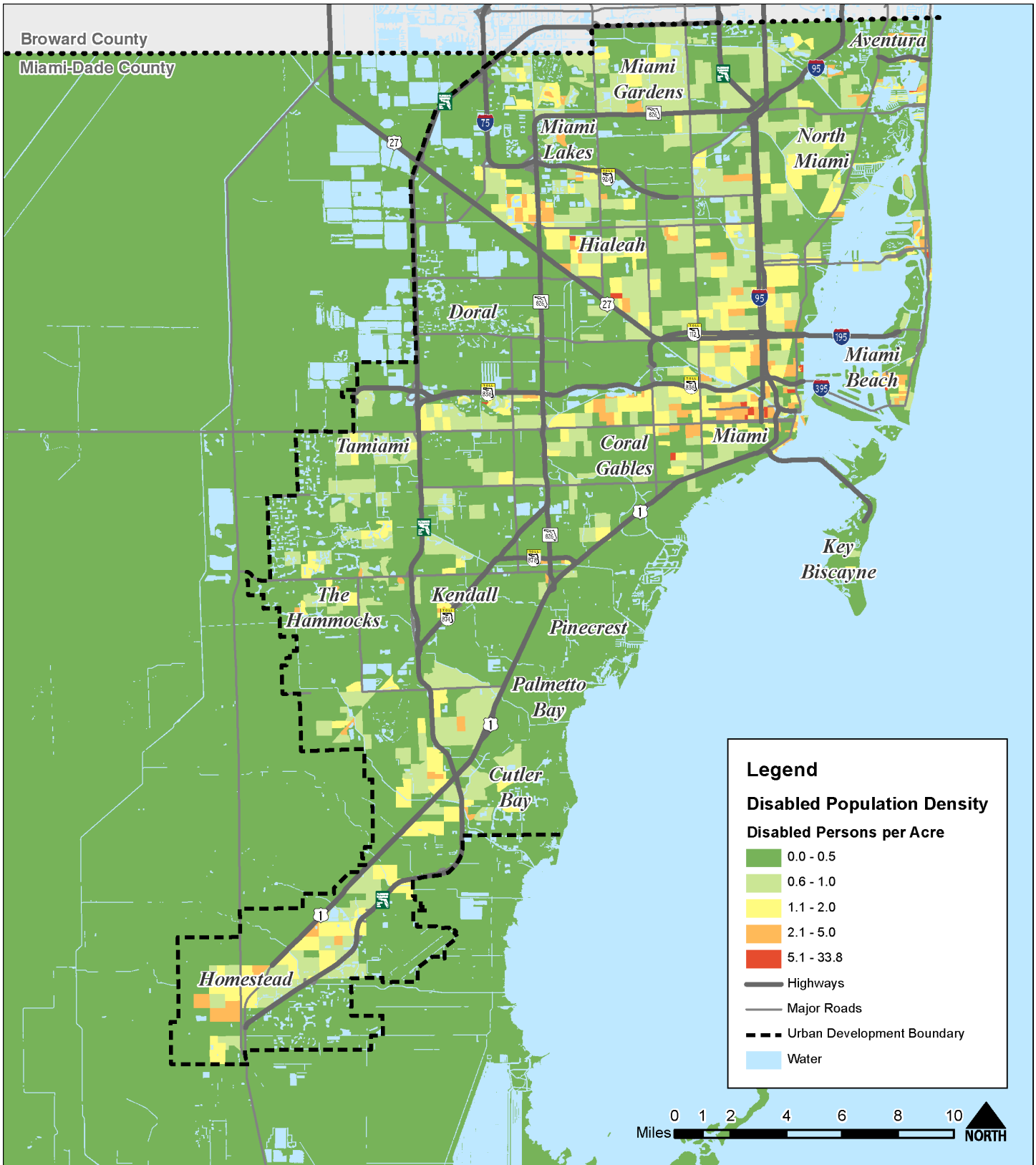
Map 7-6: Low Income Households



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Traffic Analysis Zones (TAZ)

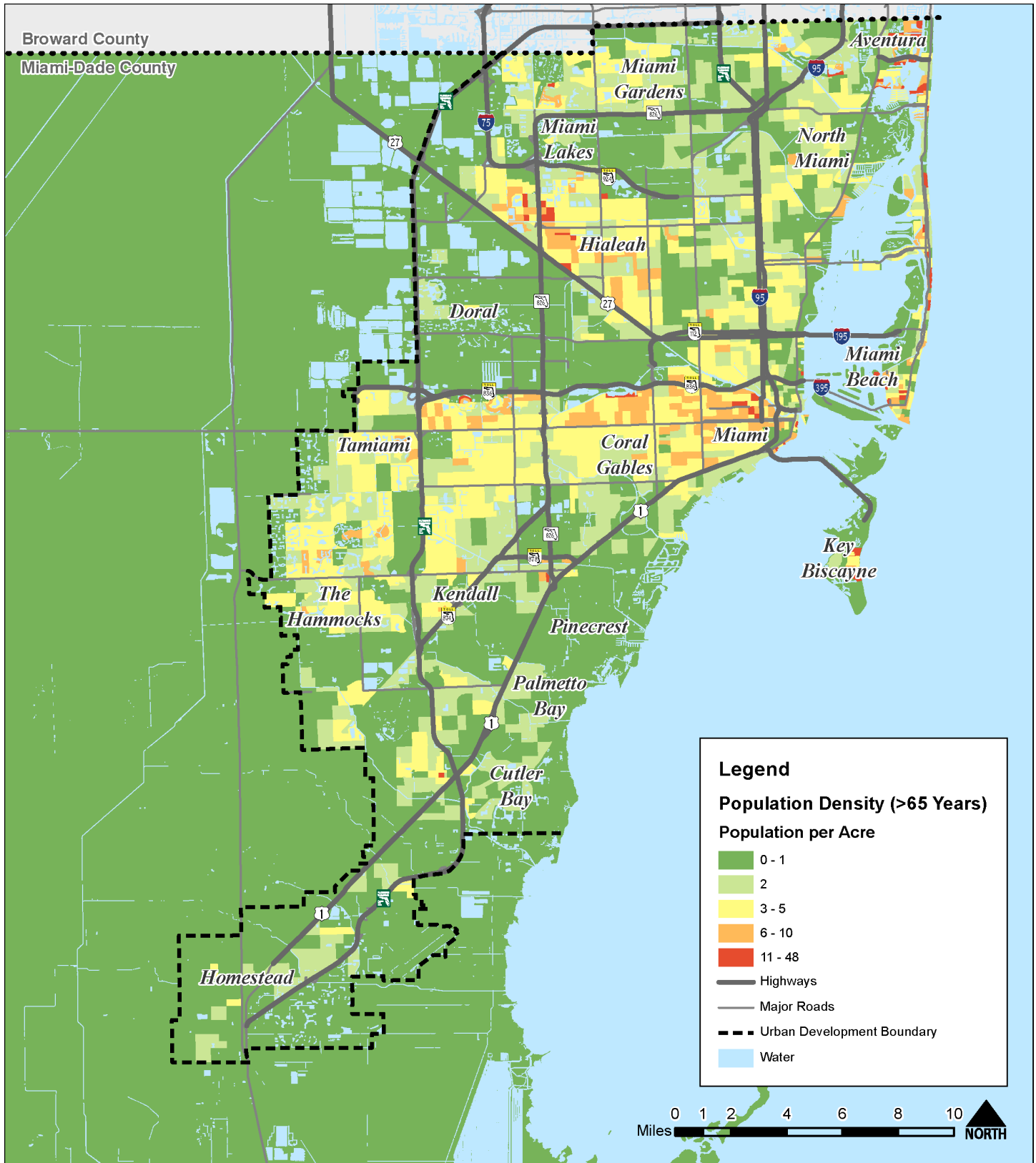
Map 7-7: Disabled Population Density



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

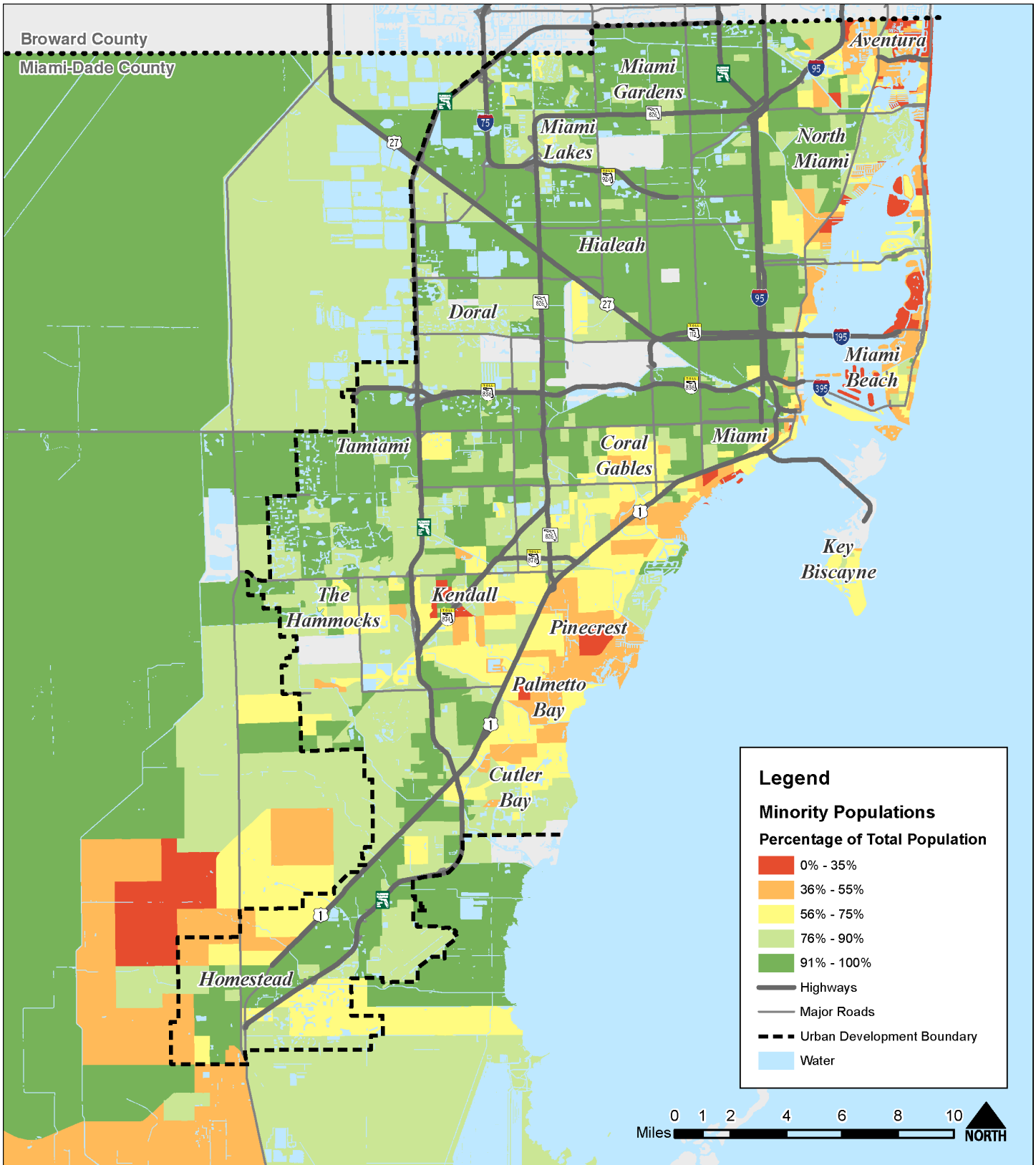
Map 7-8: Population Density (Over 65 Years of Age)



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

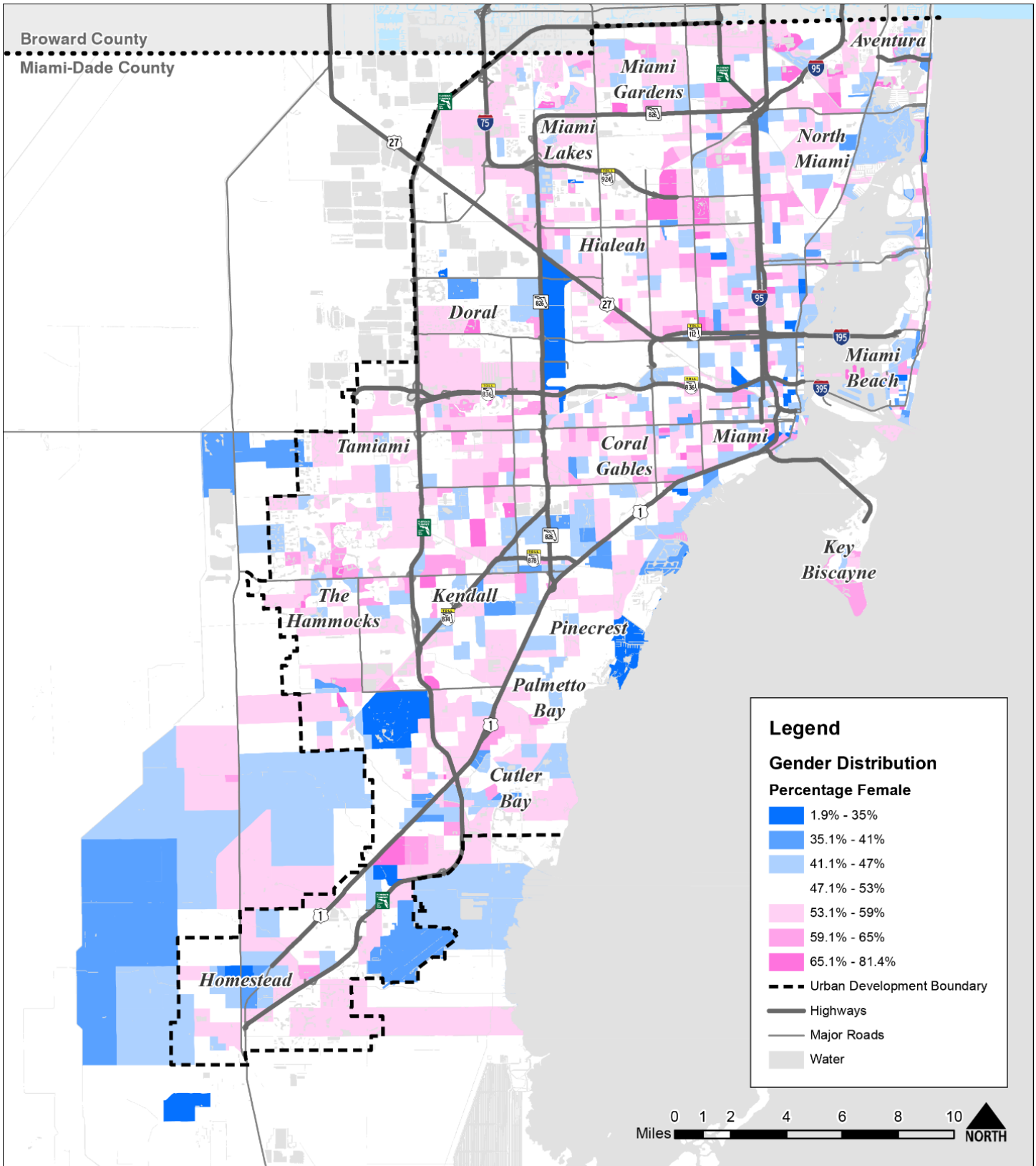
Map 7-9: Minority Populations



Source: US Census Bureau - 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

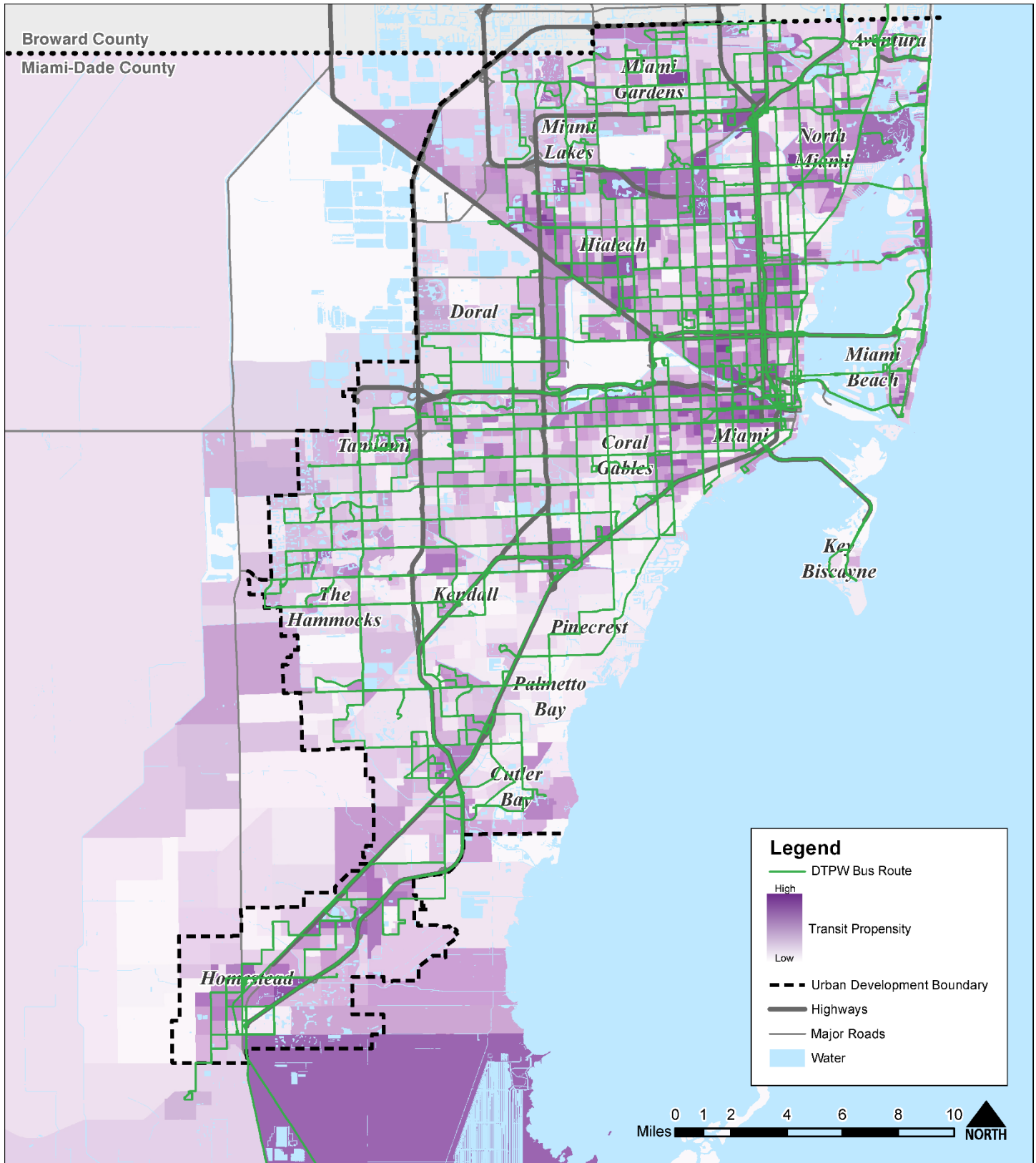
Map 7-10: Gender Distribution



Source: US Census Bureau - 2010 Census and 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

Map 7-11: Transit Propensity



Source: US Census Bureau - 2010 Census and 2016 ACS 5-year Estimates

Data Resolution: Census Block Groups

7.5.4 Densification, Transit-Friendly Land Use, and Urban Design Efforts

The population of Miami-Dade continues to grow despite being bound on three sides by the ocean and everglades. Within the Urban Development Boundary there are virtually no greenfield sites left for development, a reality which necessitates densification. Existing urban cores as well as traditionally suburban areas are growing, while municipalities and unincorporated communities look to attract development into new mixed-use urban environments.

Transit ridership is typically highest in dense mixed-use neighborhoods. Monocultures of residential or commercial space suffer from poor ridership outside of peak periods despite very high ridership during peak periods. While this condition can be adequately served with buses by adjusting their headways, it proves problematic for other forms of transit which provide higher quality service. This type of service also limits the mobility of transit dependent individuals or others with non-traditional commute patterns. This relationship between land use and transit/transportation patterns has become a focus in recent years; DTPW has engaged in an extensive effort to increase mixed-use TOD around transit stations through public-private partnerships, leading the way for surrounding communities.

7.5.5 Land development regulation assessment

7.5.5.1 Supportive policies

In addition to special districts, Miami Dade County has two land use categories, the Rapid Transit Zone and Urban Center District, specifically designed for higher density mixed-use development, the pattern typically associated with successful TOD. Vertically and Horizontally mixed uses are allowed outside of these areas when special conditions are met, as outlined in the CDMP Land Use element section on Mixed Use Development.

- Rapid Transit Zone (RTZ) – This land use designation was created to deal with the challenges of developing a heavy rail system in a county with more than 25 municipalities. The RTZ preempts zoning and permitting jurisdiction for all property around the heavy-rail system, with certain uses permitted without the need for public input or hearings. To facilitate higher-density development near the stations, the RTZ includes a public hearing process that is run by the County, not the individual municipalities or neighborhoods, for private development near the stations.
- Urban Center Districts - A county land use designation which blends traditional functional zoning and form-based zoning, with the goal of developing into dense, walkable mixed-use environments well suited for future transit-oriented development.

The Urban Center District has its own code of regulations which bridge the gap between land use and zoning, but other zoning categories allow high density transit supportive land use to occur within and beyond the borders of the RTZ and Urban Centers.

Planned Area Developments (PAD) are intended to provide flexibility in planning, design and development, similar to Planned Unit Development (PUD). A special category, the Retail Entertainment District Planned Area Development (REDPAD) can accommodate large (>50 acres) regional retail and entertainment developments if they meet certain requirements.

The City of Miami uses a different type of zoning regulation from Miami-Dade County – a form-based code known as Miami 21. Form based codes primarily regulate the size and shape of buildings but allow for more diverse uses. This naturally results in a denser, more walkable neighborhood as property owners are allowed to adapt to the demands of the market to maximize leasable space and profitability.

7.5.6 Existing Major Urban Cores and TOD

Downtown (Brickell to Midtown)

Prior to the adoption of Miami 21 the northern extent of Downtown Miami was roughly considered to be the I-395 expressway. Since Miami 21 was instituted in 2005, there has been a major uptick in the development of neighborhoods north of Downtown such as Edgewater and Wynwood, most notably the brownfield construction of Midtown, a mixed-use district which is now colloquially considered to be the northern extent of Downtown Miami.

Within the downtown area, there have been numerous high rises and large-scale multi-building developments such as Brickell City Centre, Miami Worldcenter, and MiamiCentral which have drastically densified the city by transforming under-utilized land into high density mixed-use towers with activated commercial ground floors. These developments all incorporate transit into their designs – Brickell City Centre has the Eighth Street Metromover station, Miami Worldcenter has the Park West Metromover station, and MiamiCentral is itself a transit hub for commuter rail, but is also directly adjacent to the Overtown Metrorail station and Wilkie D. Ferguson, Jr. Metromover station.

According to the DDA Annual Report published in January 2019, there have been 140 new towers built in downtown Miami since 2003, and 30 more projects are under construction. With a population over 67,000 and a workforce over 114,000 employed at more than 9,000 business doing an estimated \$18.6 Billion in revenue, Downtown Miami is the most dense, active area in the county. To serve this hub, downtown Miami receives the most abundant transit service available. Transit service is provided by the free Metromover system, Metrorail, Metrobus, City of Miami Trolley, and Brightline/Virgin Trains, with Tri-Rail scheduled to begin service in 2019.

Miami Beach

South Beach has long been recognized as an exemplary mixed-use neighborhood, and North Beach is now developing according to Plan NoBe, a new master plan which was adopted in October 2016. This Master Plan preserves natural open spaces as well as the scale and character of existing historic neighborhoods while also designating a mixed-use town center for densification. New development is focused in North Beach as South Beach is largely built-out and now faces congestion challenges as a chain of construction projects restricts the MacArthur Causeway. However, the SMART Plan Beach Corridor is currently exploring the preferred mode and alignment to bring rapid transit to South Beach. Combined with the Miami Beach Trolley system as a first/last mile solution, the increased cross-bay mobility may unlock the potential for further TOD to occur on South Beach.

Coral Gables

Downtown Coral Gables has recently experienced a wave of new projects reinvigorating the already booming mixed-use neighborhood, with more currently under construction. The largest new development in Downtown Coral Gables is the Plaza Coral Gables, formerly known as the Mediterranean Village, which will contain 242 hotel rooms, 164 apartments, 160,000 sq. ft. of retail, and 445,000 sq. ft. of office space.

Downtown Coral Gables is served by 4 (four) bus routes and the Coral Gables Trolley, which connects to the Douglas Road Metrorail Station.

7.5.7 Other Existing locations with highly transit supportive land use

7.5.7.1 Metrorail Station TODs

- **Dadeland** – Dadeland is served by two Metrorail stops: Dadeland North and Dadeland South. Transit Oriented Development of the Dadeland area has been ongoing since the inception of the Metrorail, with the Datran Center opening in the early 80's, Dadeland Station in the 90's, and Downtown Dadeland in the 2000's. Development and densification of the area continues, with projects such as Modera, Motion at Dadeland, Pearl Dadeland, and Allegro Dadeland carrying on the high density vision which emerged from the 1998 Downtown Kendall Master Plan.
- **South Miami** – Situated across US-1 from the South Miami Metrorail Station, Downtown South Miami is a mixed-use district adjacent to the University of Miami with primarily commercial/entertainment uses. The largest single development is Sunset Place, a 9.7 acre inward-facing outdoor mall which was recently approved for redevelopment to include a 440,000 sq. ft. shopping center, 32,000 sq. ft. of office space, 40,500 sq. ft. of condos (40 units), 414 apartments, and a 182-room hotel.
- **Douglas Road** - Perhaps the most drastic transformation in recent years has taken place near the Douglas Road Metrorail Station south of downtown Coral Gables, in the triangle bounded by US-1, LeJeune Avenue, and SW 40th Street. Catalyzed by the opening of Merrick Park in 2002, this area has seen a chain of mid-rise developments begin to form a new walkable, mixed-use district. This pattern culminated with the Link at Douglas project, a 5.57 acre, five-tower, mixed-use TOD currently under construction, which upon completion, is expected to contain 1,421 apartments (12.5% workforce housing), more than 250,000 sq. ft. of office space, and 25,000 sq. ft. of retail, for a total of approximately 1.7 million sq. ft. of leasable space, making it one of the largest one-off developments in Miami.
- **Civic Center/Health District** – The area surrounding Civic Center Station is fully developed, hosting numerous major hospitals, research facilities, and large government buildings. Just beyond the traditional quarter mile walkshed, a major new 8-acre mixed-use development named Miami River Landing is currently under construction with completion expected in early 2020. Upon completion, it is expected to host 529 apartments, 345,000 sq. ft. of retail, 136,000 sq. ft. of office space, and a ground level “restaurant row” facing a new public Riverwalk.

7.5.7.2 SMART Corridor Urban Centers

Per Resolution 47-17, the TPO Board prioritized the North Corridor and the South Dade Transitway Corridor. This prioritization was made in part because of already-existing TOD supportive land use regulations. The North Corridor runs through both the Model City Urban Center and North Central Urban Area District, and the South Dade Transitway serves seven Urban Center districts as well as three other special TOD-zoned districts. It is likely that the character of development along the South Dade Transitway will be defined by the Urban Center, as it is the most dominant land use type fronting the corridor and makes up approximately a quarter of the total area within a half mile.

The districts with TOD supportive land use along the South Dade Transitway Corridor are:

- Downtown Kendall Urban Center (also referred to as Downtown Dadeland)
- Perrine Community Urban Center
- Cutler Ridge Metropolitan Urban Center
- Goulds Community Urban Center
- Princeton Community Urban Center

- Naranja Community Urban Center
- Leisure City Community Urban Center
- Palmetto Bay Downtown Urban Village (Franjo Activity Center)
- Cutler Bay Town Center, The Cutler Bay Transit Corridor District
- Homestead Southwest Planned Urban Neighborhood (SWPUN)

7.5.7.3 Other SMART Corridors and Urban Centers

The other four SMART Plan Corridors will support new development as well. The Northeast Corridor is expected to host at least one Tri-Rail Station with supporting TOD in the City of Miami. The Kendall Corridor will connect Dadeland on the eastern end to a new mixed-use development being planned across from West Kendall Baptist Hospital near the western terminus. The East-West Corridor presents numerous opportunities for TOD, and a study is currently under way to develop a TOD master plan that includes site specific designs based on the forthcoming rapid transit project. The Beach Corridor connects Downtown and South Beach, two pre-existing major urban cores. Both contain high densities, and thus any future development will depend on the details of the final alignment.

7.6 Transit Demand Assessment

Understanding travel behaviors in Miami-Dade County is a key consideration in planning future transit improvements. This section explores south Florida's regional travel demand model, updated with selected transit improvements to prepare a ten-year transit ridership forecast. The outputs of the travel demand model also offer insights into discretionary traditional transit markets.

Ridership forecasts were prepared for this FY 2020-2029 TDP update using the Florida Department of Transportation's (FDOT) current approved travel forecasting tool, the Southeast Regional Planning Model (SERPM), version 7.071. SERPM7 is a comprehensive transportation demand modeling tool used by transportation planners in the Florida Southeast Region.

7.6.1.1 Methodology

Regional transportation needs are projected using estimates from travel demand models which incorporate socio-economic data such as population and employment, as well as the attributes of the existing and planned transportation networks. As a means of forecasting these transportation needs, the SERPM7 model was developed to be a solid technical tool for multi-modal planning analysis and long-range transit planning. This model, which includes Miami-Dade, Broward, and Palm Beach counties, describes travel demand for both local trips, as well as for the regional commuter market.

The primary input to the SERPM7 model is socio-economic (SE) data. This information, developed by each individual county's Planning Organization (Miami-Dade TPO, Broward County MPO, Palm Beach County TPA), defines where people live and work and thus sets the basis of the region's travel patterns. The next most important inputs to the model are the highway and transit networks. These networks provide a realistic representation of the region's roadways and transit routes.

7.6.2 Scenarios

As part of this TDP Major Update, two scenarios were modeled: one for existing conditions using the 2019 DTPW transit route network, and another scenario for the year 2029, which assumes several transit improvements are constructed throughout the county. The 2019 scenario's input networks are based on the 2015 SERPM8 model's highway and transit networks. Moreover, the 2019 SE data was developed by linearly

interpolating between SERPM7 model's 2010 and 2040 SE data. In this scenario, the transit network route data was updated to current 2019 conditions.

For the future year 2029 scenario, SE data was also developed by interpolating between the 2010 and 2040 data sets. Transit routes for this scenario were based on the 2019 network with a series of new park-and-ride (PNR) stations and bus service routes added to the network, including eight BERT lines, SMART Plan's South Corridor and few express bus routes. Table 7-3 lists the major transit improvements in the 2029 scenario relative to the 2019 scenario.

Table 7-3: 2029 Scenario's Major Transit Improvements

Corridor	Route	Mode
BERT F1	Beach Express North	Express buses along freeway
BERT F2	Beach Express Central	Express buses along freeway
BERT F3	Beach Express South	Express buses along freeway
SMART South-Dade Transitway	South BRT - limited stops	BRT
SMART South-Dade Transitway	South BRT - North Xpress	BRT
SMART South-Dade Transitway	South BRT - Mid Xpress	BRT
SMART South-Dade Transitway	South BRT - South Xpress	BRT
BERT B	South Miami-Dade Express	Express buses along freeway
BERT C	Northwest Miami-Dade Express	Express buses along freeway
BERT D	Southwest Miami-Dade Express	Express buses along freeway
BERT E1	Turnpike Express South	Express buses along freeway
BERT E2	Turnpike Express North	Express buses along freeway

7.6.3 Results

Based on the previously discussed inputs and assumptions, the SERPM7 model was run for the two scenarios. The results of these runs are provided in the following sections. As shown in Table 7-4, population, employment, and person trips experienced an annual growth rate of approximately 1%. Similarly, total transit trips and daily boardings also increased annually by 1.5% respectively.

Table 7-4: Regionwide Statistics

	2019 Scenario	2029 Scenario	Annual Growth Rate
Miami-Dade Population	2,738,300	3,009,400	1.0%
Miami-Dade Employment	1,398,700	1,502,700	0.7%
Regional Total Daily Person Trips	24,856,500	26,732,000	0.8%
Regional Total Daily Home-based Work Trips	3,283,200	3,621,400	1.0%

The following figures illustrate the growth of population and employment, and person trips between 2019 and 2029.

Figure 7-4: Population and Employment Growth

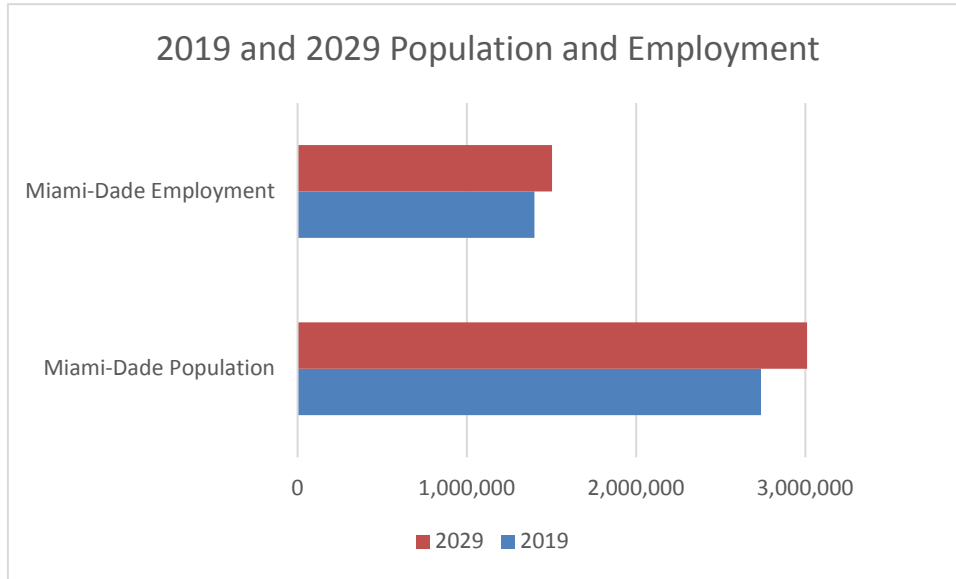
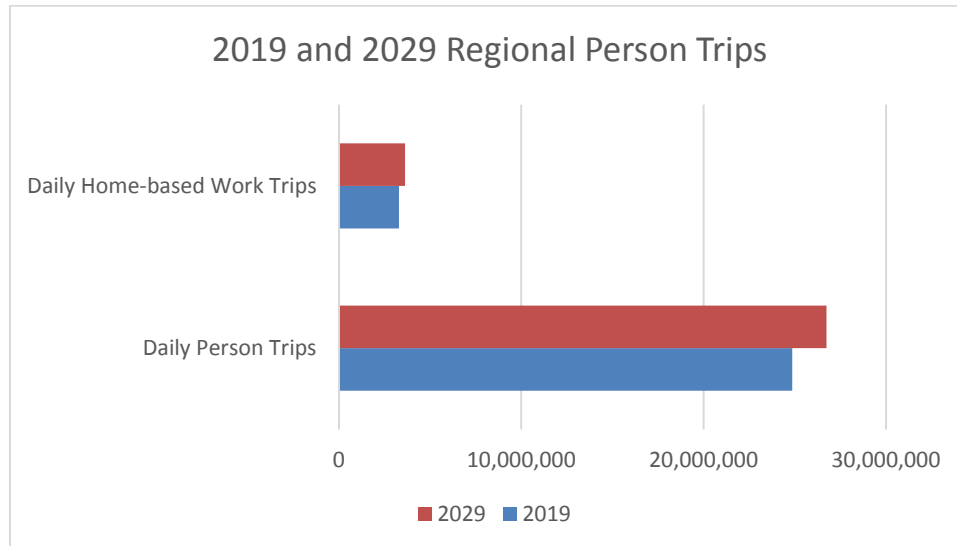


Figure 7-5: Person Trip Growth



7.6.4 Transit Ridership Growth

To avoid over-estimating transit ridership and revenue, the model-predicted ridership is adjusted to account for the prediction error. The prediction adjustment factor is computed as the ratio of the actual ridership to the model predicted ridership, aggregated to main mode groups. These factors were used to adjust the SERPM model's ridership forecasts for the 2019 and 2029 scenarios.

Table 7-5: Model Prediction Correction Factors

Mode	Actual Average Weekday Ridership*	SERPM7 2019 Scenario	Prediction correction factor (pcf = model boardings / actual boardings)
Metrorail	70,900	86,348	0.8211
BRT	12,207	25,129	0.4858
Express	7,827	15,477	0.5057
Local Bus	146,364	223,378	0.6552
Metromover	30,000	21,232	1.4130
Total	267,298	371,564	0.7194

* Source: <https://www.miamidade.gov/transit/library/rtr/2018-11-Ridership-Technical-Report.pdf>

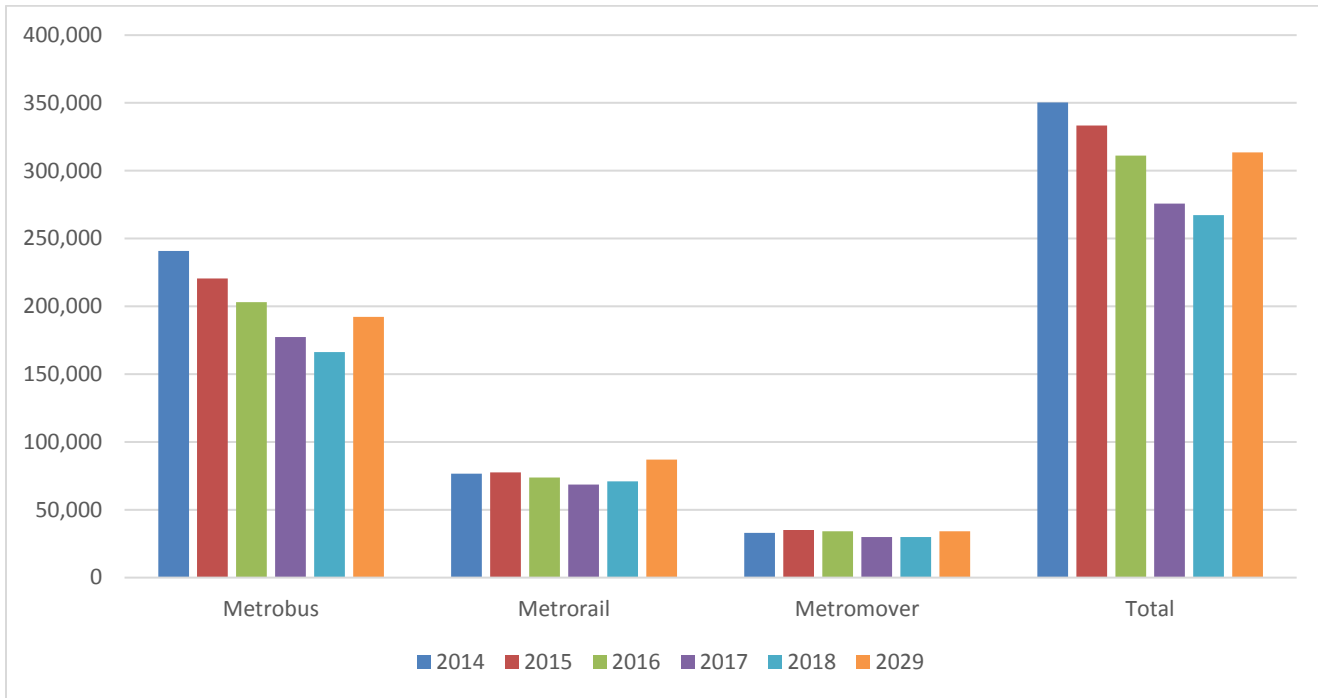
Based on the socio-economic growth and the existing DTPW transit system, the total daily ridership for the various transit modes grew by 1.7% per year. The estimated daily ridership for each of these modes is provided in Table 7-6.

Table 7-6: 2019 to 2029 Ridership Growth by DTPW Mode

Mode	2019	2029	Annual Growth Rate
	Estimated Average Daily Ridership	Estimated Average Daily Ridership	
Metrobus	166,400	192,300	1.6%
Metrorail	70,900	87,000	2.3%
Metromover	30,000	34,200	1.4%
Total Boardings	267,300	313,500	1.7%

Figure 7-14 compares the 2019 transit ridership forecasts with historical transit ridership in Miami-Dade County. The SERPM model predicts that the transit system will recover some of the ridership it lost in the recent years to the level it was in 2016. The forecasted increase of 17% in 2029 is not only because of 10% increase in employment and population, but also because of the major improvements listed in Table 7-3 including eight BERT lines and SMART plan's South Corridor.

Figure 7-6: 2029 Transit Ridership Forecasts against Historical Ridership



7.6.5 Transit Markets

Tables 7-7 through 7-11 investigate the change of transit ridership by key trip and household characteristics. The growth of transit ridership is the highest for transit dependent groups including low income households, zero-car households and household with insufficient number of cars.

Table 7-7: Transit Ridership by Tour Purpose

Tour Purpose	2019 Scenario	2029 Scenario	Annual Growth Rate
Discretionary	3,086	3,166	0.3%
Eating Out	1,440	1,867	3.0%
Escort	13,941	15,435	1.1%
Maintenance	25,697	27,741	0.8%
School	15,967	17,640	1.0%
Shop	21,081	22,976	0.9%
University	19,135	21,855	1.4%
Visiting	3,031	3,708	2.2%
Work	161,382	193,926	2.0%
Work-Based	5,652	7,051	2.5%
Total	270,412	315,365	1.7%

Table 7-8: Transit Ridership by Car Availability

Number of Household Cars	2019 Scenario	2029 Scenario	Annual Growth Rate
0	31,890	38,517	2.1%
1	82,595	98,019	1.9%
2	92,310	106,331	1.5%
3+	63,614	72,498	1.4%
Total	270,409	315,365	1.7%

Table 7-9: DTPW Ridership by Car Sufficiency

Car Sufficiency	2019 Scenario	2029 Scenario	Annual Growth Rate
Insufficient*	58,430	74,427	2.7%
Sufficient *	211,980	240,939	1.4%
Total	270,410	315,366	1.7%

* A household is car sufficient when number of household cars is greater than or equal to number of household workers, otherwise household is car insufficient.

Table 7-10: Transit Ridership by Household Size

HH Size	2019 Scenario	2029 Scenario	Annual Growth Rate
1 person	31,381	37,024	1.8%
2 persons	69,071	78,336	1.3%
3 persons	59,411	73,341	2.3%
4+ persons	110,547	126,666	1.5%
Total	270,410	315,367	1.7%

Table 7-11: Transit Ridership by Annual Household Income

HH Income	2019 Scenario	2029 Scenario	Annual Growth Rate
<\$30k	97,077	116,048	2.0%
\$30k-\$60k	66,770	80,212	2.0%
\$60k-\$100k	54,332	61,712	1.4%
\$100k-\$150k	30,037	32,372	0.8%
>\$150k	22,194	25,021	1.3%
Total	270,410	315,365	1.7%
HH Income	2019 Scenario	2029 Scenario	Annual Growth Rate

7.6.6 Mode split

According to the 2018 TPO study “Factors Affecting Transit Ridership in Miami-Dade County”, car ownership has grown disproportionately to population since 2013, adding 3.6 times more cars than people. This addition of 254,000 cars to the roadway system means an increase in congestion. Congestion levels can negatively impact transit performance for services that do not have dedicated transit lanes, which can thus negatively impact the attractiveness of transit. The study also found that there has been a notable shift of riders toward circulators in recent years. This may be due in part to DTPW’s policy of reducing service miles where municipal circulators have been implemented to avoid duplicative services. However, the study could not directly indicate that the circulators are negatively impacting DTPW ridership.

Table 7-12: Commute Mode Split

Year	Commuters	Drove Alone	Carpooled	Public Transportation	Walked	Other Means
2010	1,064,642	851,100 (79.9%)	105,148 (9.8%)	60,698 (5.7%)	24,194 (2.3%)	23,502 (2.2%)
2016	1,158,226	931,770 (80.4%)	109,613 (9.5%)	67,251 (5.8%)	27,150 (2.3%)	22,442 (1.9%)

Source: 2010 and 2016 ACS

7.7 Community Feedback

7.7.1 Recurring themes from public feedback.

The “Factors Affecting Transit Ridership in Miami-Dade County” study looked at over 37,000 comments submitted by transit users between June 2016 and March 2018; 84% (311) of complaints to Transit were related to Metrobus. These occurred at a rate of approximately 1 complaint per 120 boardings (~1:120). Metrorail received 13% of complaints at a rate of ~1:300 boardings. Metromover received just 310 total complaints for the year, at a rate of ~1:2,200 boardings.

A few unusual trends reveal themselves in this data as well: While most service-related comments were related to Metrobus (86%), Metrorail received nearly half of all of complaints related to equipment/facilities maintenance (45%). These statistics come into sharper focus since Metrobus had 2.5 times the boardings of Metrorail. It is anticipated that the new fleet of Hitachi Metrorail vehicles entering service throughout 2018 and 2019 will help to alleviate this issue.

7.7.2 Major Update Survey Feedback

A survey was conducted for this study in June 2018 to obtain direct input from residents on the factors affecting transit use. 1,755 surveys were completed, with questions chosen based on the characteristics of their transit use or non-use. This survey found that half of the respondents who said their transit use had decreased in the past year, did so because of service cuts, poor reliability, or safety concerns. Respondents whose transit use increased primarily attributed that increase to a change in residential or employment location (37%), health/traffic/pollution benefits (22%), or the convenience of transit (21%). This indicates that an increase in Transit Oriented Development may have a significant effect on increasing transit ridership.

The survey also found that while 45% of respondents identified transit as their primary mode of transportation and 42% identified personal vehicle and/or carpool, 83% of all respondents were “choice riders”, or individuals with access to an automobile who choose to take transit instead. This indicates that the greatest fluctuations in transit ridership are likely to come from the behaviors of choice riders sensitive to the conditions of the transit system.

Latent untapped demand was also identified, finding that non-transit users valued more connecting options to/from transit facilities (first/last mile solutions), new express bus routes/passenger rail, and more frequent/on-time service as important measures to encourage transit use. Concordantly, the primary reasons identified for not using transit was that it did not serve their destination, or the service was too distant/infrequent/unreliable. 73% of all respondents said that they would use transit if shuttle services were provided to/from transit stops.



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8 TEN-YEAR IMPLEMENTATION PLAN (FY 2020 - FY 2029)

This chapter briefly summarizes the process used to identify needs and analyze alternatives to meet them in order to develop potential transit improvements for DTPW’s 10-year TDP, and then logically phase them into an implementation plan (FY 2020 - FY 2029). The implementation plan includes policies and strategies for achieving the DTPW’s goals and objectives.

8.1 Development of Transit Needs and Alternatives

The potential improvements identified in this section are intended to help address local transit needs for the next 10 years and are developed without consideration of funding constraints. These improvements are then used to develop the 10-year implementation and financial plans, as summarized later in this report.

These improvements were determined both to enhance existing DTPW services and expand transit service to new areas. The alternatives considered to help address the transit needs for the next decade were developed using all of the information collected and analyses completed throughout the previous elements of the TDP preparation process, including the following:

- **Community Needs & Vision** – Multiple techniques were used to obtain substantive public input on transit needs throughout the TDP planning process. A variety of outreach events, surveys, and stakeholder interaction was conducted to gather input from the public, stakeholders, elected officials, and the community regarding what alternatives should be considered to help meet community mobility needs for the next 10 years.
- **Technical Analyses** – As presented previously, an assessment of transit demand and needs also was conducted for Miami-Dade County. The assessment included extensive GIS-based demographic analysis and regional modeling. These technical analyses, together with the baseline conditions assessment and performance reviews previously conducted, were used to help identify areas with transit-supportive characteristics when developing the list of transit alternatives.
- **Situation Appraisal** – DTPW’s 10-year TDP is required by state statute to include a situation appraisal of the operating environment in which the transit agency operates. The appraisal of factors includes the effects of land use, state and local transportation plans, other governmental policies, socioeconomic trends, organizational issues, and technology on the transit system. This helps to develop an understanding of DTPW’s operating environment in the context of key elements as specified in the TDP Rule. The implications from the situation appraisal findings, as documented previously, were considered in identifying potential transit alternatives to meet local mobility needs.
- **DTPW Goals & Objectives** – DTPW goals and objectives updated as part of this 10-year TDP re-emphasize many of the agency’s existing priorities, as well as outline new priorities for improvements based on transit needs and the results of the situation appraisal. Objectives and policies often provide insight into transit needs within the community and the potential means with which to meet them.

Figure 8-1 Development of Transit Needs



Based on these methods, potential transit improvements were identified and grouped into the following categories:

- **Strategic Miami Area Rapid Transit (SMART) Plan** – Miami is a global hub, representing not only the Gateway of the Americas, but is also the nation's southeast capital for international freight and cargo, and is home to the largest passenger cruise port in the world. Higher transit levels of service are needed in Miami-Dade County, based on a review of current and future socioeconomic trends. The SMART Plan is a plan that is expected to improve transportation mobility by providing a world-class transit system that can support economic growth and competitiveness. The Miami-Dade County transportation team is working to change the approach to mobility by creating a system that offers multiple transportation options throughout the county.

There are limited opportunities to widen and/or build new roads. Therefore, the need to extend mass transit represents the balanced approach necessary to address roadway congestion and connect communities to educational and employment centers. This balanced approach is needed to ensure the community continues to grow and thrive in the future. Miami-Dade County's SMART Plan will improve mobility by connecting major activity centers, employment areas, airports, and educational institutions to residential neighborhoods. The goal is to make Miami-Dade County a car-optional community by ensuring that mass transit options are available everywhere in the County and region.

Part of the SMART Plan is the **Bus Express Rapid Transit (BERT) Network**. The need for more express rapid transit service is needed in the region, evidenced by the success of DTPW's express bus and rapid transit service as well as regional travel patterns and congestion levels in Miami-Dade County.

In April 2016, the Miami-Dade Transportation Planning Organization (TPO) Governing Board adopted the SMART Plan, which includes six (6) rapid transit corridors and the BERT network, as seen in Map 8-1. Since then, implementation of the SMART Plan has become a top priority of the Miami-Dade County DTPW. Subsequently, FDOT District Six (D-6) and DTPW staff started the planning activities for implementation of the BERT network. DTPW staff also assessed the infrastructure needs for the BERT network.

- **Operations** - Operational improvements include enhancements to existing routes related to frequency, extended service hours, route extensions to new transit stops, and/or additional days of service. ...
- **Capital Improvements** – These improvements are based on mobility needs, travel trends, and outreach results and include improvements like new transit station facilities, park-and-ride facilities, transit-oriented developments, capital needs for new routes and route extensions, and security improvements. ...
- **State of Good Repair** - Maintaining the nation's bus and rail systems in a state of good repair (SGR) is essential if public transportation systems are to provide safe and reliable service. It is possible that some of these projects may be eligible for FTA State of Good Repair Grants Program funding and include maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to maintain assets in a state of good repair. DTPW SGR improvements include parking garage overhauls, replacement of transit vehicles, rail and automated guideway power cables, train controls, switch machines, computer and electronic communications equipment, rail floors, fire system, signs, bus seats, hybrid electric bus batteries, bus shelters, bicycle lockers, escalators, and other maintenance type repairs.

The trend analysis conducted for the TDP indicates that DTPW has an aging motorbus fleet that is overdue for replacement. An aging fleet can have adverse impacts on operating and maintenance expenses as well quality of transit service. In addition, a transit system with unreliable service has the potential to adversely impact ridership, particularly that of choice riders. Metrobus has the oldest motorbus fleet in its peer group and has maintenance expenses are 75% above the peer mean. DTPW's maintenance expenses have increased 45.5% overall from 2013 to 2018. The capital cost to replace older existing vehicles and add vehicles (557 buses) to the fleet to improve service reliability is estimated to be over \$331.9 million (2018\$). In addition, equipment needs include the replacement of major Metrobus components that have reached the end of their expected useful life cycle to improve vehicle reliability and availability.



Metrorail's decline in cost efficiency between 2013 and 2018 is largely due to the rapid increase in total maintenance costs, an 8.6% annual increase on average during that period with inflation factored. Similar to Metrobus, Metrorail had the second oldest fleet in its peer group. The Metrorail fleet is being updated, however, with the purchase of four new cars in 2017 and 40 new cars in 2018, which is part of an ongoing full Metrorail fleet replacement program. A comprehensive rail vehicle replacement program is estimated to cost \$380,904,000 in 2018 and has the potential to rapidly improve maintenance costs as well as service efficiency, such as on-time performance. A more reliable service has the potential to increase productivity by increasing ridership in the future.

8.2 Implementation Plan

This section identifies DTPW's ten-year program of projects. Through these projects, DTPW enacts a strategy to improve the existing transit system, implement new metrobus routes, advance premium transit corridors identified throughout Miami-Dade County, and discontinue unproductive routes. DTPW will continue to focus on providing a clean and attractive system for passengers, improving on-time performance, and utilizing the best available technology to provide customers with a fast and efficient transit experience. The chapter is organized as follows:

First, the County government's principal initiative to improve transit in Miami-Dade is the SMART Plan, which is shown on Map 8-1. The SMART Plan includes six proposed rapid transit corridors whose details are included in Table 8-1, and the nine BERT routes are listed in Table 8-4.

Next, DTPW's ten-year implementation plans are then organized into three categories – Capital, Operational, and State of Good Repair. Each category is divided into separate lists for funded, partially funded, and unfunded projects.

Funded Capital projects are included in Table 8-5 and Map 8-3. Partially Funded Capital projects are included in Table 8-6 and Map 8-4, and Unfunded Capital projects are listed in Table 8-7 and Map 8-5. Operational projects are included in Table 8-8 and Map 8-6. Funded State of Good Repair projects are listed in Table 8-9, while partially funded and unfunded projects are listed in Table 8-10.

In addition to the ten year plan, DTPW has included in this chapter a list of projects extending beyond the ten year horizon. These projects are listed in Table 8-11 and illustrated on Map 8-7.

8.2.1 SMART PLAN

Miami-Dade Mayor Carlos A. Gimenez has declared that the advancement of transportation infrastructure is the top priority for the County. In addition, the Miami-Dade Transportation Planning Organization (TPO) has prioritized the advancement of the SMART Plan, which is strongly supported by public and private sector partners, residents, and elected officials. In April 2016, the TPO Governing Board adopted the SMART Plan, which includes six (6) rapid transit corridors and the BERT network, as seen in Map 8-1. Since then, implementation of the SMART Plan has become a top priority of the Miami-Dade County DTPW.

The Miami-Dade County transportation team is working to change the approach to mobility by creating a system that offers multiple transportation options throughout the county. There are limited opportunities to widen and/or build new roads. Therefore, the need to extend mass-transit represents the balanced approach necessary to address roadway congestion and connect communities to educational and employment centers. This balanced approach is needed to ensure the community continues to grow and thrive in the future.

Miami-Dade County's SMART Plan will improve mobility by connecting major activity centers, employment areas, airports, and educational institutions to the our residential neighborhoods. The goal is to make Miami-Dade County a car-optional community by ensuring that mass-transit options are available everywhere in the County and region.



8.2.2 Rapid Transit Corridors

The six rapid transit corridors which are included in the SMART Plan are described below.

8.2.2.1 Beach Corridor

The Beach Corridor Extension project will serve the cities of Miami and Miami Beach along a 9.7 mile corridor, crossing Biscayne Bay to link Downtown Miami to Miami Beach. The Beach Corridor area is an epicenter for population and economic growth and a major employment center and tourist destination in the region. As a result, the roadways between Miami and Miami Beach are typically heavily congested. This high bus transit ridership corridor has been identified as a candidate for consideration for premium transit over the past two decades as part of a strategy to address east-west directional travel demands. DTPW initiated a Project Development & Environment (PD&E) study to evaluate premium transit solutions in this corridor in May 2017. This study is scheduled for completion in late summer 2019.

8.2.2.2 East-West Corridor

This project will run approximately 11 miles from Miami International Airport west along the SR-836/Dolphin Expressway to the Turnpike in the vicinity of Florida International University (FIU). It provides multimodal options that mitigate the severe traffic congestion along SR-836 which is the only east-west expressway in central Miami-Dade County. This project will serve major activity centers including FIU, Miami International Airport, the Miami Intermodal Center (MIC), Dolphin Mall, and major employment areas like the City of Doral and the Blue Lagoon area. DTPW initiated a PD&E study to evaluate premium transit solutions in this corridor in April 2017. As of September 2019, the TPO is expected to select the Locally Preferred Alternative (LPA) in early 2020.

8.2.2.3 Kendall Corridor

The Kendall Corridor project is 10 miles from the Dadeland North Metrorail Station west along SR 94/Kendall Drive/SW 88th Street to approximately SW 167th Avenue. This project provides multimodal solutions for severe congestion along Kendall Drive, one of the most congested east-west roadways in Miami-Dade County. The project facilitates the highest demand movement of passengers to and from West Kendall to Downtown Miami.

In 2016, the Florida Department of Transportation (FDOT), District Six, initiated a PD&E Study to evaluate proposed transportation solutions for Kendall Drive. The Kendall corridor is being studied as part of the Strategic Miami Area Rapid Transit, or SMART Plan, which identifies the development of six rapid transit corridors that directly support the mobility of our future population and employment growth. A project kick-off meeting was held in late 2016. As of September 2019, the TPO is expected to select the Locally Preferred Alternative (LPA) in early 2020.

8.2.2.4 North Corridor

This project is approximately 12 miles from the Miami Intermodal Center (MIC) via existing Metrorail Orange Line then north along NW 27th Avenue to NW 215th Street. It will connect the cities of Miami, Opa-locka, and Miami Gardens with major activity centers, including the Miami-Dade College North Campus, North Dade Health Center, St. Thomas University, Florida Memorial College, Miami Jobs Corps Center, Hard Rock Stadium (home of NFL Miami Dolphins and University of Miami), and Calder Race Course. A new transit terminal and park-and-ride facility at the northern end of the project will be constructed to provide a connection to Metrobus and Broward County Transit (BCT) routes. The long-term vision includes transit-oriented development (TOD) at the new NW 215th Street transit terminal.

In 2016, FDOT District Six initiated a PD&E Study to evaluate proposed transportation solutions for SR 9 / SR 817 / NW 27th Avenue. The North corridor is being studied as part of the SMART Plan, which identifies the development of six rapid transit corridors that directly support the mobility of our future population and employment growth. A project kick-off meeting was held in late 2016. On December 6, 2018, the TPO selected an elevated fixed guideway transit system as the LPA. The study team will conduct additional analysis to select the technology, then complete and environmental study for the selected technology.

8.2.2.5 Northeast Corridor

This corridor is roughly defined as U.S. Route 1 from the Downtown Miami area to the Aventura Mall near the Miami-Dade/Broward County line. It is one of the busiest transit corridors in the region. It extends approximately 13.5 miles through the historic core of the County developed along the Florida East Coast (FEC) railroad and links Aventura, North Miami, North Miami Beach, and Miami Shores with the County's Central Business District located in Downtown Miami. FDOT District 4 is managing the PD&E study and is currently on hold, pending access agreement.

8.2.2.6 South Dade Transitway (South Corridor)

This corridor stretches approximately 20 miles from the Dadeland South Metrorail Station along the existing Transitway (fka Busway) to the SW 344th Street Park-and-Ride/Transit Terminal Facility. This corridor will connect Florida City, City of Homestead, Town of Cutler Bay, Village of Palmetto Bay, and Village of Pinecrest, which represent the fastest population growth in Miami-Dade County. This rapid transit project facilitates the highest demand of passengers traveling to and from southern Miami-Dade to Downtown Miami. DTPW initiated a PD&E Study to evaluate premium transit solutions in this corridor in April 2017. The TPO selected the LPA on August 30, 2018 as Bus Rapid Transit (BRT). The project team has started coordination with the Federal Transit Administration (FTA) on submitting a Small Starts Grant application for the South Corridor BRT project. The estimated total project capital cost is \$300 million. Miami Dade County and FDOT have both committed \$100 million each to fund design and construction, while the project team actively pursues the remaining \$100 million from the FTA Small Starts Grant. Once completed, BRT will provide rail-like travel time, iconic stations, level boarding through all doors, and pre-paid fares for speedy access. BRT will also provide enhanced safety features and other upgrades along dedicated lanes with multi-layered service lines on the TransitWay. BRT is scheduled to begin operation by 2022.

8.2.3 SMART Plan's Bus Express Rapid Transit (BERT) Network

Most of the urban and interregional corridors in Miami-Dade County are already congested. Congestion is expected to worsen even with completion of planned transportation improvement projects. The pace of growth far exceeds the ability to add capacity in order to reduce congested conditions. Significant expansion is required in rail and transit systems to deliver viable options for moving people within Miami-Dade County and the Southeast Florida Region.

FDOT District Six, and DTPW staff started the planning activities for implementation of the BERT network since 2016. FDOT is taking lead on the PD&E study for Route a, the Flagler Corridor, which is scheduled to present the recommended alternative in Summer/Fall 2019. Based on the results of the study, project schedule will be planned. DTPW is taking the lead on the NEPA study and infrastructure needs for the rest of the BERT network. To implement the BERT network, necessary infrastructure projects include new transit terminals, improvement to or expansion of existing terminals, and new direct roadway/ramp connections, etc. Coordination is also required between DTPW and other transportation agencies such as FDOT, Florida's Turnpike Enterprise (FTE) and Miami-Dade Expressway Authority (MDX) to ensure transit access to roadways are supported. Among these BERT routes, some are further advanced than others. Routes c is anticipated to be implemented in Winter 2019; Routes b is anticipated to begin service in 2020; Route e1 is expected to begin service in 2022; Routes d, f1, f2, and f3 are anticipated to begin service in 2023; Route e2 is expected to begin service in 2027.

Table 8-4 lists additional information on the BERT network. Figure 8-2 shows DTPW's Express Bus System Vision with supportive transit terminals.

8.2.3.1 Flagler Corridor

In 2016, FDOT District Six, began a PD&E study to examine implementation of Bus Rapid Transit (BRT) service and infrastructure improvements along SR 968/Flagler Street from SR 821/HEFT to SR 5/US-1/Biscayne Blvd. The primary study objective is to evaluate the implementation of a cost-effective, high-ridership BRT system with in the SR 968/Flagler Street Corridor that is to be part of an overall interconnected premium transit network. Flagler Street was presented to TPO Board in July, 2019. The board requested that the FDOT study team

conduct a workshop to review the recommended alternatives. Once this workshop takes place, the TPO board will rehear the item and select a recommended alternative.

8.2.4 SMART Demonstration Program

The Miami-Dade TPO in partnership with FDOT, Miami-Dade County, SFRTA, and local municipalities, have coordinated to identify and implement a program of demonstration projects that advance elements of the SMART Plan including the Bus Express Rapid Transit (BERT) Network. These projects must have a duration of 3 years or less, but sponsoring agencies have committed to continue the projects if deemed successful.

Phase I of the program was adopted by the TPO board in June of 2018, and is included in the Adopted Work Program for fiscal years 2020-2024. Phase II was adopted by the TPO board in October 2019, and is included in the Tentative Work Program for fiscal years 2021-2025. These projects are shown on Map 8- 2.

Table 8-1 SMART Demonstration Program

Phase I Projects - In Service			Phase II Projects - Scheduled	
Sponsor	Project	Date	Sponsor	Project
City of Miami	Flagami Trolley Service	July 2018	DTPW	Biscayne Gardens Route Extension
City of Doral	Doral FIU Trolley Service	September 2018	City of Hialeah	Tri-Rail/Metrorail Transfer Station On-Demand Service
City of Coral Gables	On-Demand Flex Service	January 2019	DTPW	West Dade On-Demand Service
Village of Pinecrest	On-Demand Response Service	January 2019	DTPW	SW 344th Street Park-and-Ride Station
North Bay Village *	SMART Feeder Route On-Demand Service	November 2019	DTPW	Panther Station to Dolphin Station Express Service
Village of Palmetto Bay	On-Demand Transit Service	July 2019	Miami Lakes	Express Service to Palmetto Metrorail Station
Village of Palmetto Bay	Transit Facility	July 2019	Surfside	Bal Harbour Bay Harbor On-Demand Service
Phase I Projects - Scheduled			El Portal	Express Service to MiamiCentral Station
Town of Medley	Central Commuter Route	Winter 2020	Florida Int'l University	FIU/Panther Station On-Demand Service
Town of Cutler Bay	On-Demand Service	Spring 2020	City of Hialeah	Hialeah/Hialeah Gardens to I-75 Miami Gardens Park-and-Ride
DTPW	Civic Center Metrorail Station On-Demand Service	Spring 2020	City of Miami	Liberty City Trolley Service
DTPW	South Miami Metrorail Station On-Demand Service	Spring 2020	City of Miami Beach	South Beach Trolley Service
DTPW	Dadeland North Metrorail Station On-Demand Service	Spring 2020	DTPW	West Miami On-Demand Service
DTPW	Dadeland South Metrorail Station On-Demand Service	Spring 2020		
SFRTA	NE Corridor Midtown/Design District Station	FY 2021		

*Area service began July 2019

Miami Shores SMART Feeder Route On-Demand Service was discontinued via agency consensus

8.3 Progress Monitoring

In subsequent TDP Annual Updates, these projects will be tracked through the implementation plan tables which follow. Columns will be added to show any change in funding or project status according to the LRTP, TIP, STIP, CITT, or public involvement process.

Projects are also monitored outside of the TDP process. DTPW assigns project managers for each project with a project number to track the project through the stages of its life span. DTPW's Document Management Unit (DMU) stores pertinent project information in a shared document system, which is used to develop project updates which are then shared with DTPW staff for review. Additionally, DTPW tracks projects that are managed or co-managed by other entities (such as FDOT, local municipalities, and P3 Partnerships) that affect the Miami-Dade Transit System.



8.3.1 Committed Service Adjustments

In an effort to continually match service capacity with ridership demand DTPW routinely revises the existing bus route network to better meet the transportation needs of Miami-Dade County. These revisions seek to improve the operational efficiency of the overall transit system. A listing of the committed bus service improvements and adjustments is presented in Table 8-2 below.

Table 8-2 Committed Bus Service Adjustments

Improvements	
Route	Description
34	Add trip northbound from 344 St P&R at 6:40a to address overcrowding
175	New BERT route from I-75/MGD P&R to Palmetto Station using express lanes. 15min frequency from 5:30a - 9:30a and 3:30p - 7:30p weekdays.
Adjustments	
Route	Description
32	Adjust weekday running times.
36	Adjust Saturday running times.
36	Adjust Sunday running times.
37	Adjust Saturday running times.
42	Adjust weekday running times.
57	Adjust weekday running times.
57	Reroute by airport villas.
95	Move 8:58a SB trip to 9:03a to improve transfers.
288	Move WB stop from SW 132 Ave to 127 Ave
110/J	Adjust Saturday running times.
110/J	Adjust Sunday running times.
112/L	Relocate layover to 17 St/Washington
120	Add SB stop at 43 St and Indian Creek Dr
183	Move layover to NW 73 Ave/MGD P&R from NW 67 Ave.
295/296	Add stop NB and SB at Allapattah station (NW 12 Ave/33 St)
Reductions	
Route	Description
19	Reduce weekday PM frequency from 24 to 30 minutes



Table 8-3 Miami-Dade County's Strategic Miami Area Rapid Transit (SMART) Plan

Corridor Name	Limits	Corridor Length (miles)	Lead Agency	Environmental Document Cost	Implementation Activities Cost	Status	
North Corridor (NW 27th Avenue)	Miami Intermodal Center (MIC) to NW 215th Street	12	FDOT-6	\$4.2M	\$840,000	<ul style="list-style-type: none"> TPO Resolution #01-15 authorized the development of the PD&E PD&E Funding Source: 100% State PD&E started in June 2016; anticipated completion date: winter 2018 PD&E considering Rail Transit and/or appropriate premium transit technology 	
Beach Corridor	Miami Beach Convention Center to Midtown Miami (at or near NE 41st Street and NE 2nd Avenue)	9.7	DTPW	\$10.0M	\$2.0M	<ul style="list-style-type: none"> TPO Resolution #40-16 authorized the development of the PD&E PD&E Funding Sources: FDOT-6 (\$5.0M); CITT (\$3.75M); Miami-Dade County (\$417,000); City of Miami (\$417,000); City of Miami Beach (\$417,000) PD&E started in May 2017; Anticipated completion date: summer 2019. PD&E considering Light Rail Transit (LRT) and/or appropriate premium transit technology 	
East-West Corridor	Miami Intermodal Center (MIC) to Florida International University (FIU)	11	DTPW	\$9.0M	\$1.2M	<ul style="list-style-type: none"> TPO Resolution #35-16 authorized the development of the PD&E PD&E Funding Source: 100% CITT PD&E started in April 2017; Anticipated completion date: summer 2019. PD&E considering Light Rail Transit (LRT) and/or appropriate premium transit technology 	
South Dade Transitway	Florida City to Dadeland South Metrorail Station	20	DTPW	\$7.0M	\$1.2M	<ul style="list-style-type: none"> TPO Resolution #34-16 authorized the development of the PD&E PD&E Funding Source: 100% CITT PD&E started in April 2017; Anticipated completion date: summer 2018. PD&E considering the conversion of US-1 Busway from Enhanced Bus Service to Light Rail Transit (LRT) and/or appropriate premium transit technology 	
Tri-Rail Coastal Link (Northeast/FEC Corridor)	Downtown Miami to City of Aventura (Miami-Dade segment)	13.5	FDOT-4; DTPW	\$5.7M	\$1.14M	<ul style="list-style-type: none"> PD&E is being conducted by FDOT-4 Long-term Project: FDOT-4 is lead agency; Short-term Project: DTPW is lead agency Passenger Rail Service project is under construction (All Aboard Florida - private sector) DTPW is improving transit services along Biscayne Boulevard 	
Kendall Corridor	SW 167th Avenue to Dadeland Area Metrorail Stations	10	FDOT-6	\$4.0M	\$800,000	<ul style="list-style-type: none"> TPO Resolution #01-15 authorized the development of the PD&E PD&E Funding Sources: 100% State PD&E started in June 2016; anticipated completion date: winter 2018 PD&E considering Light Rail Transit (LRT) and/or appropriate premium transit technology 	

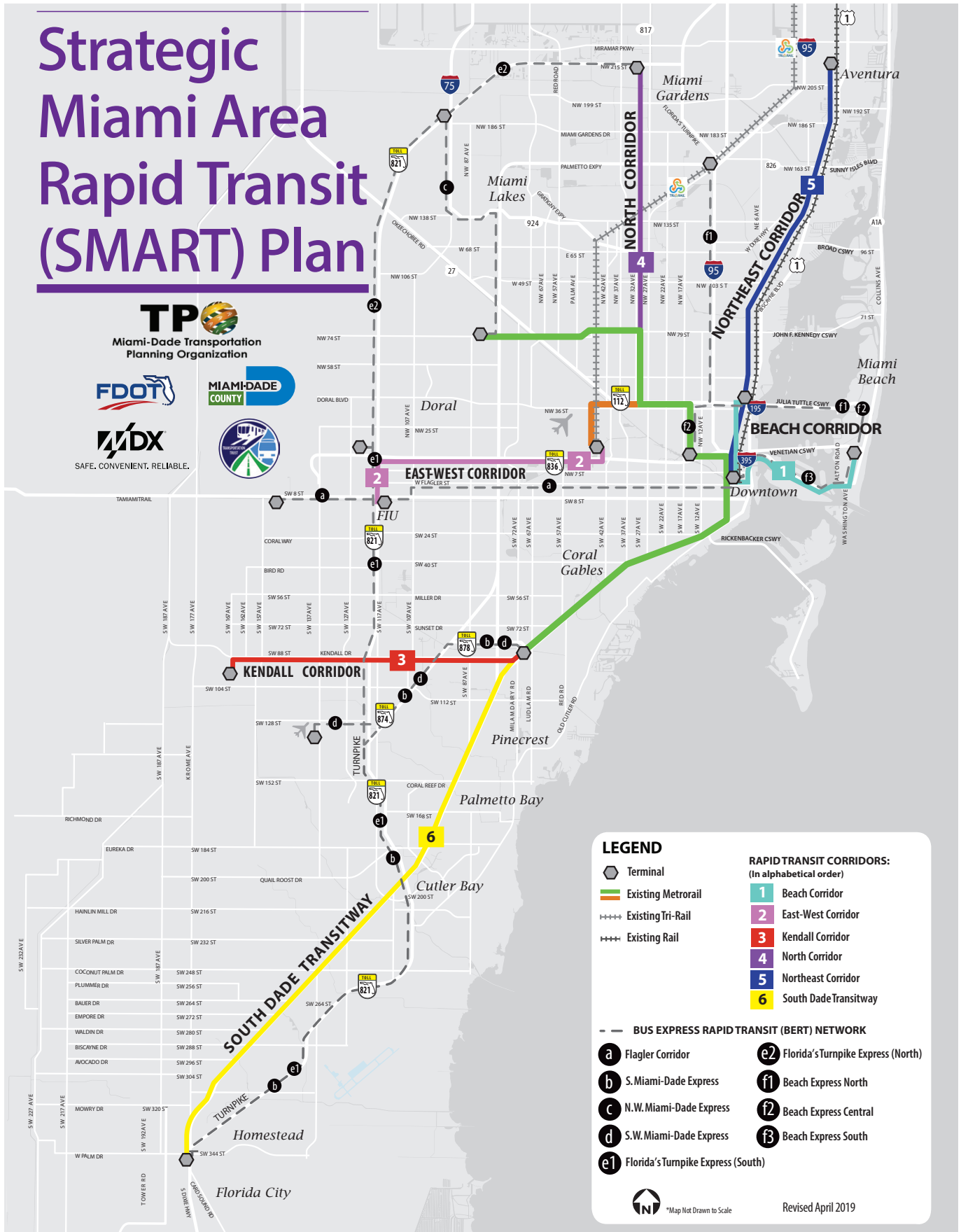


Table 8-4: Strategic Miami Area Rapid Transit (SMART) Plan - Bus Express Rapid Transit (BERT) Network

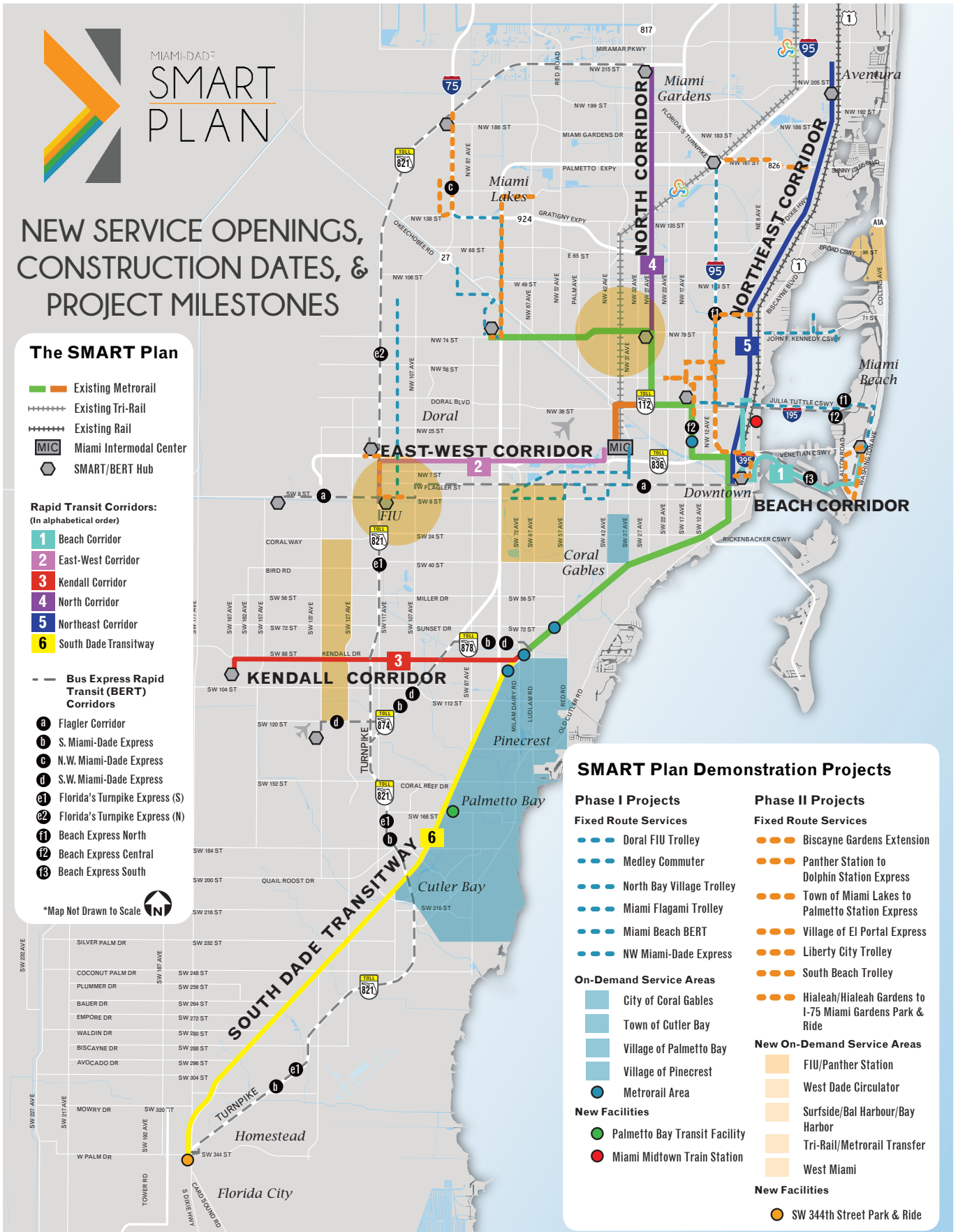
Bus Express Rapid Transit (BERT) Network									
SMART Plan Route #	Project Name	Location	Project Description	Project Length (Miles)	Commission District	Cost - 2018 \$ (in 000s)		Number of Buses	
						Capital Cost	O&M (Annual)		
a	Flagler Corridor	Tamiami Station/SW 147th Avenue to Downtown Miami; Dolphin Station to Downtown Miami; Panther Station to Downtown Miami	In 2016, FDOT initiated a Project Development and Environment (PD&E) study to examine implementation of Bus Rapid Transit (BRT) service and infrastructure improvements along SR 968/Flagler Street from SR 821/HEFT to SR 5/US-1/Biscayne Blvd. The primary study objective is to evaluate the implementation of a cost-effective, high-rider BRT system within the SR 968/Flagler Street Corridor that is to be part of an overall interconnected premium transit network. The FDOT project team is currently identifying and refining recommended alternatives. The study is scheduled for completion by 2018. DTPW is coordinating the bus purchase component of this project.	20	5, 6, 10, 11, 12	\$5,000 (Cost of PD&Study Only)	TBD	10	
b	S Miami-Dade Express	SW 344 St. Transitway Station/Dadeland North Metrorail Station; SW 288 St/HEFT to Dadeland North Metrorail Station	Route will provide express bus service from the SW 344th Street Park-and-Ride along the Transitway to the Dadeland North Metrorail Station as well as from the SW 288 St/HEFT to the Dadeland North Metrorail Station. Headways will be 10 minutes during peak hours and 30 minutes between 9:30am -3:00pm.	25.3	7, 9	\$9,000	\$1,790	9	
c	NW Miami-Dade Express	American Dream Mall Station / I-75/Miami Gardens Dr Station / Palmetto Metrorail Station	Route will provide express bus service from the American Dream Mall Station to the I-75/Miami Gardens Dr Station to the Palmetto Metrorail Station. Headways will be 10 minutes during peak hours	9.5	12	\$6,000	\$940	6	
d	SW Miami-Dade Express	Miami Executive Airport/Dadeland North Metrorail Station	Route will provide express bus service from the Miami Executive Airport to the Dadeland North Metrorail Station. Headways will be 10 minutes during peak hours.	9	7, 11	\$5,000	\$870	5	
e1	Florida's Turnpike Express (South)	344 St. Transitway Station/Panther Station/Dolphin Station	Route will provide express bus service from the SW 344th Street Park-and-Ride/Transit Terminal Facility along the Turnpike to Panther and Dolphin Stations. Headways will be 10 minutes during peak hours and 30 minutes during off-peak hours.	30.5	9, 11	\$10,000	\$1,890	10	
e2	Florida's Turnpike Express (North)	FIU Panther Station/Dolphin Station/Miami Gardens Station/American Dream Mall Station	Route will provide express bus service from the FIU Panther Station to the Dolphin Station, I-75/Miami Gardens Dr Station and the American Dream Mall Station. Headways will be 15 minutes during peak hours and 30 minutes during off-peak hours.	23	12, 13	\$4,000	\$820	5	
f1	Beach Express North	Golden Glades Multimodal Transportation Facility/Earington Heights Metrorail Station/Mt Sinai Transit Terminal/Miami Beach Convention Center	Route will provide express bus service from Golden Glades Multimodal Transportation Facility to the Earington Heights Metrorail Station, the future Mt Sinai Transit Terminal, and the Miami Beach Convention Center. Headways will be 10 minutes during peak hours and 20 minutes during off-peak hours. Saturday service will provide headways of 20 minutes during the peak hours and 30 minutes in the off-peak hours, while Sunday service will provide headways of 40 minutes during the peak hours and 60 minutes in the off-peak hours. Service span will be from 5:00am to 12:00am.	20	2, 5	\$10,000	\$3,440	10	
f2	Beach Express Central	Civic Center Metrorail Station/Miami Beach Convention Center	Route will provide express bus service from Civic Center Metrorail Station to the Miami Beach Convention Center. Headways will be 15 minutes during peak hours and 30 minutes during off-peak hours. Service span will be from 5:30am to 12:00am.	8	3, 5	\$8,000	\$2,000	8	
f3	Beach Express South	Miami Central Station/Miami Beach Convention Center	Route will provide express bus service from Miami Central Station to the Miami Beach Convention Center. Service will run all day seven days a week with 15 minute headways. Service Span will be from 5:00am to 12:00am.	6.7	3, 5	\$12,000	\$5,280	12	
				TOTAL DISTANCE (Miles)	152	NEW BUSES	\$0	\$0	
				TOTAL COST (000s)		\$71,000	\$17,030	\$17,030	



Map 8-1 Strategic Miami Area Rapid Transit (SMART) Plan

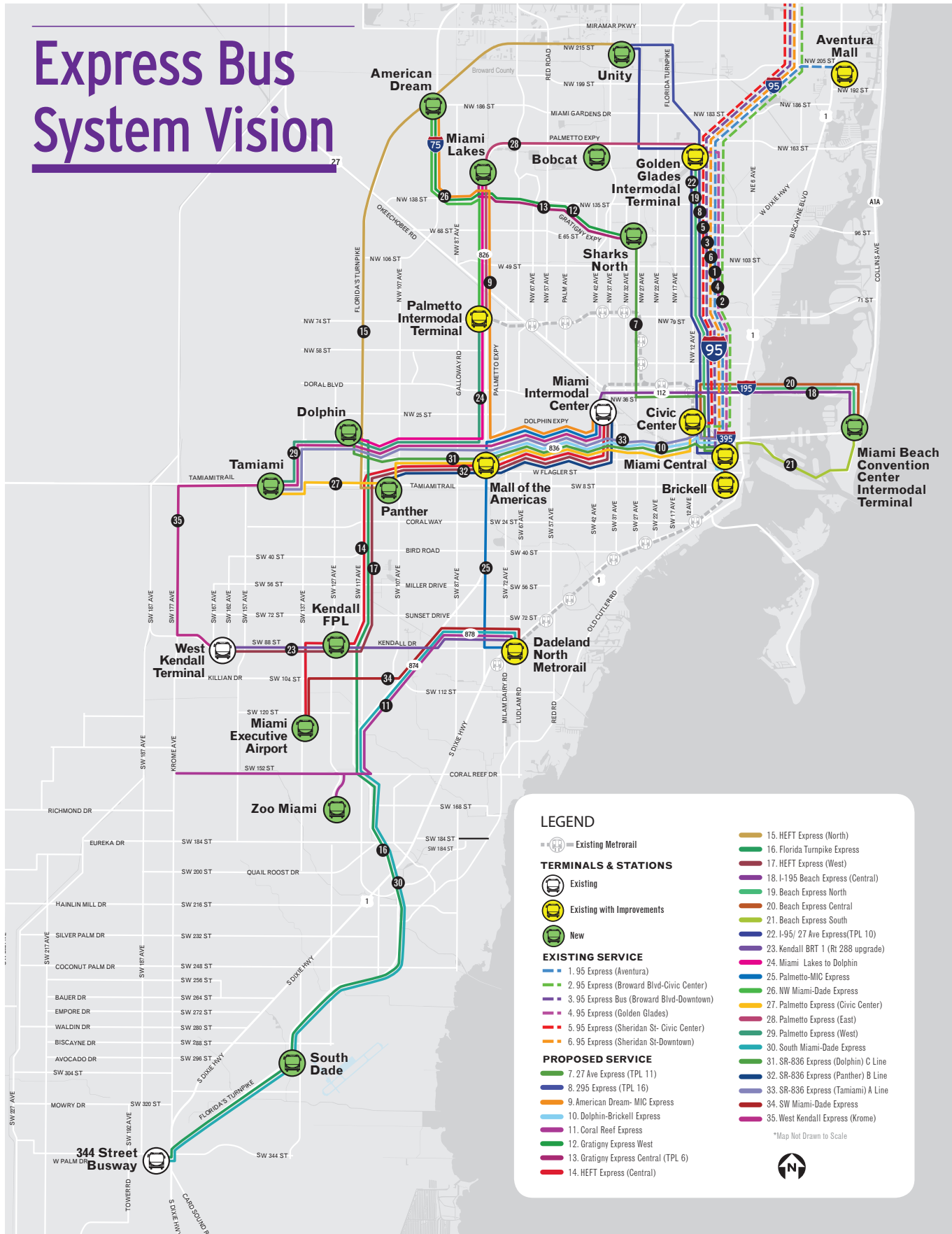


Map 8-2 SMART Plan Demonstration Program



Map 8-3 Express Bus System Vision

Express Bus System Vision



LEGEND

Existing Metrorail

TERMINALS & STATIONS

- Existing
- Existing with Improvements
- New

EXISTING SERVICE

- 1. 95 Express (Aventura)
- 2. 95 Express (Broward Blvd-Civic Center)
- 3. 95 Express Bus (Broward Blvd-Downtown)
- 4. 95 Express (Golden Glades)
- 5. 95 Express (Sheridan St-Civic Center)
- 6. 95 Express (Sheridan St-Downtown)

PROPOSED SERVICE

- 7. 27 Ave Express (TPL 11)
- 8. 295 Express (TPL 16)
- 9. American Dream- MIC Express
- 10. Dolphin-Brickell Express
- 11. Coral Reef Express
- 12. Gragny Express West
- 13. Gragny Express Central (TPL 6)
- 14. HEFT Express (Central)

- 15. HEFT Express (North)
- 16. Florida Turnpike Express
- 17. HEFT Express (West)
- 18. I-195 Beach Express (Central)
- 19. Beach Express North
- 20. Beach Express Central
- 21. Beach Express South
- 22. I-95/ 27 Ave Express(TPL 10)
- 23. Kendall BRT 1 (Rt 288 upgrade)
- 24. Miami Lakes to Dolphin
- 25. Palmetto-MIC Express
- 26. NW Miami-Dade Express
- 27. Palmetto Express (Civic Center)
- 28. Palmetto Express (East)
- 29. Palmetto Express (West)
- 30. South Miami-Dade Express
- 31. SR-836 Express (Dolphin) C Line
- 32. SR-836 Express (Panther) B Line
- 33. SR-836 Express (Tamiami) A Line
- 34. SW Miami-Dade Express
- 35. West Kendall Express (Krome)

*Map Not Drawn to Scale



8.4 Funded Capital Projects

Table 8-5 presents a listing of funded Capital projects that will be implemented within the 10-year MDT10Ahead planning horizon. These projects are illustrated on Map 8-4.

Table 8-5 Funded Capital Projects FY 2020 - 2029

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 L RTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
1	Panther Station	Florida International University's (FIU) Modesto A. Maidique Campus (MMC)	Florida International University (FIU) constructed a parking garage along SW 8th Street with ground floor space reserved for a future transit center. This new facility will provide eight bus bays to accommodate the relocation of the existing DTPW routes from the current bus terminal located near SW 107th Avenue and SW 17th Street.	11	Cost included in SR 836 Express Bus Line A	TBD	N/A
2	Unity Station (TOD)	NW 215th St and NW 27th Ave	Up to 350 parking spaces are proposed for this 14-acre facility which would serve as the northern terminus of a proposed rapid transit service on NW 27th Avenue. This park-and-ride facility also provides strategic transit oriented development (TOD) opportunities.	8, 9, 11	\$5,000	\$40	N/A
3	Tamiami Station	SW 8th St and SW 147th Ave	Convert an eight acre vacant parcel of land at SW 8th Street and SW 147th Avenue into a park-and-ride facility for the SR 836 Express routes with up to 493 parking spaces.	11	\$15,170	\$200	Priority I MDT303 TA4310771
4	Golden Glades Multimodal Transportation Facility (GGMTF)	Golden Glades Interchange	GGMTF is a new transit center that will consolidate existing bus transit services at Golden Glades into a single facility adjacent to the Tri-Rail Station. The center will include a multi-story parking garage, a new multi-bay bus terminal facility, upgraded sidewalks, walkways, platforms, bus bays and all improvements related to transit operations, including internal roads, drainage, lighting systems, fencing, internal directional and traffic control signage. Other amenities will include bicycle parking and lockers. The complex will also feature a transit hub, retail space, and a break lounge for bus drivers. The total project cost, funded by FDOT is approximately \$56.3 million.	1, 2	To be paid by FDOT and	\$860	Priority I
5	Miami Beach City Hall / Convention Center Intermodal Terminal	Convention Center Dr and 19th St	Construct a transit terminal facility with two bus bays for Local, Express, Max and Future BERT Routes. City of Miami Beach is to pay the estimated project cost of \$3.9 million.	5	To be paid by the City of Miami Beach (\$4,500)	N/A	Priority I MDT185
6	Dadeland North Metrorail - Elevators	8300 S Dixie Hwy	DTPW is adding two elevators to the existing parking facility at Dadeland North - both elevators will be at the north end of the structure. DTPW is currently in the consultant selection process for design services. The estimated project completion date is May 2021.	7	\$5,350	\$0	N/A
7	Transitway Park-and-Ride at SW 200th Street Station (200 Street Station)	Transitway and SW 200th Street	Developer to build: Phase 1: 116 surface parking spaces; Phase 2: 150-space parking garage	9	\$2,500	TBD	Privately Funded MDT110
8	Transitway Park-and-Ride at Quail Roost Drive (184 Street Station)	Transitway and SW 184th St	Mixed-income housing development with commercial uses, as well as structured parking reserved for transit patrons is to be constructed adjacent to the existing Transitway stop. The project will include at minimum 500 housing units, 10,000 square feet of commercial space, a park-and-ride garage with 261 spaces exclusively for transit users. DTPW received NEPA clearance in 2017 for the park-and-ride site.	9	\$3,989	\$0	Privately Funded
9	Senator Villas	SW 40th St between SW 89th Ave and SW 89th Ct	Construct a 23-unit affordable senior housing apartment building with an on-site enhanced bus stop	10	\$230	TBD	Privately Funded MDT122
10	Miami Lakes Terminal	SR 826 (Palmetto Expressway) at NW 154th St	Construct new park-and-ride facility with eight (8) bus bays to support new express bus service connection. This project is being funded and built by the Town of Miami Lakes.	13	To be paid by the Town of Miami Lakes	TBD	Privately Funded MDT207
11	NW 12th Street Roadway Improvements (Bus-Only) Project for Dolphin Station	along NW 12th Street between 122nd Avenue and 114th Avenue	This project includes widening and resurfacing along NW 12th Street to add bus-only lanes from NW 122nd Avenue to NW 114th Avenue. These new bus-only lanes will allow buses to bypass traffic congestion along this segment of NW 12th Street and will thereby reduce travel time for buses traveling between the Dolphin Station Park-and-Ride/Transit Terminal and Dolphin Mall. This roadway project is an integral component of the Dolphin Station Park-and-Ride/Transit Terminal Facility.	12	\$10,616	TBD	Priority I
12	The Underline Phase I - Brickell Backyard Project	from the Miami River to SW 13th Street	The future 10-mile Underline Corridor, running below the Metrorail from the Miami River to Dadeland South Metrorail Station, will create a linear mobility corridor that will enhance connectivity, increase mobility, and improve pedestrian and biking safety for residents and visitors. In 2015, Friends of The Underline, selected a design consultant to develop the Vision and Master Plan for this project. Currently the project is structured in nine phases for development as funding becomes available. The Underline Phase I is known as the Brickell Backyard and extends from the Miami River to SW 13th Street, approximately a 1/2 mile long. The off-road dedicated bicycle path is located along the west side of the Metrorail structure from the Miami River to SW 8th Street and between the Metrorail Station and SW 13th Street. This project is currently under construction. Construction started on November 1, 2019 and completion is expected on June 2020.	5	\$16,525	TBD	Priority I
13	The Underline Phase II - Hammock Trail	from SW 13th Street to SW 19th Avenue	The future 10-mile Underline Corridor, running below the Metrorail from the Miami River to Dadeland South Station, will create a linear mobility corridor that will enhance connectivity, increase mobility, and improve pedestrian and biking safety for residents and visitors. Phase 2 is approximately 2.14 miles long and extends from SW 13th Street to SW 19th Avenue. The Design/Build Criteria Package was finalized in July of 2018. The documents were submitted to FDOT for review and we are working through the comments and environmental documentation for compliance with the NEPA Type 1 CE. The Design/Build Criteria package was finalized in July 2018 and the project is currently in procurement for the selection of the Design/Build Firm.	5,7	\$18,326	TBD	Priority I



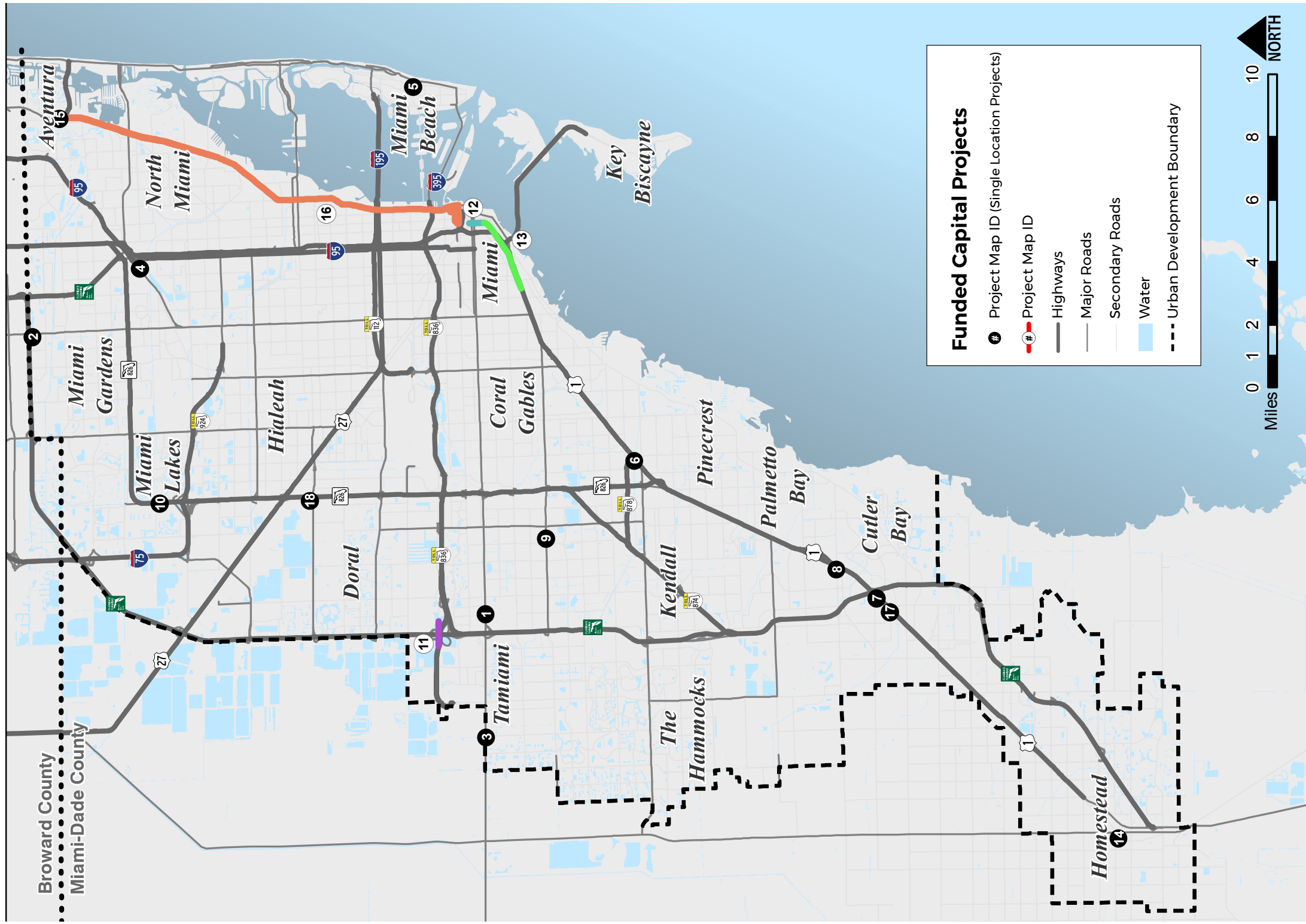
Table 8-5 Funded Capital Projects FY 2020 - 2029 (continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
14	Homestead Multimodal Transit Terminal	South Dade Transitway at Krome Avenue	The City of Homestead to construct a multimodal transit terminal with approximately 800 parking spaces to be shared with transit users	9	\$0	\$0	Privately Funded
15	Aventura Terminal	Biscayne Boulevard at 197th Street	Construct Park-and-Ride facility with 100 surface parking spaces	4	\$1,500	TBD	Privately Funded
16	Northeast Corridor (Biscayne) Enhanced Bus	From Miami Downtown Terminal to Aventura Terminal	Incremental improvement on PTP corridor. Will replace route 93.	2,3,4,5	\$40,500	\$2,700	Priority II MDT283
17	Transitway Park-and-Ride (Phase 2) (BERT)	Transitway and SW 112th Avenue	Currently 450 parking spaces are available at this location. This project will upgrade existing facility to provide passenger amenities, bus terminals and additional parking spaces.	7, 8	\$9,560	\$40	N/A
18	Palmetto Intermodal Terminal	SR 826/Palmetto Expressway at NW 74th Street	This project includes the purchase of a semi-vacant 11.8 acre parcel of land located immediately south of the Palmetto Metrorail Station for the purpose of constructing the Palmetto Intermodal Terminal. The project also includes the design and construction of a 1,000 space parking garage including long-term and short-term parking, kiss-and-ride, pool-and-ride, and a minimum of a 12-bus bay terminal.	12	\$20,571	\$850	Priority III MDT106
N/A	East West Corridor Transit Oriented Development (TOD) Project	Generally along SR-836 between the MIC and FIU	The East-West Corridor is one of six premium transit corridors included in the Strategic Miami Area Rapid Transit (SMART) Plan as endorsed by the Miami-Dade TPO Governing Board. DTPW will conduct a comprehensive planning effort that will inform transit and land use planning in the East-West Corridor, a 12-mile corridor linking the Miami Intermodal Center with Florida International University and the western communities of Miami-Dade County. In June 2016, DTPW submitted a grant application to FTA under the TOD Planning Pilot Program. In October 2016, FTA awarded \$960,000 to DTPW for this project. DTPW is currently finalizing a draft scope of services for this project.	6, 10, 11, 12	\$1,200	TBD	Priority I
N/A	Professional Services - Transit's Capital Improvement Plan	Countywide	Professional services for development of Transit's Capital Improvement Plan	Countywide	\$22,000	N/A	N/A
N/A	Metrorail Stations Refurbishment	Metrorail	Refurbish and modernize specific areas as needed throughout the entire rail system	Countywide	\$35,000	\$0	N/A
N/A	Transportation Security Projects (Capital Improvements)	Various Sites	Install security and safety improvements such as security surveillance, safety rails, security locks and lighting improvements throughout Miami-Dade County at all DTPW facilities	Countywide	\$3,406	\$0	N/A
Funded Transit Projects FY 2020 - FY 2029 TOTAL COST (000s)					\$211,443	\$4,690	

2040 LRTP	
Priority I	2015-2020
Priority II	2021-2025
Priority III	2026-2030
Priority IV	2031-2040



Map 8-4 Funded Transit Projects FY 2020 - 2029



Sources: Miami-Dade County DTPW, 2018



8.5 Partially Funded Capital Projects

Table 8-6 presents a listing of partially funded capital projects the 10-year MDT10Ahead planning horizon. These projects are illustrated on Map 8-5.

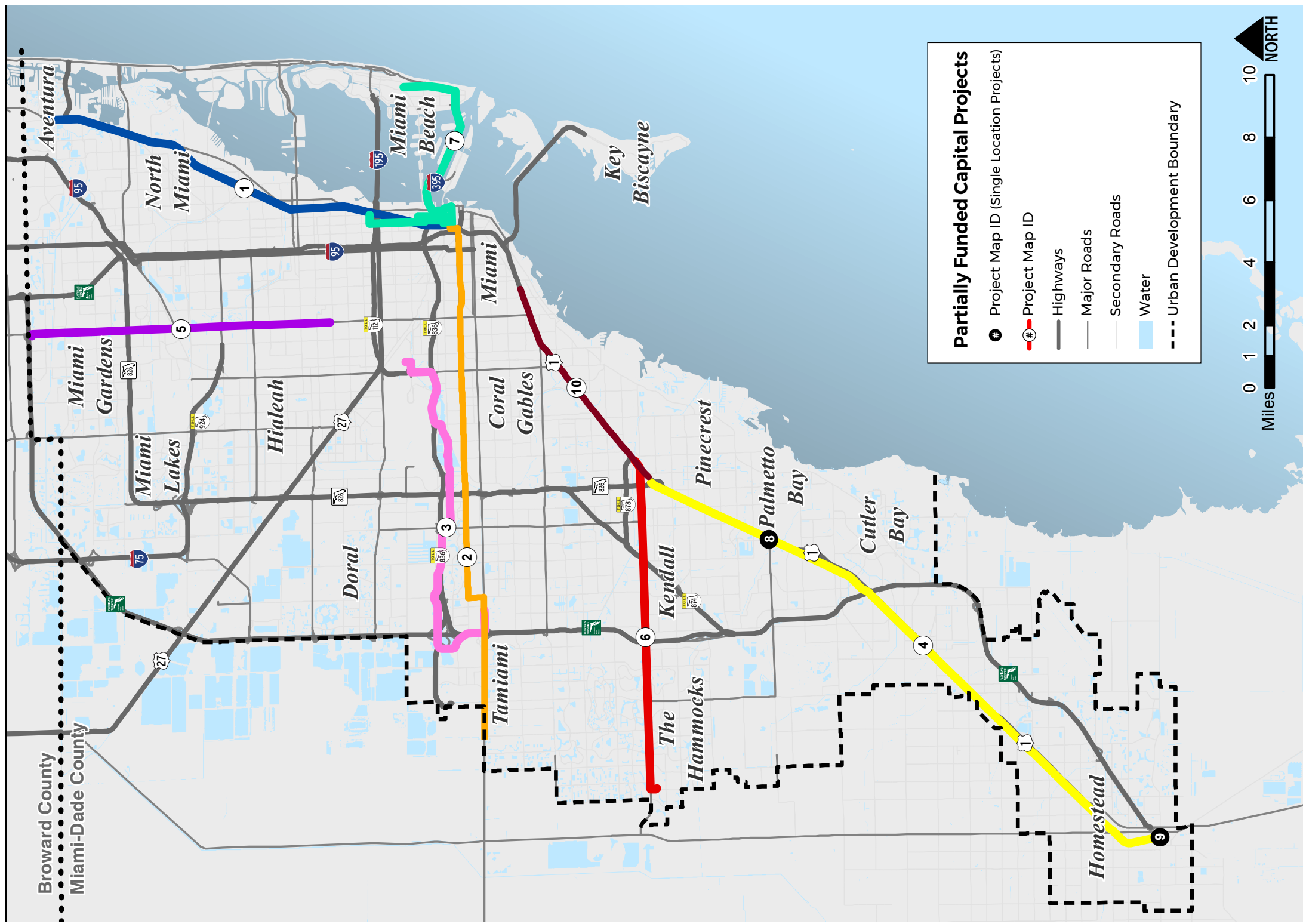
Table 8-6 Partially Funded Capital Projects FY 2020 - 2029

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)			2040 LRTP Status / CITT 5-Year Plan Project Number
					Total Capital Cost	Funded Capital Cost	O&M (Annual)	
1	Northeast Corridor	MiamiCentral Station to Aventura Station	PD&E is being conducted by FDOT-4, who is the lead agency for the Long-term Project. The Short-term project is led by DTPW. Passenger Rail Service project has been built by a private sector company, All Aboard Florida. DTPW is improving transit services along Biscayne Boulevard. The Northeast corridor is being studied as part of the Strategic Miami Area Rapid Transit, or SMART Plan.	2, 3, 4, 5	\$368,550	\$6,840	\$17,550	MDT132U
2	Flagler Corridor BERT ††	Along Flagler from Tamiami Station to Downtown Intermodal Terminal	In 2016, FDOT initiated a Project Development and Environment (PD&E) study to examine implementation of Bus Rapid Transit (BRT) service and infrastructure improvements along SR 968/Flagler Street from SR 821/HEFT to SR 5/US-1/Biscayne Blvd. The primary study objective is to evaluate the implementation of a cost-effective, high-ridership BRT system within the SR 968/Flagler Street Corridor that is to be part of an overall interconnected premium transit network. The FDOT project team is currently identifying and refining recommended alternatives. The study is scheduled for completion by mid-2018.	5, 6, 10, 11, 12	\$62,140	\$5,521	\$35,000	Priority I MDT175
3	East-West Corridor	From Florida International University (FIU) MMC campus to the Miami Intermodal Center (MIC) along the SR-836/Dolphin Expressway	This project will provide multimodal solutions for severe traffic congestion along SR-836, the only east-west expressway in central Miami-Dade County. This project will also serve major activity centers including FIU, Miami International Airport, the Miami Intermodal Center (MIC), Downtown Miami, and PortMiami, while transporting riders to and from major employment areas (Doral, Health District, Central Business District, Brickell, etc.). The East-West Corridor is being studied as part of the Strategic Miami Area Rapid Transit, or SMART Plan.	5, 6, 10, 12	\$2,145,000	\$10,200	\$4,435	Priority I MDT175U
4	South Dade Transitway	South Dade Transitway from SW 344th Street Park-and-Ride to Dadeland South Metrorail Station	Implement Gold Standard BRT along the Transitway	7, 8, 9	\$300,000	\$29,572	\$36,000	Priority I MDT161
5	North Corridor Premium Transit	Martin Luther King Jr. Metrorail Station to Unity Station (NW 27 Ave / NW 215 Street)	This project is approximately 12 miles from the Miami Intermodal Center via the existing Metrorail Orange Line then north along NW 27th Avenue to NW 215th Street. It will connect the cities of Miami, Opa-Locka, and Miami Gardens, including the Miami-Dade College North Campus, North Dade Health Center, St. Thomas University, Florida Memorial College, Miami Jobs Corps Center, Hard Rock Stadium (home of NFL Miami Dolphins and University of Miami), and Calder Race Course. At the northern end of the project, a new transit terminal and park-and-ride facility will be constructed to provide a connection to Metrobus and Broward County Transit (BCT) routes. The long-term vision includes transit-oriented development (TOD) at the new NW 215th Street transit terminal. In 2016, the Florida Department of Transportation (FDOT), District Six, initiated a Project Development & Environment (PD&E) Study to evaluate proposed transportation solutions for SR 9 / SR 817 / NW 27th Avenue. The North corridor is being studied as part of the Strategic Miami Area Rapid Transit, or SMART Plan, which identifies the corridors that directly support the mobility of our future population and employment growth. A project kick-off meeting was held in late 2016.	1, 2, 3, 6	\$1,344,000	\$5,040	\$38,400	Priority I MDT237U
6	Kendall Corridor Premium Transit	West Kendall Transit Terminal to Dadeland Area Metrorail Stations	This project provides multimodal solutions for severe traffic congestion along Kendall Drive, one of the most congested east-west arterial roadways in Miami-Dade County. The project facilitates the highest demand movement of passengers to and from West Kendall to Downtown Miami. In 2016, FDOT initiated a Project Development & Environment (PD&E) Study to evaluate proposed transportation solutions for Kendall Drive. The Kendall corridor is being studied as part of the Strategic Miami Area Rapid Transit, or SMART Plan.	7, 10, 11	\$312,000	\$4,800	\$17,500	Priority I MDT133U
7	Beach Corridor (f.k.a. Baylink) Premium Transit	Midtown Miami to Miami Beach Convention Center	The Beach Corridor area is an epicenter for population and economic growth and a major employment center and tourist destination in the region. As a result, the roadways between Miami and Miami Beach are typically heavily congested. This high bus transit ridership corridor has been identified as a candidate for consideration for premium transit over the past two decades as part of a strategy to address east-west directional travel demands.	3, 5	\$897,000		\$31,750	Priority I MDT135, MDT236
8	Transitway at SW 152 St Park-and-Ride	Transitway and SW 152nd St	DTPW is proposing to upgrade the existing park-and-ride facility in two phases. Phase 1 includes adding 84 additional surface parking spaces for a total of 446 spaces, adding a canopy, electric vehicle charging stations, improved bicycle parking facilities, and other mobility and convenience improvements. Phase 2 includes a modernized 511 space parking garage with enhanced amenities.	8	\$13,670	\$4,510	\$450	Priority II MDT186
9	Transitway Park-and-Ride at SW 344th St.	Transitway and SW 344th Street (SMART Terminal)	DTPW has identified a need to expand the existing end-of-the-line transit terminal/park-and-ride facility at SW 344th Street in order to meet future demand for parking along the South Miami-Dade Transitway. This project will increase the number of parking spaces by 96 to a total of 344. The necessary right-of-way acquisition for this project is funded, but the design and construction costs are being developed.	9	\$4,610		\$250	N/A
10	Underline Phases III - IX	from SW 19th Avenue to Dadeland Boulevard	In addition to Phase 2, DTPW is working with FDOT on the review of the advertisement for the procurement of a company to develop the trail alignment, the design of remaining 24 intersections, all surveys, documents associated with NEPA Type 1 CE, provide standards as developed for Phase 1 and Phase 2 and provide design direction on specific landscaping and amenities associated with each of the segments. The scope will include cost estimates. Once finalized, the document will allow FDOT to assist in the improvements of intersections because the path alignment will be created. It will allow for funding allocation in more detail based on specific scope and will allow DTPW to quickly procure the rest of the segments as soon as the funding becomes available.	5, 7	TBD	\$2,000	\$15,400	Priority I
Partially Funded Transit Projects FY 2020 - FY 2029 TOTAL COST (000s)					\$5,446,970	\$68,483	\$196,735	

2040 LRTP	
Priority I	2015-2020
Priority II	2021-2025
Priority III	2026-2030
Priority IV	2031-2040



Map 8-5 Partially Funded Transit Projects FY 2020 - 2029



Sources: Miami-Dade County DTPW, 2018



8.6 Unfunded Capital Projects

Table 8-7 presents a listing of unfunded capital projects. These projects are illustrated on Map 8-6.

Table 8-7 Unfunded Capital Projects FY 2020 - 2029

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 L RTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
1	Park-and-Ride/Transit Terminal at SW 152nd Street and HEFT - SMART Terminal	SW 152nd Street(Coral Reef Drive) / HEFT	Expand the existing 2 bay / 200 space park-and-ride facility. Construct new parking garage with 500 parking spaces and four bus bays.		\$14,450	\$44	Unfunded MDT176
2	Transitway at SW 104 St Park-and-Ride	Transitway and SW 104th St	Lease park-and-ride facility with 100 parking spaces	7	\$0	\$50	Priority II MDT114
3	Dadeland South Park-and-Ride Expansion	Dadeland South Metrorail Station	Expand existing 1,254 space overcapacity park-and-ride facility. Construct a new 1,000 space parking garage with ground-floor retail and office space.	7	\$25,000	\$60	Priority II MDT189
4	Direct Ramps to Dolphin Station Transit Terminal Facility	SR 821 (HEFT) Express Lanes to Dolphin Station Transit Terminal Facility	Construct direct access ramps to connect the SR 821 (HEFT) Express Lanes to Dolphin Station Transit Terminal	12	\$58,500	N/A	Priority II MDT192 MDT243
5	NE 151st Street and Biscayne Boulevard Park-and-Ride / Transit Terminal	NE 151 Street and Biscayne Blvd	Construct park-and-ride (100 spaces) and transit terminal (four (4) bus bays) in anticipation of premium transit service on Biscayne corridor.	2,4	\$2,900	\$10	Unfunded MDT107
6	Douglas Road Corridor (37 Ave) Enhanced Bus ↑↑	Douglas Road Metrorail Station to the Miami Intermodal Center (MIC)	This is a phased project that proposes EBS as Phase 1 to include six (6) new buses. Light Rail, and eventually Metrorail, with dates TBD for the final two phases.	5,6,7	\$19,500	\$5,000	Priority II MDT151
7	NW 122nd Ave	NW 12th St to NW 41st St	Construction of new two-lane road	12	\$11,640	\$0	Priority II
8	South Dade Park-and-Ride	HEFT and SW 288th St	Purchase land for the construction of a Park-and-Ride facility.	8, 9	\$33,120	\$40	N/A
9	Miami Executive Airport Park-and-Ride SMART Terminal	Miami Executive Airport Vicinity	MDX to construct a park-and-ride facility with 75 surface parking spaces to serve the SW Miami Dade Express (Route D) and other local routes	11	N/A	N/A	Priority I MDT116
10	Miami Gardens – MIC Express	Miami Gardens Station (Miami Gardens Mall) to MIC	Express bus service from Miami Gardens Station to MIC - will include four (4) new articulated buses.	6,13	\$2,100	\$2,800	N/A
11	American Dream Mall Transit Terminal	East of HEFT and west of I-75 between NW 170th St and the intersection of I-75 and HEFT	Construct Transit Center with 10 bus bays, 2 layover bus bays, passenger waiting areas, bus operator comfort station, ticket vending and other transit amenities. The construction and operating and maintenance costs are privately funded.	13	\$0	\$0	N/A
12	Golden Glades Multimodal Transportation Facility - IT Components	"Golden Glades Interchange (SMART/BERT Terminal)"	Construction/implementation of technological components for the Golden Glades Multimodal Transportation Facility, to include, but not limited to, wi-fi, security access control systems, CCTV, real-time signage, ticket vending machines, emergency phones/call boxes, electric vehicle charging stations, advanced parking management systems, and electrical/physical infrastructure components.	1	\$10,000	\$1,500	N/A
13	"Sunshine State Industrial Park Kiss-and-Ride / Transit Terminal Facility (BERT)"	"NW 159th Dr (adjacent to the Golden Glades Multimodal Transit Facility) (SMART/BERT Terminal)"	DTPW, in coordination with the city of Miami Gardens and FDOT, proposed construction of a kiss-and-ride / transit terminal facility on the west side of the South Florida Rail Corridor (SFRC) just north of the Golden Glades Tri-Rail Station, with a connection via a fully covered and illuminated pedestrian/bicycle overpass. Metrobus as well as City of Miami Gardens trolleys would serve facility. Right-of-way acquisition is required	1,2	\$17,580	\$60	N/A
14	"Downtown Intermodal Terminal (SMART/BERT Terminal)"	112 NW 3rd Street	Construct new Terminal with approximately 27 bus bays, customer service and passenger waiting areas w/seating, TVMs, video displays, restrooms, security office, support areas (driver comfort area), janitor/supply closet, supervisor booth, 8 parking spaces for transit staff, bicycle parking/station, kiss-and-ride area. Also includes a conversion of NW 1st Street to bus drop-off area with 7 saw tooth bus bays, taxi/jitney areas, landscaping, lighting, and unified directional signage.	5	\$0	TBD	Privately Funded
15	Expand overcapacity park-and-ride facility at SW 168th Street	South Dade Transitway at SW 168th Street	Upgrade the existing park-and-ride facility in two phases. Phase 1 includes adding approximately 90 additional surface parking spaces. Phase 2 includes a modernized 450-space parking garage with enhanced amenities.	8,9	\$14,040	\$40.0	Unfunded MDT187
16	FIU Engineering Station / Park-and-Ride - SMART Terminal	W Flagler St and 107th Avenue	Construct park-and-ride facility with 200 parking spaces and 4 bus bays at the FIU Engineering campus located at the northeast corner of W Flagler Street and 107th Avenue. This proposed park-and-ride facility will be served by existing Metrobus routes in the area as well as the future Flagler BRT service, SMART - East-West RTC service, and other express bus services.	10,12	\$7,220	\$0	New
17	Transitway Lot (SW 244th St)	"Transitway and SW 244th St (SMART Terminal)"	Increase the number of leased parking spaces from 96 spaces to 111 spaces.	8	\$2,500	\$0	N/A





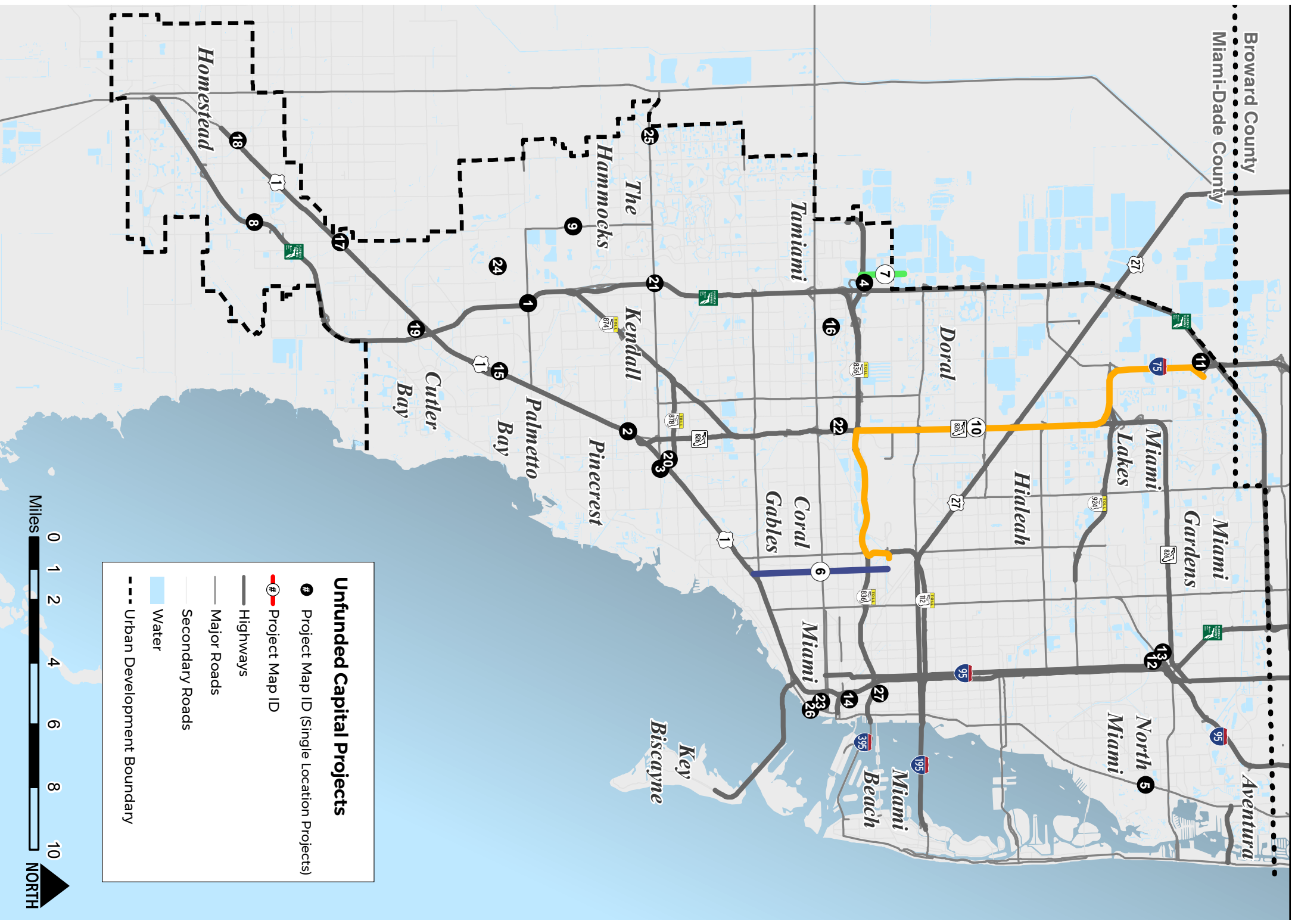
Table 8-7 Unfunded Capital Projects FY 2020 - 2029 (continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
18	Transitway Lot (SW 296th St)	"Transitway and SW 296th St (SMART Terminal)"	Improve Existing park-and-ride facility with a 400 space parking garage.	8	\$23,700	\$360	N/A
19	Southland Mall	"SW 205th St and South Dixie Highway (SMART Terminal)"	Lease 100 parking spaces and construct four bay terminal	8	\$3,270	\$80	N/A
20	Expand Overcapacity Park-and-Ride Facility at Dadeland North	"Dadeland North Metrorail Station (SMART Terminal)"	Construct a new 1,000-space parking garage with ground-floor retail and office space. Provide additional service and layover bays.	7	\$51,750	\$85	Unfunded MDT188
21	Intermodal Terminal at SW 88th St / HEFT	SW 88th St (Kendall Drive) at SR 821 (HEFT)	Lease 100 surface parking spaces for park-and-ride/transit center	10,7	\$0	\$50	Unfunded MDT160
22	Mall of the Americas Station	W Flagler St and NW 77th Ave	A park-and-ride transit terminal facility with four (4) bus bays and 300 parking spaces	6	\$6,372	TBD	Unfunded MDT251
23	"Brickell Metrorail Station (Downtown Miami Development of Regional Impact - Increment III)"	1001 SW 1st Ave	The Brickell Station serves as an intermodal station that provides passenger connections with the local circulator (City of Miami Trolley), local fixed route service (Metrobus), regional bus service (BCT I-595 Express) as well as Metromover and Metrorail. The station area is a linear site that spans between SW 8th St and SW 13th St. The primary goal of the Brickell Metrorail/Metromover Station improvements is to enhance passenger and pedestrian access. The recommended implementation plan includes additional bus passenger pick-up/drop areas, additional shuttle pick-up/drop off capacity, a new designated kiss-n-ride area, upgrade pedestrian connections and improve passenger convenience through way finding, upgrade/ADA compliant sidewalks, continuous passenger canopies, and additional bike storage.	5	\$3,900	\$10	Unfunded MDT197
24	Zoo Miami Station	Zoo Miami Park at SW 152 Street	Lease 100 parking spaces	9	N/A	\$50	Unfunded MDT115
25	West Kendall Transit Terminal Improvements	SW 88th St and SW 162nd Ave	Improve bus hub, add Kiss-and-Ride and expand parking facility to 500 structured parking spaces.	11	\$13,630	\$44	Priority I MDT194
26	Metromover Brickell Loop Extension	From Financial District Metromover Station	Extension of Metromover service in the Brickell area.	5	\$331,000	TBD	CoM103
27	Metromover Omni Loop Extension	From School Board Station	Extension of Metromover service in the Omni area.	3	\$558,490	TBD	CoM103-2
N/A	Drop-off / Pick-up at Transitway Stations	All Transitway stops between SW 344th Street and Dadeland South Metrorail Station	Drop-off/Pick-up at all (30) Transitway Stations	7,8,9	\$7,500	\$750	Unfunded MDT226
N/A	US-1 (Transitway)	South Dade Transitway from SW 344th Street Park-and-Ride to Dadeland South Metrorail Station	Bus only grade separations at all intersections including and south of 98 St with at-grade stations	7, 8, 9	\$315,000	\$260	Unfunded MDT164
N/A	Waterborne Transit Service	Biscayne Bay	This project will introduce the implementation of two water-transit routes: (1) North/South Route from Haulover Marina (North) to Sea Isle Marina (South) Downtown Miami; (2) East/West route from Miami Beach Marina (East) to Downtown Miami (West). In addition, other routes are also being evaluated to widen the coverage of the service. Potential additional routes include Downtown Miami (North) to Blackpoint Marina (South) and Haulover Marina (North) to Purdy Avenue in Miami Beach (South). There are various options for docking within the City of Miami that are being evaluated. The project seeks to improve mobility, increase accessibility and promote new ridership through an alternative mode of transport that is not limited by roadway traffic conditions (excessive congestion/ poor levels of service); thus, increasing the reliability of the transit service and the quality of life of the County's residents and visitors alike. This project will include the addition of nine (9) new vessels.	3,4,5	\$10,000	\$6,000	N/A
N/A	Route L (112)	Hialeah Metrorail to Miami Beach Convention Center	Replace existing 17 standard size buses with 21 articulated buses (includes 4 spares). This project will include 21 new articulated buses and the removal of 17 buses from service	2,3,4	\$19,950	\$0	N/A
Unfunded Transit Projects FY 2020 - FY 2029 TOTAL COST (000s)					\$1,548,662	\$17,249	

2040 LRTP	
Priority I	2015-2020
Priority II	2021-2025
Priority III	2026-2030
Priority IV	2031-2040



Map 8-6 Unfunded Capital Projects FY 2020 - 2029



Sources: Miami-Dade County DTPW, 2018



8.7 Operations Projects

Table 8-8 presents a listing of operations projects. These projects are illustrated on Map 8-7.

Table 8-8 Operations Projects FY 2020 - 2029

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
FUNDED							
1	"SR 836 Express Bus A Line Express"	"Tamiami Station (SW 8th Street at SW 147th Avenue) to Downtown Miami Government Center"	Premium express transit service along SR 836 from Tamiami Station (SW 8th Street at SW 147th Avenue) to the Downtown Miami Intermodal Terminal (NW 1st Street at NW 1st Avenue) via SW 8th Street, SW 137th Avenue and SR 836. Headways will be 10 minutes during the AM/PM peak-hour. Service hours (peak period only) are weekdays 6:00am to 9:00am and 3:00pm to 7:00pm. DTPW is coordinating with MDX to potentially operate this service.	6, 10, 11, 12	\$25,600	\$1,480	Priority I
2	"SR 836 Express Bus B Line Express"	"Panther Station (FIU at SW 109th Avenue and SW 8th Street) to the Miami Intermodal Center (MIC)"	Premium express transit service between Panther Station at FIU's MMC and the Miami Intermodal Center (MIC), via SW 8th Street, the HEFT and SR 836. This route will operate all day with 20 minute headways. Service hours are 6:00am to 10:00pm on weekdays. DTPW is coordinating with MDX to potentially operate this service.	6, 10, 11, 12	Total cost included as part of Line A	\$1,010	Priority I
3	"SR 836 Express Bus C Line Express"	"Dolphin Station (NW 12th Street at NW 122nd Avenue) to Downtown Miami Government Center"	This route would provide premium express transit service along SR 836 from the proposed park-and-ride/transit center Dolphin Station (NW 12th Street and HEFT) to the proposed Downtown Miami Intermodal Terminal (NW 1st Street and NW 1st Avenue). This route will operate during peak periods only. Service headways will be 10 minutes during the AM/PM peak-hour	6, 10, 11, 12	Total cost included as part of Line A	\$1,240	Priority I
4	"Beach Express North (BERT)"	Golden Glades Multimodal Terminal (GGMTF) / Earlington Heights Metrorail Station/Mt Sinai Transit Terminal/Miami Beach Convention Center	Express bus service from GGMTF to the Earlington Heights Metrorail Station, the future Mt Sinai Transit Terminal, and the Miami Beach Convention Center. Headways will be 10 minutes during AM/PM peak/30 minutes during off-peak. Saturday service headways will be 20 minutes during peak/30 minutes in off-peak; Sunday service headways will be 40 minutes during peak hour/60 minutes in off-peak hours. A service span from 5:00am to 12:00am. Service will include 10 new articulated buses. Project is now partially funded for 3 years.	2, 5	\$10,000	\$3,440	MDT229
5	Route 27	Sun Life Stadium to Coconut Grove Metrorail	Extend route to new Transit Center located at NW 27 Avenue and NW 215 Street (Unity Station)	1, 2, 3, 5, 7	\$0	\$0	N/A
PARTIALLY FUNDED Operations Projects FY 2019 - FY 2028 TOTAL COST (000s)					\$35,600	\$7,170	
UNFUNDED							
6	79 Street Causeway Enhanced Bus (FKA Route 79/79 Street MAX)	Northside Metrorail to Miami Beach Convention Center	Extend route to Miami Beach Convention Center. Improve peak headways from 24 to 10 minutes. Introduce weekend service with 15 minute headways. Route to be converted to Enhanced Bus Service - will include nine (9) new buses.	2,3,4	\$39,000	\$5,290	Priority II MDT150
7	"Route 79 (79 Street Max)"	Northside Metrorail to Collins Ave via NW 79 St	Route to be transformed to the 79 Street Enhanced Bus Service - will remove four (4) buses from service.	2,3,4	\$0	\$563	Priority II
8	295 Express Bus	Unity Station (NW 215th St and NW 27th Ave) to Downtown Miami via the Turnpike and I-95	Express commuter service between the Miami-Dade/Broward County Line (NW 215th St and NW 27th Ave) and Downtown Miami via the Turnpike and I-95 - will include six (6) new articulated buses.	1,2,3,5	\$8,000	\$1,184	Unfunded
9	Palmetto Express Bus (West)	Tamiami Station (SW 8th St/ SW 147th Ave) to Palmetto Intermodal Terminal	Express bus service on express lanes with 10 minute headways during the AM/PM peak-hour - will include six (6) new articulated buses.	6, 10, 11, 12	\$1,960	\$4,280	Unfunded MDT181
10	Palmetto Express Bus (South)	Dadeland North Metrorail Station to Dolphin Station (HEFT/NW 12 St.)	Express bus service on express lanes with 10 minute headways during the AM/PM peak-hour - will include four (4) new articulated buses.	7, 10, 6, 12	\$1,140	\$4,590	Unfunded MDT184
11	Palmetto Express Bus (East)	Palmetto Intermodal Terminal to Golden Glades Multimodal Terminal	Express bus service on express lanes with 10 minute headways during the AM/PM peak-hour - will include six (6) new articulated buses.	1, 12, 13	\$2,060	\$4,400	Unfunded MDT219
12	Palmetto Express Bus (Central)	Dolphin Station (HEFT/NW 12 St.) via Palmetto Intermodal Terminal to Miami Lakes Terminal (SR 826 at NW 154 St.)	Express bus service on express lanes with 10 minute headways during the AM/PM peak-hour - will include seven (7) new articulated buses.	12, 10, 6, 13, 1	\$2,160	\$5,130	Unfunded MDT240
13	"Beach Express Central (BERT)"	Civic Center Metrorail Station/Miami Beach Convention Center	Express bus service from Civic Center Metrorail Station to the Miami Beach Convention Center. Headways - 10 minutes during peak hours/20 minutes during off-peak. Service span will be from 5:30am to 12:00am. Service will include eight (8) new articulated buses.	3, 5	\$8,000	\$2,000	MDT230
14	"Beach Express South (BERT)"	Miami Central Station/Miami Beach Convention Center	Express bus service from Miami Central Station to the Miami Beach Convention Center. All day service with 10 minute headways. Service Span will be from 5:00am to 2:00am. Service will operate with 12 articulated buses.	6,3	\$12,000	\$5,280	MDTX31





Table 8-8 Operations Projects FY 2020 - 2029 (continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 L RTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
15	"NW Miami-Dade Express (BERT)"	I-75/Miami Gardens Dr Station / Palmetto Metrorail Station	Express bus service from the I-75/Miami Gardens Dr Station to the Palmetto Metrorail Station. 10 minute headways during peak hours - will include six (6) new articulated buses.	12	\$6,000	\$940	N/A
16	"SW Miami-Dade Express (BERT)"	Miami Executive Airport/Dadeland North Metrorail Station	Express bus service from the Miami Executive Airport to the Dadeland North Metrorail Station. 10 minute headways during peak hours - will include five (5) new articulated buses.	7, 11	\$5,000	\$870	N/A
17	"Florida's Turnpike Express (North) (BERT)"	FIU Panther Station to I-75/Miami Gardens Station	Express bus service from the FIU Panther Station to Dolphin Station, the I-75/Miami Gardens Dr Station and the American Dream Mall Station. 15 minute headways during peak hours/30 minutes during off-peak hours - will include four (4) new articulated buses.	11, 12, 13	\$4,750	\$820	MDT203
18	"Florida's Turnpike Express (South) (BERT)"	344 St. Transitway Park-and-Ride facility to Dolphin Station	Express bus service from the SW 344th Street Park-and-Ride/Transit Terminal Facility along the HEFT to Panther and Dolphin Stations. 10 minute headways during peak hour/30 minutes during off-peak hours - will operate with 10 new articulated buses.	9, 11, 12	\$10,000	\$1,890	MDT155
19	"South Miami-Dade Express (BERT)"	SW 344 St. Transitway Station/Dadeland North Metrorail Station; SW 288 St./HEFT to Dadeland North Metrorail Station	Express bus service from the SW 344th Street Park-and-Ride on Transitway to the Dadeland North Metrorail Station as well as from SW 288 St/ HEFT to the Dadeland North Metrorail Station. 10 minute headways during peak hours/30 minutes between 9:30am -3:00pm. Service will operate with 9 articulated buses.	7, 9	\$9,000	\$1,790	N/A
20	Palmetto Express (Civic Center)	From Tamiami Station to Civic Center Metrorail Station	Implement Express Bus Service	3, 5, 6, 10, 11, 12	\$2,570	\$5,440	N/A
21	Palmetto-MIC Express	From the MIC to Palmetto Intermodal Terminal	Implement Express Bus Service	6, 12	\$2,380	\$3,970	N/A
22	Palmetto Express Bus (New)	From Palmetto Intermodal Terminal to 104th Street Station/Transitway	Implement Express Bus service on express Lanes		\$6,180	\$4,590	N/A
23	295 Express Improvements	From Unity Station (NW 27th Ave / NW 215th St) to Miami CBD	Implement Express Bus on express Lanes (Turnpike and I-95). Project to include addition of 6 articulated buses.	1, 2, 3, 5	\$8,240	\$5,440	MDT196
24	SW 127th Avenue Express	From Tamiami Executive Airport to Dolphin Station	Implement Enhanced Bus	7, 8, 9, 10, 11, 12	\$1,620	\$1,920	MDT239
25	Route 54	NW Miami Dade	Extend route to serve future Miami Gardens Station and the American Dream Mall Transit Terminal - will include one (1) new bus.	12,13	\$450	\$535	N/A
26	Route 73	NW Miami Dade	Extend route to serve future Miami Gardens Station and the American Dream Mall Transit Terminal - will include two (2) new buses.	12,13	\$900	\$714	N/A
27	Route 95	NW Miami Dade	Extend route to serve future Miami Gardens Station and the American Dream Mall Transit Terminal - will include one (1) new bus.	12,13	\$450	\$214	N/A
28	Route 99	NW Miami Dade	Extend route to serve future Miami Gardens Station and the American Dream Mall Transit Terminal - will include one (1) new bus.	12,13	\$450	\$832	N/A
29	Route 183	NW Miami Dade	Extend route to serve future Miami Gardens Station and the American Dream Mall Transit Terminal - will include three (3) new buses.	12,13	\$1,350	\$858	N/A
30	Route 33	NW 106 St & S River Dr to Miami Shores Village	Extend route to Flagler Station Development of Regional Impact (DRI) - will include one (1) new bus.	2,3,12,13	\$650	\$300	N/A
31	Route 87	Palmetto Metrorail to Dadeland North Metrorail	Extend route to Flagler Station Development of Regional Impact (DRI) - will include one (1) new bus.	6,7,10,12	\$650	\$400	N/A
32	Route 1	South Miami-Dade County	Extend route to Dadeland South Metrorail Station during weekday peak periods - will include three (3) new buses.	8,9	\$0	\$880	N/A
33	Route 12	Northside Metrorail Station to Mercy Hospital	Improve peak headway from 30 to 15 minutes and 40 to 20 minutes on weekends - will include six (6) new buses.	2,3,5,7	\$3,900	\$5,200	N/A
34	Route 10	Miami Gardens Dr to Downtown Miami	Extend route to Aventura Mall - will include the addition of one (1) new bus.	2,3,4	\$650	\$1,400	N/A
35	Gratigny Express Bus (Central)	From Miami Lakes Terminal (NW 154 street / SR-826) to Sharks North Station (NW 119 Street and NW 27 Avenue)	Implement Express Bus on express lanes	2, 13	\$1,160	\$2,510	N/A
36	Gratigny Express Bus (West)	From American Dream Transit Terminal to Sharks North Station (NW 119 Street and NW 27 Avenue)	Implement Express Bus on express lanes	2, 12, 13	\$1,610	\$3,360	N/A
37	North Corridor BRT	27th Avenue from Unity Station (NW 215 St) to the MIC	Implement Gold Standard BRT	1, 2, 3, 6	\$288,000	\$17,630	N/A
38	I-95/27 Ave Express	Unity Station (NW 215 St) to Government Center	Implement Express Bus service on express Lanes during AM/PM peak hours	1, 2, 3, 5	\$2,520	\$5,440	N/A





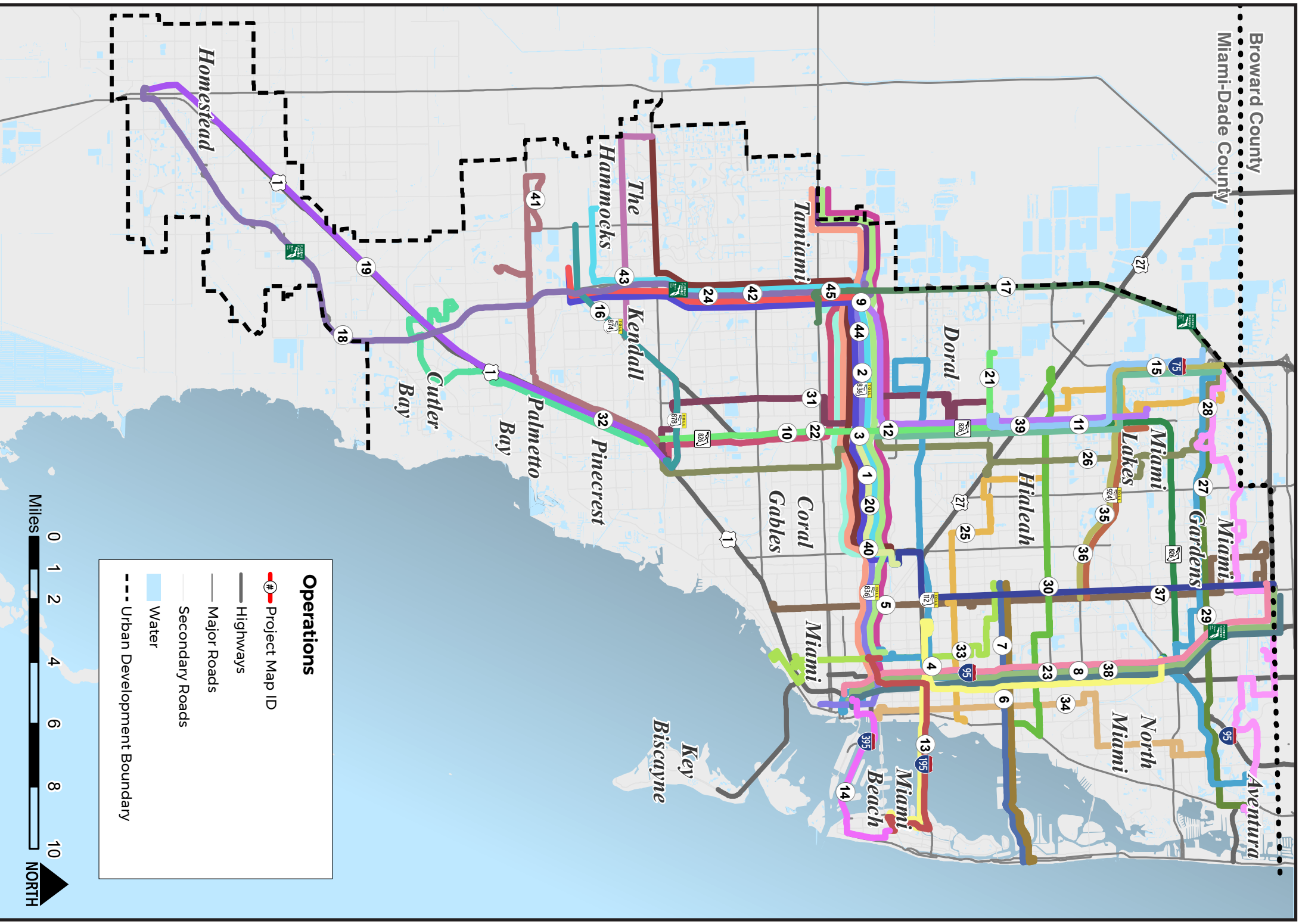
Table 8-8 Operations Projects FY 2020 - 2029 (continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status / CITT 5-Year Plan Project Number
					Capital Cost	O&M (Annual)	
39	American Dream - MIC Express	American Dream Transit Terminal to the MIC	Implement Express Bus Service	6, 12	\$2,630	\$5,750	N/A
40	Dolphin-Brickell Express	From Dolphin Station to Brickell Station	Implement Express Bus service on express Lanes during AM/PM peak hours	5, 6, 12	\$1,340	\$11,170	N/A
41	252 Coral Reef Express	From SW 152 Street / Coral Reef Drive to Dadeland South Metrorail Station	Implement express bus service from Country Walk, SW 152 Street/Coral Reef Drive to Dadeland South Metrorail Station.	7, 10, 11	\$2,840	\$2,130	N/A
42	West Kendall express	From West Kendall Transit Terminal (Kendall Drive and SW 162 Avenue) to the MIC	Implement Express Bus Service	6, 7, 10, 11	\$3,530	\$7,640	N/A
43	Kendall BRT	From West Kendall Transit Terminal (Kendall Drive and SW 162 Avenue) to Dadeland North Metrorail Station	Implement Express Bus Service	7, 10, 11	\$1,650	\$1,510	N/A
44	HEFT Express Central	From Miami Executive Airport to the MIC	Implement Express Bus Service	6, 7, 8, 10, 11	\$3,200	\$6,910	N/A
45	HEFT Express West	From Kendall FPL to the MIC	Implement Express Bus Service		\$3,060	\$6,600	N/A
Transit Operations Projects FY 2020 - FY 2029 TOTAL COST (000s)					\$451,050	\$142,370	

2040 LRTP	
Priority I	2015-2020
Priority II	2021-2025
Priority III	2026-2030
Priority IV	2031-2040



Map 8-7 Operations Projects FY 2020 - 2029



Operations

- Project Map ID
- Highways
- Major Roads
- Secondary Roads
- Water
- Urban Development Boundary



Sources: Miami-Dade County DTPW, 2018



8.8 State of Good Repair Projects

Table 8-9 presents a listing of funded state of good repair projects. Table 8-10 presents a listing of partially funded and unfunded state of good repair projects.

Table 8-9 Funded State of Good Repair Projects FY 2020 - 2029

Project Name	Project Description	Cost - 2018 \$ (in 000s)		Project Number
		Capital Cost	O&M (Annual)	
Infrastructure Renewal Plan (IRP)		\$12,500 per Year		MDT100 677200
IRP - Automated Passenger Counter Modernization		Included as part of new bus procurement	TBD	MDT: IRP262
IRP - Automated Fare Collection System (AFCS) Cloud Migration	Implement enhancement and regional expansions to the Automated Fare Collection System (AFCS) based on the existing Contract 8481-2/22-1. The contract includes an option to purchase additional equipment and service for expansions and modifications.	\$3,000	TBD	MDT: IRP263
IRP - Parking Garage Fire Suppression Syst. (Bus & Bus Facility)	Replace and upgrade the fire suppression system at four parking garages built with the original Metrorail system: Okeechobee, Dadeland North, Dadeland South and Earlington Heights.	\$579	TBD	MDT: IRP012
IRP - Dadeland North Garage Fire Suppression Syst.	Replace and upgrade fire suppression system due to the current break down of the sprinkler heads at the Metrorail Dadeland North parking garage.	\$3,779	TBD	MDT: IRP283
IRP - Bus Passenger Shelter Project	Bus Passenger Shelters (design, fabrication and installation of approx. 2,265 shelters throughout unincorporated Miami-Dade County).	\$4,890	TBD	MDT: CIP174
IRP - Electric Forklift for Materials Management (Approx. 5 ea.)	Replacement of old forklifts to be used for the daily logistical operational functions (shipping, receiving, loading, unloading, delivering parts for Bus, Rail, Mover and Material Management).	\$219	TBD	MDT: IRP271
IRP - Emergency Exit at William Lehman Center	Widening of current exit to facilitate in and out emergency vehicle traffic at Palmetto Yard.	\$640	TBD	MDT: CIP126
IRP - Fueling Terminal Modernization	Upgrade fueling terminal to IP Base.	\$250	TBD	MDT: IRP260
IRP - Hybrid Electric Bus Battery Replacement	Battery Management replacement system in order to keep Hybrid buses in service.	\$4,390	TBD	MDT: CIP192
IRP - Hydraulic Mobil Bus Lifts	Purchase of approximately 55 individual hydraulic mobile column lifts for the bus maintenance.	\$389	TBD	MDT: OSP202
IRP - Mainline Video Upgrade Phase 2	Enhancement of security video cameras throughout Rail, Mover, Bus and Revenue Island (new and replacements).	\$866	TBD	MDT: CIP184
IRP - Metromover Vehicles HVAC Compliance Overhaul & Mover Building A/C Replacement	Mover vehicle air conditioning HVAC system and Mover Building A/C replacement in order to comply with EPA requirement as the use of Freon 22 will be banned by EPA by the year 2020.	\$1,345	TBD	MDT: IRP270
IRP - Metrorail Bathroom Rehabilitation	Repair and renovate public restrooms at the 30-year-old Metrorail stations.	\$1,865	TBD	MDT: IRP215
IRP - Metrorail Electronic Real Time Signage	Install LED multi-color electronic signage in all Metrorail Stations and nine (9) Metromover Stations to provide information of Train Arrivals, Train destinations, and next Train Arrivals. The LED signs will be done in conjunction with a new Public Address System project that will synchronize with the visual messages that will be displayed over the LED signage. Message categories will include station messages, train arrival information and emergency messages. The synchronization will provide improved ADA accommodation.	\$386	TBD	MDT: IRP172
IRP - Metrorail HVAC Overhaul 40 Railcars	Metrorail of the air conditioning (HVAC) system overhaul of 40 rail vehicles in order to maintain system functionality, reliability and customer comfort.	\$3,500	TBD	MDT: IRP296
IRP - Metrorail Floor Replacement For 10 Cars and 20 Motor Control Box Overhaul	Removal and replacement of flooring to 10 railcars that have deteriorated and Motor Control Overhaul service maintenance of 20 motor boxes. Includes propulsion and brake. Pcontrollers, contactors and cleaning.	\$1,500	TBD	MDT: IRP285
IRP - MDT Data Closets UPS Replacement	Replace Data Closets Uninterruptible Power Supply (UPS).	\$323	TBD	MDT: OSP209
IRP - Mover Public Address System	Replace existing Public Address System at all Metromover Stations. The Scope of Work includes the replacement and upgrade of all electronic components in the Paging chain. The distribution wiring will also be upgraded.	\$2,492	TBD	MDT: IRP095
IRP - Perimeter Security Fencing at William Lehman	Construction of a decorative, high security perimeter fence and gates	\$7,717	TBD	MDT: IRP278
IRP - Purchase of 2 HY-Rail Crew cab Trucks	Purchase support vehicles for the Track and Guideway maintenance division.	\$190	TBD	MDT: IRP236
IRP - Rail Wheel Press Machine	Purchase of a new Railcar Wheel Press Machine needed to support the (136) rail cars the department is procuring to replace the existing railcar fleet.	\$1,000	TBD	MDT: IRP267
IRP - Railcar Cleaner Platform Replacement	Upgrade the existing Cleaning Platform located at the William Lehman Center. The existing wooden platform is in need of constant repair.	\$2,000	TBD	MDT: IRP234
IRP - Rail Public Address System Replacement	Replace existing Public Address System at all Metrorail Stations. The Scope of Work includes the replacement and upgrade of all electronic components in the Paging chain. The distribution wiring will also be upgraded.	\$2,592	TBD	MDT: IRP096





Table 8-9 Funded State of Good Repair Projects FY 2020 - 2029 (continued)

Project Name	Project Description	Cost - 2018 \$ (in 000s)		Project Number
		Capital Cost	O&M (Annual)	
IRP - Replace Tactiles & Barriers at Mover Stations	Provide detectable warning safety edge tiles and between-car barrier (BCB) system in compliance with the DOT ADA regulations. Each station features two 80 LF Platform Structures and require tiles and BCB on both sides of the platform. The scope includes labor, materials, tools, appliances, equipment and other means of construction for performing and completing the work.	\$440	TBD	MDT: IRP255
IRP - Traction Power Crane Truck (for Rail)	Purchase crane truck for Traction Power to be used to perform work related to man-hole covers, high voltage cable pull, and cable spool lifts.	\$100	TBD	MDT: IRP214
IRP - Traffic Signal Prioritization Expansion to Congestion Mgmt. Plan / Real-Time Connected Vehicles -	Recapitalization of the MetroBus on-board equipment that provides passengers with free Internet access and connectivity for business traffic such as Fare Collection, CCTV, and CAD/AVL data. This project replaces field equipment that has been in continuous operation in MetroBus vehicles for the last 7 years and expands the deployment of the entire fleet.	\$800	TBD	MDT: IRP265
IRP - Traction Power Three Reel Trailer (for Rail)	Purchase high voltage trailer cable pull and is necessary for the replacement of the 30- year old Traction Power cables.	\$50	TBD	MDT: IRP221
IRP - Metrorail and Metromover UPS Rooms HVAC Installation	Replace two existing Trane water cooler 110 ton, R-113 chiller units, 3 chilled water pumps and all related controls, piping, valves, wiring etc at the William Lehman Center Facility.	\$650	TBD	MDT: CIP171
IRP - Metromover Fire Panel Upgrade	Install new fire panels, sensors and control equipment at the Central Control Facility to monitor fire alarms from all Metromover stations. The new system will allow for Metromover Rail Traffic to monitor the status of all new fire, smoke and heat detectors. The new system will enhance the safety of Metromover patrons.	\$3,307	TBD	MDT: CIP172
IRP - Replacement of Diamond (Center) Frogs at Culmer Crossover	This project includes removal and replacement of the complete diamond and the associated rails, ties and ballast on the track segment at the Culmer Metrorail Station.	\$960	TBD	MDT: IRP233
IRP - Traction Power Rectifier Transformer	Replace 28-year old Rectifier Transformers used in the Metrorail System.	\$12,880	TBD	MDT: IRP140
Metromover Inner Loop Guideway Painting	Metromover's Inner loop extensions shall have loose materials removed from the steel girders, rusting parts will be treated, and girders painted, preventing further deterioration.	\$8,460	\$0	200000185
Metromover Omni Extension Guideway Painting	Metromover's Omni extensions shall have loose materials removed from the steel girders, rusting parts will be treated, and girders painted, preventing further deterioration.	\$6,440	\$0	200000185
Bus Facilities Projects	Provide federal allocation designated for bus and bus facility projects to include the bus garages, plumbing, roofing, fire suppression.	\$27,347	\$0	N/A
Urbanized Area Formula Grant FTA 5307	Preventative maintenance as well as other projects for Metrobus, Metrorail, and Metromover.	\$84,310	\$0	N/A
Capitalization of Preventive Maintenance and Other Costs	Preventative maintenance as well as other projects for Metrobus, Metrorail, and Metromover.	\$561,040	TBD	N/A
Professional Services - Transit's Capital Improvement Plan	Professional services for development of Transit's Capital Improvement Plan	\$22,000	N/A	N/A
Underfloor Rail Wheel Truing Machine	Purchase a new Tandem, Underfloor, Railcar Wheel Truing Machine, to support the new railcar procurement of up to 136 rail vehicles. These vehicles will replace the existing 136 railcar fleet. The railcars will be heavy rail married pairs, weighing approximately 83,000 lbs/vehicle, using 28 inch wheels and equipped with disc brakes.	\$7,000	\$0	674560
Escalators Replacement and Elevators Refurbishment	The escalators and elevators in the 21 metrorail stations in the Department of Transportation and Public Works (DTPW) system require upgrade and/or replacement of this equipment over time, the DTPW has requested the services of a consultant to develop a design criteria package for use in future design-build procurements for the design, procurement and installation of this equipment and to develop cost estimates and schedules based on the budget	\$15,500	TBD	673910
AC Unit Substations (Replace All Major Power Components)	Replace existing equipment in the AC unit substations that have been in service since Metrorail first commissioned.	\$15,000	TBD	200000185
10-15 Year Track Equipment Replacement	Replace rail services heavy track equipment. Track Equipment Operators perform oil changes and minor maintenance; no overhauls can be performed. Rail bound equipment cannot be rented and has a 10-15 year life. Major equipment, Kershaw work train, Tamper, KGT Hi-rail, Welders, and light plants have already passed the useful life by over five years.	\$23,881	\$0	6710900
Metrorail Switch Machine Improvement	Replace switch machines and cables at the William Lehman Yard and Mainline Area	\$12,320	TBD	N/A
Traction Power Gap Ties	Replace existing equipment and major power components at gap ties in three (3) locations throughout the Metrorail system.	\$5,680	\$0	N/A
Metromover Track and Guideway Improvement	Repaint approximately 4.5 miles of existing rusted steel girders of the Metromover in various stations	\$20,010	TBD	N/A
Capitalization of Preventive Maintenance and Other Costs	Capitalize preventive maintenance and other costs for Metrobus, Metrorail, Metromover, and specialized transportation	\$831,437	N/A	N/A
Track and Guideway Rehabilitation	"There are several components of this subset, each described further below. All work is performed by in-house staff. In Progress: Coverboard Replacement, Seal Gland Rehabilitation Completed: Mainline Miter Joint Replacement, Palmetto Yard Road Crossing and Mainline Replacement, Metrorail Piers Coating, Acoustical Barrier Replacement, Rail Fastener Replacement"	\$164,508	\$0	6710900
Rail Vehicle Replacement	Procurement of new rail vehicles. The original project scope was to refurbish/rehab the existing fleet and was later changed via resolution to replace all vehicles.	\$380,904	\$0	673001
Metrorail and Metromover Traction Power Cable and Transformer Replacement	Replace traction power cable and transformer for Metrorail and Metromover	\$12,000	\$0	N/A
Metrorail and Metromover Cable Replacement Equipment	Metrorail and Metromover cable replacement equipment	\$18,251	TBD	N/A
Metrorail and Metromover Train Control Replacement Project	Replace the existing Metrorail and Metromover relay based train control equipment with vital processor controllers or their equivalent. Project includes software and hardware modifications at Central Control to accommodate the new train control systems.	\$70,000	TBD	N/A
Metrobus Mobile Closed-Circuit Television Replacement	Replaces and upgrades the CCTV system on approximately 382 of 591 buses with obsolete equipment. The new CCTV system will have a useful life of seven years.	\$3,824	TBD	N/A





Table 8-9 Funded State of Good Repair Projects FY 2020 - 2029 (continued)

Project Name	Project Description	Cost - 2018 \$ (in 000s)		Project Number
		Capital Cost	O&M (Annual)	
Metrorail Train Wayside Communication Equipment Installation at Rail	TWC Equipment Installation at 21 Metrorail Stations, except MIC and Earlington Heights stations, to interface with the station signs and PA to display the train route information at the platform.	\$8,762	TBD	N/A
Bicycle locker Replacement at All Metrorail Stations and Transit Facilities	Purchase of state-of-the-art Bike Lid units as part of the Bike Locker Replacement Project at Metrorail stations to replace existing 30 year old lockers.	\$555	TBD	N/A
Associated Transportation Improvements	Replace signage at Metrorail Systems; install bicycle-related amenities on buses and at locations such as Metrorail and Metromover stations; provide for other federally qualified passenger amenities or enhancements	\$3,909	\$0	N/A
Ac Unit Substations	Replace all major power components in all AC Unit substations. Project will include SCADA communication equipment and all associated sub sets, as well as implementation to interface with Central Control.	\$17,590	\$0	N/A
FUNDED State of Good Repair Projects FY 2020 - FY 2029 TOTAL COST (000s)		\$2,388,079	\$0	





Table 8-10 Partially and Unfunded State of Good Repair Projects FY 2020 - 2029

	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		
				Capital Cost	Funded Capital Cost	O&M (Annual)
PARTIALLY FUNDED						
IRP - Bus Replacement Plan	Countywide	Capital purchase to replace older existing vehicles and add vehicles (557 buses) to the fleet to improve service reliability.	Countywide	\$331,910	\$180,000	TBD
Parking Garage Overhaul, Metrorail Stations	Metrorail	Overhaul 6 parking garages from the original 1984 Metrorail construction: Okeechobee, Earlington Heights, Santa Clara, South Miami, Dadeland North, and Dadeland South. A general overhaul at the MLK rail station parking garage. Scope of work includes: metal doors, lighting, parking stops, irrigation, drainage, sump pumps, and plumbing.	2,3,5,7,12,13	\$5,590		TBD
Metrorail Traction Power Switchgear Equipment	Metrorail	Remove obsolete Traction Power Switchgear equipment and replace with new updated Siemens Switchgear. This IRP will replace switchgear at Martin Luther King, Brownsville, and Earlington Heights Traction Power Sub-Stations. Contractor will remove existing switchgear, and inventory, replace, test and certify new equipment.	Countywide	\$2,000	\$1,900	N/A
PARTIALLY FUNDED State of Good Repair Projects FY 2019 - FY 2028 TOTAL COST (000s)				\$339,500	\$181,900	\$0
UNFUNDED						
Conduit Rebuild Grounding	Metrorail	Testing and repair of grounding system for the entire Metrorail guideway structure.	2,3,5,7,12,13	\$80	\$0	\$0
Metromover Brickell Extension Guideway Painting	Metromover	Labor, equipment, and materials to repaint existing steel girders supporting the Metromover's Brickell Extension guideway.	2,3,5,7,12,13	\$5,000	\$0	\$2,019
IRP - Bus Maintenance Component Replacement Plan	Countywide	Replacement of major components that have reached the end of their expected useful life cycle to improve vehicle reliability and availability.	Countywide	\$34,440	\$0	\$0
IRP - AC Unit Substations - Palmetto Yard	Metrorail	Replace all major power components in the AC unit substations at Palmetto Yard.	2,3,5,7,12,19	\$8,590	\$0	\$0
IRP - Fastener Replacement Station Areas	Metrorail	Replace rail fasteners at Metrorail stations.	2,3,5,7,12,22	\$4,180	\$0	\$0
IRP - Metromover Wayside Overhaul	Metromover	This project includes the overhaul and repair of all major wayside components.	3,5	\$72,344	\$0	\$0
IRP - Transit System Signage Replacement	Metrorail	New sign structures/graphics throughout transit system. Includes addition of new signage to identify areas and/or inform customers of new services/procedures such as paying for parking at Metrorail garages and surface parking lots. Also, replaces missing Braille signage at passenger station elevators and entrances as required by the American with Disabilities Act.	Countywide	\$200	\$0	\$0
IRP - Electronic Document Management System (EDMS)	Countywide	To provide continuous and infrastructure support to track/store electronic documents and for images of paper documents. Identifies/manages document location, filing, retrieval, security, and disaster recovery, retentions, archiving, workflow and authentication. Provides continuous hardware/software upgrades that increases efficiency and facilitates a controlled environment for document sharing.	Countywide	\$126	\$0	\$0
IRP - Bus Maintenance Yard Sweepers Replacement Project	Countywide	Acquisition of four replacement yard sweepers. Existing equipment is in disrepair, has exceeded its useful life, and/or is no longer cost effective to maintain.	Countywide	\$200	\$0	\$0
IRP - Currency Counters at Government Center Station - Money Room	Countywide	Purchase and install 4 new high-speed jet sorter coin and currency counters with software and 7 validating currency counters for the Money Room.	Countywide	\$230	\$0	\$0
IRP - Lehman Facility - Fire Systems	Countywide	Replace the fire system, including the replacement of the 8" fire pump line at Lehman Facility.	Countywide	\$2,500	\$0	\$0
IRP - Emergency Plumbing Fixtures	Countywide	Replacement of Emergency Plumbing Fixtures (emergency showers, eye washers) at Metrorail Maintenance, TPSS, Metromover Maintenance & Metrobus facilities.	Countywide	\$370	\$0	\$0
IRP - Bus Garages: Northeast Rollup Doors	Countywide	Replace 32 rollup doors at Northeast Garage	Countywide	\$450	\$0	\$0
IRP - Bus Garages: Bus Washers and Cyclones	Countywide	Overhaul all existing Bus Washers at Northeast (2-lanes), Central (3-lanes) & Coral Way (2-lanes). Replacement of existing vacuum system (Cyclone) at all three facilities.	Countywide	\$800	\$0	\$0
IRP - Bus Maintenance DEF Dispensing System	Countywide	Installation of Diesel Exhaust Fluid (DEF) dispensing system at Central, Coral Way and Northeast Garages. Each Fuel Station will require a 500 gallon capacity above ground double walled steel tank, dispensing equipment and interface with the EJ Ward fuel management system.	Countywide	\$300	\$0	\$0
IRP - Metrorail & Metromover Train Wash	Countywide	Repair or replace the Metrorail and Metromover train washing system.	Countywide	\$440	\$0	\$0
IRP - Chiller Unit Replacement	Countywide	The Computer and electronic communications equipment to MDT functions must be maintained in an air-conditioned environment to maintain system reliability. Replacement Chiller Units at Central Bus.	Countywide	\$1,110	\$0	\$0
IRP - Train Control DC Power Source	Countywide	Replace all existing Train Control DC power supplies at all rail stations, Central Control and Palmetto Yard.	Countywide	\$450	\$0	\$0





Table 8-10 Unfunded State of Good Repair Projects FY 2020 - 2029 (continued)

	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		
				Capital Cost	Funded Capital Cost	O&M (Annual)
IRP - Metromover Station Ceiling Signage Cabinet Replacement	Countywide	Replace sign cabinets at Metrorail stations. Most of these ceiling signs are 25 years old and display old information, the acrylic panels are missing, or some cabinets need to be refurbished or replaced due to fatigue. With the opening of the Miami International Airport Metrorail station, a new signage brand will be introduced to identify all transit service options. The Metromover signage system must reflect the new brand to ensure seamless signage across modes.	Countywide	\$1,620	\$0	\$0
IRP - Metrorail Parking Fare Payment Signage	Countywide	Installation of vinyl skins to resurface approximately 600 existing aluminum signs posted at Metrorail Stations with parking facilities. The new skins are printed with the approved County branding and the new instructions on how to pay the daily parking fare. The cost includes the installation at 15 stations.	Countywide	\$120	\$0	\$0
IRP - Metrorail & Metromover Regulatory Signage Replacement	Countywide	Design, produce and install new permanent signs to replace damaged, outdated or missing regulatory signs. This project includes signage/high performance decals installed inside and outside cars.	Countywide	\$300	\$0	\$0
IRP - Metrorail Station Identifier Sign Panel Replacement	Countywide	Design, produce install new permanent Metrorail Station Identifier signs. Replace part of the inventory of the damaged station-identifier porcelain enamel panels on existing monumental sign structures.	Countywide	\$420	\$0	\$0
IRP - Metrorail/Metromover Vehicle Signage Replacement	Countywide	Design, produce and install new Metrorail Metromover vehicle signage to replace damaged and outdated customer information materials. This project includes signage and high performance decals installed inside and outside cars.	Countywide	\$840	\$0	\$0
IRP - Metrorail-M-Path Implementation of TPO Master Plan	Countywide	Implementation of Metrorail Bike Path Upgrades as per the TPO M-Path Master Plan. Includes contract document preparation for bidding, estimated construction cost, permits, inspections, construction administration, County administration and project contingency. Scope of work shall include coordinating with MDPWD, MDT, FDOT, MDBD, and cities of Miami, South Miami and Coral Gables.	Countywide	\$4,500	\$0	\$0
IRP - Destination Sign Refurb	Countywide	Purchase parts and equipment to refurbish/replace old destination sign systems. Purchase 75 replacement sign systems to include Front/Side/Rear signs, Operator Control Unit and all required cables.	Countywide	\$0	\$0	\$0
IRP - Replacement of Currency counters/discriminators	Countywide	Replace "single pocket" currency distributors.	Countywide	\$0	\$0	\$0
IRP - Proximity Control System Upgrade	Countywide	Upgrade to the electronic proximity control system currently utilized by MDT to control access to critical areas throughout the system. This ensures only persons with authorized access, as determined by MDT management, have controlled and trackable access to critical areas of the system.	Countywide	\$0	\$0	\$0
IRP - Metrorail/Metromover Door Replacement	Countywide	Replacement of custom ancillary doors, emergency exit doors, traction power substation doors, elevator machine room doors at Metrorail/Metromover Stations due to corrosion and damage.	Countywide	\$0	\$0	\$0
IRP - ATS Replacements	Countywide	The Automatic Transfer Switch (ATS) needs to be replaced to operate automatically. It is essential to ensure the power is transferred to the emergency feed in the event of loss of power of the main FPL System. This will prevent any potential shutdown of the system.	Countywide	\$0	\$0	\$0
IRP - Escalator Modernization	Countywide	Perform a modernization of two system escalators. Remove existing escalator to truss. Install new Transit rated equipment into existing trusses. Bring units to current escalator safety code.	Countywide	\$0	\$0	\$0
IRP - Replacement of equipment required for Trapeze and CAD systems	Countywide	Allows bus supervisors/operations staff to remote access schedules, GIS data, bus locations and other information. Replacement of electronic equipment required to utilize Trapeze/CAD systems.	Countywide	\$0	\$0	\$0
IRP - Bus Passenger Seat Replacement	Countywide	Replace soiled cloth seats. Replacement of Passenger Seats for an additional 320 buses.	Countywide	\$0	\$0	\$0
IRP - Bus Solar Panels	Countywide	Procurement and installation of Bus Solar Panels - reduces battery usage and bus failures due to "no starts". Improves fleet reliability.	Countywide	\$0	\$0	\$0
IRP - Metrorail Steel Box Girder Guideway Painting	Countywide	Provide the necessary labor, equipment, and materials to repaint all the existing steel box girders supporting the Metrorail Mainline guideway. The Metrorail Mainline has 154 steel box girders out of a total of 2,796 steel box girders, which equals 5.5%.	Countywide	\$17,400	\$0	\$0
IRP - Bus Passenger Seat Replacement	Countywide	Replace soiled cloth seats. Replacement of Passenger Seats for an additional 320 buses.	Countywide	\$0	\$0	\$0
IRP - Bus Solar Panels	Countywide	Procurement and installation of Bus Solar Panels - reduces battery usage and bus failures due to "no starts". Improves fleet reliability.	Countywide	\$0	\$0	\$0
IRP - Metrorail Steel Box Girder Guideway Painting	Countywide	Provide the necessary labor, equipment, and materials to repaint all the existing steel box girders supporting the Metrorail Mainline guideway. The Metrorail Mainline has 154 steel box girders out of a total of 2,796 steel box girders, which equals 5.5%.	Countywide	\$17,400	\$0	\$0
UNFUNDED State of Good Repair Projects FY 2020 - FY 2029 TOTAL COST (000s)				\$314,610	\$0	\$2,019





8.9 2029 and Beyond Projects

Table 8-11 presents a listing of DTPW priority projects beyond 2029 that require consideration by the Miami-Dade TPO for purposes of amending the 2045 LRTP to promote these projects to a Priority 1 or Priority 2 time frame. These projects are illustrated on Map 8-8.

Table 8-11 2029 and Beyond Projects Transit Vision Plan

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status & Project Numbers
					Capital Cost	O&M (Annual)	
1	Direct Ramps to Palmetto Intermodal Terminal from Palmetto Express Lanes	SR 826 (Palmetto Expressway) at NW 74th St	Direct access ramps for transit from SR 826 express lanes to Palmetto Intermodal Terminal.	12	\$46,350	N/A	Priority III MDT191
2	Direct Ramps between the South Dade Transitway and SR 826 (Palmetto) Express Lanes	South Miami-Dade Transitway and SR 826	Construct ramps connecting the South Miami-Dade Transitway and SR 826 (Palmetto) Express Lanes	7	\$61,800	N/A	Priority III MDT252
3	Direct Ramps to Dolphin Station Transit Terminal Facility	SR 836 and Dolphin Station Transit Terminal Facility	Construct direct access ramps to connect SR 836 to Dolphin Station Transit Terminal	12	\$45,000	N/A	Priority III MDT192 MDT243
4	NW 7th Ave Enhanced Bus	NW 7th Avenue from Downtown Miami to Golden Glades Multimodal Transportation Facility (GGMTF)	Premium limited-stop transit service along NW 7th Ave between Downtown Miami and the Golden Glades Interchange park-and-ride facility. Will replace route 77 and MAX route 277. Service headways: 10 minutes during the AM/PM peak/20 minutes during mid-day. This route will provide a premium transit connection to the NW 7th Ave Transit Village located at NW 7th Ave and NW 62nd St.	2,3,5	\$29,360	\$3,450	Priority III MDT171
5	"Government Center Station Upgrade (Downtown Miami Development of Regional Impact - Increment III)"	101 NW 1st St	Upgrades in the form of new elevators, escalators, new pedestrian bridge connecting to adjacent Brightline Station (Intercity Passenger Rail)/Tri-Rail Downtown Miami Link (Commuter Rail), to existing flooring and roofing, fare collection, security equipment updates, new rolling gates and automatic sliding doors.	5	\$13,000	TBD	N/A
6	Douglas Road Premium Transit	MIC to Douglas Metrorail	Bus Rapid Transit along NW/SW 37th Ave connecting the MIC and the Douglas Metrorail Station, linking employment centers at MIA and Coral Gables. Incremental improvement on PTP Corridor	5,6,7	\$427,000	TBD	Partially Funded
7	US-1 (Transitway)	South Dade Transitway from SW 344th Street Park-and-Ride to Dadeland South Metrorail Station	Bus only grade separations at all intersections including and south of 98 St with at-grade stations	7, 8, 9	\$315,000	\$260	
8	"Historic Overtown/Lyric Theatre (Downtown Miami Development of Regional Impact - Increment III)"	100 NW 6th St	Upgrades to the existing Historic Overtown/Lyric Theatre Metrorail Station to include new elevators, escalators, upgrades to existing flooring, fare collection, fare gates and Ticket Vending Machine (TVM) updates, security equipment updates. Project will reconfigure alleyway between Overtown Transit Village and Metrorail Station to include stamped concrete and shared use Promenade with canopy from NW 6th St to NW 8th St.	3	\$5,356	TBD	N/A
9	"Bus-Only Lanes in Downtown Miami (Downtown Miami Development of Regional Impact - Increment III)"	"Various Locations in Downtown (total length approximately 4.55 miles)"	"SW/SE 1st St (from I-95 to SE 1st Ave) NE/NW 1st St (from NE 2nd Ave to I-95) NE/NW 6th St (from Biscayne Blvd. to I-95) NW 5th St (from I-95 to NW 1st Ave) NE 2nd Ave (from NE 20th St to NE 1st St) SE/NE 1st Ave (south of NE 6th St) (from SE 1st St to NE 17th St) NE 1st Ave (north of NE 6th St) (from NE 6th St to NE 17th St)"	3,5	\$910	TBD	N/A
10	Collins Avenue Enhanced Bus	Miami Beach Convention Center / Washington Ave / 17th St to Aventura Mall Terminal	Implement limited stop enhanced bus service	4,5	\$42,950	\$1,320	Unfunded MDT214
11	Direct Ramps between SR 878 (Snapper Creek Expressway) and Dadeland North Metrorail Station	SR 878 (Snapper Creek Expressway) and Dadeland North Metrorail Station	Construct ramps connecting SR 878 (Snapper Creek Expressway) to Dadeland North Metrorail Station	7	\$45,000	N/A	N/A
12	SW 137th Ave Enhanced Bus Service	Tamiami Station to Caribbean Blvd / US-1	Premium limited-stop transit service along SW 137th Ave to link West Kendall neighborhoods to include park-and-ride facilities / addition of nine (9) articulated buses.	8,9,10,11,12	\$50,370	\$2,760	Unfunded MDT158
13	Midtown LRT West	Allapattah Metrorail to Biscayne Blvd and NW 36th St	Midtown LRT West	3	\$154,700	TBD	Unfunded
14	Midtown LRT East	Biscayne Blvd and NW 36th St to Miami Beach Convention Ctr. NW 17th St	Midtown LRT East	3,4,5	\$391,300	TBD	Unfunded
15	MDC Sharks Central Station	"Miami Dade College Kendall Campus - 11011 SW 104th St"	Construct Transit Terminal with four (4) bus bays	2	\$1,800	\$10	N/A





Table 8-11 2029 and Beyond Projects Transit Vision Plan (continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status & Project Numbers
					Capital Cost	O&M (Annual)	
16	Mt. Sinai Multimodal Terminal	Southwest corner of Alton Rd and I-195	Construction of 300 surface parking spaces with six (6) bus bays	4	\$2,700	\$10	N/A
17	Sharks North Station at MDC	11380 NW 27th Ave (MDC North Campus)	Construct Transit Terminal with six (6) bus bays	2	\$2,700	\$10	N/A
18	Dolphin Mall-Dolphin Station Connector Road	"Dolphin Mall - Dolphin Station (HEFT/SR 836/NW 12th St)"	New cut and cover roadway to connect the Dolphin Mall to Dolphin Station	12	\$10,000	N/A	Unfunded MDT244
19	Coral Reef Zonal Express	Dadeland North Metrorail Station to Zoo Miami Station	South Corridor Zonal Express	7,8,9,11	\$12,000	\$4,000	Unfunded MDT170
20	Dolphin Tri-Rail Extension	MIC to Dolphin Mall Area	Implement new passenger rail service on SFRC/CSX tracks along SR 836/East-West Corridor	6,10,12	\$140,000	\$7,600	Unfunded
21	East -West Corridor BRT with dedicated lanes along SW 8th St	SW 8th St (Tamiami)/SW 147th Ave to MIC	Implement bus rapid transit with dedicated lanes along SW 8th St from SW 147th Ave to the Miami Intermodal Center (MIC) via SR 826 (Palmetto Expressway) and SR 836 (Dolphin Expressway)	11,12,10,6	\$182,000	\$13,534	Unfunded
22	I-75/Gratigny Express Bus	I-75 at Miami Gardens Drive Park-and-Ride (Miami Gardens Stations) to Sharks North Station	Implement express bus service on express lanes - includes addition of nine (9) articulated buses	12,13,2	\$10,170	\$2,639	Unfunded
23	Park-and-Ride Facility at NW 27 Ave / NW 119 St / Gratigny Parkway	Gratigny Pkwy / NW 119 St / NW 27 Ave	Construct Park-and-Ride facility with 100 surface parking spaces	2	\$1,100	\$0	Unfunded
24	NW 7th St Enhanced Bus	Dolphin Station to Government Center	Premium limited-stop transit service along NW 7th St from the proposed park-and-ride/transit center station at Dolphin Station (HEFT at NW 12th St) to Government Center. Service headways: 10 minutes AM/PM peak-hour/20 minutes mid-day.	5,6,12	\$46,660	\$5,280	Unfunded MDT234
25	SW 8th St Enhanced Bus	FIU Panther Station to Brickell Metrorail Station	Premium limited-stop transit service along SW 8th St from FIU Panther Station to the Brickell Metrorail Station. Service headways: 10 minutes AM/PM peak/20 minutes mid-day.	5,6,11	\$35,540	\$3,080	Unfunded MDT220
26	Shark South Station at MDC (Homestead Campus)	Transitway and SW 320th St	Construct park-and-ride facility with 90 surface parking spaces	8	\$1,073	TBD	Unfunded
27	Transitway Park-and-Ride at SW 136th St (136 Street Station)	Transitway and SW 136th St	Lease 100 parking spaces	8	N/A	\$40	Unfunded MDT112
28	Transitway Lot (Killian Pkwy)	Transitway and SW 112th St	Construct park-and-ride facility with 200 parking spaces	7	\$2,860	TBD	Unfunded
29	Little River park-and-ride	NE 79th St and Biscayne Blvd	Lease 100 parking spaces	3	\$0	\$50	Priority I MDT127
30	Okeechobee Terminal	HEFT and US 27/Okeechobee Rd	Construct park-and-ride facility with a minimum of 100 parking spaces	12	\$2,060	TBD	Unfunded MDT202
31	Expand overcapacity park-and-ride facility at SW 168th Street - SMART Terminal	Transitway and SW 168th St	Proposed upgrade to the existing park-and-ride facility in two phases. Phase 1: Add approximately 90 additional surface parking spaces for a total of 239 spaces, improving pedestrian access, adding bicycle parking facilities, and other passenger amenities. Phase 2: A modernized 450-space parking garage with enhanced amenities.	9	\$11,250	\$40	Unfunded
32	Civic Center Transit Terminal	Civic Center Metrorail Station (NW 15th St and NW 12th Ave)	Construct transit terminal to increase bus terminal capacity and improve bus circulation	3	\$5,400	\$30	Unfunded MDT224
33	Transitway extension to Dadeland North	Transitway between Dadeland South and Dadeland North Metrorail Stations	Extend Transitway from Dadeland South to Dadeland North Metrorail Station	7	\$1,220	N/A	Unfunded MDT190
34	Park-and-Ride at SW 152nd St/ SR 821 (HEFT)	Coral Reef Dr and HEFT	Facility is over Capacity. Construct new parking garage w/ 500 parking spaces and four (4) bus bays	9	\$12,780	\$40	Unfunded
35	North Corridor (NW 27th Ave) Metrorail Extension	MLK Jr. Metrorail Station to NW 215th St	Convert full BRT to Heavy Rail	1,2,3,6	\$1,747,200	TBD	Unfunded
36	South Corridor Metrorail Extension	SW 104th St to Dadeland South	Extend Metrorail to SW 104th St	7,8	\$140,000	TBD	Unfunded
37	SMART - Kendall Corridor (North)	From SW 88th Street to SW 8th Street along SR-821 (HEFT)	New Metrorail service linking Kendall BRT to the East-West Corridor along HEFT	11,12	\$742,000	\$21,200	Unfunded
38	Douglas Road LRT	Douglas Road Metrorail / US-1 to MIC at MIA	Convert BRT1 to LRT	5,6,7	\$439,810	TBD	Unfunded MDT168U
39	SR874 Ramp Connector Park-and-Ride	SR 874 and SW 128th St	Construct Park-and-Ride	9	\$2,860	TBD	Unfunded





Table 8-11 2029 and Beyond Projects Transit Vision Plan (continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status & Project Numbers
					Capital Cost	O&M (Annual)	
40	Transitway BRT with grade separated intersections	Florida City / SW 344th St to Dadeland North	Bus-only grade separations at all intersections including and south of SW 98th St	7,8,9	\$307,800	TBD	Unfunded
41	East-West Metrorail	SW 147th Ave / SW 8th St to MIC at MIA	Convert BRT to Heavy Rail	6,12,10	\$2,311,400	TBD	Unfunded
42	SMART - Kendall Corridor (South)	From US-1 / SW 200th Street to SW 88th Street along SR-821 (HEFT)	Metrorail Turnpike Extension Phase 2	7,8,9,10	\$1,050,000	\$30,000	Unfunded
43	Miami Beach LRT Collins Extension	Miami Beach Convention Center to 71st St	Extend light rail north to 71st St	4,5	\$400,400	TBD	Unfunded
44	72nd Ave / 67th Ave Enhanced Bus	Dadeland North Metrorail Station to Miami Lakes Terminal NW 154th St & SR-826	Convert local route 73 to enhanced bus service	6,7,12,13	\$53,770	\$8,050	Unfunded MDT206
45	57th Ave Enhanced Bus South	South Miami Metrorail Station to MIC at MIA	Implement limited stop enhanced bus service	6,7	\$32,760	TBD	Unfunded
46	57th Ave Enhanced Bus North	Okeechobee Metrorail Station to Miami Lakes Terminal at NW 154th St and SR-826	Implement limited stop enhanced bus service	6,13	\$30,030	TBD	Unfunded
47	NW 37th Ave Enhanced Bus (North)	MIC at MIA to Unity Station (NW 215th St / NW 27th Ave)	Implement limited stop enhanced bus service	1,2,6,13	\$44,810	\$4,540	Unfunded MDT210
48	Bird Road (SW 40 St) Enhanced Bus	SW 147th Ave & SW 8th St (Tamiami Station) to Douglas Road Metrorail Station	Convert Route 40 to Enhanced Bus	6,7,11	\$47,590	\$2,980	Unfunded MDT221
49	Miller Drive (SW 56 St) Enhanced Bus	SW 147th Ave & SW 8th St (Tamiami Station) to University Metrorail Station	Implement limited stop enhanced bus service	7,10	\$49,130	\$3,060	Unfunded MDT222
50	Sunset Drive (SW 72 St) Enhanced Bus	SW 162nd Ave & SW 88th St (West Kendall Transit Terminal) to South Miami Metrorail	Implement limited stop enhanced bus service	7,10	\$35,840	\$3,080	Unfunded MDT223
51	NE 163rd St (Sunny Isles Blvd)	Collins Ave to Golden Glades Interchange	Improve/Implement transit service	1,2,4	\$24,570	TBD	Unfunded
52	107th Ave Enhanced Bus	(Miami-Dade College - Sharks South Station) SW 104th St/ SR-874 to Palmetto Intermodal Terminal	Implement limited stop enhanced bus service	7,10,12	\$58,890	TBD	Unfunded
53	22nd Ave Enhanced Bus	Coconut Grove Metrorail to Golden Glades Interchange	Implement limited stop enhanced bus service	1,2,3,5,7	\$42,330	\$6,160	Unfunded MDT211
54	127th Ave Enhanced Bus	(Tamiami Executive Airport) SW 137th Ave at SW 128th St to (Dolphin Station) HEFT / NW 12th St	Implement limited stop enhanced bus service	7,8,9,11,12	\$40,950	TBD	Unfunded
55	NW 183 St Enhanced Bus	Miami Gardens Station to Aventura Terminal	Implement limited stop enhanced bus service	1,2,4,12,13	\$44,810	\$4,540	Unfunded MDT225
56	Okeechobee Enhanced Bus	SR-821 (HEFT) to MIC at MIA	Implement limited stop enhanced bus service	2,5,6,12,13	\$34,610	\$3,080	Unfunded MDT201
57	NW 199th/203rd St Enhanced Bus	NW 27th Ave / NW 215th St to Aventura Terminal	Convert local route 99 to Enhanced Bus	1,4	\$23,480	\$29,640	Unfunded MDT217
58	2nd Ave Enhanced Bus	Miami Beach Convention Center to Aventura Terminal	Implement limited stop enhanced bus service	2,3,4,5	\$54,690	\$8,050	Unfunded MDT213
59	17th Ave Enhanced Bus	Vizcaya Metrorail Station to Golden Glades Terminal	Implement limited stop enhanced bus service	1,2,3,5,7	\$44,500	\$4,540	Unfunded MDT212
60	Coral Way Enhanced Bus	SW 147th Ave / SW 26th St to Brickell Metrorail Station	Implement limited stop enhanced bus service	5,6,7,10	\$47,900	\$2,980	Unfunded MDT173
61	Le Jeune Road Enhanced Bus	Douglas Road Metrorail Station to MIC at MIA via 25th St	Implement limited stop enhanced bus service	6,7	\$19,500	TBD	Unfunded
62	NW 62nd St Enhanced Bus	Okeechobee Metrorail Station to Biscayne Blvd	Implement limited stop enhanced bus service	2,3,6,13	\$23,790	\$3,510	Unfunded MDT200





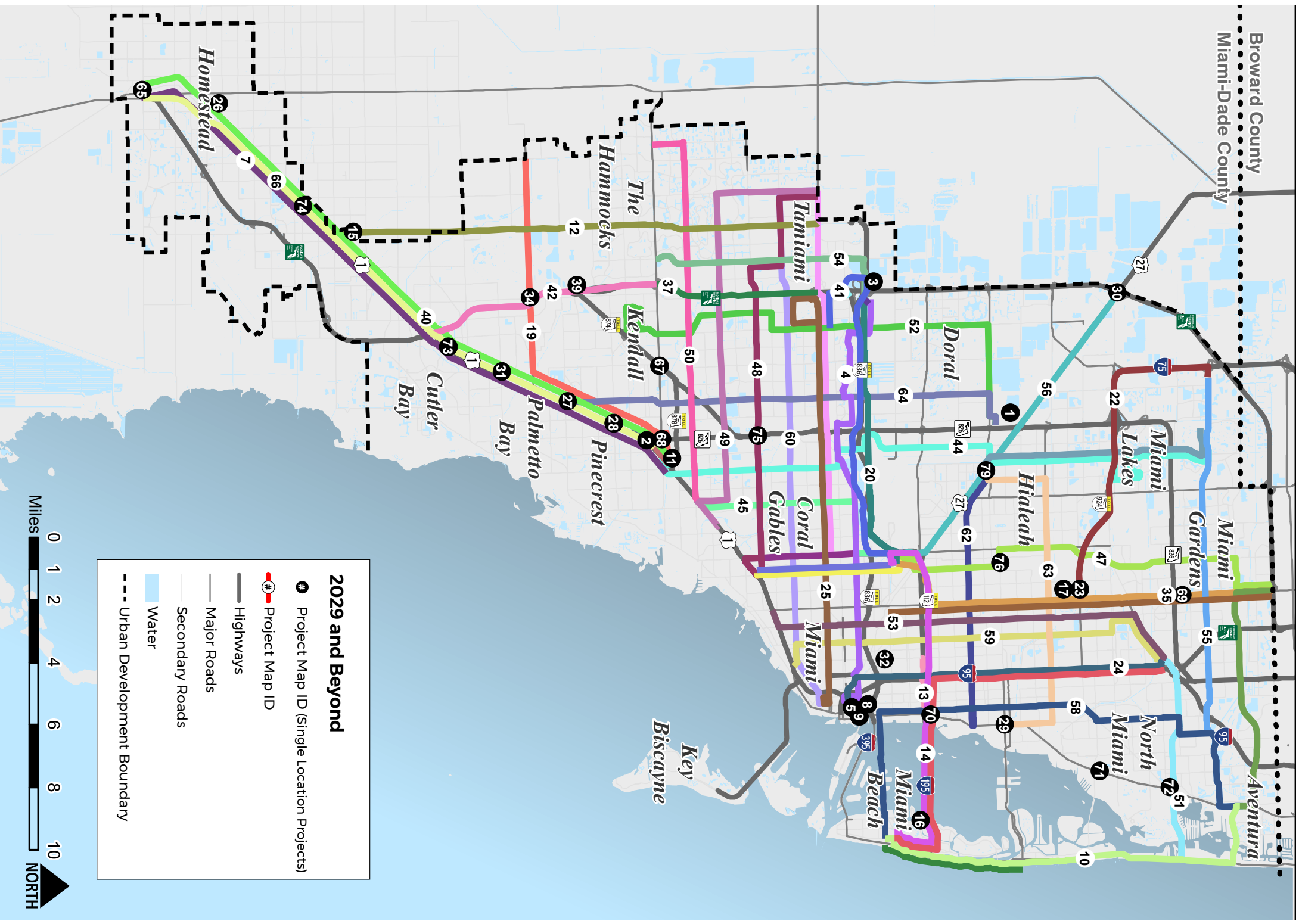
Table 8-11 2029 and Beyond Projects Transit Vision Plan (Continued)

Map ID #	Project Name	Location	Project Description	Commission District	Cost - 2018 \$ (in 000s)		2040 LRTP Status & Project Numbers	
					Capital Cost	O&M (Annual)		
63	NW 103rd St Enhanced Bus	"Okeechobee Terminal to US-1/ NE 79th St (Little River Park-and-Ride)"	Implement limited stop enhanced bus service	2,3,6,13	\$45,420	\$4,540	Unfunded MDT233	
64	87th Ave Enhanced Bus	Palmetto Intermodal Terminal to Transitway at SW 136th St	Convert local route 87 to Enhanced Bus	6,7,10,12	\$44,500	\$4,540	Unfunded MDT205	
65	SW 344 Street South (Tomato Plant)	SW 344th Street and Krome Avenue	Acquire 17 acres of land located south of SW 344th Street and west of Krome Avenue, adjacent to the existing SW 344 Street Park-and-Ride at the southern end of the Transitway for a TOD project.	9	TBD	TBD	N/A	
66	South Miami-Dade Corridor	South Dade Transitway from SW 344th Street Park-and-Ride to Dadeland South Metrorail Station	Extend Metrorail	7, 8, 9	\$1,332,000	\$80,000	Priority I MDT161U	
67	Kendall/SR-874 Station	Kendall Drive and SR-874	Construct Park-and-Ride facility with 100 surface parking spaces	7	\$1,400	\$0	Unfunded	
68	Kendall/SR-826 Station	Kendall Drive and SR-826	Construct Park-and-Ride facility with 100 surface parking spaces	7	\$1,400	\$0	Unfunded	
69	NW 27th Ave/SR-826 Station	NW 27th Ave and SR-826	Construct Park-and-Ride facility with 100 surface parking spaces	1	\$1,100	\$0	Unfunded	
70	Midtown Station	Biscayne Blvd and NE 39th Street	Construct Park-and-Ride facility with 100 surface parking spaces	3	\$1,100	\$0	Unfunded	
71	North Miami Station	Biscayne Blvd and NE 125th Street	Construct Park-and-Ride facility with 100 surface parking spaces	2,4	\$1,100	\$0	Unfunded	
72	North Miami Beach Station	Biscayne Blvd and NE 163rd Street	Construct Park-and-Ride facility with 100 surface parking spaces	4	\$1,100	\$0	Unfunded	
73	Transitway Park-and-Ride at Marlin Road	South Dade Transitway at Marlin Road	Construct Park-and-Ride facility with 100 surface parking spaces	8, 9	\$1,100	\$30	Unfunded	
74	Transitway Park-and-Ride at SW 264th Street (264 Street Station)	South Dade Transitway at SW 264th Street	Construct Park-and-Ride facility with 100 surface parking spaces	8, 9	\$1,100	\$30	Unfunded	
75	Tropical Station	SW 40th Street at SR-826 (Palmetto Expressway)	Upgrade Park-and-Ride facility with 100 surface parking spaces and 4 bus bays	6, 7, 10	\$1,400	N/A	Unfunded	
76	Metrorail / Tri-Rail Bus Hub Improvements	Tri-Rail/Metrorail Transfer Station	Increase bus terminal capacity and add mixed use TOD with ground floor retail	6	\$28,840	N/A	Unfunded	
77	NW 7th Street Extension	NW 7th Street from NW 118 Ave to NW 114 Ave	New cut and cover roadway that would connect NW 7 Street under or across the HEFT to serve new Dolphin Station and 7 St EBS	12	\$10,300	N/A	Unfunded	
n/a	Systemwide Off-Street Bus Stop Enhancements	Systemwide	Enhance all off-street bus stops (i.e., malls, parks, libraries, hospitals, etc..) to include new shelters and passenger amenities.	Systemwide	\$2,580	N/A	Unfunded	
79	Okeechobee Metrorail Station Pedestrian Bridge		Construct pedestrian bridge over the canal parallel to Okeechobee Road to connect Miami Springs area.	6, 12, 13	\$7,210	N/A	Unfunded	
80	27 Avenue Express	27th Avenue from Unity Station (NW 215 St) to the MIC	Implement Express Bus service on express Lanes during AM/PM peak hours	1, 2, 3, 6	\$2,160	\$3,240	Unfunded	
n/a	Bicycle and Pedestrian Improvements at all Transitway Stations	Transitway Stations	Improve Pedestrian and Bicycle connections to the Transitway stations	Systemwide	N/A	N/A	Unfunded	
n/a	South Dade area bus garage Improvements	South Dade	New bus garage in the south Dade area	8,9	\$50,000	N/A	Unfunded	
2029 and Beyond Transit Vision Plan TOTAL COST (000s)						\$11,538,639	\$271,943	

2040 LRTP	
Priority I	2015-2020
Priority II	2021-2025
Priority III	2026-2030
Priority IV	2031-2040



Map 8-8 2029 and Beyond Transit Vision Plan Map



2029 and Beyond

- Project Map ID (Single Location Projects)
- Project Map ID
- Highways
- Major Roads
- Secondary Roads
- Water
- - - Urban Development Boundary



Sources: Miami-Dade County DTPW, 2018





9 TRANSIT FINANCIAL PLAN

The previous chapters identify critical transit needs in Miami-Dade County without consideration of project cost. In this chapter, however, the DTPW must reconcile its transit improvement needs with available financial resources. In the financial plan, the estimated costs of providing the agency's existing and planned new services are projected over a ten-year horizon. The financial resources that will support those services are also identified and estimated. Through the development of this financial plan DTPW determines which service improvements are financially feasible and establishes a timeline by when said improvements can be implemented.

9.1 Operating Expenses and Revenues

DTPW is the largest transit operator in the State of Florida and the 17th largest transit provider in the U.S. per the 2018 Public Transportation Fact Book (based on unlinked passenger trips and passenger miles). DTPW's size is reflected in the agency's direct operating budget, which is projected at approximately \$397 million in FY 2019. The primary components of the direct operating expenses are shown in Table 9-1.

Wages and benefits make up 60% of DTPW's total operating expenses. This includes salaries and overtime, benefits, health and dental, retirement, and worker's compensation. Contractual services comprise another 10% of the operating budget. Metrobus is a fixed-route bus service that DTPW operates seven (7) days a week, 24 hours per day. A total of 86 routes comprise DTPW's regular bus service structure as served by a total fleet of 761 buses and 23 contracted routes with 64 buses.

In addition to these direct expenses, DTPW will support approximately \$90 million of other operating expenses and debt service payments in FY 2019. These other expenses are detailed in the subsequent tables of this chapter.

In total, DTPW will spend \$397 million in FY 2019 for the ongoing operation of the transit system and the support of DTPW's other local and regional responsibilities.





Table 9-1: DTPW Projected Transit FY 2019 Direct Operating Expenses

		Projected Amount FY 19 (000s)
Transit Operating Expenses	Salary	\$195,034
	Overtime	\$25,601
	Group Health	\$42,325
	Benefits	\$18,134
	Court Costs	\$27
	Contractual Services	\$49,786
	Other Operating Expenses	\$90,886
	Charges for County Services	\$23,231
	Capital	\$266
	Workers Compensation	\$11,185
	STS Services	\$44,200
	Retirement	\$18,594
	Retroactive TWU COLA	\$1,551
	CBA Agreements	\$1,176
	Subtotal	\$521,996
Transit Reimbursements		Projected Amount FY 19 (000s)
	Federal Reimbursements	-\$76,655
	State Grant Reimbursements	-\$21,407
	Capital Fund Reimbursements	-\$6,798
	CILOGIT Reimbursements	-\$19,667
	STS/JARC Reimbursements	-\$5,964
	Subtotal	-\$130,491
Transit Operating Adjustments		Projected Amount FY 19 (000s)
	Payment to SFRTA	\$4,235
	Transfer for Non-PTP Debt Service Expenses	\$826
	Transfer to SMART Plan from Dedicated Joint Develop Revenue	\$685
	Subtotal	\$5,746
Total Transit Operating Expenses		\$397,251

Source: Combined PTP and Transit Pro Forma FY 2018 - 2019 (5/17/2019)





DTPW’s transit operations are supported by a range of federal, state, local, and directly-generated revenue streams. Table 9-2 shows the projected operating revenues for FY 2019 by major category that total over \$398 million.

Revenue categories listed in Table 9-2 are described below.

- **Fare Revenues:** DTPW currently recovers approximately 20% of its operating expenses from transit fare revenue.
- **Other Operating Revenues:** These operating revenues include advertising.
- **Transportation Disadvantaged program:** Transportation Disadvantaged (TD) programs provide funding to assist TD populations, which include individuals with physical or mental disabilities, have low incomes, or are older individuals who are unable to transport themselves or purchase transportation.
- **People’s Transportation Plan Surtax:** The People’s Transportation Plan (PTP) provides for sales tax revenue to support public transit and roadway infrastructure improvements.
- **County General Funds:** Miami-Dade County supplies DTPW with funding each year from its general fund.
- **Additional Local Revenue:** DTPW may receive funds from other local sources in each year.

Table 9-2: DTPW Projected FY 2019 Transit Operating Revenues

Transit Proprietary Revenue		Projected Amount FY 19 (000s)
	Beginning Fund Balance (Carryover in Operating Fund)	\$0
	Bus, Rail, STS, & Farebox	\$80,096
	Other Revenues	\$16,669
	Operating Total	\$96,765
State Grant Revenue		Projected Amount FY 19 (000s)
	Transportation Disadvantage Program	\$6,000
	State Total	\$6,000
Local Revenue		Projected Amount FY 19 (000s)
	Miami Dade General Fund MOE (3.5 Percent)	\$196,924
	Planned Additional General Fund Support	\$3,714
	PTP Surtax	\$95,126
	Local Total	\$295,764
Total Revenue		\$398,529

Source: Combined PTP and Transit Pro Forma FY 2018 – 2019 (5/17/2019)



9.1.1 Projected Operating Revenues

Future revenue growth is projected to fluctuate with a low level of tax revenue growth resulting from the existing state of the economy. However, in years without any major policy changes, total available funding for DTPW is expected to grow at a rate of 0.5% to 1% annually. In addition, DTPW does foresee a separate major policy action related to funding during FY 2020 – FY 2029 to include:

- Regular programmed fare increases: The Pro Forma projects a 25-cent increase in the base fare (from its current level of \$2.25 to \$2.50) in FY 2020, with additional 25 cent increase in fiscal years 2026. These increases have the effect of increasing the overall revenue growth rate in those years. These programmed fare increases which occur every six (6) years are determined by policies approved by the Miami-Dade County Board of County Commissioners that authorize DTPW to implement regular fare increases to keep pace with inflation.

The critical funding growth assumptions that drive the Pro Forma financial projections are outlined below in Table 9-3.

Table 9-3: DTPW Operating Transit Revenue Growth Assumptions

Operating Revenue Growth Assumptions	Revenue Item	Annual Growth Rate
	PTP Surtax*	0.0%
	General Funds (MOE)	3.5%
	Fare Revenue (Trip Growth)	0.5%
	State Block Grants	1.0%
	Transportation Disadvantaged Funds	0.0%
	Local Option Gas Tax	1.5%

Source: Combined PTP and Transit Pro Forma FY 2018 – 2019

*PTP surtax is reported as zero growth because DTPW is reducing its reliance on PTP funds for Operations expenses and shifting those revenues to the capital budget for the purposes of expanding transit service.

9.1.2 Summary of Operating Budget

The operating budget, as presented in the 2018 Pro Forma for the ten-year period from FY 2020 to FY 2029, is balanced. The projected operating expenses are covered by the forecasted revenues from various sources. DTPW balances its operating budget by adhering to a combination of strategies aimed at producing cost efficiencies; an avoidance of any major service expansion and aggressive use of available local funding sources (LOGT and general funds).

This operating budget is based upon the budgetary assumptions that were applied within the FY 2018 Pro Forma. It should be noted that these budgetary assumptions are subject to change due to the volatility in gas prices and pressure from the public to reduce the tax roll which could have impacts to the general fund share DTPW receives and the availability of federal and state grants, thus resulting in a different budgetary outcome than presented in this TDP.



Table 9-4: DTPW Operating Transit Revenues FY 2020 - FY 2029

Transit Proprietary Revenues	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025	FY 2025-2026	FY 2026-2027	FY 2027-2028	FY 2028-2029
Beginning Fund Balance (Carryover in Operating Fund)	\$1,278,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,515,000	\$1,810,000	\$0
Bus, Rail, STS, & Farebox	\$86,152,000	\$86,583,000	\$87,016,000	\$87,451,000	\$87,888,000	\$88,327,000	\$94,204,000	\$94,440,000	\$94,676,000	\$94,913,000
Planned Additional General Fund Support	\$5,891,000	\$47,269,000	\$30,157,000	\$30,250,000	\$1,970,000	\$277,000	\$0	\$0	\$2,225,000	\$6,936,000
Other Revenues	\$16,732,000	\$16,732,000	\$16,915,000	\$27,429,000	\$18,035,000	\$18,257,000	\$18,320,000	\$18,381,000	\$18,422,000	\$18,486,000
State Grant Revenue										
Transportation Disadvantage Program	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000
Local Revenue										
Miami Dade General Fund MOE (3.5 Percent)	\$207,660,000	\$221,025,000	\$277,684,000	\$318,615,000	\$361,075,000	\$375,752,000	\$389,190,000	\$402,812,000	\$416,910,000	\$433,805,000
PTP Surtax	\$89,624,000	\$50,835,000	\$26,778,000	\$1,491,000	\$0	\$0	\$0	\$0	\$0	\$0
Total Transit Revenues	\$413,337,000	\$428,444,000	\$444,550,000	\$471,236,000	\$474,968,000	\$488,613,000	\$507,714,000	\$524,148,000	\$540,043,000	\$560,140,000
Total Expenses	\$413,337,000	\$428,444,000	\$444,550,000	\$471,236,000	\$474,968,000	\$488,613,000	\$505,199,000	\$522,338,000	\$540,043,000	\$560,140,000
Operational Funding Surplus (Deficit)	\$0	\$0	\$0	\$0	\$0	\$0	\$2,515,000	\$1,810,000	\$0	\$0

Source: Transit Pro Forma FY 2018 - 2019

Table 9-5: DTPW Operating Transit Expenses FY 2020 - FY 2029

Operating Expenses/Fiscal Year	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025	FY 2025-2026	FY 2026-2027	FY 2027-2028	FY 2028-2029
Direct Operating Expenses										
Total Transit Operating Expenses	\$538,455,000	\$555,869,000	\$573,972,000	\$592,778,000	\$608,612,000	\$624,862,000	\$641,612,000	\$658,920,000	\$676,816,000	\$697,083,000
Transit Operating Adjustments										
SFRTA Contribution	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000	\$4,235,000
Transfer for Non-PTP Debt Service Expenses	\$826,000	\$826,000	\$826,000	\$826,000	\$826,000	\$784,000	\$784,000	\$784,000	\$784,000	\$784,000
Transfer to SMART Plan Reserve	\$721,000	\$721,000	\$904,000	\$11,418,000	\$2,024,000	\$2,246,000	\$2,309,000	\$2,370,000	\$2,411,000	\$2,475,000
Transit Reimbursements										
Federal Reimbursements	-\$76,555,000	-\$78,469,000	-\$80,431,000	-\$82,844,000	-\$85,329,000	-\$87,889,000	-\$87,889,000	-\$87,889,000	-\$87,889,000	-\$87,889,000
State Grant Reimbursements	-\$21,621,000	-\$21,837,000	-\$22,055,000	-\$22,276,000	-\$22,499,000	-\$22,724,000	-\$22,951,000	-\$23,181,000	-\$23,413,000	-\$23,647,000
Capital Fund Reimbursements	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000	-\$6,798,000
CILOGIT Reimbursements	-\$19,962,000	-\$20,139,000	-\$20,139,000	-\$20,139,000	-\$20,139,000	-\$20,139,000	-\$20,139,000	-\$20,139,000	-\$20,139,000	-\$20,139,000
STS/JARC Reimbursements	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000	-\$5,964,000
Total Expenses	\$413,337,000	\$428,444,000	\$444,550,000	\$471,236,000	\$474,968,000	\$488,613,000	\$505,199,000	\$522,338,000	\$540,043,000	\$560,140,000

Source: Transit Pro Forma FY 2018 - 2019



9.2 Transit Capital Expenditures and Funding Sources

This section provides an overview of expenditures and funding sources for DTPW’s Capital Project initiatives. The tables in this section provide a ten-year outlook, with a horizon year of Fiscal 2028-2029.

9.2.1 Planned Capital Expenditures

DTPW’s planned transit capital budget for the period between FY 2020 and FY 2029 is summarized in Table 9-6. Large capital projects or ongoing projects during this period (Metrorail Stations and Systems Improvements, for example), may be funded by a combination of debt proceeds and cash.

Many projects in the Capital Transit Budget table will improve the quality of service and longevity of the existing DTPW system. Five projects have funding allocated in the outside five years of the capital budget. These are Bus Related Projects, Federally Funded Projects, Infrastructure Renewal Plan, Metrorail Track and Guideway Projects, and Metrorail Vehicle Replacement.

Table 9-6: DTPW Capital Transit Budget FY 2020 - FY 2029 (000s)

Project	FY 19-20		FY 20-21		FY 21-22		FY 22-23		FY 23-24		Future		Total		
	PTP	Other	PTP	Other	PTP	Other	PTP	Other	PTP	Other	PTP	Other	Total	PTP	Other
Bus and Bus Facilities	\$3,200	\$308	\$3,200	\$0	\$3,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,908	\$9,600	\$308
Bus Enhancements	\$5,888	\$3,445	\$3,238	\$1,809	\$922	\$323	\$0	\$0	\$0	\$0	\$0	\$0	\$15,625	\$10,048	\$5,577
Bus Related Projects	\$1,391	\$158,437	\$0	\$18,093	\$0	\$18,610	\$0	\$12,794	\$0	\$13,404	\$0	\$48,121	\$270,850	\$1,391	\$269,459
Bus Tracker and Automatic Vehicle Locating System Upgrade (CAD/AVL)	\$1,215	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,215	\$1,215	\$0
Federally-Funded Projects	\$0	\$98,721	\$0	\$100,608	\$0	\$102,570	\$0	\$104,983	\$0	\$107,468	\$0	\$110,028	\$624,378	\$0	\$624,378
Infrastructure Renewal Plan (IRP)	\$12,500	\$0	\$12,500	\$0	\$12,500	\$0	\$12,500	\$0	\$12,500	\$0	\$12,500	\$0	\$75,000	\$75,000	\$0
Lehman Yard	\$2,625	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,625	\$2,625	\$0
Metromover Improvement Projects	\$14,897	\$7,819	\$16,316	\$7,989	\$21,638	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$73,659	\$52,851	\$20,808
Metrorail Stations and Systems Improvements	\$31,565	\$307	\$26,392	\$193	\$15,710	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$74,167	\$73,667	\$500
Metrorail Track and Guideway Projects	\$19,990	\$0	\$17,837	\$0	\$14,500	\$0	\$14,500	\$0	\$40,500	\$0	\$5,242	\$0	\$112,569	\$112,569	\$0
Metrorail Vehicle Replacement	\$77,731	\$0	\$1,709	\$0	\$1,574	\$0	\$697	\$0	\$713	\$0	\$8,933	\$0	\$91,357	\$91,357	\$0
Metrorail and Metromover Projects	\$6,776	\$547	\$6,776	\$560	\$2,776	\$574	\$728	\$588	\$0	\$602	\$0	\$0	\$19,927	\$17,056	\$2,871
Miami River Greenway	\$0	\$1,632	\$0	\$1,220	\$0	\$1,072	\$0	\$0	\$0	\$0	\$0	\$0	\$3,924	\$0	\$3,924
Park and Ride Transit Projects	\$1,476	\$1,418	\$7,409	\$657	\$6,340	\$0	\$210	\$0	\$0	\$0	\$0	\$0	\$17,510	\$15,435	\$2,075
South Dade Transitway Corridor	\$30,000	\$0	\$33,922	\$84,472	\$0	\$125,606	\$0	\$0	\$0	\$0	\$0	\$0	\$274,000	\$63,922	\$210,078
Strategic Miami Area Rapid Transit Plan (SMART) Phase 1	\$1,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,200	\$1,200	\$0
The Underline	\$2,882	\$8,843	\$0	\$5,726	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,451	\$2,882	\$14,569
Transit Signage And Communication Projects	\$834	\$620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,454	\$834	\$620
SUBTOTAL	\$214,170	\$282,097	\$129,299	\$221,327	\$79,160	\$253,755	\$28,635	\$118,365	\$53,713	\$121,474	\$26,675	\$158,149	\$1,686,819	\$531,652	\$1,155,167
TOTAL	\$496,267	\$350,626	\$332,915	\$147,000	\$175,187	\$184,824									

Source: DTPW FY 2018-2019 Adopted Budget and Multi-Year Capital Plan, Transportation and Public Works, Page 160-179.



9.2.2 Summary of Capital Plan

The DTPW capital plan revenue sources are depicted in Table 9-7. The table covers a ten-year period. Revenue sources in the first five years are forecasted by fiscal year, while the second five years are aggregated into a Future category. All projected capital expenditures could be funded with either PTP surtax debt proceeds, or on a pay-as-you-go basis, depending on the availability of funds. This capital budget is achieved by aggressive borrowing against the PTP surtax (ultimately requiring the inclusion of additional LOGT and general funds in DTPW's budget, to guarantee debt coverage.)

Table 9-7: Projected "Cash" Revenue Sources for Transit Capital Projects FY 2020 - FY 2029 (000s)

Revenue	Prior	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FUTURE	TOTAL
BBC GOB Financing	\$56,984	\$8,441	\$5,425	\$5,107	\$3,482	\$1,605	\$0	\$81,044
BBC GOB Series 2005A	\$12,627	\$0	\$0	\$0	\$0	\$0	\$0	\$12,627
BBC GOB Series 2008B	\$4,256	\$0	\$0	\$0	\$0	\$0	\$0	\$4,256
BBC GOB Series 2008B-1	\$4,434	\$0	\$0	\$0	\$0	\$0	\$0	\$4,434
BBC GOB Series 2011A	\$340	\$0	\$0	\$0	\$0	\$0	\$0	\$340
BBC GOB Series 2013A	\$2,649	\$0	\$0	\$0	\$0	\$0	\$0	\$2,649
BBC GOB Series 2014A	\$52,212	\$0	\$0	\$0	\$0	\$0	\$0	\$52,212
BBC GOB Series 2015D	\$905	\$0	\$0	\$0	\$0	\$0	\$0	\$905
Capital Improvements Local Option Gas Tax	\$49,137	\$20,139	\$20,139	\$20,139	\$20,139	\$20,139	\$20,139	\$169,971
Charter County Transit System Surtax	\$39,587	\$500	\$10,578	\$500	\$500	\$0	\$0	\$51,665
City of Homestead Contribution	\$77	\$0	\$0	\$0	\$0	\$0	\$0	\$77
City of Miami Beach Contribution	\$5,231	\$0	\$0	\$0	\$0	\$0	\$0	\$5,231
City of Miami Contribution	\$375	\$0	\$0	\$0	\$0	\$0	\$0	\$375
City of Miami Park Impact Fees	\$2,192	\$2,941	\$1,485	\$0	\$0	\$0	\$0	\$6,618
FDOT Funds	\$110,534	\$14,274	\$77,960	\$36,807	\$4,087	\$1,000	\$1,000	\$245,662
FDOT-County Incentive Grant Program	\$17,471	\$186	\$50	\$0	\$738	\$0	\$0	\$18,445
Florida Inland Navigational District	\$916	\$0	\$0	\$0	\$0	\$0	\$0	\$916
FTA 5339 Bus & Bus Facility Formula	\$22,872	\$7,303	\$4,791	\$4,911	\$5,034	\$5,160	\$5,289	\$55,360
FTA Section 5307/5309 Formula Grant	\$209,761	\$89,653	\$95,593	\$93,379	\$84,432	\$86,931	\$88,889	\$748,638
FTA Section 5309 Discretionary Grant	\$0	\$0	\$7,194	\$92,806	\$0	\$0	\$0	\$100,000
Lease Financing - County Bonds/Debt	\$169,163	\$150,946	\$7,536	\$7,648	\$7,760	\$7,880	\$42,832	\$393,765
Non-County Contributions	\$12,964	\$106	\$0	\$0	\$0	\$0	\$0	\$13,070
Operating Revenue	\$176	\$0	\$0	\$0	\$0	\$0	\$0	\$176
Pay-As-You-Go CIF	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$500
People's Transportation Plan Bond Program	\$1,085,340	\$208,610	\$110,637	\$80,421	\$28,635	\$53,713	\$26,675	\$1,594,031
Peoples Transportation Plan Capital	\$46,361	\$31,200	\$33,922	\$0	\$0	\$0	\$0	\$111,483
Reserve Fund Road Impact Fees	\$510,311	\$74,439	\$74,441	\$74,440	\$74,442	\$0	\$0	\$808,073
Secondary Gas Tax	\$36,243	\$16,367	\$14,282	\$14,282	\$16,367	\$0	\$0	\$97,541
Stormwater Utility	\$18,283	\$10,237	\$9,156	\$7,751	\$6,652	\$8,304	\$0	\$60,383
WASD Project Fund	\$2,154	\$1,420	\$269	\$10	\$0	\$0	\$0	\$3,853
Total:	\$2,474,055	\$636,762	\$473,458	\$438,201	\$252,268	\$184,732	\$184,824	\$4,644,300
Expenditure Commitments	\$2,335,473	\$699,297	\$503,788	\$460,263	\$275,923	\$184,732	\$184,824	\$4,644,300
Capital Funding Surplus/Deficit	\$138,582	-\$62,535	-\$30,330	-\$22,062	-\$23,655	\$0	\$0	\$0

Source: DTPW FY 2018-2019 Adopted Budget and Multi-Year Capital Plan, Transportation and Public Works, Page 158.





9.3 Total Unfunded Need

The implementation plan laid out in Chapter 8 of the *MDT10Ahead* document identifies the agency’s funded, partially funded and unfunded project needs in three areas – operations, capital, and State of Good repair. The total unfunded need for the ten-year period encapsulates the difference between DTPW’s programed needs and the total funding available.

The total unfunded capital need of these projects is summarized in Table 9-8.

Table 9-8: Ten Year Implementation Plan Total Unfunded Capital Need

Ten Year Implementation Plan Projects	Unfunded Capital Need
Unfunded Operations	\$451,050,000
Capital Partially Funded, Unfunded	\$5,378,487,000
Capital Unfunded	\$1,548,662,000
Partially Funded State of Good Repair, Unfunded	\$157,600,000
Unfunded State of Good Repair	\$314,610,000
Total:	\$7,850,409,000

The unfunded need is calculated as the sum of the capital costs for the Unfunded Operations, Capital, and State of Good Repair projects, combined with the unfunded portions of the Partially Funded Capital and State of Good Repair Projects. Overall, DTPW’s unfunded need is over \$7.8 billion.



9.4 Funding and Financing Sources

The objective of identifying funding and financing sources is to provide the Department of Transportation and Public Works (DTPW) with a menu of options to consider as part of its discussions of financial strategies for the improvement and maintenance of the County's transit system. Funding options include potential revenue sources (e.g., taxes, fees, passenger revenue, grants) that can be used to pay for capital or operation and maintenance (O&M) costs. Financing options, in contrast, allow DTPW to borrow funds required to pay for specific projects, by leveraging revenue sources available to a project through the issuance of debt. Financing allows project sponsors to address near-term project funding needs by borrowing against revenue anticipated to be collected in the future.

This section evaluates current and potential financial resources available to DTPW for transit capital improvement projects and O&M. Funding sources and financing sources are discussed, followed by a summary on the range of public and private project delivery methods for improved project efficiency.

9.4.1 Funding Sources

While maintaining the existing funding sources for transit services is critical, the ability to both improve existing services and expand bus and rail service coverage relies heavily on additional funding. Agencies must carefully review funding options at the federal, state, and local level and anticipate funding limitations and matching requirements. One of the challenges in leveraging additional Federal and State funding to implement new routes or expand existing services is to secure local matching funds. The following discusses the potential funding sources available to DTPW at the federal, state, and local level, eligibility requirements and limitations.

9.4.2 Federal Funding Sources

This section outlines existing federal formula and discretionary funding sources available to cover certain costs for DTPW's existing and planned new services. Most federal funding sources identified below are most commonly used to cover capital costs. Although O&M represents an essential part of transit operations due to its recurring and growing costs, federal funding for O&M is unavailable, and therefore not included.

9.4.2.1 Fixing America's Surface Transportation (FAST) Act

The Fixing America's Surface Transportation (FAST) Act is a 5-year, \$305 billion transportation authorization bill passed into law in December 2015. The authorization details the federal government's surface transportation policy for a multiyear period and specifies the maximum amount of authorized funding for specific programs. Actual funding amounts each fiscal year are subject to annual appropriations bills. The bill invests \$61 billion in public transportation, creates new discretionary programs, and amends existing programs. Its key provisions include the authorization of \$2.3 billion annually for the Federal Transit Administration (FTA)'s Capital Investment Grant (CIG) program, which includes the New Starts, Core Capacity, and Small Starts categories of grants.

Another \$1.5 billion over five years will be authorized for a national discretionary program for replacing, rehabilitating, purchasing, or leasing bus related facilities. The bill also includes \$2.2 billion over five years for three new discretionary grant programs for intercity passenger rail and an additional flexibility for federal direct lending programs.

9.4.2.2 Federal Formula Grants

FTA formula funds are distributed by formula to states and metropolitan areas to fund transit investments. In urbanized areas, transit formula funds can cover capital costs, but cannot be used to cover O&M costs, except for preventive maintenance costs. FTA formula funds are distributed to designated recipients in urbanized areas based on route miles, revenue vehicle miles, and population. These include the following programs and funding sources:

- **Section 5307 Urbanized Area Formula Program:** This program makes federal resources available to urbanized areas for transit capital assistance and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Census Bureau.
- **Section 5337 State of Good Repair (SGR) Program:** This program provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans.
- **Section 5339 Bus & Bus Facilities Program:** This program provides funding to states and transit agencies to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. In addition to the formula allocation, this program includes two discretionary components: the Bus and Bus Facilities Discretionary Program and the Low or No Emissions Bus Discretionary Program. 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. The allocation of such funds is based on asset age and condition. Funds support capital costs but cannot be used to cover O&M costs.
- **Surface Transportation Program Funds:** Surface Transportation Program (STP) funds are apportioned by the Federal Highway Administration (FHWA), but are referred to as “flexible” because they may be used for an array of eligible projects, including transit. Aside from its highway uses, the STP program can be applied to the capital cost of any public transportation project to preserve and improve the conditions and performance of surface transportation. STP funds are distributed directly to states, which may request those funds be transferred to FTA for an eligible public transportation project. The STP will distribute \$603 million in FY 2019 to Florida.

9.4.2.3 Federal Discretionary Grants

The federal government awards discretionary grants to states and other eligible recipients through competitive application processes. Unlike formula grants, there is no set allotment for a given geographic area and individual projects compete against other projects nationwide.

The Capital Investment Grant (CIG) Program (Section 5309) are administered by the FTA to fund major transit capital investments and may be applicable to DTPW. These grants are the FTA’s primary grant program for funding major transit capital projects. There are three categories of eligible projects: New Starts, Small Starts, and Core Capacity. These programs typically allow for a federal share of up to 80% of the project capital cost and require a local match for the remaining 20% and are described below.

- **FTA New Starts:** The New Starts category of funding is one of FTA’s primary capital funding programs for new or extended fixed guideway and corridor-based bus systems across the country, including rapid rail, light rail, commuter rail, bus rapid transit (BRT), and ferries. Eligible New Starts projects request funding greater than \$100 million and/or have a total project cost greater than or equal to \$300 million. Eligible expenses include capital costs but not O&M costs. The maximum federal share under the New Starts Program is 60%.



This source can be used to fund a new fixed guideway minimum operable segment or extension to existing fixed guideway system that qualify according to the program's rigorous financial and project justification criteria.

- **FTA Core Capacity:** The Core Capacity funding category was created by Congress in 2012 as a new type of eligible funding within the FTA's CIG program. These funds support substantial corridor-based investments in an existing fixed-guideway system. However, the system must be in a corridor where transit service is at or over capacity or will be over capacity in five years. The project must also lead to an increase in the capacity by 10%. Like the New Starts funding category, eligible uses of Core Capacity funds are capital costs but not O&M costs.
- **FTA Small Starts:** Small Starts is another category of funding within FTA's CIG program. To be eligible for Small Starts projects must have a total capital cost less than \$300 million and request less than \$100 million in Small Starts funding. This funding option can be used for new fixed guideway systems and extensions and BRT. The Small Starts funding option also can cover capital costs, but cannot be used to cover O&M costs. Corridor-based BRT systems that represent a substantial investment in a defined corridor, including the following features, may qualify for Small Starts funding: defined stations, traffic signal priority for transit, or short headway bi-directional services for a substantial part of weekdays and weekend days.

The \$1.3 trillion omnibus spending bill passed on February 15, 2019 with provisions for federal transportation grant and financing programs. This bill approved an additional \$1.1 billion for US Department of Transportation (USDOT) infrastructure programs compared to FY 2018 funding levels. The new omnibus bill appropriated more than \$1.26 billion for the New Starts Program, \$635 million for the Core Capacity Program and \$526 million for the Small Starts Program. Of the total Core Capacity funding, \$200 million is dedicated to existing full-funding grant agreements (FFGAs), and \$435 million is available for new FFGAs.





9.4.3 Other Discretionary Programs

- **BUILD Grants:** By April 15, 2019, the administration will release a Notice of Funding Opportunity (NOFO) for the Better Utilizing Investments to Leverage Development (BUILD) grant program (formerly TIGER). The BUILD program is a highly competitive USDOT grant program which supports the capital costs of road, rail, transit, and port projects that have a significant impact on the nation, a region, or a metropolitan area. The FY 2019 omnibus spending bill provides significant funding: \$900 million. The maximum award per project is \$25 million, which allows up to \$15 million in program funding for planning purposes. The total awarded amounts per state cannot exceed \$150 million.
- **INFRA Grants:** The Infrastructure for Rebuilding America (INFRA) grant program (previously referred to as FASTLANE) was authorized as the Nationally Significant Freight and Highway Projects program by the USDOT's Build America Bureau. This program provides funding for freight and highway projects that have a significant impact on the national or region. The FAST Act apportioned \$950 million for FY 2019, and \$1.0 billion for FY 2020.

Table 1-1 summarizes the federal funding sources currently available for capital expenses which DTPW may pursue as a way of leveraging the state and local sources being considered.



Table 9-9: Federal Funding Sources

Funding Option	Funding Source	Funding Availability	Eligibility Requirements
State of Good Repair Grants (Section 5337)	FTA	\$263 million apportioned in FY 2019 Omnibus Spending Bill	Capital projects that maintain existing high intensity fixed guideway (97% of funding) and high intensity motorbus (3% of funding).
Urbanized Area Formula Grants (Section 5307)	FTA	\$150 million apportioned in FY 2019 Omnibus Spending Bill	Capital funding for new projects; operating (preventive maintenance and ADA ³) and maintenance expenses for existing services.
Bus & Bus Facilities Program (Section 5339)	FTA ¹	\$350 million apportioned in FY 2019 Omnibus Spending Bill	Capital funding for new projects to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.
Surface Transportation Block Grants	FTA/ FHWA ²	\$11.88 billion apportioned for FY 2019, \$603 million to Florida	Capital projects including highway, bridges, tunnels, and transit; maintenance expenses for existing services.
Capital Investment Grant Program (Section 5309) (New Starts, Small Starts, and Core Capacity)	FTA	\$2.6 billion apportioned in FY 2019 Omnibus Spending Bill	Capital projects for fixed guideway investments such as new and expanded rapid rail, commuter rail, light rail, streetcar, bus rapid transit, and ferry.
Better Utilizing Investments to Leverage Development (BUILD) Grant Program	USDOT	\$900 million approved by Omnibus Spending Bill (FY 2019)	Capital projects that have a significant impact on the nation, a region, or a metropolitan area including road, rail, transit, port and intermodal improvements.
Infrastructure for Rebuilding America (INFRA) Grant Program	USDOT	\$902 million apportioned for FY 2019	Provides funding for freight and highway capital projects that have a significant impact on the national or region.
Congestion Mitigation and Air Quality Improvement Program	FTA/ FHWA	\$2.4 billion apportioned for FY 2019, \$14 million to Florida	Projects that contribute to the attainment or maintenance of National Ambient Air Quality Standards, and in reducing air pollution including projects that address highway congestion or provide new transit alternatives to congested highways.

9.4.4 State Funding Sources

There are several well-established and stable state revenue sources currently used by not only DTPW, but other transit providers in Florida including Palm Tran, Broward County Transit (BCT), and the South Florida Regional Transportation Authority (SFRTA). The following state funding sources are currently or can potentially be used by DTPW and are funded through FDOT.

9.4.4.1 Public Transit Service Development Program

This program is designed to provide initial funding for innovative and special projects, such as new technologies, new transit services, routes, increased frequencies, marketing, the purchase of special transportation services and other methods for improving operations and maintenance. Both capital and operating expenses are eligible under this program. However, funding for these projects is limited to no more than three years and varies based on the type of project, with projects focused on marketing or technology limited to two years. Projects seeking this funding must be identified in a Transit Development Plan.



This program may fund up to 50% of the net project cost but will not exceed the funding committed by the local project sponsor. Projects that are deemed (by Central Office) to be of statewide significance may be eligible for more than 50% of net project costs through this program. Facility projects that provide new connections, opportunities for transferring to enhanced or new services, or that improve the safety for the rider, may be eligible, and justification would need to clearly outline the new or enhanced services, or how safety is improved.

9.4.4.2 Public Transit Block Grant Program

This Program provides funding that may be used by public transit providers 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. This program can cover capital costs and can be used to cover O&M costs. These grants may be used to fund up to 50% of the non-federal share of transit project capital costs and up to 50% of eligible operating costs (net costs). Eligible recipients must have an FDOT approved TDP by the end of December prior to the Fiscal Year in which funds are sought.

Revenue received by DTPW under the Public Transit Block Grant program is issued under a Joint-Participation Agreement (JPA) with FDOT. DTPW receives approximately \$20 million annually from the FDOT Transit Block grant program.

9.4.4.3 Transportation Disadvantaged Trust Fund

In 1989, the Florida State Legislature established the Commission for the Transportation Disadvantaged (CTD) to fund and oversee the expansion of transportation services for the Transportation Disadvantaged (TD). The legislation also established a Transportation Disadvantaged Trust Fund (TDTF), funded from vehicle registration fees and gasoline sales taxes. Per the Florida Statutes (F.S.), Chapter 427:

“Transportation disadvantaged’ means those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities, or children who are handicapped or high-risk or at-risk as defined in s. 411.202.”

The CTD administers and distributes these funds to each county throughout the state through Community Transportation Coordinators (CTC) according to an established formula, requiring a 10% local match. The CTD is responsible for establishing the distribution formula, which is based on several criteria: total service area population, total system vehicle miles, total system passenger trips, and total service area square miles. Funds have been distributed to every county’s CTC each year since 1990.

Funds that are deposited may be used to subsidize a portion of a TD person’s transportation costs that are not sponsored by an agency.

The Miami-Dade County Board of County Commissioners (BCC) has been designated as the CTC for the Miami-Dade County service area by the Miami-Dade TPO since 1990. The coordinated area for transportation services includes all of urbanized Miami-Dade County, a narrow transit corridor in south Broward County, and from Key Largo to Marathon (Mile Marker 50) in Monroe County. Miami-Dade County has many sponsored programs that are currently in place to assist portions of the state recognized TD populations. Thus, the following TD populations are not sponsored by any other funding source, and are therefore eligible to be assisted by the CTD’s TD Trust Fund:

- Up to 150% above the Poverty Level
- Under 65 years old

- Cannot receive SSI benefits
- Children at Risk population(s)

To assist these specific TD populations, the TD Trust Fund dollars are utilized as follows:

- **TD EASY Ticket Program** – the distribution of EASY Tickets to eligible TD individuals through applicable 501(c)(3) organizations. Recipients receive pre-loaded EASY Tickets, which provide the equivalent of one of the following: one trip, daily, weekly, and/or a monthly pass, based on the need.
- **TD Transit Mobility Easy Card Program** – the distribution of annual EASY Cards to those individuals who are TD eligible.

9.4.4.4 Florida New Starts Transit Program (NSTP)

The Florida New Starts Transit Program provides transit agencies with a dollar-for-dollar match of the local (non-federal) share of project costs for transit fixed-guideway projects and facilities that qualify under the FTA New Starts Program. These State grants are for new investments in rail transit and BRT projects. They aim to help leverage local funds to secure FTA New Starts grants and can provide up to 50% of the non-federal share in state funding. This program covers capital costs but cannot be used to cover O&M costs. Costs that are eligible to be covered by these grants include final design, right-of-way, construction, and equipment.

9.4.4.5 Transit Corridor Program

The Transit Corridor Program supports new transit services to alleviate congestion or other mobility issues within an identified corridor. It may fund up to 50% of the non-federal share of costs of projects that are local in scope and up to 100% of transit corridor projects that are statewide in scope. Projects that are locally or regionally significant may be funded and supplemented for an unspecified time. The agency must demonstrate that the project will relieve congestion and improve capacity of a corridor by increasing people carrying capacity using high occupancy conveyances. This program can cover capital costs as well as O&M costs.

9.4.4.6 Commuter Assistance Program

The Commuter Assistance Program is an employer-based transportation demand strategy that encourages and promotes public-private partnerships through brokerage services to employers and individuals for:

- Carpools/vanpools/bus pools
- Express bus service
- Subscription transit service
- Group taxi services
- Heavy and light rail
- Other systems designed to increase vehicle occupancy

The program may fund up to 50% of non-federal share of costs of projects that are local in scope and up to 100% of transit capital, intercity bus service, or commuter assistance projects. The program covers both capital and O&M costs. The South Florida Commuter Services is an existing active program that can assist with the planning, management, and implementation of commuter routes and other services.

9.4.4.7 Intermodal Development Program

Per Florida Statutes, § 341.053, “Projects that are eligible for funding under this program include major capital

investments in public rail and fixed-guideway transportation facilities and systems which provide intermodal access; road, rail, intercity bus service, or fixed-guideway access to, from, or between seaports, airports, and other transportation terminals; construction of intermodal or multimodal terminals; development and construction of dedicated bus lanes; and projects which otherwise facilitate the intermodal or multimodal movement of people and goods.” These grants are primarily to local governments and are typically for up to 50% of the project cost but can be 100% if the project is of statewide or regional significance. The program covers capital costs but cannot be used to cover O&M costs. Seventy-five percent (75%) of these funds are required to be expended on the Strategic Intermodal System (SIS).

9.4.4.8 County Incentive Grant Program

The County Incentive Grant Program (CIGP) provides grants to counties to fund improvements to transportation facilities, including transit, that are located on the State Highway System, or that relieve traffic congestion on the State Highway System. By statute, the program covers 50% of project capital costs but cannot be used to cover O&M costs. It is distributed on a formula-basis and, at a minimum, projects eligible for CIGP funding should create or enhance economic benefits, can be advanced in time because of receiving CIGP funds, foster public-private partnerships or otherwise attract private investment, employ innovative technologies to enhance efficiencies, maintain or protect the environment, and improve intermodal connections and safety.

Each eligible project must be consistent to the maximum extent feasible with the Florida Transportation Plan, Metropolitan Planning Organization Plan where applicable, and any appropriate local government comprehensive plan. Counties may submit projects that are not in the Metropolitan Planning Organization Long Range Transportation Plan or local government comprehensive plan; however, if selected, the projects must be amended into these plans within six months and supporting documentation should be provided to the FDOT.

Table 9-9 lists the various state funding sources and indicates whether they are current or potential funding sources for DTPW.

Table 9-10: Current and Potential State Funding Sources

Funding Option	Funding Source	Funding Status
Public Transit Service Development Program	FDOT	Current funding source
Public Transit Block Grant Program	FDOT	Current funding source
Transportation Disadvantaged Trust Fund	FDOT	Current funding source
Florida New Starts Transit Program	FDOT	Potential funding source
Transit Corridor Program	FDOT	Potential funding source
Commuter Assistance Program	FDOT	Potential funding source
Intermodal Development Program	FDOT	Potential funding source
County Incentive Grant Program (CIGP)	FDOT	Potential funding source

9.4.5 Local Funding Sources

This section reviews various local funding sources available to DTPW. Much of the information for local funding sources was obtained from the 2009 TCRP Report 129: *Local and Regional Funding Mechanisms for Public Transportation*, published by the Transportation Research Board (TRB).

9.4.5.1 Miami-Dade County General Fund

A general fund revenue from a county is often critical to expanding local transit services; however, this local revenue source is often difficult to obtain as many local jurisdictions, services and projects compete for these limited funds. Currently, the Miami-Dade County General Fund provides a substantial funding source for transit services; approximately \$200 million were allocated for FY 2018-19 towards funding transit operations.

9.4.5.2 Peoples Transportation Plan Sales Tax Revenue

On November 5, 2002, a half-penny sales tax was approved by Miami-Dade County voters for the purposes of implementing the People's Transportation Plan (PTP). The PTP sales tax proceeds are designated for the implementation of transit, roadway, and neighborhood improvement projects.

Twenty percent (20%) of surtax revenues is dedicated to municipal transportation enhancement projects such as localized community circulator services. In FY 2018-2019, the PTP sales tax revenue collected approximately \$201.5 million.

9.4.5.3 Local Option Gas Tax

The Local Option Gas Tax (LOGT) is authorized by Section 336.025 (1)(B), Florida Statutes allowing Miami-Dade County to levy a tax on the purchase of gas and diesel fuel. State law requires funds from the LOGT be programmed for transportation purposes. Specifically, for both public works and transit needs. Based on DTPW's budget, roughly \$20 million of county gas tax funds is projected annually for FY 2019 through FY 2023.

9.4.5.4 Farebox Revenue

Passenger fares are collected on Metrobus, Metrorail and STS services. These revenues assist to offset system wide operating expenses. In FY 2018, \$80 million in passenger fare revenues was collected.

9.4.5.5 Advertising

A transit agency can receive income from advertisements on vehicles, station and shelter facilities, tickets, schedules, and maps, for example. This also provides the opportunity to establish community partnerships. Advertising can be done through print and electronic media and might serve as "sponsorship" programs that fund vehicles, services, or events. Advertising revenue can be generated from both short- and long-term contracts.

9.4.5.6 Interest Earnings Income

Interest income includes interest from over-night bank investments, investments in the Local Government Surplus Fund Trust Fund and other investments as allowed under Florida Statute 218.415.

9.4.5.7 Stormwater Utility Fees

Utility fees encompass taxes on a wide range of public services and utility businesses. Revenues are typically allocated to the jurisdiction's general fund or public works facilities.



9.4.5.8 Impact Fees

New development brings higher demand for additional public facilities and services, including transit services. Impact fees are common financial tools used by local governments to fund transportation capacity improvements necessitated by new development. Although the use of impact fee revenue to support public transportation is not yet widespread, impact fees to fund transit capital needs are becoming more common.

9.4.5.9 Joint Development

Joint developments provide opportunities for new funding streams for public transportation. These revenues are generated from the value transit brings to businesses, developers, and property owners, and vice versa. This revenue may come in the form of Transit Improvement Districts, lease payments, revenue sharing, cost-sharing for providing services to the developments. The revenue generated can be used in part or in entirety to support DTPW transit services and facilities.

9.4.5.10 Property Taxes

One of the main revenue sources for local governments is property (ad valorem) taxes on land and building values. Property tax revenue is often used by local governments, special districts, and authorities including transit authorities, for local and regional public services, like public safety and sanitation.

9.4.5.11 Contract or Purchase-of-Service Revenues

Contract or purchase-of-service revenues are based on rates established by a transit agency. Transit systems that provide contract services in addition to their regularly scheduled services, like paratransit or STS services, typically receive the funds directly. Municipal government, individual businesses, special event organizers, health and social service agencies, and educational institutions may purchase transit services.

9.4.5.12 Lease Revenues

Lease revenues are generated through the leasing of transit agency facilities, including a rail or bus terminal, a station, transfer, or parking facilities. In addition, transit agencies with fixed rights-of-way, like rail or bus rapid transit, can also lease sections of the right-of-way to private companies, like telecommunications companies. Lease terms, rates, and length are negotiated by the parties involved.

9.4.5.13 Concessions

Like leasing, transit agencies with available space in terminals and station facilities may enter concession agreements with commercial and retail businesses. Concessions might include food stands, sales shops, vending machines, ATMs, etc. Revenues can be received directly or as contributions to capital improvement projects.

9.4.5.14 Vehicle Fees

Vehicle fees charged to vehicle owners and operators vary by state. The fees are based on the value, weight, or age of the vehicle and include fees for the issuance of titles, licenses, registration, or inspection fees. Local governments, through a local option, might have the authority to collect vehicle fees. The revenues generated from vehicle fees are typically dedicated to cover the administration and enforcement of the program, as well as general transportation needs. In rare instances are revenues from this program dedicated directly to fund public transportation.





9.4.5.15 Rental Car Surcharge

A rental car surcharge is an existing funding option that is applied as a per-day, per-use, or percent of rental charge or lease basis on. These can fluctuate with economic conditions; however, they can provide reliable revenue streams if the economy remains strong. Revenue can be used to cover capital and O&M costs.

Florida imposes a rental car surcharge of \$2.00 per day on car rentals or leases for first 30 days of term and \$1.00 per use on car-sharing services for less than 24 hours. This surcharge is primarily deposited in the State Transportation Trust Fund to implement the FDOT annual work program. Revenues from the surcharge dropped noticeably in 2009 due to the economic downturn, but have recovered and are anticipated to provide \$138 million in revenue in FY 2018.

9.4.5.16 Vehicle Lease Taxes and Fees

Vehicle lease taxes and fees are charged when vehicles are purchased or leased. The number of fees collected can differ depending on the program and can be collected by the dealer, leasing company, or state where the transaction takes place.

9.4.5.17 Parking Fees

Transit agencies have the option to receive parking revenue collected at parking facilities owned by the agency. In addition, fees collected at public parking facilities have been used as a source of revenue for public transportation. DTPW maintains 31 park-and-ride lots and a total of more than 12,000 available parking spaces throughout the DTPW system.

9.4.5.18 Realty Transfer Taxes/Mortgage Recording Fees

A “real estate transfer tax” is a tax imposed on the sales of certain classes of residential, commercial, or industrial properties. Revenue generated by these fees increase with the sale amount of the property being sold or transferred. The tax might be paid by either the buyer or seller depending on the state. Rates also vary by state, with some states directing the revenues to the state’s general fund, while other states give local governments the authority to collect and keep the revenues. Revenue collected under these programs are often used to fund needs such as land conservation, parks and open space and, in some instances, public transportation.





9.4.5.19 Corporate Franchise Taxes

A corporate franchise tax is a tax collected on the taxable assets of a for-profit business or firm. The tax is typically paid in advance of doing business within the state and is often targeted to specific industries and economic activities. Revenues from the tax may be deposited in various restricted and unrestricted state funds, including those for transit services.

9.4.5.20 Room or Occupancy Taxes

Room or occupancy taxes are applied to the cost of lodging at hotels, motels, and similar facilities. Rates may vary depending on the facility type, location, or rental period. Revenues can be collected by the state or, where permitted, by local agencies. These tax revenues are often used to promote tourism or construct/operate tourism-related facilities.

9.4.5.21 Donations

Support for public transportation may be available through private contributions and donations to transit agencies with the expectation that net benefits will accrue over time as the value of the private development appreciates. Donations can be made in the form of land, infrastructure, or monetary contributions.

9.4.5.22 Special Assessment District

A Special Assessment District is a local funding option that obtains funds through the application of additional tax in specified investment districts. This funding option can cover capital costs and can be used to cover O&M costs. Although this revenue source has the potential to generate significant sums for investment, depending on the rate and district size, it requires the agreement of local property owners to establish the district and contribute to the cost of transportation infrastructure improvements. The property owners benefit through economic development and improved property values. This option could include financing where payments are not due until after the improvement is completed.

9.4.5.23 Sponsorship & Naming Rights

Sponsorship and naming rights is another local funding option that can cover capital costs and can be used to cover O&M costs. This is a form of advertising where a private entity sponsors a transit service, line, station, or another asset. It is widely implemented with sports stadiums/arenas and can provide a significant revenue source during initial stages of construction and operation. However, this form of funding requires strong public and political project support and is more difficult to secure later in the life of the asset.

9.4.5.24 Air Rights

Air rights are also a local funding option that can cover capital costs and can be used to cover O&M costs. In such an option, a public transportation provider sells or leases development rights above the project site. The revenue should exceed the cost of developing above the project. Thus, the developer is incentivized to purchase and develop above the transit investment or transit project location.

9.4.5.25 Developer Contributions

Developers often provide in-kind or monetary contributions to facilitate construction of projects that may result in a positive impact on property values. This is often negotiated to reflect the benefit the developer derives from the project. The project sponsors often request contributions early, allowing sponsors to better leverage other sources. These may be applied to fill the gaps in funding for both capital and operating costs.

Table 9-10 summarizes the current and potential local funding sources available to DTPW.

Table 9-11: Current and Potential Local Funding Sources

Funding Option	Funding Source	Funding Status
Miami-Dade County General Fund	County	Current funding source
Peoples Transportation Plan Sales Tax Revenue	County	Current funding source
Local Option Gas Tax	County	Current funding source
Farebox Revenue	County	Current funding source
Advertising	County	Current funding source
Interest Income / Other Income	County	Current funding source
Storm Water Utility Fees	County	Current funding source
Impact Fees	City or County	Current funding source
Joint Development	City or County	Current funding source
Lease Revenues	City or County	Current funding source
Contract or Purchase-of-Service Revenues	City or County	Potential funding source
Concessions	City or County	Potential funding source
Vehicle Fees	City or County	Potential funding source
Rental Car Surcharge	County	Potential Funding source
Vehicle Lease Taxes and Fees	City or County	Potential funding source
Parking Fees	City or County	Potential funding source
Realty Transfer Taxes / Mortgage Recording Fees	City or County	Potential funding source
Corporate Franchise Taxes	City or County	Potential funding source
Room or Occupancy Taxes	City or County	Potential funding source
Donations	City or County	Potential funding source
Special Assessment District	City or County	Potential funding source
Sponsorship & Naming Rights	City or County	Potential Funding Source
Air Rights	City or County	Potential Funding Source
Developer Contributions	City or County	Potential Funding Source

9.4.6 Financing Sources

Financing options can allow transit agencies like DTPW to borrow funds required to pay for certain projects, by leveraging revenue sources available to the project through the issuance of debt. Financing allows project sponsors to address near-term project funding needs by borrowing against funds anticipated to be available in the future. The following financing sources available to DTPW are detailed below.

9.4.6.1 Tax Increment Financing (TIF)

TIF funding allows the capture of incremental changes in property, sales, or other taxes above a set threshold in a specified investment district. This includes the capture of increased property values and economic growth created by investments over time. The revenue is small initially but grows over time. This method requires bonding to apply toward capital costs and is often applied for 20 to 30 years.



Transportation Infrastructure Improvement District (TIID)

In 2018, the Miami-Dade BCC adopted a resolution establishing a TIF framework for rapid transit corridors in the county. Named the Transportation Infrastructure Improvement District (TIID), the legislation covers the existing Metrorail corridor, and the six proposed SMART Plan corridors. The TIID language is located in Chapter 2, Article CLIX of the County's Code of Ordinances. Section 2-2365 outlines the permitted uses of the TIID funds, which may be used to fund the development, construction, maintenance and/or operation of the SMART Plan projects. Section 2-2368 gives municipalities the option to contribute to the TIID trust funds.

The TIID covers buffers within a half-mile of the existing Metrorail corridor and the proposed SMART Plan Corridors, except for the East-West Corridor. The East-West Corridor TIID boundary stretches out to a full mile. If a parcel or property falls partially within the TIID, the entirety of that parcel is deemed to be located within the district.

9.4.6.2 Transportation Infrastructure Finance and Innovation Act (TIFIA)

The TIFIA program provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA leverages federal funds by attracting private and non-federal investment to projects that critically improve the nation's surface transportation program. The TIFIA program provides flexible repayment terms and potentially more favorable interest rates than can be found in private capital markets with the same revenue stream. TIFIA financing enables the applicant to receive more favorable interest rates for the project's share of non-federal borrowing due to lowered investment risk.

TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Many surface transportation projects (e.g., highway, transit, rail, intermodal freight, and port access) are eligible for assistance. Each dollar of federal funding applied to TIFIA (as the subsidy amount) can provide approximately \$10 in credit assistance and leverages approximately \$30 in transportation infrastructure investment.

Up to 50% of the capital cost of an eligible project may be financed through TIFIA, although in practice USDOT lends no more than 33% of costs to a single project. The combined share of TIFIA proceeds and other federal funding for a given project may not exceed 80% of the total project cost. To date, TIFIA has financed 16 transit projects. In some cases, projects have combined TIFIA financing and funding from FTA's New Starts program making project financing more manageable by providing up-front grant funding to cover a share of project costs, and low-cost federal loans to leverage each project's local match.

TIFIA extends loan rates effectively equivalent to the prevailing 30-year U.S. Treasury Bond rate at financial close plus one basis point. The program permits repayment over a term of up to 35 years after a project's substantial completion and gives borrowers the flexibility to defer principal and capitalize interest payments for up to 5 years. Principal payments may be structured to ramp up with projected growth in revenues pledged to service TIFIA debt. The state of Florida, if it applies for a TIFIA loan, will pledge revenues to service the debt: a key assumption is that revenues pledged are stable enough to make debt service payments on a full and timely basis. The structure of the debt with pledged revenues must meet a credit-rating threshold of being rated investment (Baa3/BBB-) grade by two rating agencies. Projects must meet all federal funding eligibility requirements, including NEPA, Buy America, Davis-Bacon, and others. Loans may be prepaid in whole or in part at any time without penalty.

TIFIA is flexible and cost-effective. The limited pool of financial capacity and the cap on the percentage of TIFIA financing by project are the program's biggest disadvantages.

9.4.6.3 Taxable Bonds

Taxable bonds are issued by private entities to finance capital investments. The interest income from private bonds is not eligible for tax exemptions. The private bond issuer is responsible for paying bonds back and assumes all financial risk. Taxable bonds are traditionally a high cost financing option, but provide added flexibility and a broader debt market.

9.4.6.4 Short-Term Financing

DTPW could use short-term financing options to facilitate the financing of a project, including revenue anticipation notes and commercial paper. These options are summarized below.

- **Revenue Anticipation Notes:** Revenue anticipation notes are a form of short-term borrowing against the expected receipt of near-term proceeds (e.g., taxes, fees, grants, bonds, or TIFIA/RRIF loans). Revenue anticipation notes can be used to fill small gaps between project needs and receipt of dedicated revenues, grants, or long-term financing. Debt typically matures in less than one year. Notes are issued by state governments, local governments, and transit agencies.
- **Commercial Paper:** Commercial paper is an interest-only debt instrument with maturities of 270 days or less. This type of issuance is interest-only until maturity, followed by a balloon payment of the principal. Commercial paper requires a letter of credit and active day-to-day management. Eligible entities for tax-exempt debt may also issue tax-exempt commercial paper with a lower interest rate. Commercial paper can also be backed with a guarantee to reduce rates.

9.4.6.5 Alternative Project Delivery Strategies

The organizational strategy used to design, implement and operate or manage elements of a project may have implications for the financing outcome. The wide range of delivery and funding and financing strategies allow for different levels of control, risk and responsibility allocation between DTPW (or another sponsor/public entity) and private partners. Identifying a procurement strategy from the range of alternatives for a given project requires first a clear identification of policy goals, procurement goals, project risks, sponsor resources and risk preferences, all of which then need to be matched with the specific risk allocation provided under various delivery options. The goal of the delivery strategy is to meet policy and procurement objectives and generate cost and schedule efficiencies by allocating project risks to the parties best able to manage them.

Private sector participation in the physical delivery of a project ranges from a traditional, fully segmented approach such as Design-Bid-Build (DBB), which first requires a procurement for a full design followed by the procurement of construction services, to a fully integrated method requiring a true partnership with the private sector and combining infrastructure and services such as Design-Build-Operate-Maintain (DBOM).

The following provides further information on the range of public and private project delivery methods with varying degree of integration among design, construction, operation, maintenance, and financing activities.

9.4.6.6 Design-Build

Design-Build (DB) is a project delivery method that combines two, usually separate services into a single contract. With DB procurements, the owner retains a consultant to develop a conceptual design and then executes a single, fixed-fee contract for both architectural/engineering services and construction based on the conceptual design. The design-builder assumes responsibility for most the design work and all construction activities, together with certain risks associated with providing these services (e.g. cost overrun, schedule delay, and liability for incomplete design) for a fixed fee. DB procurement is generally recognized for delivering cost savings and schedule acceleration when compared with traditional Design-Bid-Build (DBB) procurement, as a

result of the integration of and continuous communication between designers and builders and the tailoring of the design to the contractor's means and methods.

9.4.6.7 Design-Build-Operate-Maintain

The Design-Build-Operate-Maintain (DBOM) model is an integrated delivery method that combines the design and construction responsibilities of DB procurements with performance-based O&M contracting for a specified period (usually 15 to 30 years), thereby transferring risks associated with design, construction and long-term operations and incentivizing the private partner to implement best practices in asset management over the duration of the contract. DBOM provides not only all the advantages of a DB contract but also greater incentives for on-time delivery (as the private partner's payments generally start with revenue operations), life-cycle cost optimization and system and service quality (with performance-based O&M contract requirements and operator input during the design), and improves budget visibility for the public owner.

9.4.6.8 Design-Build-Finance

A Design-Build-Finance (DBF) arrangement is a DB procurement with short-term gap financing. DBF allows for private capital to kick-start project development and construction in advance of when public funds would be available. In simple terms, the winning contractor agrees to provide all or some of the construction financing and to be paid back either through milestone or completion payments made from public funds. These arrangements are typically short-term, repaid at construction completion or extending only a few years later. DBFs only transfer some of the design and construction risk (similar to DB) and do not involve any transfer of operating or maintenance risks to the private partner and therefore produce limited efficiencies beyond those that can be achieved in a DB procurement.

9.4.6.9 Design-Build-Finance-Operate-Maintain

The Design-Build-Finance-Operate-Maintain (DBFOM) model offers an integrated delivery method that combines the design and construction responsibilities of DB procurements with performance-based O&M contracting, and private-sector financing for a fixed and usually long period (usually 25 to 35 years). In exchange the private partner may have the right to collect the revenue from the project and/or is compensated through a payment for services based on performance specifications for the duration of the contract, called an "availability payment."

The DBOM model as well as DBFOM, which includes financing into the P3 scope, is particularly attractive for transit projects where the concessionaire often includes rolling stock and systems manufacturers as well as an operator, thereby facilitating systems integration.

Compared to DBOM, DBFOM procurement comes with the additional oversight of equity and debt providers who diligently review the project documentation and oversee the delivery of project assets and services to ensure the security of the revenue stream that will be used to repay their funds. In nearly all cases, the public agency sponsoring the project retains full ownership over the project assets throughout the concession period, although tax ownership can be, and usually is, transferred to allow for tax depreciation. Projects delivered through DBFOM (as well as DBOM) need to be sufficiently large (generally greater than \$200 million) to attract private capital, justify the transaction costs, and generate competition to attract large contractors with the necessary expertise.

9.4.6.10 Privatization

Under a privatization scheme (also known as a Build-Own-Operate model), a private company is granted or sold the right to develop, finance, design, build, own, operate, and maintain a transportation project. The private



sector partner owns the project outright and retains the operating revenue risk and all the surplus operating revenue in perpetuity, corresponding to a full privatization. While this approach is more common in water and telecommunication sectors, it has also been used historically to develop transportation infrastructure such as freight railroad.





Appendix A.1 - Civic Engagement Plan



Civic Engagement Plan

Miami-Dade Transit 10Ahead Transit Development Plan

Major Update FY 2020 – 2029

February 2019



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1 INTRODUCTION

The Miami-Dade County Department of Transportation and Public Works (DTPW) is preparing its 10-year 2020 Transit Development Plan (TDP) Major Update, which will provide planning, development and operational guidance for the evolution of the Miami-Dade County transit system over the next 10 years. As required by Florida Administrative Code 14-73.001, DTPW is undergoing a major update to its TDP, which is required every five years.

The TDP is a strategic guide for public transportation agencies for a 10-year period. It represents DTPW's vision for public transportation in its service area and defines actions to help DTPW achieve its vision. Specifically, a TDP includes the following major elements:

- Civic Engagement Plan (CEP) and process
- Base data compilation and analysis (review of demographic and travel behavior characteristics of the service area)
- Performance evaluation of existing services
- Situation appraisal (transit agency strengths and weaknesses; relationship to other plans; external barriers and opportunities; estimation of demand for transit)
- Vision, goals and objectives
- Transit demand and mobility needs
- Development of proposed transit enhancements (funded and unfunded)
- Development of alternatives for evaluation
- 10-year implementation plan for operating and capital improvements
- 10-year financial plan (projected costs and revenues)
- Other strategic issues specific to a given study area

Consistent with the TDP preparation guidelines from Florida Department of Transportation (FDOT), it is understood that the initial five years of a TDP will be characterized by substantially greater detail than the subsequent five years. The latter part of the planning horizon is intended to be more strategic in nature.

2 CIVIC ENGAGEMENT PLAN

The TDP CEP for DTPW is developed to provide opportunities for public participation and to facilitate consensus building for this visioning document. Public involvement is a critical component of the public transportation planning process, which will help ensure that decisions are made in consideration of public needs and concerns. The specific objectives of the civic engagement process shall include the following:

- Educate and present information by promoting proactive and early civic engagement.
- Solicit public input throughout the planning process by gathering full and complete information from the public.
- Integrate public feedback into the TDP.

- Monitor and improve the civic engagement process.

The CEP is consistent with the Miami-Dade Transportation Planning Organization's (TPO) guidelines for public participation in the planning process, and consistent with the FDOT TDP guidelines for public participation.

The TDP rule requires that the transit agency either develop its own CEP and have it approved by FDOT or use the TPO's Public Participation Plan. The TPO's Public Participation Plan was developed to cover all TPO needs and, as such, is a general document. DTPW has elected to develop its own CEP to provide a more detailed description of the civic engagement activities specifically to be undertaken during the development of the TDP. DTPW intends to adhere to the greater goals of the TPO's Public Participation Plan throughout the course of the TDP. In addition to adhering to the TPO's Public Participation Plan, DTPW will include a TPO representative on the TDP Advisory Review Committee (ARC).

2.1 TDP PROJECT TEAM

The Project Team for the development of the TDP comprises three groups – Project Management Team, an Advisory Review Committee, and Stakeholders. Each member of the project team plays an important role during the document preparation as described in the following sections.

2.1.1 Project Management Team

The Project Management Team will manage the project on behalf of DTPW with a primary role to provide strategic direction and approval to the Consultant Team. The Project Management Team will coordinate with the Consultant Team on a bi-weekly basis, approve major deliverables, coordinate and review all materials for presentation to the TDP ARC, and generally oversee the project's progression. The DTPW Project Manager will oversee the Consultant Team responsible for day-to-day study activities and manage the study schedule and budget. Appendix A, Table A-1 provides a list of Project Management Team members.

2.1.1 Transit Development Plan Advisory Review Committee (ARC)

The role of the ARC is to provide technical guidance, recommendations, input, and an overall countywide perspective of transportation-related planning issues throughout the development of the TDP. To ensure the project proceeds in adherence with local objectives and needs, the ARC will review and provide comment on all major deliverables. The Committee will be composed of representatives from major stakeholder groups, as agreed upon by the Project Management Team. Participants will be encouraged to provide input, comments, and recommendations throughout the TDP development process. The ARC will meet three times over the course of the project. Members of the ARC are listed in Appendix B, Table B-1. As required by statute, FDOT, regional workforce board (i.e., CareerSource South Florida), and TPO staff are to be given opportunity to review and comment on the development of the mission, goals, objectives, alternatives and 10-year implementation plan. Representatives from each were invited to participate on the ARC.

2.1.2 Stakeholders

Outreach efforts will focus on two distinct groups: stakeholders and the general public. Stakeholders are typically more informed regarding transportation issues and are viewed as

having a particular stake in the decisions made with regard to transportation. Outreach to the general public ensures that there is opportunity for everyone to participate in shaping transportation decisions in Miami-Dade County, whether they are identified as a particular stakeholder or not.

The term “stakeholders” refers to groups such as the following:

- Elected officials,
- Career Source Florida (the local workforce development board),
- DTPW public transportation service patrons,
- Bicycle and pedestrian groups,
- Commuter support groups,
- Health and human services organizations,
- City and county staff and agencies,
- Neighborhood associations,
- Service and community organizations,
- Organizations representing the transportation disadvantaged (e.g., older adults, persons with disabilities, minority groups, the disenfranchised, etc.),
- Non-profit organizations,
- Chambers of Commerce and economic development organizations,
- Small and large business owners,
- Professional associations and labor unions,
- School and university representatives,
- Tourism representatives,
- Media representatives, and
- State and federal agencies (e.g., environmental, planning, or transportation agencies).

2.2 Civic Engagement Activities

Public input should be collected in a variety of means including, but not limited to, traditional surveys, mailers, online surveys, electronic surveys (using tablets at local meetings), Facebook Live events, in-person events/forums, interactive websites, extensive social media promotion, live-polling techniques, public workshops, pop-up booths at community events, neighborhood canvassing and community partnerships aimed at “hard-to-reach” demographic groups, and other innovative approaches that are designed to drive survey participation rates. The goal of these outreach methods is to reach people of all ages and backgrounds, from children to senior citizens, including Limited English Proficiency (LEP) populations, low-income residents, residents with disabilities, and persons of all religions and family statuses. The Project Management Team will also provide translation and interpreter services for, at a minimum, the County’s Spanish and Creole populations.

2.2.1 Ongoing DTPW Outreach

Through coordinated county-wide efforts, DTPW continues its efforts to educate and provide early and ongoing civic engagement opportunities to the residents of Miami-Dade County. Miami-Dade Transit maintains an outreach program for engaging the public and other stakeholders through various activities and meeting forums. These include the DTPW website and social media outlets, 3-1-1, smart phone apps, posters and signs on buses, television screens, posters at stations, Miami-Dade TV coverage, etc.

DTPW will continue to use these mechanisms and, when feasible, use them for promoting participation in the TDP development process. Examples include directing passengers to complete an online survey regarding DTPW or advertising an upcoming public meeting.

Schedule: Ongoing.

2.2.2 Branding

The first step for the civic engagement process will be to develop a branded name for the TDP Major Update. The branded name will assist individuals in recognizing materials related to the project. This type of recognition allows for more efficient communication between the Project Team, the public, and stakeholders. The branded name will be used on all TDP materials. DTPW Marketing Staff decided to keep the existing TDP brand – MDT 10Ahead for this major update cycle. This was decided because the identity has been established and utilized for the last five years and, therefore, is expected to be more recognizable to the public during outreach activities.

Schedule: January 2019.

2.2.3 Public Meetings

Three (3) public meetings will be held at three designated locations as determined by DTPW; one in the north, one in the central, and one on the south end of the county. The three (3) public meetings will be concurrent with other municipality/community meetings, as scheduled and as determined by DTPW. These public meetings are intended to allow the public to comment, solicit questions, and participate in the development of the TDP Major Update as well as assist in the identification of unmet regional transportation needs. DTPW will establish time limits for receipt of public comments.

One (1) public meeting will be held at the County Administration Building to present the TDP Major Update recommendations. This meeting will be structured to present the TDP Major Update recommendations, a description of the civic engagement process used, and activities undertaken, with the documentation of input and comments received at this public meeting.

Schedule: May 2019

2.2.4 Public Hearing

The TDP will be reviewed by and presented to the Miami-Dade County Board of County Commissioners as a public hearing item and later presented to the Board of County Commissioners for formal adoption prior to final submission of the TDP document to FDOT for review and approval. The public hearing process will also allow members of the public to

comment on the TDP.

Schedule: End of July 2019.

2.2.5 TDP Contact Information

To assist the public and stakeholders in providing information to DTPW related to the TDP, a number of mechanisms will be established to gather information. The first is a TDP-specific email address (DTPW10Ahead@miamidade.gov) where commenters can direct any TDP-related comments. The second is DTPW's TDP webpage – (www.miamidade.gov/mdt10ahead). The third is to use the County's Communications Department website and the 311 Contact Center at www.miamidade.gov or 311@miamidade.gov and via telephone at 3-1-1, 305-468-5900, 888-311-DADE (3233, or TTY 305-468-5402 to gather information. If a commenter indicates that the comment is related to the TDP, the information will be forwarded by 311 to DTPW staff.

Schedule: Ongoing.

2.2.6 Printed Materials

DTPW will produce printed materials in English, Spanish, and Creole for distribution to members of the public. Materials will be printed to with TDP contact information such as the TDP-specific email address and website as listed in the preceding section. The following printed materials will be prepared for the TDP:

- A fact sheet describing the TDP process
- A TDP survey/comment card that provides an overview of the TDP process, provides information on how people can get involved, and includes an abbreviated version of the online survey.
- Meeting notices may be prepared upon request
- Newsletter articles will be written upon request for DTPW publications or those of peer organizations within Miami-Dade County.

The fact sheets, and comment card/surveys will be made available at TDP public meetings, outreach events, public libraries, various County public meetings and community events attended by DTPW, and at DTPW facilities. Efforts will be undertaken to distribute these materials through other mechanisms such as TPO and Miami-Dade County events. The comment card/survey may be submitted at any TDP event or returned via pre-paid postage; it also will provide instructions to direct people how to access a longer, online-based version of the survey that can be completed electronically in English, Spanish or Creole.

Schedule: Materials will be developed January/February 2019. Distribution will be ongoing.

2.2.7 Electronic Survey

DTPW will create an electronic survey in English, Spanish, and Creole that will gather input from the public regarding the TDP. The survey will seek input from stakeholders regarding the direction DTPW should move in the future. Access to the survey will be promoted through print

materials, social media, the TDP website, in-person events, flyers distributed at transit hubs, partnerships with municipalities and peer agencies, and earned media. DTPW will also solicit electronic survey responses at the community events described in Section 2.2.8.

Schedule: Survey to be online by February 2019. Data collection will be ongoing.

2.2.8 Community Events and Canvassing

DTPW will secure survey participation by attending community events and canvassing targeted neighborhoods with tablets loaded with the electronic survey. This technique will provide flexibility to access demographic groups that are traditionally hard to reach and underrepresented. Printed materials (Described in Section 2.2.6), promotional items and other giveaways will be offered to the public to encourage participation. Partnerships and/or sponsorships with community events such as the Dade County Fair, the Miami Design District Performance Series, and various arts festivals.

2.2.9 Electronic Communication

DTPW will promote TDP outreach activities and encourage input through its electronic communication outlets. Notices will be posted on the DTPW, TPO, Citizens' Independent Transportation Trust (CITT), and other Miami-Dade County websites. DTPW will encourage elected officials and community agencies to provide a link to the survey via their websites and social media pages. DTPW will also post information on its Facebook page (www.facebook.com/MiamiDadeTransit) and through its Twitter account (www.twitter.com/GoMiamiDade) as well as Instagram with #GoMiamiDade. The DTPW electronic newsletter, Mobility 305, will promote the TDP and provide a link to the electronic survey. DTPW may also use its mobile app to reach passengers (see example). Electronic flyers will be distributed to contacts on active DTPW planning or construction project databases.



Schedule: Ongoing.

2.2.10 Additional Outreach

DTPW will offer alternative outreach opportunities for those who have difficulty participating in conventional public outreach events or livestreams. Some individuals may have difficulty participating in an event due to disabilities, work conflicts, lack of childcare, etc. These individuals may access information and provide comment through DTPW's website (www.miamidade.gov/mdt10ahead), the County's 311 Contact Center, the TDP's email address, or DTPW's social media accounts.

In addition, DTPW will continually attend various public meetings/hearings and community

events throughout the County in an effort to provide additional opportunities for the public to provide feedback. TDP material will also be available at all public libraries and commission offices.

Schedule: Ongoing.

2.3 Advisory Committee Coordination

DTPW expands its civic engagement program by engaging members of transportation-related advisory committees established in Miami-Dade County as listed in the following sections. DTPW will engage these committees during their regularly-scheduled meetings as informational agenda or action items to seek input, provide information, and address questions on the development of the DTPW TDP. DTPW will make presentations to these committees to ensure that these stakeholders are kept informed with regard to the TDP. All meeting dates listed as follows are tentative until confirmed with the individual committee.

2.3.1 Citizens Transportation Advisory Committee (CTAC)

The TPO CTAC ensures that transportation projects in all stages of the planning process adhere to established visions, goals, objectives, and collective needs of the community. This group is comprised of Miami-Dade County residents appointed by the TPO Governing Board members. The CTAC meets once a month and is open to the public. DTPW will attend one meeting of the CTAC to seek input for the TDP based upon a review and formal presentation of the TDP development.

Schedule: May 2019

2.3.2 Transportation Planning Technical Advisory Committee (TPTAC)

The TPO TPTAC provides technical support, via a review process, to the Transportation Planning Council. TPTAC discussions are focused on technical aspects related to the projects. The TPTAC meets once a month and is open to the public. DTPW will attend one meeting of the TPTAC to seek input for the TDP based upon a review and formal presentation of the TDP development.

Schedule: June 2019

2.3.3 Transportation Disadvantaged Local Coordinating Board (LCB)

The LCB identifies local service needs and provides information, advice, and direction to the Community Transportation Coordinator (CTC) on the coordination of services to be provided to the transportation disadvantaged through the Florida Coordinated Transportation System (FCTS). DTPW will attend one meeting of the LCB to seek input for the TDP at a meeting date to be determined.

Schedule: TBD

2.3.4 Transportation and Public Works Committee (TPW)

The TPW oversees all local transportation systems and ensures the proper delivery of current and future public transportation services to the residents of Miami-Dade County. The TPW will review and provide input on the TDP as well as take formal action in providing its

recommendation to the Miami-Dade County Board of County Commissioners (BCC) based upon a formal presentation at this public hearing. DTPW will attend one TPW meeting to seek input and address comments and questions for the development of the TDP. DTPW will seek formal action by the TPW to approve and make recommendation to the BCC.

Schedule: June 2019

2.3.5 Miami-Dade County Board of County Commissioners (BCC)

The Miami-Dade County BCC is the administrative body for county government that provides policy guidance and the establishment of community laws through ordinances and resolutions. Commissioners are elected by residents to represent each of the 13 districts in Miami-Dade County. The BCC works closely with the general public to make certain that their voice is heard and the needs of the county are addressed.

The TDP will be reviewed by and presented to the BCC for formal adoption prior to the submittal of the TDP document to FDOT for review and approval.

Schedule: End of July 2019

2.4 Documentation

DTPW is committed to better understanding and hearing the transportation needs of the community it serves. Therefore, as part of the TDP process, comments and recommendations received from the TDP outreach opportunities will be properly logged, maintained, and responded to. A summary of each civic engagement event will be completed after each event and properly logged. Requests received from the public will be forwarded to the appropriate DTPW division for follow-up and resolution.

Schedule: Ongoing.



3 CIVIC ENGAGEMENT EVALUATION MEASURES

The following performance measures will be used to measure the effectiveness of DTPW civic engagement efforts with regard to the TDP.

Table 1: Civic Engagement Evaluation Measures

Civic Engagement Involvement Goal	Strategy	Objectives	Measures	Targets
<p>Goal 1: Early and Consistent Involvement</p> <p>Involve riders, the public, and stakeholders early and regularly in the project.</p>	<ul style="list-style-type: none"> Provide opportunities for active participation in the project. Active participation occurs when a participant provides input. Examples include face-to-face communication with a TDP team member, completion of a TDP survey, emailing a question to the TDP team, etc. 	<ul style="list-style-type: none"> Catalog the number of interactions throughout the project. Interactions are defined as input received through face-to-face communication with a TDP team member, completion of a TDP survey, emailing a question, etc. 	<ul style="list-style-type: none"> Number of participants who actively participate. Number of participants who passively participate (e.g., number of people who received the email, number of people viewing the website, etc.). 	<ul style="list-style-type: none"> Greater than 1,000 interactions. Greater than 5,000 opportunities provided to participate.



Table 1: Civic Engagement Evaluation Measures (Continued)

Civic Engagement Goal	Strategy	Objectives	Measures	Targets
Goal 2: Opportunity Provide all DTPW riders, citizens, and stakeholders with the opportunity to participate throughout the project, including those in traditionally under-represented populations, such as persons with disabilities, older adults, or those who have limited English proficiency (LEP).	<ul style="list-style-type: none"> Provide multiple opportunities for input so that if a person cannot attend an event, he/she can still provide input via DTPW's website, in addition to obtaining printed material in all public libraries. 	<ul style="list-style-type: none"> Establish project-specific email address so participants can submit comments and questions any time. 	<ul style="list-style-type: none"> Establishment of a project-specific email address. 	<ul style="list-style-type: none"> Maintenance of a project-specific email address throughout the duration of the project and review of comments and questions received.
	<ul style="list-style-type: none"> Provide opportunity for traditionally under-represented groups to participate. 	<ul style="list-style-type: none"> Identify under-represented groups early in the process and include representatives on the ARC. 	<ul style="list-style-type: none"> Number of ARC members that fall into an under-represented group. 	<ul style="list-style-type: none"> Greater than 10% of ARC members are members of an under-represented group.
	<ul style="list-style-type: none"> Provide opportunity for non-English speaking individuals to participate. 	<ul style="list-style-type: none"> Provide all printed materials in English, Spanish, and Creole. 	<ul style="list-style-type: none"> Percent of completed alternative language surveys. 	<ul style="list-style-type: none"> Greater than 20% of returned surveys are alternative language surveys (based on percentage of residents who speak Spanish at home).
<ul style="list-style-type: none"> Provide opportunity for persons with disabilities to participate. 	<ul style="list-style-type: none"> Ensure in-person events are held at locations accessible by at least one transit route and are ADA accessible. 	<ul style="list-style-type: none"> Percent of events held at locations accessible by at least one transit route and are ADA accessible. 	<ul style="list-style-type: none"> 100% of all events are held at locations accessible by at least one transit route and are ADA accessible. 	

Table 1: Civic Engagement Evaluation Measures (Continued)

Civic Engagement Goal	Strategy	Objectives	Measures	Targets	
Goal 3: Information and Communication Provide all citizens and interested stakeholder agency groups with clear, timely, and accurate information relating to the project as it progresses.	<ul style="list-style-type: none"> Provide regular updates on the TDP's progress. 	<ul style="list-style-type: none"> Provide information through accessible formats, including electronic and printed media. 	<ul style="list-style-type: none"> Provide printed copies of materials when requested by those who do not have online access. 	<ul style="list-style-type: none"> Number of individuals provided printed copies when requested. 	<ul style="list-style-type: none"> 100% of individuals provided printed copies when requested.
		<ul style="list-style-type: none"> Update the TDP website on a regular basis. 	<ul style="list-style-type: none"> Frequency of updates to the TDP website 	<ul style="list-style-type: none"> Update the TDP website more than once per month. 	
Goal 4: Range of Techniques Use a broad-spectrum of techniques to gather input from a diverse population within the project area.	<ul style="list-style-type: none"> Employ the techniques identified in this CEP to provide a broad range of opportunities. 	<ul style="list-style-type: none"> Assess whether or not the goals of this CEP have been met. 	<ul style="list-style-type: none"> Percent of goals met by the conclusion of the TDP process. 	<ul style="list-style-type: none"> Greater than 75% of goals met by the conclusion of the TDP process. 	

4 TITLE VI/LIMITED ENGLISH PROFICIENCY (LEP)

Under Title VI of the Civil Rights Act of 1964, as amended, as recipients of federal financial assistance, the Department of Transportation and Public Works, without regard to race, color, or national origin, operates and plans for transit services so that:

- Transit benefits and services are available and provided equitably;
- Transit services are adequate to provide access and mobility for all;
- Opportunities to participate in the transit planning and decision-making process are open and accessible and that remedial and corrective actions are taken to prevent discriminatory treatment of any beneficiary.

PROTECTIONS OF TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 AS AMENDED

Miami-Dade County provides equal access and equal opportunity in employment and does not discriminate on the basis of disability in its programs or services. Auxiliary aids and services for communication are available with five days advance notice. For material in alternate format (audiotape, Braille, or computer disk), a sign language interpreter, or other accommodations, please contact: Miami-Dade Transit, Office of Civil Rights and Labor Relations, 701 NW 1st Court, Suite 1700, Miami, FL 33136. Attention: Marcos Ortega. Telephone: 786-469-5225, Fax: 786-469-5589. E-mail: marcos.ortega@miamidade.gov.

In accordance with DTPW's Title VI Program, ensuring meaningful participation of minority and low-income populations throughout the TDP process is a major objective of this CEP. The following steps will be taken to provide meaningful access and participation of Title VI protected populations.

- The demographic composition of the ARC will seek to represent the diversity of Miami-Dade County.
- Electronic surveys will be created with a Title VI sensitivity to give DTPW a deeper understanding of the needs of minority and low-income residents and passengers. The information collected in these surveys also will be utilized when assessing the impact of future major service changes with respect to Title VI protected populations.
- Meeting locations and times will be sensitive to the needs of each community to ensure access and participation by as many people as possible.
- TDP outreach materials will be available online and in printed form in multiple languages including English, Spanish, and Creole.
- A notification that includes the protections under Title VI of the Civil Rights Act of 1964, as amended, will be included at each outreach event.

DTPW is concerned about gathering input from individuals with LEP. To the extent possible, the Consultant Team will make Spanish-speaking individuals available to assist with public outreach events. The Consultant Team will translate the most pertinent materials (e.g., project fact sheet and survey) into Spanish.

The website also will indicate that individuals may email questions and comments in Spanish and Creole. Questions will be responded to in Spanish or Creole, and comments will be translated into English and recorded.

Should an individual be interested in providing input at an event and the Project Team cannot accommodate their need for a language other than English, the Project Team will try to ask the individual to email the TDP email address setup for DTPW TDP's use. After receiving written comment, efforts will be made to have it translated and addressed.



APPENDICES





APPENDIX A – PROJECT MANAGEMENT TEAM

Table A-1 Project Management Team

Name	Agency/Firm	Role
Camila Perez	DTPW	DTPW Project Manager
Albert Hernandez	DTPW	DTPW Assistant Director
Jie Bian	DTPW	DTPW Principal Planner
Tim Palermo	DTPW	DTPW Project Coordinator
John Lafferty	WSP	Project Manager
Thomas Rodrigues	WSP	Deputy Project Manager
Joel Rey	Tindale-Oliver & Associates	Technical Lead
Jill Quigley	Tindale-Oliver & Associates	Technical Lead
Yvette Holt	Holt Communications	Public Involvement Lead





APPENDIX B – PROJECT ADVISORY REVIEW COMMITTEE

Table A-2 TDP Project Advisory Review Committee Participants

No.	Stakeholder	Representative
1	DTPW Assistant Director of Rail Services	Buford Whitaker
2	DTPW Director of Bus Services	Derrick Gordon
3	Citizens Independent Transportation Trust (CITT)	Monica Cejas
4	Miami TPO*	Aileen Boucle
5	DTPW Assistant Director	Gaspar Miranda
6	Miami-Dade Expressway Authority	Mayra Diaz
7	Miami-Dade County Regulatory and Economic Resources – Planning & Zoning	Jerry Bell
8	Miami-Dade County Parks and Recreation	Lee Hefty
9	Miami-Dade County Bike-Pedestrian	Eric Tullberg
10	League of Cities	Richard Kuper
11	Agency for Persons with Disabilities	Rosa Llaguno
12	City of Miami DDA	Alyce Robertson
13	Beacon Council	Michael Finney
14	Miami-Dade Chamber of Commerce	Alfred Sanchez
15	Urban Health Solutions Urban Health Partnerships	Anamarie Garces
16	Career Source Florida*	Rick Beasely
17	South Florida Regional Transportation Authority	Loraine Cargill
18	South Florida Commuter Services	Jeremy Mullings
19	Florida Turnpike Enterprise	Paul Wai
20	FDOT District 6*	Nilia Cartaya
21	Alliance for Aging	Max Rothman
22.	Center for Independent Living of South Florida	Peter O'Connell
23	Miami Transit Alliance	Marta Vicedo
24	DTPW Infrastructure Eng. and Maintenance.	Robert McClellan
25	DTPW Performance Analysis	Carlos De La Torre
26	DTPW Safety and Security	Eric Muntan
27	DTPW Strategic Planning	Carlos Cruz-Casas
28	DTPW Marketing	Ileen Delgado
29	DTPW Budgeting	Patricia Prochinicki
30	DTPW Media	Karla Damian

*Inclusion on ARC fulfills statutory requirement



Appendix A.2
FDOT Civic Engagement Plan Acceptance



Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 NW 111 Avenue
Miami, FL 33172-5800

KEVIN J. THIBAUT
SECRETARY

April 24, 2019

Albert Hernandez, PE
Assistant Director Engineering, Planning and Development
Miami Dade County - Department of Transportation and Public Works
701 NW 1st Court, 15th Floor,
Miami, Florida 33136

RE: Miami-Dade Department of Transportation and Public Works Fiscal Year 2020 — 2029
Transit Development Plan Major Update Civic Engagement Plan

Dear Mr. Hernandez:

The Florida Department of Transportation has reviewed your request for approval of the submitted revised Miami-Dade Department of Transportation and Public Works Fiscal Year 2020 — 2029 Transit Development Plan Major Update Civic Engagement Plan received on 2/14/19.

In accordance with Rule Chapter 14-73, Florida Administrative Code (FAC), the TDP development process must include the specification of an approved public involvement process and documentation of its use.

Upon review of the document provided, FDOT approves Miami-Dade DTPW to utilize the submitted Civic Engagement Plan to guide the TDP public outreach process. All public involvement activities conducted during the development of the Miami-Dade DTPW FY 2020-2029 TDP must be consistent with the Civic Engagement Plan and documented in the TDP.

Should you have any questions or concerns, feel free to contact me at 305.470.5255.

Sincerely,

A handwritten signature in blue ink that reads "Raymond Freeman". The signature is written in a cursive, flowing style.

Raymond Freeman
District Transit Programs Administrator

Cc: Nilia Cartaya, FDOT

A.3 Summary of Outreach Activities

Social Media Overview

Miami-Dade County Department of Transportation and Public Works
 June 8 · 🌐
 Nou vle tande w! Repons ou ede nou planifye vizyon stratejik pou dizan (10 an) k ap vini yo. Pou nenpòt detay adisyonèl e pou w patisipe nan sondaj #MDT10Ahead, vizite n sou sit wèb nou an: <http://bit.ly/MDT10Ahead19>

Transportation Trust @GoCITT
 @GoMiamiDade wants to hear from you! Your input helps map out the strategic vision for public transportation for the next ten years. For details and participate in the #MDT10Ahead survey, visit the website: social.miamidade.gov/cw8I

Commissioner Esteban Bovo @CommBovo · Apr 24
 Annually, @GoMiamiDade launches its #MDT10Ahead survey asking commuters to provide feedback for its Transit Development Plan, a 10 year strategic vision that helps the Department operate & grow a clean, safe, convenient, & reliable @IRideMDT. Take it here: www8.miamidade.gov/global/transpo...

Miami-Dade DTPW @GoMiamiDade
 Our Transit Development Plan guides decisions about existing and future services. We want to hear from you as we work on our #MDT10Ahead strategic vision. Take the survey today: bit.ly/10AheadSurvey...
 10:45 AM · Jul 30, 2019 · Salesforce - Social Studio

Miami-Dade DTPW @GoMiamiDade · Jul 29
 Cada año lanzamos nuestra encuesta #MDT10Ahead para pedirles a ustedes, nuestros usuarios, que nos envíen sus opiniones con el fin de mantener informado al Plan para el Desarrollo del Transporte Público en los próximos diez años. ¡Completa la encuesta hoy! bit.ly/10AheadSurvey...

Miami-Dade DTPW @GoMiamiDade
 Plan Devlopman Transpò Piblik nou an gide desizyon sou sèvis ki egziste e sa k gen pou vini a lavni. Nou vle tande opinyon w pandan n ap travay sou vizyon #MDT10Ahead. Fè sondaj la jodi a:

Miami-Dade County Department of Transportation and Public Works
 June 6 · 🌐
 Our Transit Development Plan guides decisions about existing and future transit services. The information we collect via our annual survey helps guide this ten-year plan. We want to hear from you as we work on our

Tri-Rail @Tri_Rail · May 14
 Tri-Rail riders that transfer to Metrorail/Metrobus, you can help @GoMiamiDade identify existing and future service improvements by taking the #MDT10Ahead survey.

Miami-Dade DTPW @GoMiamiDade ·
 It's that time of year again when we ask for your input on our strategic vision for the next ten years. For details and participate in our #MDT10Ahead survey, visit bit.ly/MDT10Ahead19

<https://www8.miamidade.gov/global/transportation/home.page>

Welcome to the new version of Miami-Dade County's website. We'd love your feedback.

Services & Information | News & Social Media | Your Government | Contact Us

Online & Mobile Services | Report a Problem | Licenses | News & Social Media

News & Social Media

Transit will be running on a Sunday schedule this Memorial Day
 May 13, 2019
 Get updates and track your ride by downloading the app.

Transit provided...

Give your input on transportation and mobility
 May 8, 2019
 Comments are accepted through July 31.

MDT10Ahead

MDT10Ahead, the Fiscal Year 2020-2029 Transit Development Plan (TDP), is a ten-year strategic vision for the Miami-Dade Department of Transportation and Public Works (DTPW) to promote the operation of an efficient, reliable, and financially sustainable transit system. The TDP process provides many opportunities for Miami-Dade County citizens to identify mobility needs and transportation issues. Your input is needed to facilitate public consensus and provide direction for TDP development and we want to hear from you.

Take the survey [here](#)

Summary of Transit Station Outreach - June 19 - August 16, 2019

Day	Bus Stops	Bus Routes	Metrorail Stations	Metromover Stations
Wednesday, June 19, 2019	Golden Glades Park & Ride			
Thursday, June 20, 2019	Brickell	9	University	Eighth Street
Friday, June 21, 2019	Dadeland South	3	Overtown	College North
Saturday, June 22, 2019		17	Allapattah	Knight Center
Sunday, June 23, 2019				
Monday, June 24, 2019	Aventura			
Tuesday, June 25, 2019	Government Center	22	Coconut Grove	Tenth Street
Wednesday, June 26, 2019	Omni	119 (S)	Government Center	Government Center -
Thursday, June 27, 2019	Dadeland North	11	Dadeland South	Brickell
Friday, June 28, 2019	Airport/MIC	77	Brickell	Bayfront Park
Saturday, June 29, 2019		112 (L)	Dadeland North	College/Bayside
Sunday, June 30, 2019				
Monday, July 01, 2019	SW 1st Street and SW 1st Ct			
Tuesday, July 02, 2019	Douglas Road Metrorail	38	Civic Center	Omni
Wednesday, July 03, 2019	MLK Jr. Metrorail	27	Douglas Road	First Street
Thursday, July 04, 2019		120	South Miami	Financial District
Friday, July 05, 2019			No outreach	
Saturday, July 06, 2019			No outreach	
Sunday, July 07, 2019				
Monday, July 08, 2019	Dadeland South			
Tuesday, July 09, 2019	Aventura	17	Allapattah	Knight Center
Wednesday, July 10, 2019	Government Center	22	Coconut Grove	Tenth Street
Thursday, July 11, 2019	Omni	119 (S)	Government Center	Government Center -
Friday, July 12, 2019	Dadeland North	11	Dadeland South	Brickell
Saturday, July 13, 2019		77	Brickell	Bayfront Park
Sunday, July 14, 2019				
Monday, July 15, 2019	Golden Glades Park & Ride			
Tuesday, July 16, 2019	Omni	9	University	Eighth Street
Wednesday, July 17, 2019	Dadeland North	11	Dadeland South	Brickell
Thursday, July 18, 2019	MLK Jr. Metrorail	77	Brickell	Bayfront Park
Friday, July 19, 2019	Golden Glades Park & Ride	120	South Miami	Financial District
Saturday, July 20, 2019		9	University	Eighth Street
Sunday, July 21, 2019				

9:45 87%

2019 TRANSIT DEVELOPMENT PLAN SURVEY

- Favorites
- Nearby
- Popular Destinations
- Trip Planner
- Metrobuses
- Metrorail
- Metromover
- STS
- Store

Transit Station Outreach Schedule

Summary of Transit Station Outreach - June 19 - August 16, 2019

Day	Bus Stops	Bus Routes	Metrorail Stations	Metromover Stations
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Saturday, July 13, 2019				
Sunday, July 14, 2019				
Monday, July 15, 2019	Golden Glades Park & Ride	9	University	Eighth Street
Tuesday, July 16, 2019	Omni	11	Dadeland South	Brickell
Wednesday, July 17, 2019	Dadeland North	77	Brickell	Bayfront Park
Thursday, July 18, 2019	MLK Jr. Metrorail	120	South Miami	Financial District
Friday, July 19, 2019	Golden Glades Park & Ride	9	University	Eighth Street
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Sunday, July 21, 2019				

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Tuesday, July 30, 2019	Government Center	119 (S)	Government Center	Government Center -
Wednesday, July 31, 2019	Omni	11	Dadeland South	Brickell
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Friday, August 02, 2019	Airport/MIC	112 (L)	Dadeland North	College/Bayside
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Friday, August 16, 2019	Dadeland North	77	Brickell	Bayfront Park

Correspondence with Career Source South Florida



TRANSPORTATION AND PUBLIC WORKS
Engineering, Planning & Development
Overtown Transit Village
701 N.W. 1st Court • 15th Floor
Miami, Florida 33136
Tel: 786-469-5675 Fax: 786-469-5574

October 2, 2019

Rick Beasley, Executive Director
Career Source South Florida
7300 Corporate Center Drive Suite 500
Miami, FL 33126

RE: Submittal of Miami-Dade Transit's Fiscal Year 2020 – 2029 Draft Transit Development Plan Major Update

Dear Mr. Beasley:

As part of the development process of the Major Update of the 2019 Transit Development Plan (TDP) and following the Florida Department of Transportation Guidelines for development of the TDP, the Department of Transportation and Public Works (DTPW) requests the input of Career Source South Florida for inclusion in the 2019 TDP.

The Career Source South Florida is one of the TDP review agencies required to be solicited for comments to ensure local workforce transportation needs are adequately met by the local transportation services. If there are no transportation needs to be met at this time, we would appreciate a note from you with that statement. We welcome and appreciate your comments prior to October 18, 2019. If we do not receive any comments from Career Source South Florida by the 18th of October, we will assume that you have no comments.

In order to facilitate your review as well as other members of your agency, the MDT10Ahead draft document is available for review on the MDT10Ahead project website <http://www.miamidade.gov/transit/mdt-10-ahead.asp>. Please use this latest version to base your comments. If you need additional information, or have any questions, do not hesitate to contact me at 786-469-5098.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jie Bian".

Jie Bian, Ph.D.
Chief, Planning & System Development, Department of Transportation and Public Works

c: Raymond Freeman, Transit Program Administrator, FDOT
Franchesca Taylor, AICP, Planner II, DTPW

A.4 Transit Survey Responses



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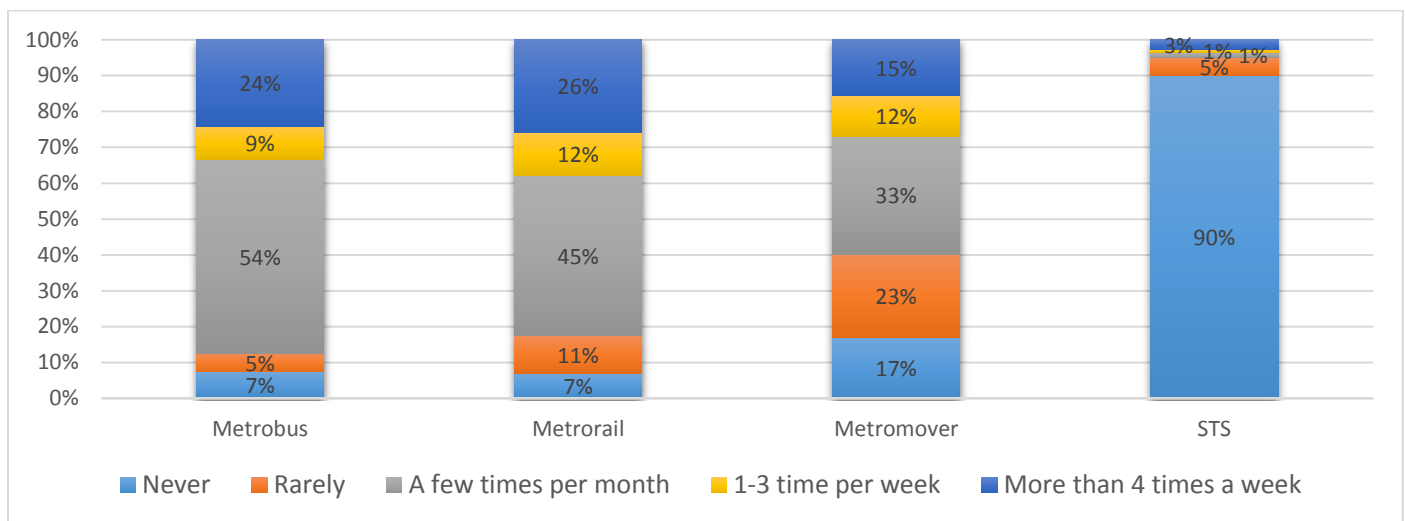


A.4 SURVEY RESPONSES

4.1.1 Transit Use Frequency

Figure 1 depicts the frequency and mode characteristics of survey respondents. The data reveals that of the modes of transit Miami-Dade provides, Metrobus and Metrorail are the two most popular modes among the four. With 88% and 82% of responders saying they used Metrobus and Metrorail once a month, they outpace the more condensed Metromover system which only 58% of responders said they use at least once a month. Of survey respondents, the Special Transportation Services (STS) was the most rarely used service, as it is a more specialized service.

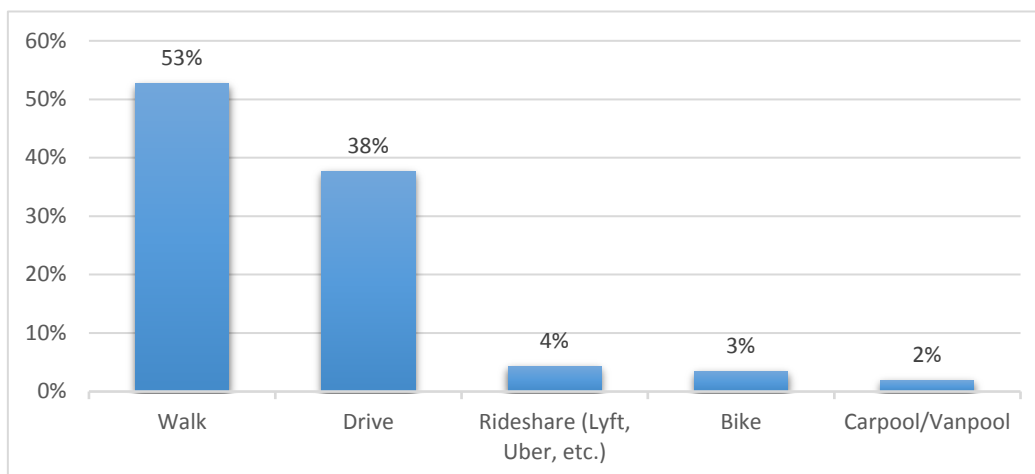
Figure 1 - How Often Do You Use Miami-Dade Transit?



4.1.2 Connecting to Transit

As shown in Figure 5, respondents were asked how they arrived to transit stations. A majority, 53%, indicated they walked and more than a third (38%) indicated they drive.

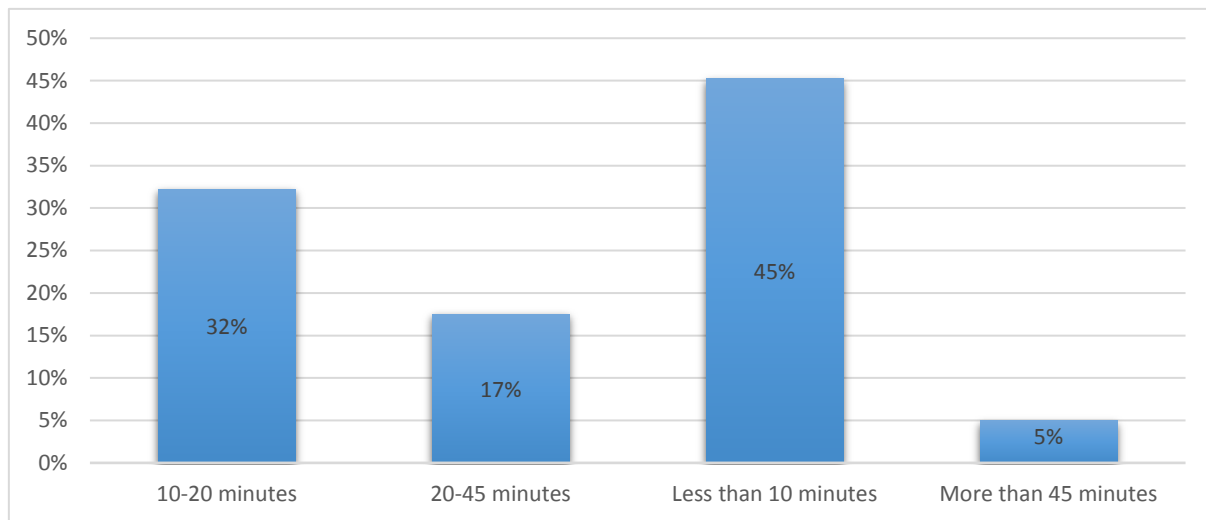
Figure 2 - How Do You Arrive at Your Transit Station



4.1.3 Distance to Transit Stations

As shown in Figure 3, survey respondents were asked how long the journey to their nearest or preferred transit station is. Survey responses show that while 45% of riders are less than 10 minutes away from their transit station, 49% of riders are 10 to 45 minutes away.

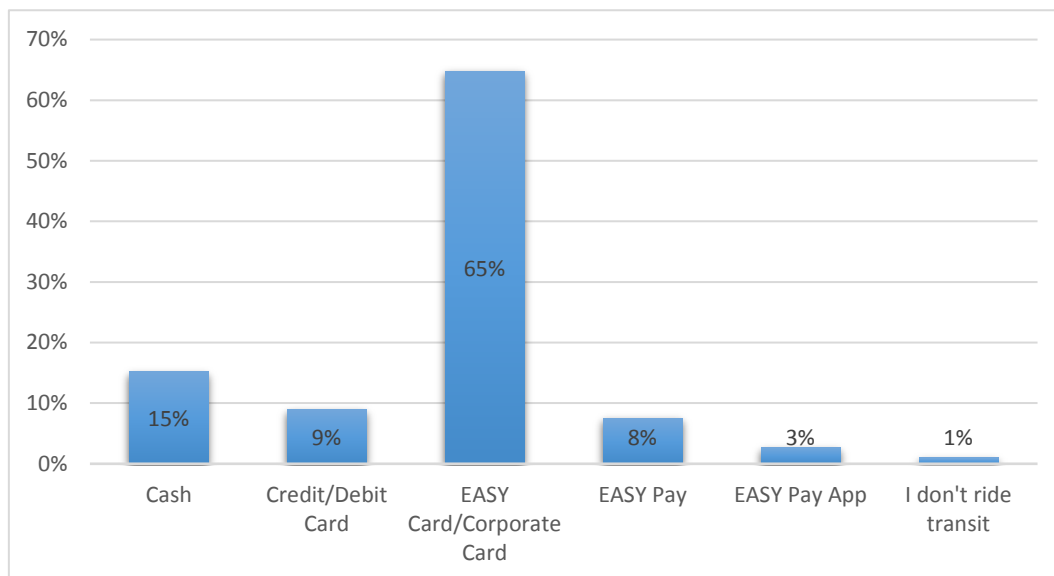
Figure 3 - How Long Does It Take You to Get to Your Nearest/Preferred Transit Station



4.1.4 Fare Payment

When asked how they pay for transit fares, a majority of respondents (65%) indicated they use an EASY Card or corporate card.

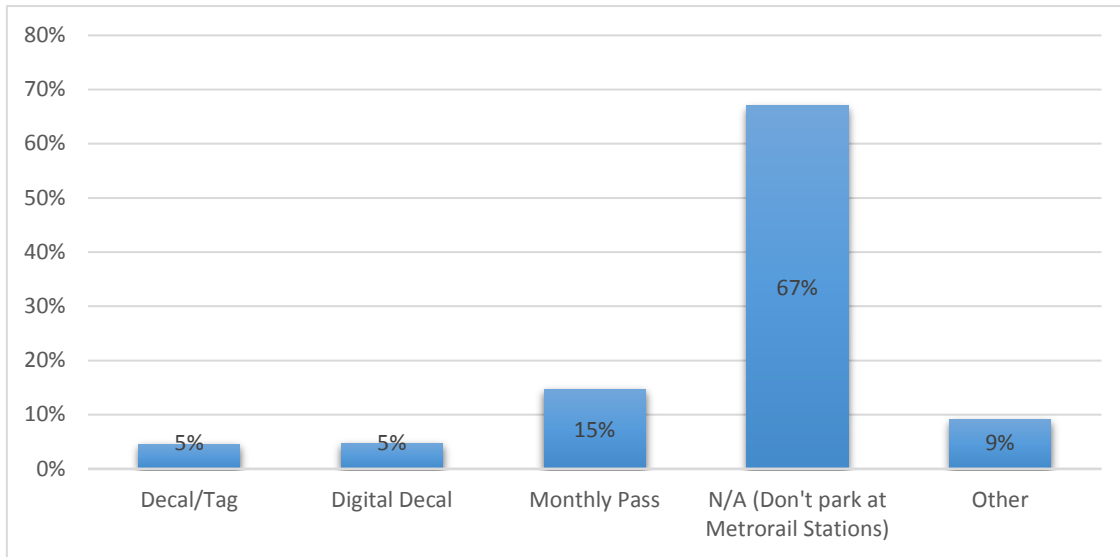
Figure 4 - How Do You Pay for Transit Fares



4.1.5 Metrorail Parking Payment

While a majority of survey respondents (67%) indicated they do not pay for parking at Metrorail stations, those that do pay typically do so through a monthly parking pass (15%).

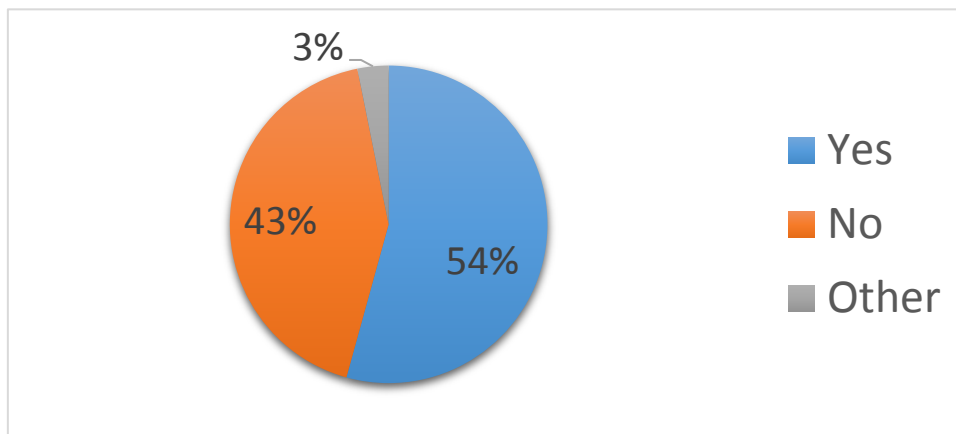
Figure 5 - How Do You Pay for Parking at Metrorail Stations



4.1.6 Transfers

Just over half of respondents (54%) indicated they make transfers to complete their trips.

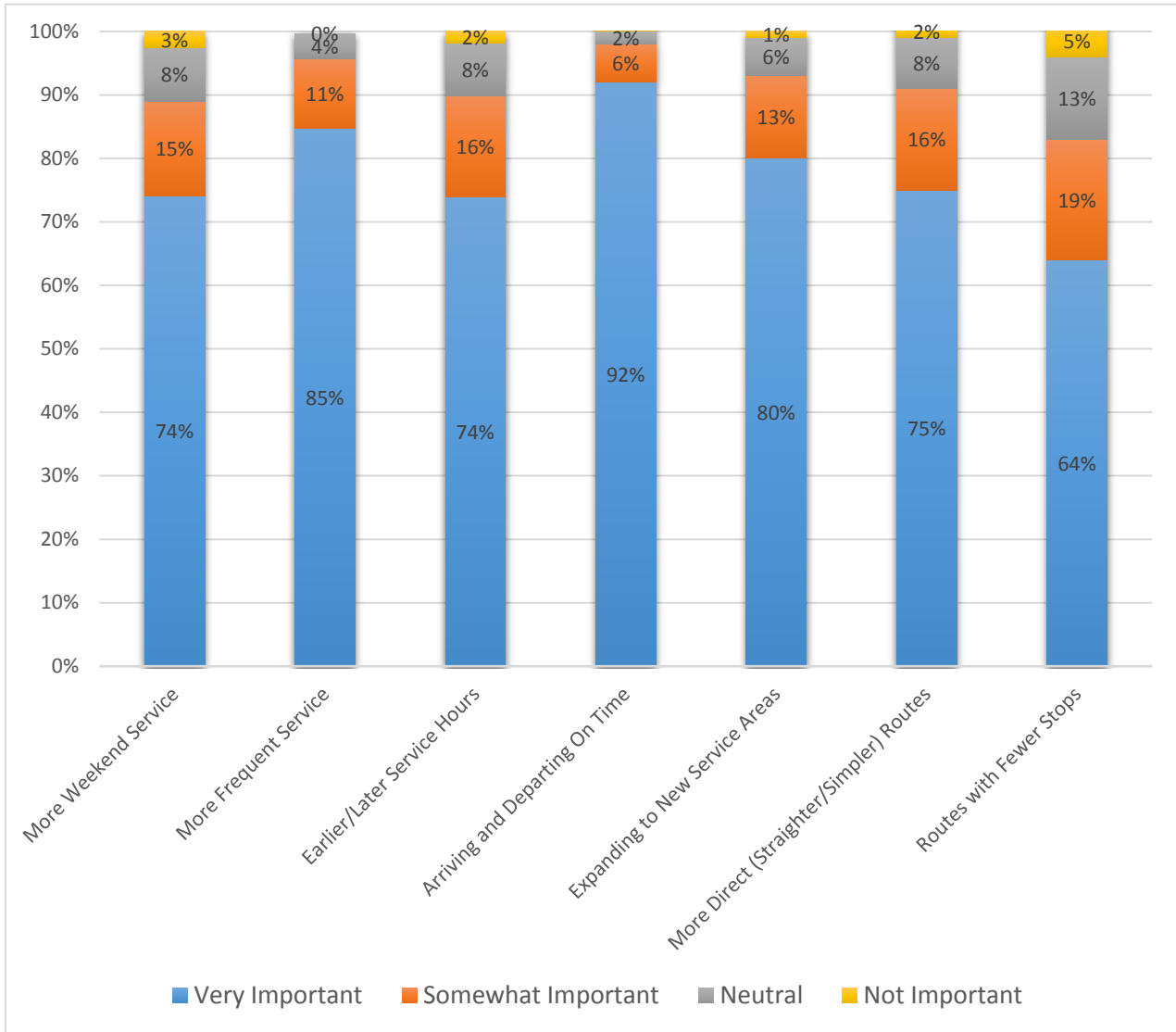
Figure 6 - Do You Make Transfers



4.1.7 Service Prioritization

As shown in Figure 7, survey respondents were asked which services should be prioritized over the next ten years. While most respondents felt that it was very important for all categories across the board to be priorities, arrival/departure times and providing more frequent service received the most support. Additional weekend service and expanded service areas had slightly less support and routes with less stops receiving the least amount of "very important" support.

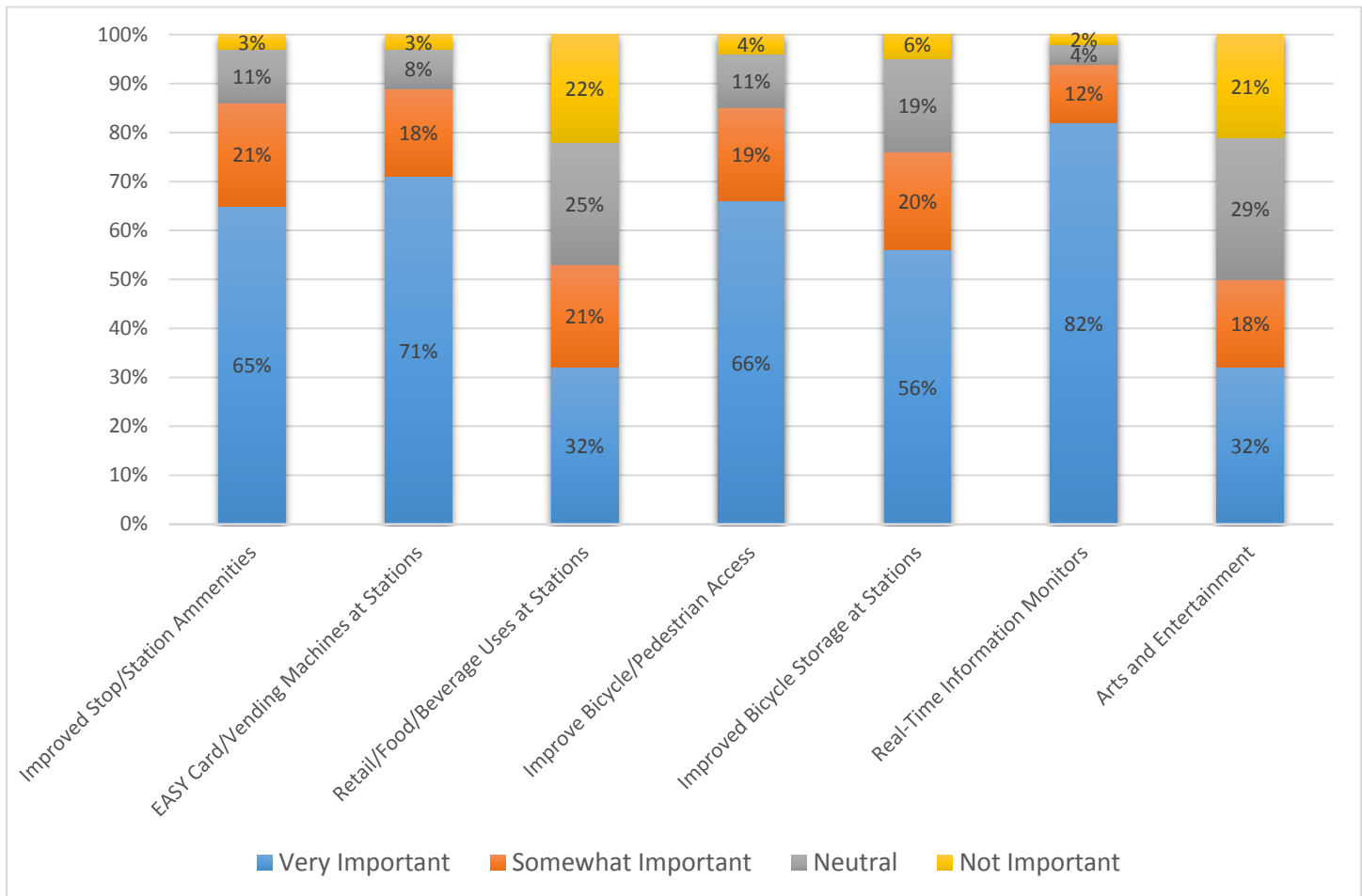
Figure 7 - S What Should be the Service Priority be for the Next 10 Years?



4.1.8 Facilities-Related Priorities

As shown in Figure 8, survey respondents were asked which services should be prioritized over the next ten years. Respondents agreed that providing real-time information monitors, and improved amenities like EASY Card/vending machines and canopies, comfort and furnishings were very important priorities. Additionally, improved bicycle/pedestrian access and bicycle storage at stations was shown to have a high importance. Offering retail/food/beverage uses and providing arts and entertainment did not receive as much support, with more respondents providing a lower importance.

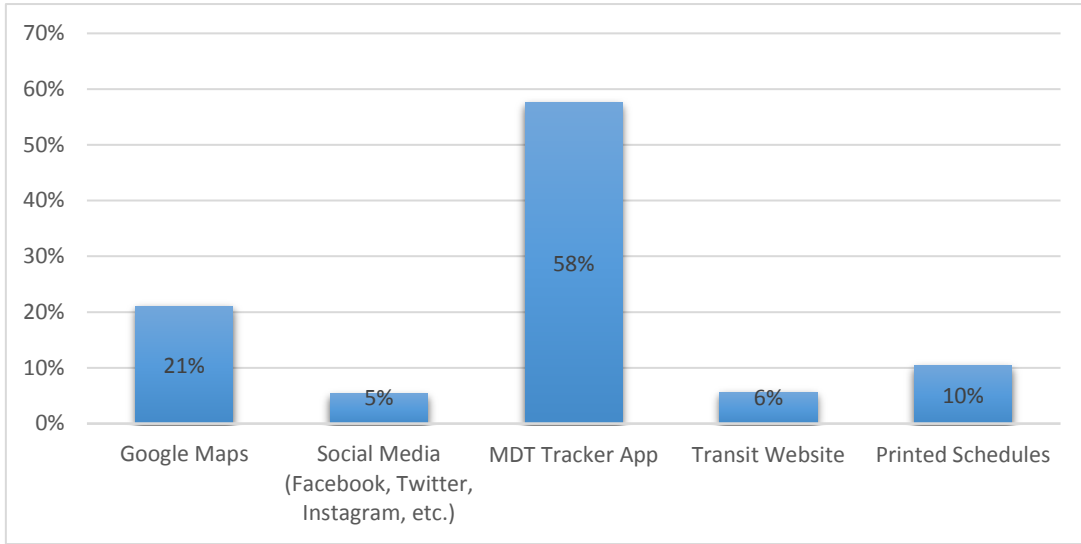
Figure 8 - What Should be the Facilities-Related Priorities be for the Next 10 Years



4.1.9 Accessing Transit Information

Most survey respondents (58%) indicated the use the MDT Tracker App to access transit information with 20% of respondents indicating they use Google Maps.

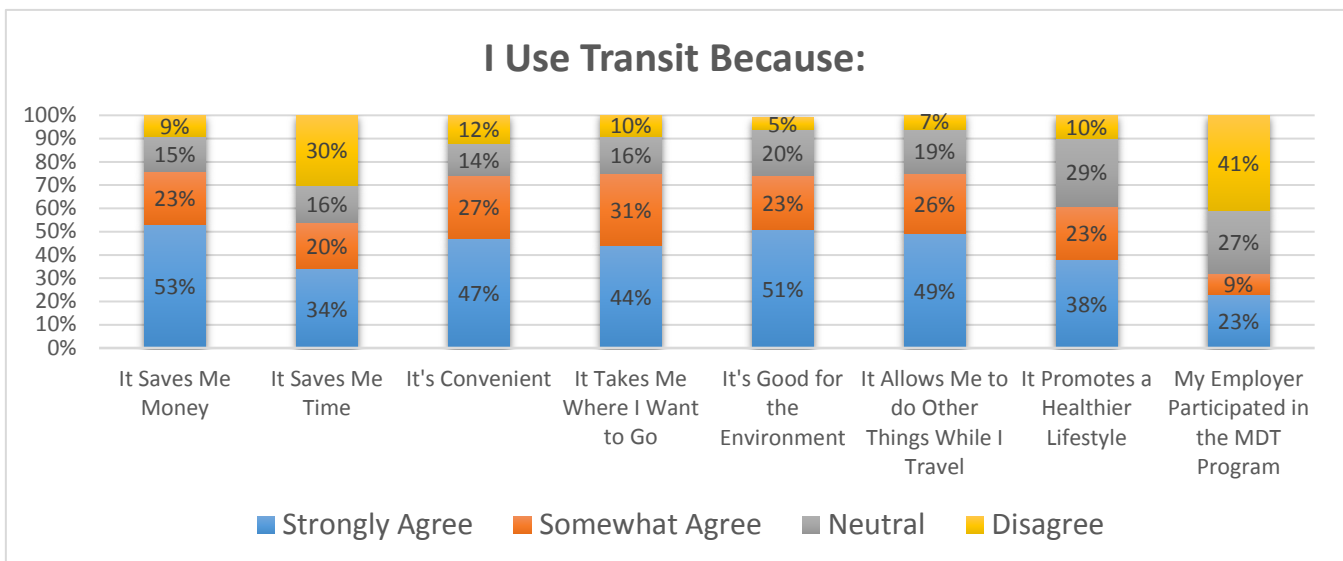
Figure 9 - How Do You Access Transit Information?



4.1.10 Reasons for Transit

A majority of survey respondents strongly or somewhat agreed that they use transit since it saves money, saves time, is convenient, serves preferred destinations, is good for the environment, allows riders to perform other activities during travel, and promotes a healthier lifestyle. Approximately a third of respondents indicated they use transit due their employer participating in the MDT Program.

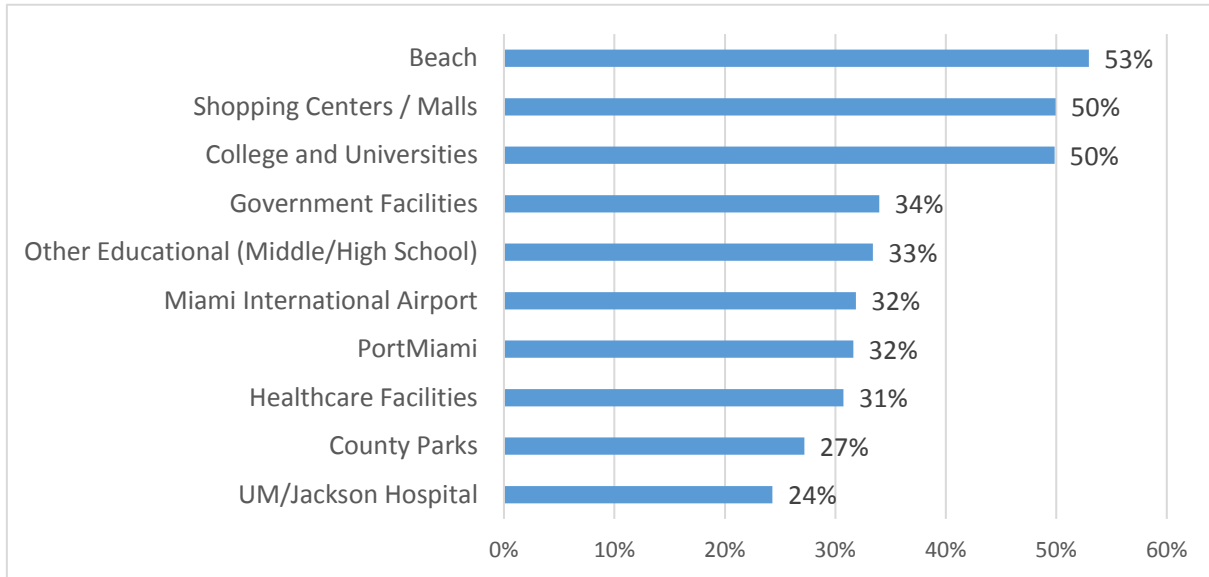
Figure 10 - I Use Transit Because?



4.1.11 Destinations

As shown in Figure 11, survey respondents were asked which destinations could be better served by Miami-Dade Transit. Of the respondents who listed destinations that could be served better, the beach, shopping centers/malls and colleges/universities were mentioned about half of the time. UM/Jackson Hospital and County parks were mentioned the least with fewer than 30% of all responses mentioning them.

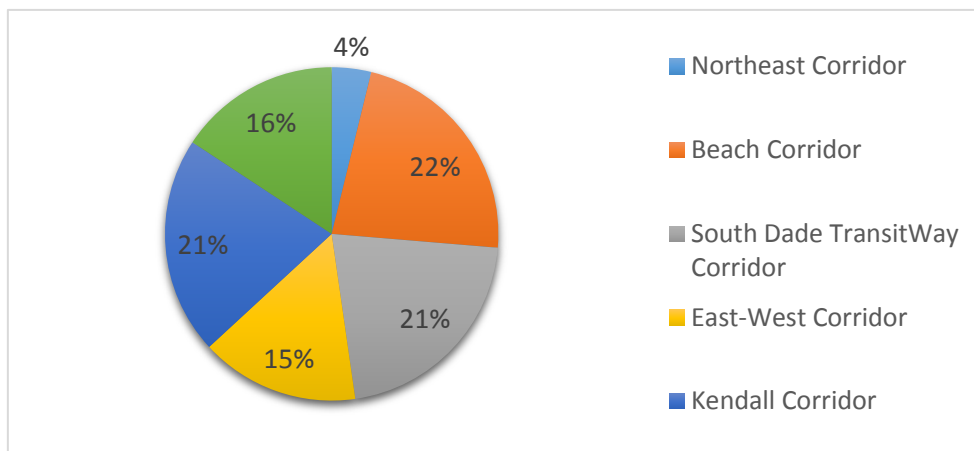
Figure 11 - Which of the Following Destinations Could Miami-Dade Transit Server Better



4.1.12 Corridors to be Considered for Premium Transit Service

Survey respondents did not show an overwhelming preference for which corridor should be considered for premium transit service.

Figure 12 - Which Corridor Should Be Considered for Premium Transit Service?



4.1.13 Willingness to Pay More for Expanded and Improved Transit Service

As shown in Figure 13, survey respondents were asked if they would be willing to pay more for expanded and improved transit service. A majority of respondents are willing to support an additional 1/2 cent sales tax or increased transit fares for improved and expanded transit services. The option of increasing parking fees to provide more parking was not supported, with a larger majority against the idea than those supporting either the sales tax or increased transit fares.

Figure 13 - Would You Be Willing To?

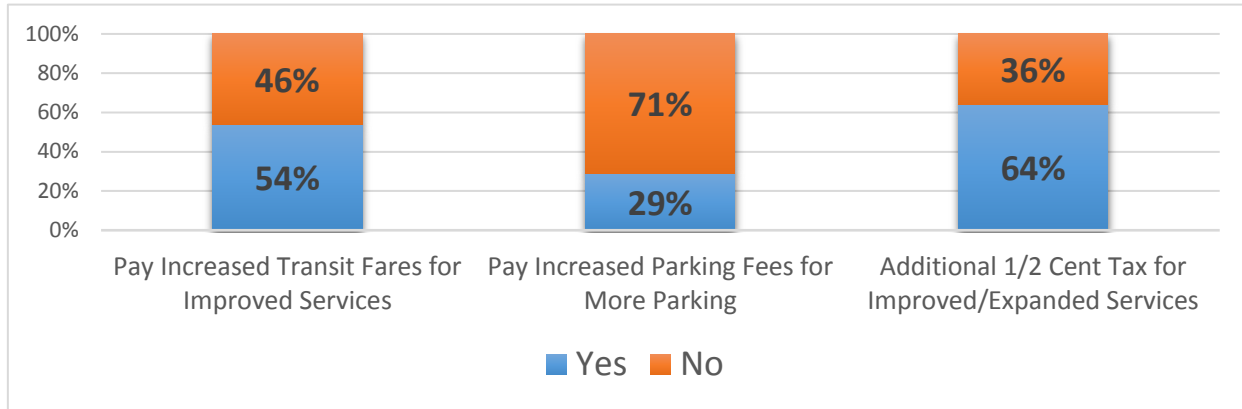
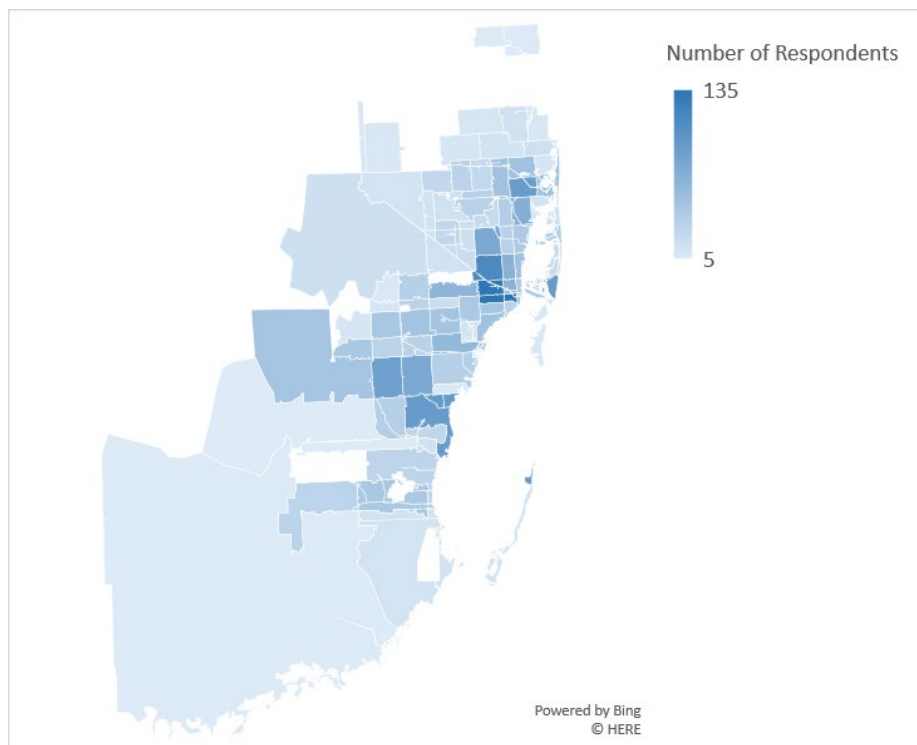


Figure 14 shows the number of respondents indicating they would be willing to pay increased transit fares for improved transit fares by zip code. Only zip codes with more than 5 respondents are shown.

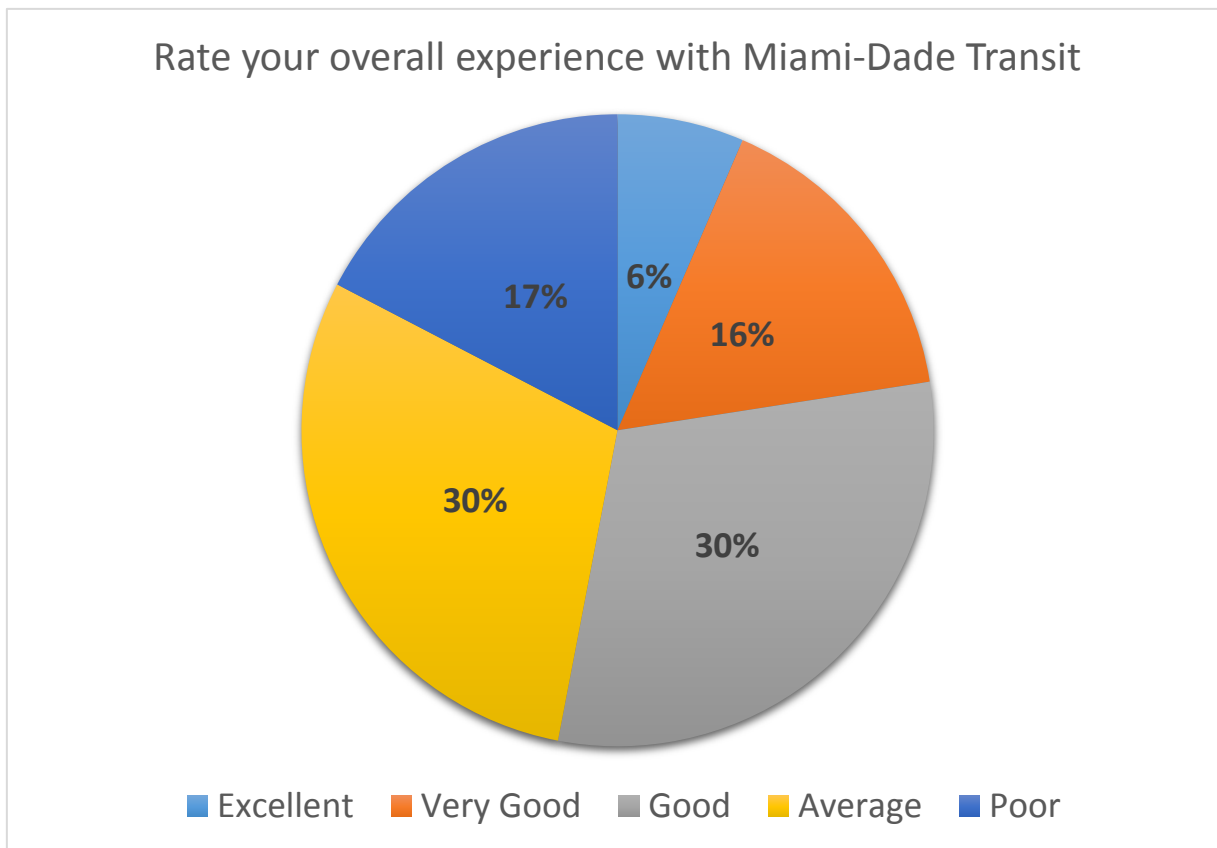
Figure 14 - Would You Be Willing to Pay Increased Transit Fares for Improved Transit Service



4.1.14 Rider Satisfaction

Survey respondents were split in their satisfaction with Miami-Dade Transit. 33% of respondents rated their experience as excellent or very good, 30% rated their experience as good, and 30% of respondents rated their experience as average. Only 6% of respondents rated their experience as poor.

Figure 15 - Rate Your Overall Satisfaction with Miami-Dade Transit

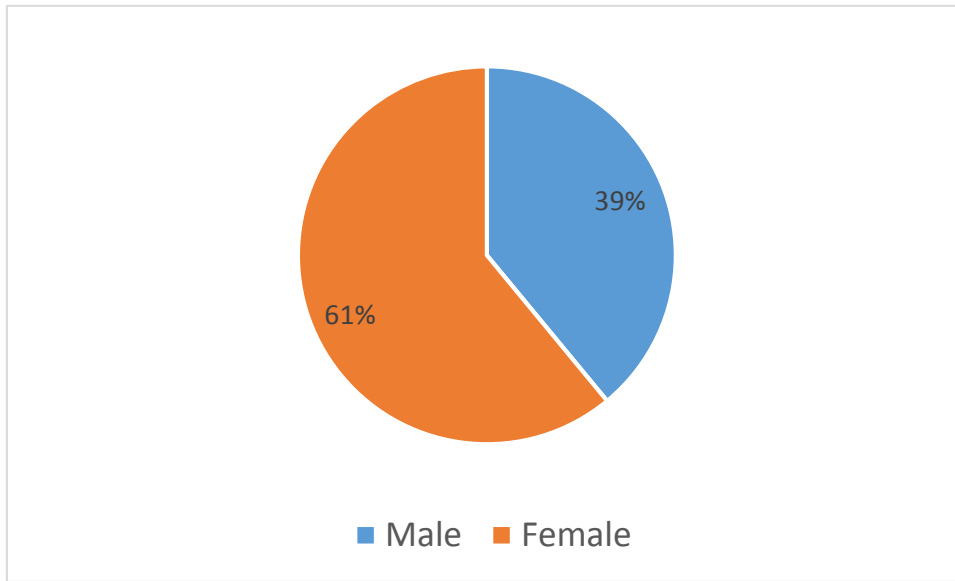


4.2 Survey Respondent Demographics

4.2.1 Gender

As shown in Figure 15, 61% of survey respondents were female and 39% were male.

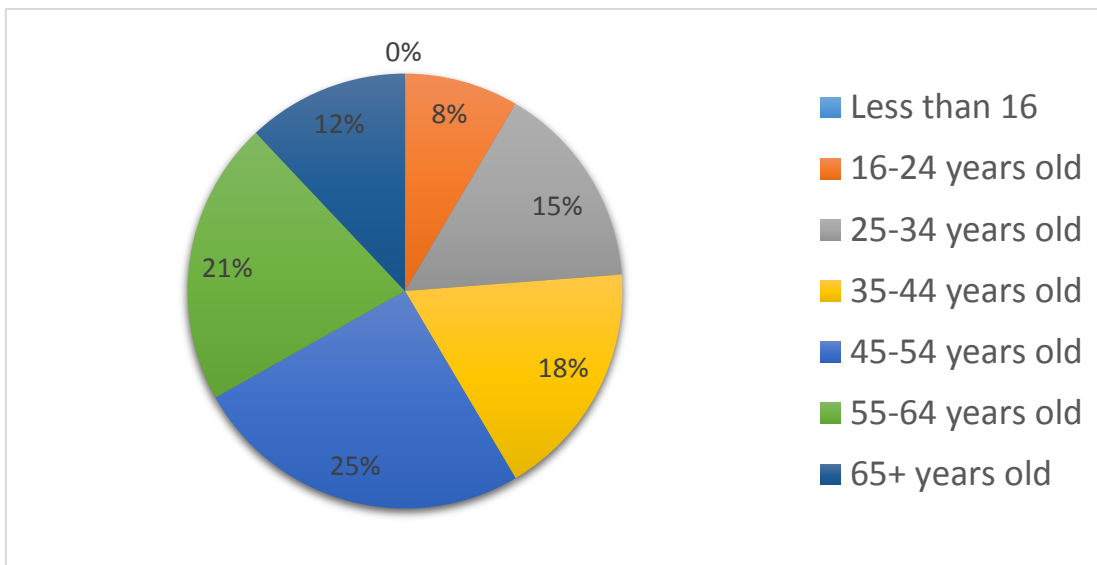
Figure 16 - Gender of Survey Respondents



4.2.2 Age

The age of respondents is shown in Figure 16. Just under half of respondents are between 45 and 64 years of age.

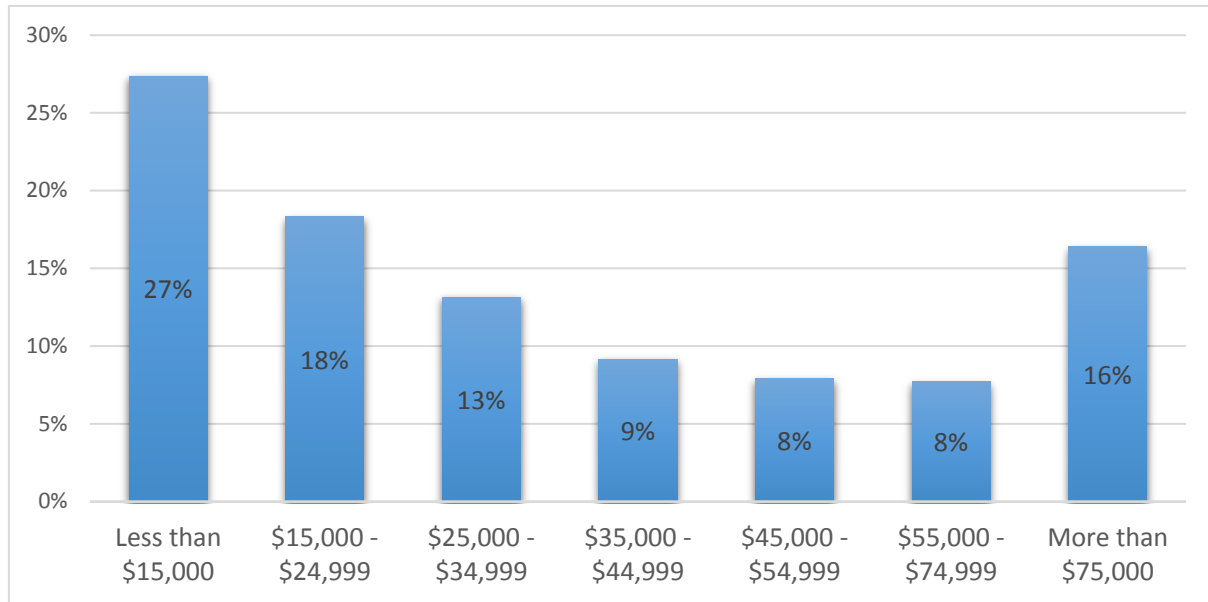
Figure 17- Age Group of Respondents



4.2.3 Household Income

Figure 17 shows the approximate household income of respondents. The largest cohort (27%) makes less than \$15,000 year. 58% of respondents makes less than \$35,000 a year.

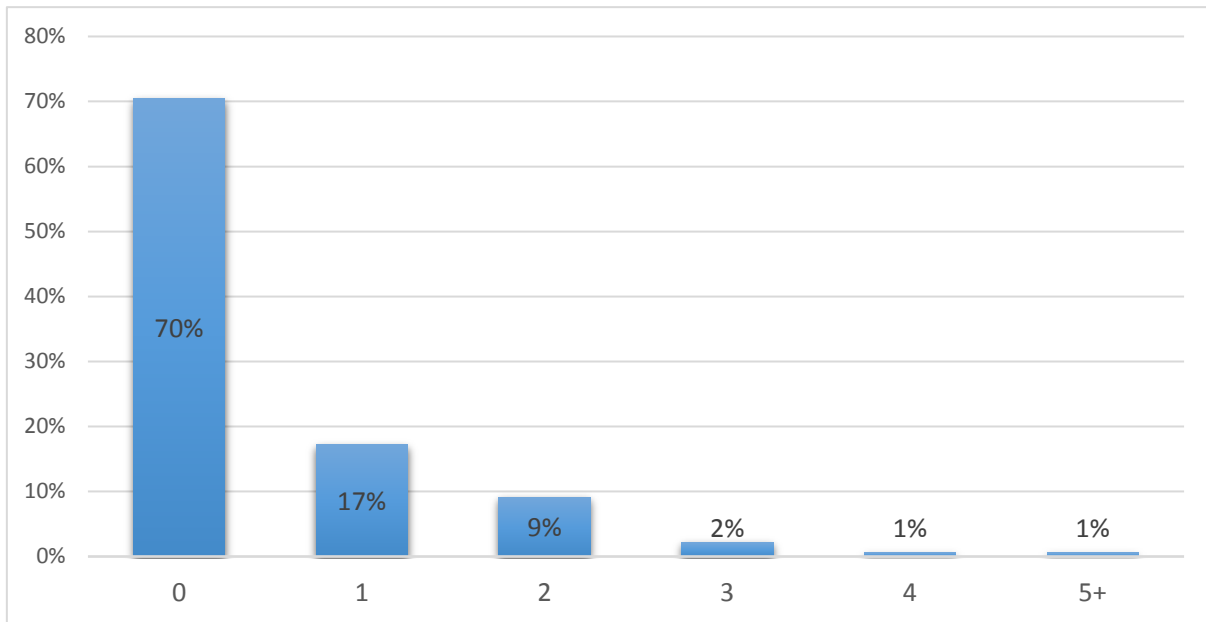
Figure 18 - Respondents' Approximate Annual Household Income



4.2.4 Household Youths

As shown in Figure 18, 70% of respondents indicated they do not have youths living in the residence.

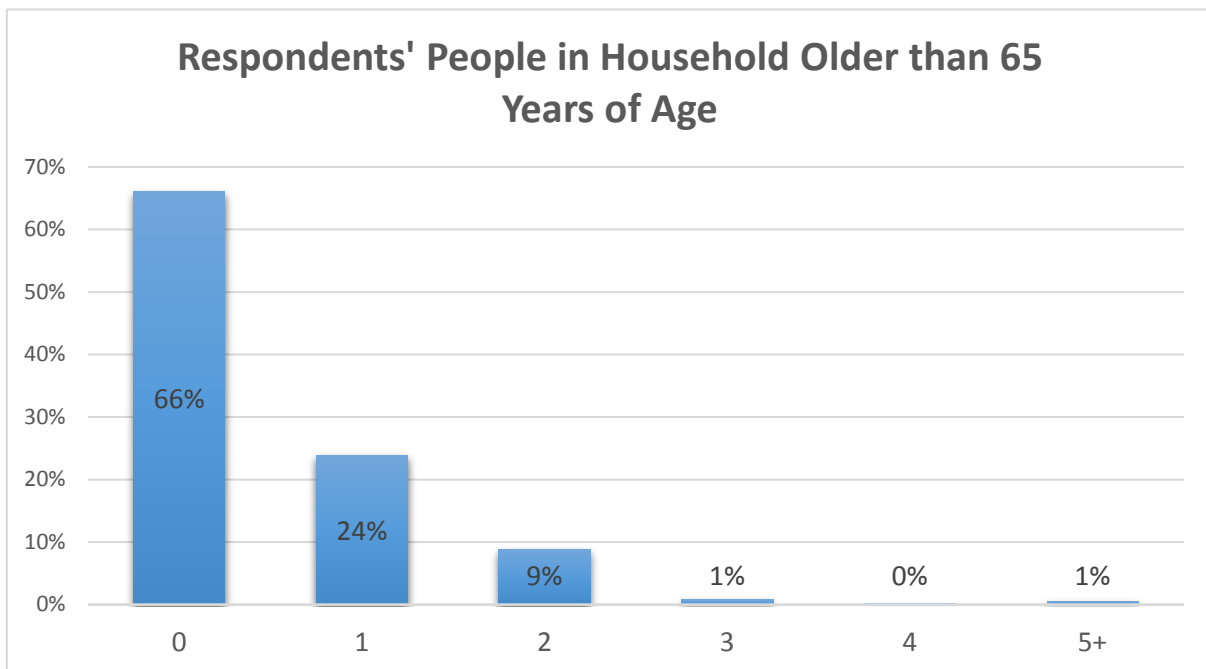
Figure 19 - Respondents' People in Household Less than 16 Years of Age



4.2.5 Household Elderly

As shown in Figure 19, 66% of respondents indicated they do not have elderly individuals living in residence.

Figure 20 - Respondents' People in Household Older than 65 Years of Age



A.5 DTPW Table of Organization



FY 18/19 STAFFING Table of Organization

TRANSPORTATION AND PUBLIC WORKS DIRECTOR'S OFFICE STAFFING CHART FY 18 BUDGET – FY 19 BASE

DIRECTOR'S OFFICE (20)		
	FY'17-18	FY'18-19
1 Director, Transportation & Public Works 8499		1
1 Clerk 2 0011		1
<u>1</u> Senior Executive Secretary 0096		<u>1</u>
3		3

EXTERNAL AFFAIRS (23)		
	FY'17-18	FY'18-19
2 Exec. Assist to MDT Director 4284		2
<u>1</u> Special Project Admin 2 0832		<u>1</u>
3		3

OFFICE OF CIVIL RIGHTS & LABOR RELATIONS (50)		
	FY'17-18	FY'18-19
1 Clerk 4 0013		0
0 Office Support Spec. 3 0022		1
2 Personnel Specialist 1 0410		2
3 Personnel Specialist 2 0412		3
2 Personnel Specialist 3 0414		2
1 Human Resource Manager 0416		1
1 Departmental ADA Coord 0889		1
1 Transit Contracts Compliance Officer 8232		1
<u>3</u> Manager, Civil Rights & Labor Relations 8307		<u>3</u>
14		14

PERFORMANCE ANALYSIS (57)		
	FY'17-18	FY'18-19
1 Chief, Performance Analysis 8331		1
3 Clerk 4 0013		3
3 Special Projects Administrator 1 0831		3
1 Special Projects Administrator 2 0832		1
1 Maintenance Reliability Clerk 8111		1
13 Transit Maintenance Production Coord 8132		13
<u>1</u> MDT Operations Coordinator 8470		<u>1</u>
23		23
Materials Management (56)		
1 Clerk 2 0011		1
1 Secretary 0031		1
1 Special Projects Administrator 2 0832		1
1 Warehouse & Stores Superintendent. 0890		1
34 Bus Stock Clerk 8035		33
16 Rail Stock Clerk 8074		16
2 DPTW Stock Ctrl Officer 8118		2
<u>7</u> Purchasing & Stores Sup 8120		<u>8</u>
63		63
Warranty, Reliability & Analysis (75)		
3 Administrative Officer 2 0811		3
1 Administrative Officer 3 0812		1
<u>1</u> Transit Maintenance Production Coord 8132		<u>1</u>
5		5

SAFETY AND SECURITY (51)		
	FY'17-18	FY'18-19
1 Chief, Office of Transit Safety & Security 8371		1
1 Clerk 2 0011		1
1 Administrative Secretary 0094		1
1 Training Specialist 3 0424		1
1 Special Project Admin 1 0831		1
5 Transit Safety Officer 8207		5
4 MDT Parking Enforcement Specialist 8210		4
1 Transit Inventory Control Specialist 8229		1
1 MDT Quality Assurance Specialist 8241		1
1 MDT Security Manager 8263		1
4 MDT Security Program Supervisor 8264		4
1 MDT Section Chief 8321		1
3 MDT System Safety Supervisor 8365		3
<u>1</u> MDT System Safety Manager 8366		<u>1</u>
26		26

FY 18/19 STAFFING Table of Organization



TRANSPORTATION AND PUBLIC WORKS FINANCIAL SERVICES STAFFING CHART FY 18 BUDGET – FY 19 BASE

DEPUTY DIRECTOR FINANCE, ADMINISTRATION & BUSINESS INITIATIVES (21)		
FY'17-18		FY'18-19
<u>1</u>	Deputy Director 8498	<u>1</u>
1		1

FINANCIAL SERVICES (40)		
FY'17-18		FY'18-19
1	Assistant Director 8483D	1
1	Executive Secretary 0095	1
<u>1</u>	Special Proj Admin 2 0832	<u>1</u>
3		3

RESOURCE ALLOCATION (45)		
FY'17-18		FY'18-19
<u>1</u>	Chief, MDT Budget & Perf. Rept. 8478	<u>1</u>
1		1
Operations Resource Allocation (45.1)		
4	Administrative Officer 3 0812	4
1	Manager, Budget & Planning 0836	1
1	Manager, PW Operating 6350	<u>1</u>
6		6
Capital Resource Allocation (45.2)		
1	Administrative Officer 3 0812	1
1	Special Project Admin 1 0831	1
1	Special Project Admin 2 0832	1
1	Manager, PW Capital Projects 6350B	1
<u>1</u>	Mgr, Capital Bud & Proj Cont 8468	<u>1</u>
5		5

HUMAN RESOURCES (60)		
FY'17-18		FY'18-19
1	Chief MDT Human Resource 0415	1
0	Clerk 3 0012	1
0	Administrative Officer 3 0812	1
0	Manager, MDT Proj. Control 8469	1
2	Clerk 4 0013	2
1	Administrative Secretary 0094	1
1	Departmental Personnel Rec. Officer 0207	1
6	Personnel Technician 0402	6
7	Personnel Specialist 2 0412	7
3	Personnel Specialist 3 0414	2
1	HR Manager 0416	2
1	HRIS Specialist 0461	1
1	Special Proj. Admin 1 0831	1
1	Safety Officer 1966	1
<u>1</u>	Mgr. MDT Med & Rec Prog 8311T	<u>1</u>
26		29
Training & Development (60.3)		
1	Manager, MDT Training 8308	1
1	Personnel Technician 0402	1
1	Training Specialist 3 0424	1
3		3
HR Out-Stationed Staff (60.4)		
1	Personnel Payroll & Systems Sup 0467	1
10	Personnel Payroll Technician BOS 0468	10
2	Personnel Services Specialist 0543	2
13		13

FINANCE/TREASURY (41)		
FY'17-18		FY'18-19
1	MDT Controller 8474	1
2	Clerk 4 0013	2
1	Admin Secretary 0094	1
11	Account Clerk 0310	11
3	Accountant 1 0315	3
9	Accountant 2 0316	9
5	Accountant 3 0317	5
4	Accountant 4 0318	4
2	Administrative Officer 3 0812	2
0	Department Asst. Controller 0849T	1
27	Transit Revenue Coll. 8042	27
9	Transit Revenue Proc Clerk 8215	9
3	Transit Revenue Proc Sup 1 8216	3
1	Transit Revenue Proc Sup 2 8218	1
4	Transit Rev Coll. Sup 1 8220	4
1	Transit Rev Coll. Sup 2 8222	1
1	MDT Financial Rev Audit Sup 8325	1
1	Manager, Treasury Services 8347	1
<u>1</u>	MDT Assistant Controller 8475	<u>0</u>
86		86

DOCUMENT CONTROL (45.9)		
FY'17-18		FY'18-19
1	Clerk 3 0012	0
1	Administrative Officer 3 0812	0
<u>1</u>	MGR, MDT Proj. Control 8468	<u>0</u>
3		0

GRANTS ADMINISTRATION (68)		
FY'17-18		FY'18-19
1	Mgr, MDT Grant Resources 0346	1
1	Accountant 2 0316	1
2	Administrative Officer 2 0811	2
1	Administrative Officer 3 0812	1
<u>1</u>	MDT Loss Prev Coord 8259	<u>1</u>
6		6



FY 18/19 STAFFING Table of Organization

TRANSPORTATION AND PUBLIC WORKS

TRANSPORTATION ENHANCEMENTS STAFFING CHART

FY 18 BUDGET – FY 19

BASE

TRANSPORTATION ENHANCEMENTS (24)		
	<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, MDT Trans Enhancements 8370T	1	1
<u>1</u> Special Project Admin 1 0831	<u>1</u>	<u>1</u>
2	2	2

INFORMATION CENTERS (27)		
	<u>FY'17-18</u>	<u>FY'18-19</u>
1 MDT Section Chief 8321	1	1
2 Cashier 2 0302	2	2
1 Account Clerk 0310	1	1
1 Eligibility Interviewer 3001	0	0
1 MDT Easy Card Fin Manager 8274	1	1
13 Transit Service Specialist 1 8278	13	13
6 Transit Service Specialist 2 8279	6	6
1 Transit Service Center Supervisor 1 8280	1	1
4 Transit Service Center Supervisor 2 8281	4	4
<u>1</u> Transit Service Center Manager 8282	<u>1</u>	<u>1</u>
30	30	30

ADVERTISING & MEDIA RELATIONS (62)		
	<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, Marketing & Communications 8331E	1	1
1 Graphics Designer 0244	1	1
1 Graphics Supervisor 0269	0	0
1 Administrative Officer 2 0811	1	1
2 Administrative Officer 3 0812	0	0
0 Special Proj. Administrator 1	1	1
1 Media & Public Rel. Officer 0842	1	1
0 Social Media Specialist 0843	1	1
1 Senior Social Media Specialist 0844	1	1
1 Information Officer 2307	0	0
1 Transit New Business Adm. 8339	1	1
0 Graphic Designer Sup. 9829	1	1
<u>1</u> Manager, DTPW Marketing & Com. 8352	<u>2</u>	<u>2</u>
11	11	11

FY 18/19 STAFFING Table of Organization

TRANSPORTATION AND PUBLIC WORKS

OPERATIONS STAFFING CHART

FY 18 BUDGET – FY 19 BASE

Deputy Director's Office 28

FY'17-18	FY'18-19
1 Deputy Director 8500	1
1 Executive Secretary 0095	1
1 Transit Admin. Coord. 8310	1
3	3

Paratransit Administration (54)

FY'17-18	FY'18-19
1 MDT Section Chief 8321	1
2 Clerk 2 0011	2
1 Clerk 4 0013	1
1 Adm Sec 0094	1
8 Eligibility Interviewer 3001	8
1 Paratran Elg. Sup 8283	1
2 Para Oper Officer 8284	2
1 Para Oper Admin 8285	1
1 Para Sup. Spec 1 8287	1
3 Para Support Spec 2 8288	3
8 Paratran. Svc. Clerk 8292	8
2 Paratran Oper. Sup. 8293	2
31	31

Mobility PTRD (RER) (19)

FY'17-18	FY'18-19
1 Division Chief 2522	1
1 Admin Secretary 0094	1
1 Admin Officer 3 0812	1
1 Passenger Trans. Coord 2505	1
Training	
1 Training Specialist 2 0422	1
1 Training Specialist 3 0424	1
Enforcement	
16 Enforcement Officer 1 2520	16
3 Enforcement Supervisor 2547	3
Licensing	
1 Clerk 2 0011	1
3 Clerk 4 0013	3
1 Data Entry Specialist 2 0016	1
1 Admin Officer 1 0810	1
2 Licensing Clerk 2514	2
Inspection Station	
5 Vehicle Inspector 2510	5
1 Licensing Clerk 2514	1
38	38

Infrastructure & Maintenance (34)

FY'17-18	FY'18-19
1 Chief, Infrastructure 9226	1
1 Admin Sec 0094	1
Systems Maintenance (34)	
1 Administrative Officer 2 0811	1
10 Transit Elec Tech/Lab 8052	10
4 Rail Maint. Control Clk 8077	4
17 Transit Elec. Tech 8083	17
14 Transit Elec Tech Radio 8084	14
32 Transit Elec Tech/Sys 8085	32
1 Sr. Transit Telecom Tech 8089	1
1 MDT Oper/Maint Instructor 8106	1
12 MDT Elec Tech Sup. 8144	12
2 Manager Elec. Sys 8379	2
96	96
Facilities Maintenance (58)	
1 Senior Manager, Facilities 8326T	1
1 Admin Secretary 0094	1
1 Account Clerk 0310	1
1 Spec. Proj Adm 1 0831	1
2 Elevator Contract Spec 6474	2
49 Transit Fac. Equip Tech 8021	49
4 Transit Fac. Maint. Cont Clk 8032	4
4 Transit Fac. Repairer 8033	4
1 MDT Oper/Maint Instructor 8106A	1
1 Transit Elev. Cont. Sup 8122	1
1 Transit Painter Sup. 8131	1
9 Transit Fac. Sup 8135	9
4 Transit Fac. Supt. 8136D	4
1 Transit Contt Comp Officer 8232	1
1 MDT Quality Assur. Spec 8241	1
5 MDT Property Manager 8265	5
1 MDT Property Mgr. Sup 8266	1
2 Manager, MDT Facilities Maint.	2
89	89

Bus Services (70)

FY'17-18	FY'18-19
1 Assistant Director 8483	1
1 Executive Secretary 0095	1
1 SPA 1 0831	1
3	3
Bus Operations (71)	
1 General Superintendent 8473	1
1 Clerk 4	2
4 OSS 3 0022	3
3 Secretary 0031	3
1 Administrative Secretary 0094	1
1 Administrative Officer 1 0810	1
1 Administrative Officer 2 0811	1
1536 Bus Operator 8050	1536
2 Transit Supervisors 8102	2
13 MDT Instructor 8106H	13
1 MDT Training Sup. 8107	1
77 Transit Operations Sup. 8108	77
21 Bus Traffic Controller 8110	21
1 Transit Contr. Comp. Off. 8232	0
3 MDT Quality Assur Spec 8241	3
4 MDT Section Chief 8321	4
11 MDT Superintendent 8471	11
1681	1680
Bus Maintenance (72)	
1 General Superintendent 8473	1
3 Secretary 0031	3
2 Administrative Sec. 0094	2
1 Administrative Off 1 0810	1
23 Bus General Helper 8001	23
68 Bus Hostler 8002	64
263 Bus Maint. Tech. 8006	261
37 Bus Body Tech. 8010	31
10 Bus Maint. Cont. Clerk 8031	10
8 MDT Instructor 8016E	8
1 MDT Training Sup 8107	1
33 Transit Mech Supv. 8127	33
3 Transit Body Painter 8129	3
3 Transit Yard Sup. 8133	3
0 Transit Contr. Comp. Off. 8232	1
3 MDT Section Chief 8321	3
6 MDT Superintendent 8471	6
465	454

Rail Services (80)

FY'17-18	FY'18-19
1 Assistant Director 8483	1
1 Telephone Console Oper 0084	1
1 Executive Secretary 0095	1
1 Administrative Sec. 0094	1
1 Training Spec 3 0424	1
1 Administrative Officer 3 0812	1
1 Spec. Projects Admin. 2	1
1 Quality Assurance Eng 2 0887	0
1 Technical Training Spec 3 1864	1
1 Chief Supv. Rail Traffic Ctrl. 8161	1
2 MDT Field Test Engineer	2
12	11
Rail Transportation (81)	
1 General Superintendent 8473	1
1 Secretary 0031	1
1 Administrative Sec. 0094	1
84 Train Operator 8073	84
1 MDT Instructor 8106G	1
3 Rail Station Monitor 8116	3
26 Rail Traffic Controller 8160	26
2 Chief Sup. Traffic Con. 8161	2
1 Chief Sup., Rail Tran 8162	1
13 Rail Supervisor 8163	13
9 Rail Yard Master 8164	9
142	142
Rail Maintenance (82)	
1 General Superintendent 8473	1
1 Administrative Sec. 0094	1
1 Administrative Off 3 0812	1
8 Rail Veh. Machinist 8056	7
32 Rail Technician/TC 8060	32
27 Rail Technician/TP 8061	27
38 Rail Veh. Electronic Tech 8068	38
22 Rail Veh. Cleaner 8069	22
27 Rail Vehicle Mechanic 8071	24
2 Rail Maint Clerk. 8076	2
4 Rail Maint. Ctrl. Clk. 8077	4
1 MDT Instructor 8106	1
1 Rail Veh Cleaner Supv 8167	1
8 Rail Veh. Maint. Sup 8168	11
1 Cf Supv. Rail Veh. Repair 8169	1
6 Traction Power Supv 8171	6
6 Train Control Supv 8173	6
1 Chief Sup. TC/TP 8175	1
2 Chief Sup, Insp. 8182	2
189	188

Track & Guideway Maintenance (85)

FY'17-18	FY'18-19
1 General Superintendent 8473	1
1 Administrative Sec. 0094	1
2 Transit Welder 8022	2
13 Guideway Insp. Spec 8054	13
6 MDT Rail Veh Tech 8055	6
6 Rail Maint. Worker 8063	6
36 Track Repairer 8064	36
19 Rail Structure Rep 8065	19
14 Track Equip. Oper 8066	14
1 Rail Maint. Clerk 8076	1
3 Rail Maint, Ctrl Clerk 8077	3
1 MDT Instructor 8106D	1
1 Chief Sup., Shop Maint 8176	1
18 Rail Struc. & Track Sup. 8180	18
1 Chief Sup., Rail Struc 8181	1
5 Track Shop Sup. 8183	5
1 Chief Sup, Rail Trk Maint 8185	1
1 Chief Sup. Guideway Ins 8196	1
130	130
Mover Operations & Maint. (86)	
1 General Superintendent 8473	1
1 Secretary 0031	1
20 Rail Vehicle Cleaner 8069	12
1 Rail Maint. Clerk 8076	1
2 Rail Maint. Ctrl Clerk 8077	2
67 Metromover Tech. 8082	45
1 MDT Instructor 8106B	1
1 Rail Veh. Cleaner Sup. 8167	1
1 Chief Supv. Rail Veh Rep 8169	1
7 Metromover Maint Sup. 8188	7
2 Chief, Sup. Mover Maint 8189	2
104	74

Infrastructure & Field Engineering (64)

FY'17-18	FY'18-19
1 Chief, Field/Sys Eng 8362T	1
1 Office Support Spec 2 0021	1
1 Spec Proj Admin 2 0832	1
1 Senior Professional Eng 1051	1
1 Construction Mgr 3 6612	1
1 Transit Fac Supt. 8136	1
12 Field Test Engineer 8356	12
18	18



FY 18/19 STAFFING Table of Organization

TRANSPORTATION AND PUBLIC WORKS

ENGINEERING PLANNING & DEVELOPMENT STAFFING CHART

FY 18 BUDGET – FY 19 BASE

DEPUTY DIRECTOR PLANNING, DESIGN & ENGINEERING (29)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Deputy Director, Planning, Design & Engineering 8498	1

TRANSIT ENGINEERING (35)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Assistant Director 8482	1
1 Executive Secretary 0095	1
1 Special Project Admin 2 0832	1
<u>3</u>	<u>3</u>

TRANSPORTATION STRATEGIC PLANNING (33)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Assistant Director 8483E	1
1 Engineer 3 1022	1
1 Principal Planner 2009	1
1 Transit Passenger Amenities Ofcr 8295	0
0 Professional Engineer	1
<u>4</u>	<u>4</u>

PLANNING & SYSTEMS DEVELOPMENT (30)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, MDT Planning and Sys Dev 8389	1
3 Principal Planner 2009	3
1 Transit Planner 2 8232	1
1 Transit Field Tech 1 8271	1
<u>6</u>	<u>6</u>

SERVICE PLANNING & SCHEDULING (53)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 MDT Section Chief 8321	1
1 Administrative Officer 3 0812	1
1 Manager Signage & Design 6477	1
3 Transit Operations Scheduler 8113	3
3 Senior Transit Operations Scheduler 8114	3
5 Transit Planner 2 8271	5
1 Transit Planning Supervisor 8273	1
1 Transit Field Technician 1 8276	1
2 Bus Shelter Specialist 8447	2
<u>18</u>	<u>18</u>

ROW ACQUISITION & UTILITIES/JOINT DEVELOPMENT (67)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, MDT ROW & Utilities Division 8331	1
1 Administrative Secretary 0094	1
1 Administrative Officer 2 0811	1
1 Special Project Administrator 2 0832	1
1 Professional Engineer 1050	1
3 Manager, ROW & Utilities Section 8250	3
<u>8</u>	<u>8</u>

CONSTRUCTION DIVISION (36)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, MDT Construction 9930	1
1 Admin Secretary 0094	1
1 Construction Manager 3 6612	1
<u>3</u>	<u>3</u>

PROGRAM MANAGEMENT/CONTRACT SVS/ COST & SCHEDULING (49)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, MDT Contract Services 8304T	1
1 Administrative Secretary 0094	1
3 Administrative Officer 3 0812	4
2 Special Projects Administrator 1 0831	2
1 Contracts Officer 3820	1
1 Construction Manager 3 6612	1
6 Purchasing Specialist 7272	6
1 Transit Contracts Compliance Ofc 8232	0
1 Bus Body Technician 8010	0
0 Contracts and Purchasing Svc. Mgr. 8467	1
1 Manager, MDT Cost & Scheduling Section 8302	1
1 MDT, Section Manager 8382	1
2 Manager, MDT Project Control Section 8469	2
<u>21</u>	<u>21</u>

HIGHWAY BRIDGE ENGINEERING (07)	
<u>FY'17-18</u>	<u>FY'18-19</u>
0 Professional Engineer 1050	1
1 Mgr. Bridge Inspector 1017	1
1 Sr. Professional Engineer 1051	0
<u>2</u>	<u>2</u>

QUALITY ASSURANCE (32)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief Quality Assurance 8359	1
3 Quality Assurance Eng. 1 0886	3
0 Quality Assurance Eng. 2 0887	1
1 Transit Quality Assurance Analyst 8277	1
<u>5</u>	<u>6</u>

DESIGN & ENGINEERING (37)	
<u>FY'17-18</u>	<u>FY'18-19</u>
1 Chief, MDT Engineering Division 8384	1
1 Administrative Secretary 0094	1
1 Engineer 3 1022	1
2 Professional Engineer 1050	2
1 Senior Professional Engineer 1051	1
<u>6</u>	<u>6</u>

TRAFFIC ENGINEERING (PW) (03)	
FY'17-18	FY'18-19
1 Chief, Traffic Engineer 1069	1
2 Clerk 4 0013	1
1 Admin Secretary 0094	1
0 Administrative Officer 1 0810	1
2 Administrative Officer 3 0812	2
Area Engineers	
1 Professional Eng. 1050	1
1 Traffic Engineer 1 1094	1
3 Traffic Engineer 2 1095	3
1 Traffic Engineer 3 1096	1
Traffic Operations Safety Studies	
12 Traffic Analyst 2 1091	12
1 Traffic Analyst Supervisor 1093	1
1 Traffic Engineer 1 1094	1
1 Traffic Engineer 3 1096	1
Traffic Impact Studies	
1 Professional Engineer 1050	1
1 Traffic Engineer 2 1095	1
Schools and Non-Motorized	
1 Professional Engineer 1050	1
1 Cadastral Tech 1017	1
1 Traffic Engineer 2 1095	1
Manager Design, Schools and Non-Motorized	
3 Senior Cadastral Technician 1018	3
1 Engineer 1 1020	1
1 Engineer 2 1021	1
2 Professional Engineer 1050	2
1 Manager Traffic Engineer 1067	1
1 Traffic Engineer 1 1094	1
2 Traffic Engineer 2 1095	2
<u>2</u> Traffic Engineer 3 1096	<u>2</u>
45	45

RIGHT-OF-WAY (PW) (04)	
FY'17-18	FY'18-19
Special Projects & Survey Section	
1 Administrative Officer 3 0812	1
16 Eng. Survey Technician 1 1010	16
12 Eng. Survey Technician 2 1011	12
11 Eng. Survey Sup 1012	11
1 Cadastral Technician 1017	1
2 Senior Cadastral Technician 1018	2
1 Engineer 1 1020	1
1 PW Prof. Cont. Spec. 1036	1
3 Prof. Land Surveyor 1055	3
1 Senior Prof. Land Surveyor 1056	1
2 Duplicating Equip. Operator 1280	2
1 GIS 1701	1
Engineering Section	
1 Sr. Cadastral Tech. 1018	1
3 Prof. Land Surveyor 1055	3
1 Sr. Prof. Land Surveyor 1056	1
3 Title Analyst 1228	3
Real Estate Section	
5 Real Estate Officer 3556	5
<u>1</u> Chief Real Estate 3557	<u>1</u>
66	66

HIGHWAY ENGINEERING (PW) (05)	
FY'17-18	FY'18-19
1 Assistant Director 1086	
2 Recording Secretary 0032	2
1 Executive Secretary 0095	1
2 Administrative Officer 3 0812	2
2 Special Projects Administrator 1 0831	2
0 Drafting Specialist 9217	1
1 Eng. Drafter 2 1003	0
1 Senior Cadastral Technician 1018	1
2 Engineer 2 1021	2
2 Engineer 3 1022	2
1 Engineer 4 1023	1
3 Professional Engineer 1050	3
3 Senior Professional Engineer 1051	3
1 Chief, Highway Division 1068	1
Storm Water Design	
1 Secretary 0031	1
5 Cadastral Tech 1017	5
1 Senior Cadastral Technician 1018	1
1 Engineer 1 1020	1
6 Engineer 2 1021	6
3 Engineer 3 1022	3
<u>1</u> Manager, Storm Water 1573	<u>1</u>
40	40

STRUCTURAL ENGINEERING (39)	
FY'17-18	FY'18-19
2 Cadastral Technician 1017	1
0 Engineer 1 1020	1
4 Rail Structural Insp. Spec. 8097	4
<u>1</u> Rail Structural Insp. Sup. 8179	<u>1</u>
7	7
Highway Bridge Inspection	
FY'17-18	FY'18-19
1 Professional Engineer 1050	0
0 Sr. Professional Engineer 1051	1
<u>1</u> DTPW Project Insp. 1 1223	<u>1</u>
2	2

CONSTRUCTION DIVISION (PW) (18)	
FY'17-18	FY'18-19
1 Assistant Director 1086	
1 Executive Secretary 0095	1
1 Administrator Officer 3 0812	1
1 Special Project Admin 2 0832	1
2 Senior Professional Engineer 1051	2
1 Traffic Analyst 1091	1
1 Division Chief, Rec. & Mitigation 1590	1
1 Public Information Officer 2307	1
1 Manager, DTPW Work Program 8258	1
Capital Improvements Section	
2 Clerk 2 0011	2
1 Clerk 3 0012	1
4 Clerk 4 0013	4
1 Secretary 0031	1
1 Administrative Officer 1 0810	1
1 Special Projects Administrator 1 0831	1
1 Special Projects Administrator 2 0832	1
1 Engineering Permit Clerk 2 1014	1
4 Engineer 2 1021	4
1 Engineer 3 1022	1
1 Chief, Capital Impl Division 8364	1
Inspection, Permitting & Bond Section	
1 Office Support Specialist 2 0021	1
2 Engineering Permit Clerk 2 1014	2
5 PW Inspector 1 1223	5
2 PW Inspector 2 1224	2
1 Permit Supervisor 6335	1
1 Manager, PW 1 6349	1
Capital Improvement Project Section	
1 Engineer 2 1021	1
2 Engineer 3 1022	2
7 Road Const Cost Estimator 1040	6
9 Road Construction Engineer 1043	8
3 PW Projects Inspector 1 1223	3
1 PW Projects Inspector 2 1224	1
0 Construction Manager 2 6611	1
1 Construction Manager 3 6612	1
0 Chief, DTPW Construction	1
Concrete, Sidewalk & Canal Improvements	
7 Road Const Cost Estimator 1040	7
2 Road Construction Engineer 1043	2
3 PW Projects Inspector 2 1224	3
1 Const. Cost Estimator 2 6453	1
1 Construction Manager 3 6612	1
MDT Construction Projects	
1 Administrative Officer 3 0812	1
2 Construction Manager 2 6611	2
3 Construction Manager 3 6612	3
Resurfacing, Guardrail, Intersection, Pavement Markings Improvement	
1 Engineer Permit Clerk 1014	1
11 Road Const. Cost Estimator 1040	12
2 Road Construction Engineer 1043	2
1 Traffic Analyst 2 1091	0
2 PW Projects Inspector 1 1223	2
2 PW Projects Inspector 2 1224	2
1 Const. Cost Estimator 2 6453	1
<u>1</u> Construction Manager 3 6612	<u>1</u>
105	105

TRAFFIC SIGNALS & SIGNS (PW)		
(15)		
FY'17-18		FY'18-19
1	AD, Traffic Services 8479	1
1	Administrative Secretary 0094	1
0	Chief, Traf. Signals & Signs 1070	1
1	Division Director 6369	1
	Administration	
2	Clerk 4 0013	2
0	Special Project Administrator 0832	1
	Plan Review	
1	Traffic Engineer 3 1096	1
1	Traffic Std & Spec Coord 1097	1
	Warehouse	
1	Inventory Clerk 0202	0
1	Store Keeper 2 0221	1
0	Purchasing Specialist 7272	1
	Traffic Signal Operation	
1	Word processor 2 0052	1
1	Senior Professional Engineer 1051	0
0	Traffic Engineering Mgr. 1088	1
2	Traffic Engineer 1 1094	1
9	Traffic Engineer 2 1095	9
2	Traffic Engineer 3 1096	3
1	Traffic Signal Technician 1 1237	1
	Traffic Control Center	
4	Traffic Control System Spec 1092	4
1	Construction Manager 3 6612	0
0	Traffic Engineering Mgr. 1088	1
	System Maintenance/Electrical Repairs	
3	Traffic Signal Sign Tech 1 1237	3
5	Traffic Signal Sign Tech 2 1238	5
1	Traffic Signal Tech Supv. 1239	1
	Signal Maintenance	
10	Traffic Signal Sign Tech 1 1237	10
3	Traffic Signal Sign Tech 2 1238	3
1	Traffic Signal Tech Supv. 1239	1
	Signal Construction	
7	Traffic Signal Sign Tech 1 1237	7
2	Traffic Signal Sign Tech 2 1238	2
1	Traffic Signal Tech Supv. 1239	1
3	Traffic Maintenance Repair 1242	5
3	Maintenance Repair 6501	0
	Construction Contracts	
1	Secretary 0031	1
2	Road Construction Estimator 1040	2
1	Road Construction Engineer 1043	1
1	PWD Projects Inspector 1223	1
2	Traffic Signal Const. Inspector 1235	2
2	Traffic Maintenance Repair 1242	2
1	Maintenance Repair 6501	2
1	Construction Manager 3 6612	1
	Road Lighting	
1	Roadway Lighting Tech 0656	1
1	Professional Engineer 1050	1
2	Roadway Lighting Inspector 1229	2
1	Roadway Lighting Insp. Supv 1230	1
1	Construction Manager 3 6612	1
	Sign Installation/Fabrication/Pavement Markings	
1	Office Support Specialist 2 0021	1
14	Traffic Maintenance Repair 1242	14
1	Traffic Maint. Manager 1247	1
2	Traffic Maint. Supervisor 9935	2
1	Maintenance Repair 6501	1
2	Sign Painter 6540	2
1	Welder 6560	1
2	T. M. Supervisor 9935	2
109		109

ROAD, BRIDGE, CANAL MAINTENANCE		
(PW) (16)		
FY'17-18		FY'18-19
1	Division Chief, PW&WM 6369	1
1	Administrative Secretary 0094	1
	Canal Maintenance Operation	
1	Clerk 3 0012	1
1	Accountant 1 0315	1
1	Engineer 1 1020	1
1	R&B Maintenance Super. 1039	0
8	Semi Skilled Laborer 6035	8
10	Sprayer 6044	10
4	Public Works Supervisor 2 6047	4
4	Maintenance Mechanic 6101	4
5	Auto Equipment Operator 1 6205	5
23	Auto Equipment Operator 2 6206	23
1	Auto Equipment Operator 3 6207	1
6	Heavy Duty Crane Operator 6227	6
1	Power Systems Supervisor 6549	1
4	Power Systems Technician 6550	4
1	Welder 6560	1
0	Maint. Ops Superintendent 9836	1
	Road & Bridge Operations	
3	Clerk 3 0012	3
1	Store Keeper 1 0220	1
1	Store Keeper 2 0221	0
1	Administrative Officer 2 0811	1
1	Administrative Officer 3 0812	0
0	Procurement Supervisor 8466T	1
2	PW Hydra Mec 1013	2
22	Neat Specialist 1030	22
1	Road & Bridge Maint. Sup 1039	0
1	Road Constr. Cost Estimator 1040	1
20	Bridge Operator 6010	20
4	Semi-Skilled Laborer 6035	4
2	Public Works Supervisor 1 6046	2
1	Public Works Supervisor 2 6047	1
2	Bridge Supervisor 1 6051	2
1	Light Equipment Technician 6112	1
4	Auto Equipment Operator 1 6205	4
4	Auto Equipment Operator 2 6206	4
2	Auto Equipment Operator 1 6207	2
7	Bridge Repairer 6502	7
2	Electrician 6510	2
1	Welder 6560	1
0	Purchasing Specialist 7272	1
0	Maint. Ops Superintendent 9836	1
	Venetian Causeway Maintenance Operations	
1	PW&WM Hydra Mech 1013	1
9	Bridge Operators 6010	9
1	Bridge Repairer 6502	1
	Road Drainage Operations	
1	Road & Bridge Maint Supervisor 1039	0
2	Road Const Cost Estimator 1040	2
1	GIS Specialist 1701	1
12	Semi-Skilled Laborer 6035	12
3	Public Works Supervisor 2 6047	3
2	Auto Equipment Operator 1 6205	2
20	Auto Equipment Operator 2 6206	20
2	Auto Equipment Operator 1 6207	2
1	Welder 6560	1
0	Maint. Ops Superintendent 9836	1
211		211

A.6 DTPW Bus Headways

DTPW METROBUS ROUTE HEADWAYS (Updated: December 2018)

ROUTE	PEAK (AM/PM)	OFF-PEAK (Midday)	EVENING (at 8 pm)	OVER NIGHT	SATURDAY	SUNDAY
BRANCHES						
1	40	40	n/a	n/a	40	40
2						
NW 2 Avenue / NW 79 Street	20	20	30	n/a	20	30
163rd Street Mall	60	60	50	n/a	n/a	n/a
3	20	30	30	60	20	20
7						
East of NW 44 Avenue	15	30	30	n/a	30	30
MIA Metrorail Station	30	40	60	n/a	40	40
Dolphin Mall	30	40	60	n/a	40	40
8						
East of SW 82 Avenue	15	30	30	n/a	30	30
Westchester	30	60	30	n/a	30	30
FIU via SW 8 Street	30	60	n/a	n/a	n/a	n/a
FIU via Coral Way	30	60	30	n/a	n/a	n/a
9						
163rd Street Mall	12	30	30	n/a	30	30
Aventura Mall	24	30	40	n/a	30	30
10	30	30	30	n/a	30	30
11						
East of 79 Avenue	10	20	20	60	20	30
Mall of the Americas	20	40	40	60	40	30
FIU-University Park Campus	20	40	40	60	40	60
12	30	30	45	n/a	40	40
16	30	30	30	n/a	24	30
17						
Vizcaya	30	30	60	n/a	30	30
South of NW 95 Street & north of W. Flagler Street	15	30	60	n/a	30	30
NW 7 Avenue/105 Street	30	n/a	n/a	n/a	n/a	n/a
Norwood	30	30	60	n/a	30	30
19	24	24	40	n/a	n/a	n/a
21	30	30	60	n/a	40	40
22						
North of West Flagler Street	15	30	60	n/a	30	30
Coconut Grove Station	30	60	60	n/a	60	60
24 Coral Way Limited						
Westchester	20	60	60	n/a	30	30
FIU-University Park Campus	30	60	60	n/a	60	60
SW 137 Avenue/26 Street	48	60	60	n/a	60	60
SW 147 Avenue/26 Street	40	n/a	n/a	n/a	n/a	n/a
27						
South of 183 Street	15	20	30	60	30	30
Calder via NW 27 Avenue	30	40	60	n/a	40	60
Calder via NW 37 Avenue	30	40	60	60	40	60
29	50	50	n/a	n/a	n/a	n/a
31 (Busway Local)	30	30	40	n/a	30	30
32	30	30	60	n/a	40	60
33	30	30	60	n/a	30	30
34 Express	10	n/a	n/a	n/a	n/a	n/a
35						
North of Naranja	20	20	40	n/a	30	30
Florida City via Homestead Hospital (35)	40	40	40	n/a	60	60
Florida City via Krome Avenue (35A)	40	40	40	n/a	60	60
36						
East of NW 57 Avenue	20	30	40	n/a	30	30
Doral Center	20	60	n/a	n/a	60	60
Miami Springs Circle	60	60	60	n/a	60	60
Dolphin Mall	60	60	50	n/a	n/a	n/a
37	30	30	30	n/a	30	30
38 (Busway MAX)	10	20	15	60	20	20
39 Express	15	n/a	n/a	n/a	n/a	n/a
40						
East of SW 127 Avenue	15	30	50	n/a	60	60

MDT METROBUS ROUTE HEADWAYS (Updated: December 2018)

ROUTE	PEAK (AM/PM)	OFF-PEAK (Midday)	EVENING (at 8 pm)	OVER NIGHT	SATURDAY	SUNDAY
BRANCHES						
SW 8 Street/SW 129 Avenue	20	60	50	n/a	n/a	n/a
Miller Drive/SW 152 Avenue	30	60	45	n/a	60	60
42						
MIA Metrorail Station	30	30	60	n/a	40	60
Opa-locka Tri-Rail Station	60	60	n/a	n/a	40	60
46 (Liberty City Connection)	60	n/a	n/a	n/a	n/a	n/a
51 (Flagler MAX)	15	30	30	n/a	n/a	n/a
52	30	45	60	n/a	45	60
54						
Hialeah Gardens	30	30	24	n/a	30	40
Miami Gardens Drive/NW 87 Avenue	50	60	n/a	n/a	n/a	n/a
56	60	60	n/a	n/a	n/a	n/a
57	60	60	n/a	n/a	n/a	n/a
62	30	30	60	n/a	20	30
71	30	60	45	n/a	60	60
72						
East of SW 137 Avenue	30	30	40	n/a	60	60
Miller Square	60	60	40	n/a	60	60
SW 162 Avenue/Kendall Drive	60	60	n/a	n/a	60	60
73	30	40	60	n/a	60	60
75	30	30	60	n/a	60	60
77						
South of NW 183 Street	8	20	30	n/a	20	30
NW 199 Street	15	40	30	n/a	40	60
79 (79 Street MAX)	24	n/a	n/a	n/a	n/a	n/a
82 (Westchester Circulator)	50	50	n/a	n/a	50	n/a
87						
Doral	30	45	60	n/a	45	60
Palmetto Station	30	45	60	n/a	n/a	n/a
88	20	30	30	n/a	30	30
93 (Biscayne MAX)	15	30	n/a	n/a	n/a	n/a
95 Express						
Downtown	5	n/a	n/a	n/a	n/a	n/a
Miami Gardens Dr./Carol City	35	n/a	n/a	n/a	n/a	n/a
Aventura Mall	20	n/a	n/a	n/a	n/a	n/a
Civic Center	15	n/a	n/a	n/a	n/a	n/a
Earlington Heights / Doral *	*	n/a	n/a	n/a	n/a	n/a
99						
East of NW 47 Avenue	30	30	45	n/a	40	40
Miami Gardens Dr / NW 73 Ave	60	60	60	n/a	40	40
101 (Route A)	35	n/a	n/a	n/a	35	35
102 (Route B)						
East of Harbor Drive	8/15	30	30	n/a	30	30
Cape Florida State Park	10/20	60	30	n/a	60	60
Mashta Drive	60	60	n/a	n/a	60	60
103 (Route C)	30	30	45	n/a	30	45
104	30	45	60	n/a	60	60
105 (Route E)	30	45	30	n/a	60	60
107 (Route G)	30	30	60	n/a	35	35
108 (Route H)	30	30	30	n/a	30	30
110 (Route J)	20	30	30	n/a	30	30
112 (Route L)						
Northside Station	12	15	30	60	15	20
Amtrak Station	24	30	50	n/a	sel	sel
Hialeah Station	24	30	30	n/a	30	40
113 (Route M)	45	60	60	n/a	60	60
115 (Mid-North Beach Connection)	50	50	n/a	n/a	50	50
119 (Route S)	15/12	15	15	60	15	15
120 (Beach MAX)						
South of Collins Avenue/Haulover Park Entrance	12	12	40	n/a	15	30
Haulover Park Marina	24	24	n/a	n/a	30	n/a
Aventura Mall	24	24	40	n/a	30	30

MDT METROBUS ROUTE HEADWAYS (Updated: December 2018)

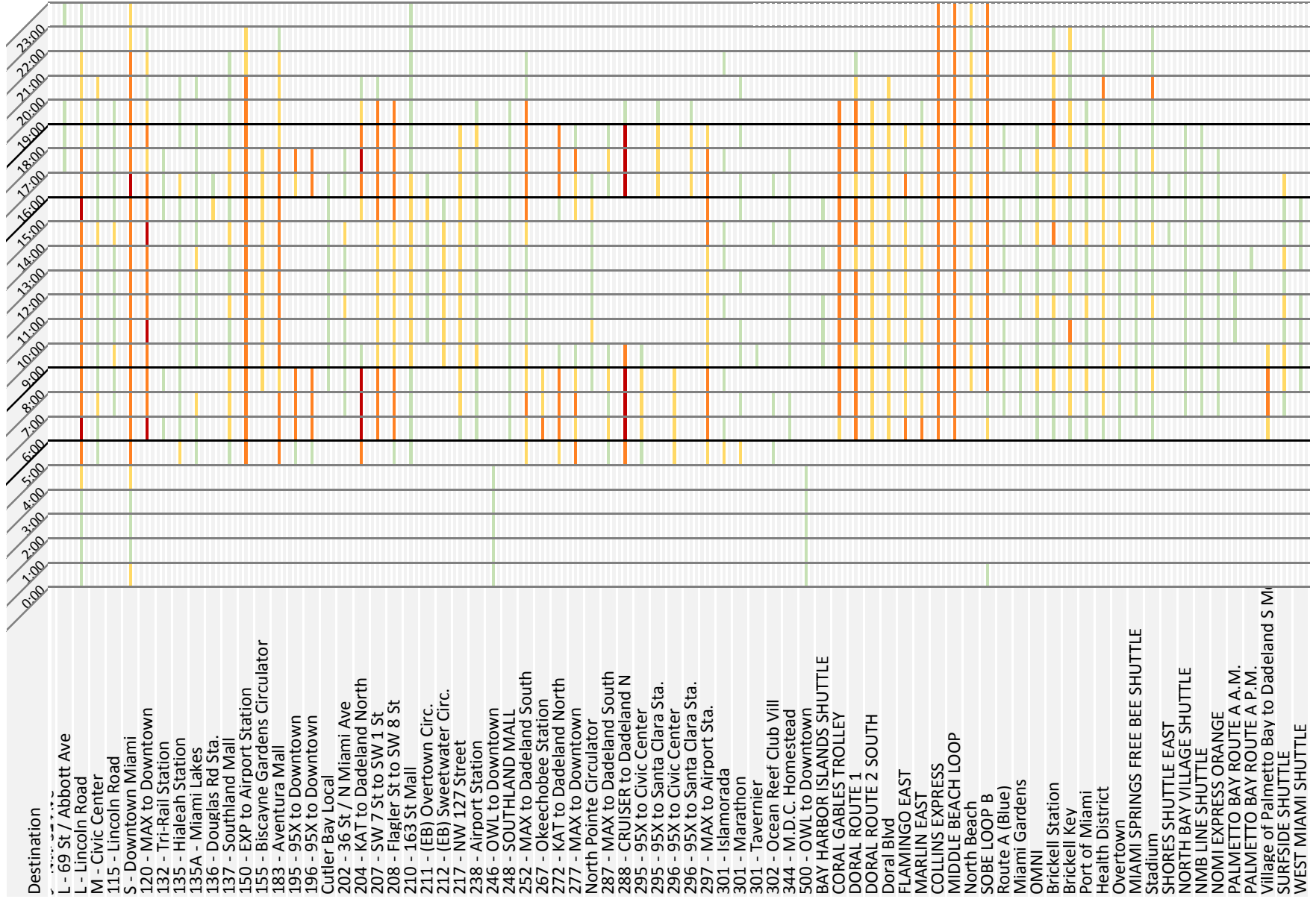
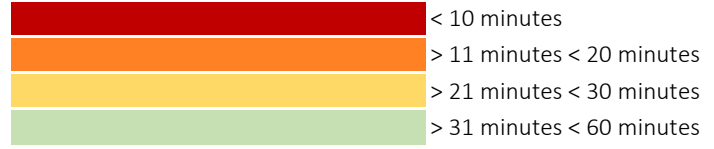
ROUTE	PEAK (AM/PM)	OFF-PEAK (Midday)	EVENING (at 8 pm)	OVER NIGHT	SATURDAY	SUNDAY
BRANCHES						
132 (Tri-Rail Doral Shuttle)	70/60	n/a	n/a	n/a	n/a	n/a
135						
East of LeJeune Road	30	30	30	n/a	60	60
Hialeah Station	50	60	70	n/a	60	60
Miami Lakes	50	60	70	n/a	n/a	n/a
136	40	n/a	n/a	n/a	n/a	n/a
137 (West Dade Connection)	30	45	60	n/a	45	45
150 (Miami Beach Airport Express)	20	20	20	n/a	20	20
155 (Biscayne Gardens Circulator)	30	30	n/a	n/a	n/a	n/a
183	15	20	30	n/a	30	30
195 (95 D-B Express Broward Blvd.)	15	n/a	n/a	n/a	n/a	n/a
196 (95 D-B Express Sheridan St.)	15	n/a	n/a	n/a	n/a	n/a
200 (Cutler Bay Local)	60	60	n/a	n/a	60	60
202 (Little Haiti Connection)						
West of NW 5 Avenue	60	45	n/a	n/a	60	60
Biscayne Plaza	n/a	45	n/a	n/a	n/a	n/a
204 (Killian KAT)	8½	n/a	30	n/a	n/a	n/a
207 (Little Havana Connection CW)	15	30	20	n/a	30	30
208 (Little Havana Connection CCW)	15	30	20	n/a	30	30
210 (Skylake Circulator)	30	30	60	n/a	60	60
211 (Overtown Circulator)	n/a	45	n/a	n/a	n/a	n/a
212 (Sweetwater Circulator)	n/a	30	n/a	n/a	n/a	n/a
217 (Bunche Park Circulator)	30	30	n/a	n/a	n/a	n/a
238 (East-West Connection)	45	60	n/a	n/a	n/a	n/a
246 (Night Owl)	n/a	n/a	n/a	60	60 ovn	60 ovn
248 (Princeton Circulator)	60	60	n/a	n/a	n/a	n/a
252 (Coral Reef MAX)						
Zoo Miami	n/a	n/a	n/a	n/a	60	60
Country Walk	25/20	60	50	n/a	60	60
254 (Brownsville Circulator)	n/a	30	n/a	n/a	n/a	n/a
267 (Ludlam Limited)	25	n/a	n/a	n/a	n/a	n/a
272 (Sunset KAT)	20	n/a	n/a	n/a	n/a	n/a
277 (NW 7 Avenue MAX)	24	n/a	n/a	n/a	n/a	n/a
286 (North Pointe Circulator)	48	48	n/a	n/a	48	n/a
287 (Saga Bay MAX)	35	n/a	n/a	n/a	n/a	n/a
288 (Kendall Cruiser)						
East of SW 127 Ave	7½	n/a	n/a	n/a	n/a	n/a
West Kendall Transit Terminal	15	n/a	n/a	n/a	n/a	n/a
SW 127 Avenue P&R Lot	15	n/a	n/a	n/a	n/a	n/a
295 (95 D-B Express to Civic Center Broward Blvd.)	30	n/a	n/a	n/a	n/a	n/a
296 (95 D-B Express to Civic Center Sheridan St.)	30	n/a	n/a	n/a	n/a	n/a
297 (27th Avenue Orange MAX)	15	30	n/a	n/a	n/a	n/a
301 (Dade-Monroe Express)						
Marathon (Mile Marker 50)	30	30	120	n/a	30	30
Islamorada (Mile Marker 74)	60	105	45	n/a	60	60
302 (Card Sound Express)	90	n/a	n/a	n/a	90	90
338 (Weekend Express)	n/a	n/a	n/a	n/a	60	60
344	60	60	n/a	n/a	n/a	n/a
500 (Midnight Owl)	n/a	n/a	n/a	60	60 ovn	60 ovn

Notes:

- 1) Gray shaded cells are branches to routes
- 2) n/a = no service available or not applicable
- 3) sel = selected trips only
- 4) ovn = overnight service only
- 5) * = one a.m. trip & one p.m. trip

Weekday Bus Headways By Route

Headways



A.7 Municipal Circulator Operators

Municipal Transit Services



Municipality	Service Operator	Website Address
City of Aventura	Contractor	http://www.cityofaventura.com/index.aspx?page=121
Village of Bal Harbour	Contractor	http://cdn.trustedpartner.com/docs/library/TownofBayHarborIslands2015/Content/SHUTTLEBUS-BUS-INFO.pdf
Village of Bay Harbor Islands	Contractor	http://www.bayharborislands.org/town-shuttle-service
Village of Biscayne Park	N/A	
City of Coral Gables	Contractor	http://www.coralgables.com/index.aspx?page=325
Town of Cutler Bay	DTPW	http://cutlerbay-fl.gov/your-community/town-circulator-bus
City of Doral	Contractor	https://www.cityofdoral.com/all-departments/public-works/doral-trolley/
Village of El Portal	N/A	
City of Florida City	N/A	
Town of Golden Beach	N/A	
City of Hialeah	Contractor	http://www.hialeahfl.gov/index.php?option=com_content&view=article&id=141&Itemid=409&lang=en
City of Hialeah Gardens	ILA with Hialeah	http://cityofhialeahgardens.com/cohg2/index.php?option=com_content&view=article&id=63&Itemid=1
City of Homestead	Contractor	http://www.cityofhomestead.com/index.aspx?NID=374
Village of Indian Creek	N/A	
Village of Key Biscayne	Contractor	http://keybiscayne.fl.gov/index.php?submenu=depts&src=gendocs&ref=FreeBee_OnDemandShuttleService
Town of Medley	Municipality	http://www.townofmedley.com/
City of Miami	Contractor	http://www.miamigov.com/trolley/
City of Miami Beach	DTPW	http://web.miamibeachfl.gov/transportation/default.aspx?id=80881
City of Miami Gardens	Contractor	http://www.miamigardens-fl.gov/publicworks/express.html

Municipal Transit Services



Town of Miami Lakes	Contractor	http://miamilakes-fl.gov/index.php?option=com_content&view=article&id=65&Itemid=410
Village of Miami Shores	Contractor	http://www.miamishoresvillage.com/miami-shores-village/shores-shuttle-information.html
City of Miami Springs	Contractor	http://www.miamisprings-fl.gov/community/free-bee-shuttle-route-and-schedule-changes-feb-24-2014
City of North Bay Village	Municipality	http://www.nbvillage.com/Pages/NorthBayFL_WebDocs/Minibus
City of North Miami	Contractor	http://www.northmiamifl.gov/Departments/publicworks/transportation.aspx
City of North Miami Beach	Municipality	http://www.citynmb.com/index.asp?Type=B_BASIC&SEC={F5855F6B-71D6-496D-ACFD-5F00349C448A}
City of Opa Locka	South Florida Regional Transportation Authority (SFRTA)	http://opalockafl.gov/index.aspx?nid=239
Village of Palmetto Bay	Municipality	http://www.palmettobay-fl.gov/content/ibus-bus-circulator-service#Bus_Schedule_and_Route_Map
Village of Pinecrest	Contractor	http://www.pinecrest-fl.gov/index.aspx?page=503
City of South Miami	Contractor	https://www.southmiamifl.gov/DocumentCenter/View/72841/Bus_Shuttle_Elver
City of Sunny Isles Beach	Municipality	http://www.sibfl.net/transportation/
Town of Surfside	Contractor	http://www.townofsurfsidefl.gov/Pages/SurfsideFL_WebDocs/miscdocumentsandforms/Shuttleinfo.pdf
City of Sweetwater	Municipality	http://cityofsweetwater.fl.gov/transit.html
Village of Virginia Gardens	ILA with Miami Springs	http://www.virginiagardens-fl.gov/
City of West Miami	Municipality	http://cityofwestmiamifl.com/index.asp?SEC=C9863CB6-1E5C-4866-8827-ED8E82058ABC&Type=B_BASIC

Note: ILA = Interlocal Agreement

Legend:

Total 34 municipalities

Existing municipal service	27
Future municipal service	0
No current or planned service	5

A.8 Major Trip Generators



A.8 TRIP GENERATORS

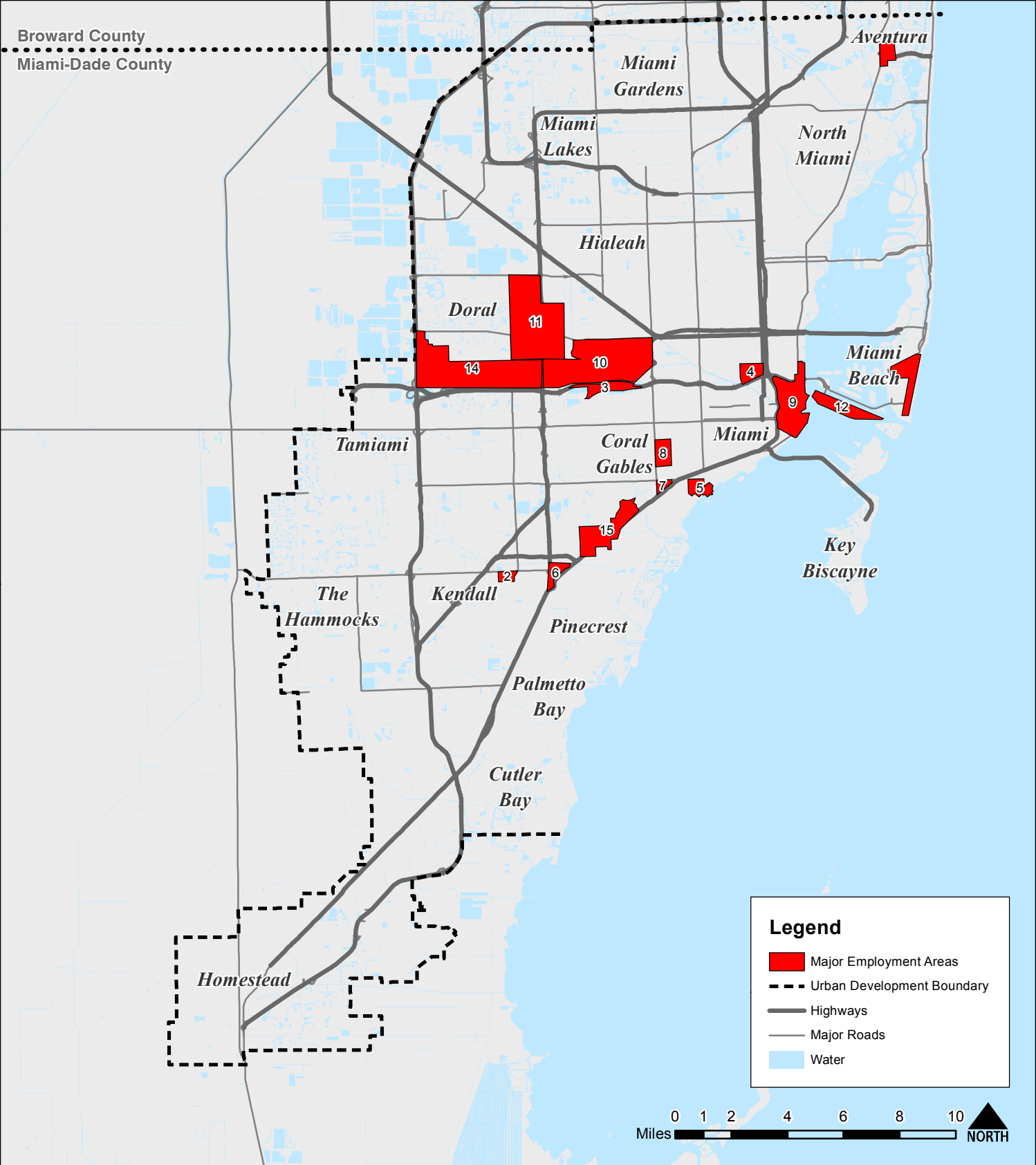
8.1 Job Centers

Map ID	Job Centers	Routes																
		105	119	120	183	3	9	93	95	99	BA*							
1	Aventura Mall	105	119	120	183	3	9	93	95	99	BA*							
2	Baptist Hospital	104	88															
3	Blue Lagoon	238	338	57	7	WE*												
4	Civic Center / Health District	113	12	21	246	277	295	296	32	77	95	RA*						
5	Coconut Grove	22																
6	Dadeland	104	204	252	272	287	288	31	34	38	39	500	52	73	87	88	PA*	RA*
7	Douglas Station	136	37	40	42	56	CG*	RA*										
8	Downtown Coral Gables	24	37	42	56	CG*												
9	Downtown Miami	10	101	102	11	113	119	120	16	195	196	2	207	208	21	211		
		24	246	277	3	32	500	51	7	77	8	9	93	95	RA*			
10	Miami International Airport	110	132	150	238	297	338	36	37	42	57	7	73	95				
11	Palmetto Industrial Area	132	238	36	73	87	95	DL*	DL*	DL*								
12	PortMiami	None																
13	South Beach	103	112	113	115	119	120	150										
14	South Doral Industrial Area	137	238	338	36	7	71	87	95	DL*	DL*	DL*						
15	UM / South Miami	37	500	56	57	72	73	RA*										

BA: Bal Harbour Village Shuttle
 BY: Bay Harbor Islands Shuttle
 CG: City of Coral Gables Trolley
 DL: City of Doral Trolley

HI: City of Hialeah Transit
 NB: City of North Bay Village Mini Bus
 NM: City of North Miami Beach
 NO: City of North Miami

PA: Village of Palmetto Bay
 RA: Metrorail
 SU: Town of Surfside Shuttle
 WE: City of West Miami Shuttle





8.2 Parks

Map ID	Parks	Routes						
National Parks								
1	Biscayne National Park	None						
2	Everglades National Park	None						
3	Everglades Water Conservation Area	None						
State Parks								
4	Oleta River State Park	105	108	135	75	NM*		
5	The Barnacle Historic State Park**	None						
6	Bill Baggs Cape Florida State Park	102						
County Parks								
7	A. D. Barnes Park	40						
8	Amelia Earhart Park	135	37	42	HI*			
9	Bal Harbour Beach	119	120	BA*				
10	Biscayne Trail (East Side of Canal)	200	287					
11	Black Creek Trail (Along C1 Canal)	None						
12	Black Point Park and Marina	None						
13	Briar Bay Linear Park	None						
14	Crandon Park	102						
15	East Greynolds Park	105	108	93	NM*			
16	Fairchild Tropical Botanic Garden	136						
17	Greynolds Park	183	9	95				
18	Haulover Beach	108	119	120	BA*			
19	Haulover Park	108	119	120	BA*			
20	Homestead Air Reserve Park	35						
21	Homestead Bayfront Park	None						
22	Ives Estates Park	99						
23	Lakes by the Bay Park	200	287					
24	Larry & Penny Thompson Park	137	52					
25	Martin Luther King Jr. Memorial Park	32	62					
26	Matheson Hammock Park	136						
27	Miami Beach*	79	103	110	112	113		
		115	119	120	150	SU		
28	Model Cities Trail	12	21	22	79	112	246	
29	North South Trail (South Dade Trail)	34	35	38				
30	North Trail Park	137						
31	Old Cutler Bike Path	37	136	200	287			
32	Pinewoods Park	None						
33	Snake Creek Trail	3	9	10	75	95	99	183
34	Snapper Creek Trail	40	56	71	72	272		

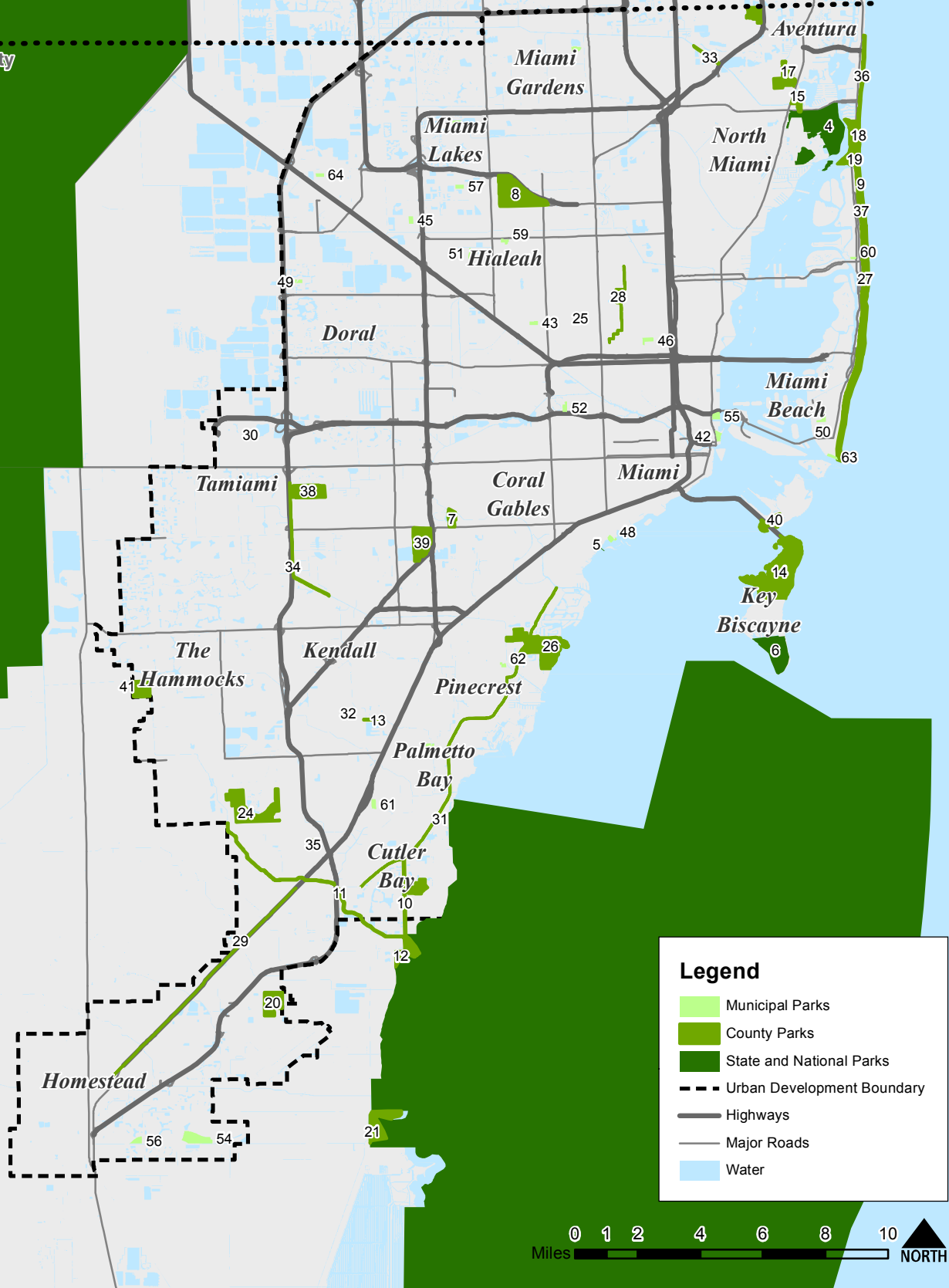


Map ID	Parks	Routes						
35	Southridge Park	1						
36	Sunny Isles Beach	105	119	120	BA*			
37	Surfside Beach	107	119	120	SU*			
38	Tamiami Park	11	24	71	8	82		
39	Tropical Park	40	56	82				
40	Virginia Key	102						
41	West Kendall District Park	None						
Municipal Parks								
42	Bayfront Park	119	120	3	93			
43	Benny Babcock Park & Pool	54	HI*					
44	Betty T. Ferguson Recreational Complex	27	99					
45	Bucky Dent Water Park	HI*						
46	Charles Hadley Park FKA Manor Park	12	21	246	46			
47	Coral Reef Park	57	PA*	PA*				
48	Dinner Key Auditorium & Marina	22						
49	Doral Legacy Park	DL*	DL*					
50	Flamingo Park & Pool	113	119					
51	Goodlet Park	54						
52	Grapeland Heights Park	238	37					
53	Harris Field Park	35						
54	Homestead Sport Complex	None						
55	Maurice A. Ferré Park	113	119	120				
56	Mayor Roscoe Warren Municipal Park	35	344					
57	McDonald Park	267	73					
58	Miami Lakes Optimist Park	73	267					
59	Milander Park	33	37	HI*				
60	North Shore Park / Tennis Center	79	112	115	119	120		
61	Palmetto Bay Park	PA*						
62	Pinecrest Gardens	57						
63	South Pointe Park *	103	113	150				
64	Westland Gardens Park	HI*						

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 BY: Bay Harbor Islands Shuttle
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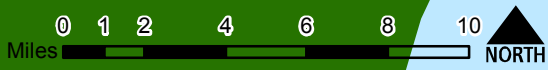
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Legend

- Municipal Parks
- County Parks
- State and National Parks
- Urban Development Boundary
- Highways
- Major Roads
- Water





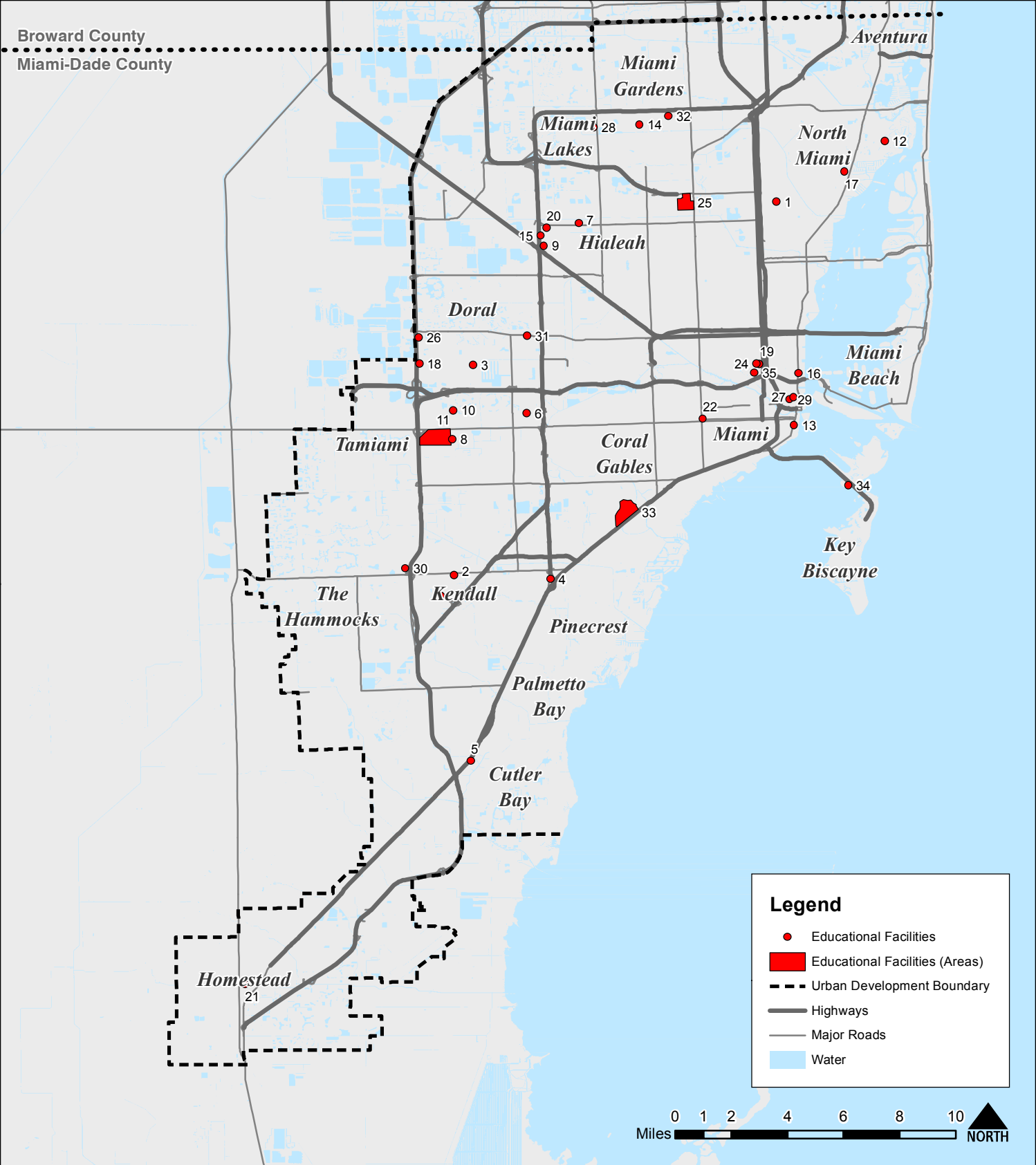
8.3 Educational Centers

Map ID	Educational Centers	Routes											
1	Barry University - Main Campus	2											
2	Barry University - Kendall Campus	288	71	88									
3	Carlos Albizu University	238											
4	City College	252	287	31	34	38	39	500	52	73	88	PA*	RA*
5	College of Business and Technology - Cutler Bay	200	31	34	35	38	39						
6	College of Business and Technology - Flagler	11	51	87									
7	College of Business and Technology - Hialeah	33	54	HI*									
8	Florida Career College - Miami	11	24	71	8	82							
9	Florida Career College - Hialeah	HI*	HI*										
10	FIU - Engineering Center	11	137	212	51								
11	FIU - Modesto A. Maidique Campus	11	24	71	8	82							
12	FIU - Biscayne Bay	135	75										
13	FIU - Downtown on Brickell	11	51	87									
14	Florida Memorial University	32											
15	Florida National University	HI*	HI*										
16	Miami International University of Art & Design (Formerly International Fine Arts College)	10	101	113	119	120	16	3	32	9	93		
17	Johnson & Wales University	16	3	93	BY*								
18	Keiser University	None											
19	Lindsey Hopkins Technical Education Center	113	195	196	21	246	277	32	77	95			
20	MDC - Hialeah	29	33	54	HI*	HI*							
21	MDC - Homestead	34	344	35	38								
22	MDC - Interamerican	207	208	27	8								
23	MDC - Kendall	104	204	35	71								
24	MDC - Medical Center	113	21	246	277	32	77						
25	MDC - North	107	19	27	297	32							
26	MDC - West	36	DL*										
27	MDC - Wolfson Campus	11	119	120	3	7	77	9	93				
28	Miami Lakes Education Center	29	75										
29	New World School of the Arts	11	119	120	195	196	2	207	208	21	211	246	
		277	3	500	51	7	77	9	93	95	RA*		
30	Nova Southeastern University - Kendall Campus	288	88										
31	Polytechnic University of Puerto Rico	132	36	95	DL*								
32	St. Thomas University	32											
33	University of Miami	500	56										
34	University of Miami - Marine Campus	102											
35	University of Miami - Miller School of Medicine	113	12	21	246	295	296	32	95	RA*			

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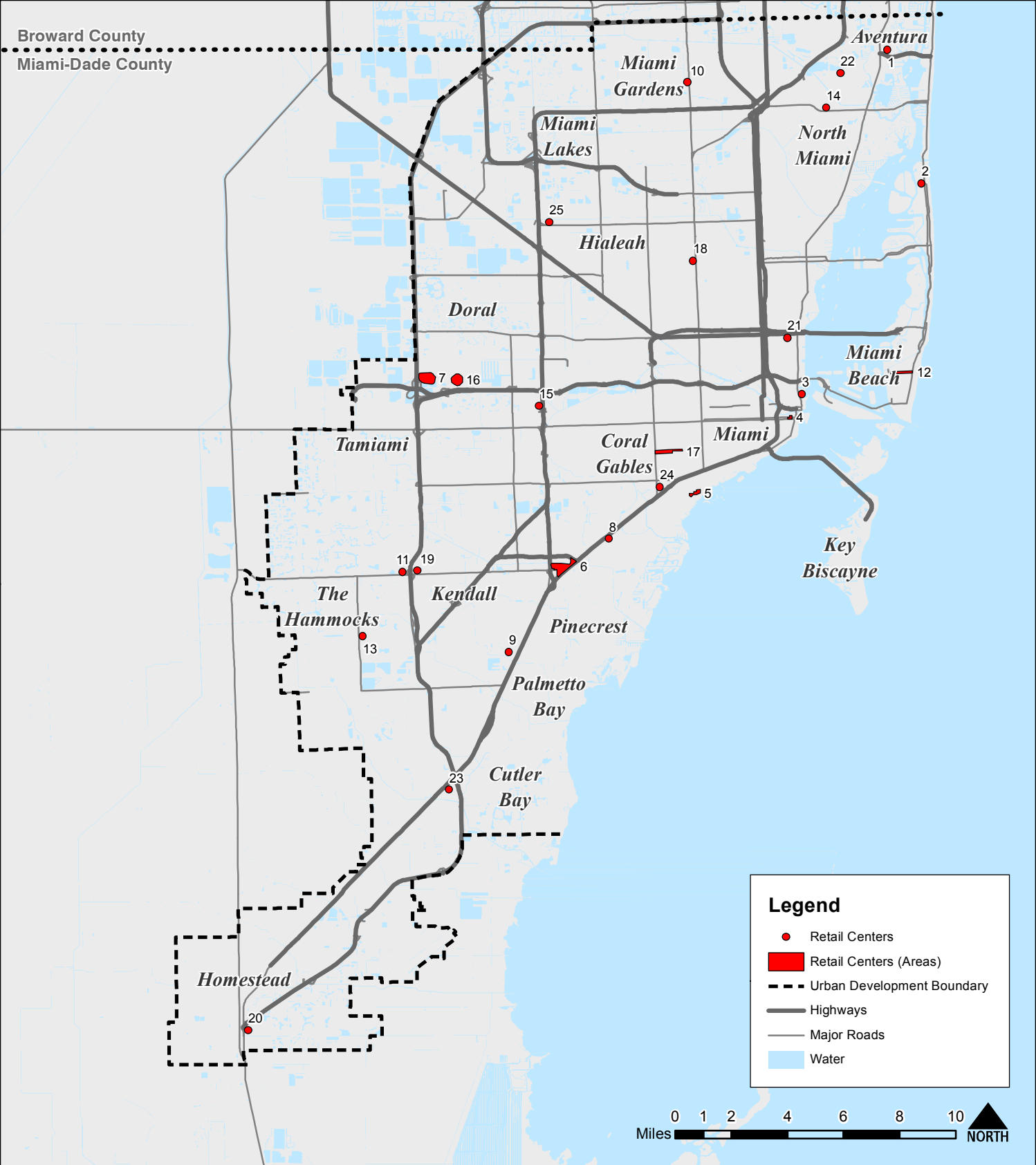
8.4 Retail Centers

Map ID	Retail Centers	Routes													
		105	119	120	183	3	9	93	95	99	BA*				
1	Aventura Mall	105	119	120	183	3	9	93	95	99	BA*				
2	Bal Harbour Shop	107	119	12	BA*	BY*	SU*								
3	Bayside Marketplace	119	120	3	9	93									
4	Brickell City Centre	None													
5	Coconut Grove	None													
6	Dadeland	104	204	252	272	287	288	31	34	38					
		39	500	52	73	87	88	PA*	RA*						
7	Dolphin Mall	137	238	338	36	7	71								
8	Downtown South Miami	136													
9	The Falls	183	27	297	95										
10	Gardens Promenade	288	88												
11	Kendall Village Center	103	112	113	115	119	120	150							
12	Lincoln Road Mall	137													
13	London Square	11	51	7	87										
14	Mall at 163rd Street	137	238	338	36	7	71	DL*							
15	Mall of The Americas	24	37	42	56	CG*									
16	Miami International Mall	112	12	21	27	297	79	RA*							
17	Miracle Mile	288	88												
18	Northside Shopping Center	301	34	344	35	38									
19	The Palms at Town and Country	10	110	150	202	36	9								
20	Florida Keys Outlet Center	37	500	57	72	RA*									
21	The Shop at Midtown Miami	1	137	200	248	31	34	35	38	39	52				
22	Skylake Mall	40	42	500	56	CG*	RA*								
23	Southland Mall	29	33	54	HI*	HI*									
24	Village of Merrick Park	10	105	108	16	19	2	210	22	246	3	75	9	NM*	
25	Westland Mall														

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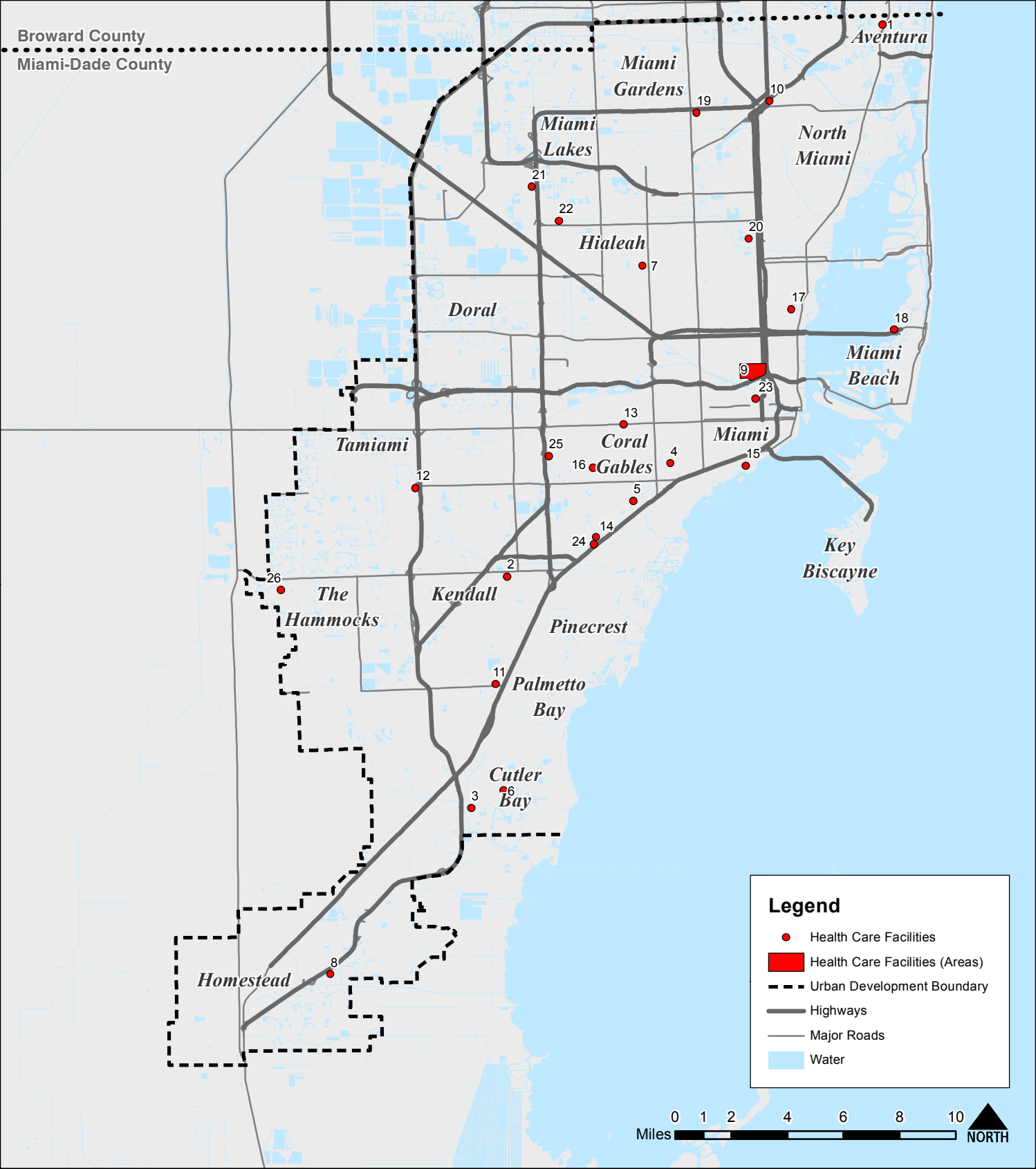
8.5 Health Care Facilities

Map ID	Health Care Facilities	Routes									
1	Aventura Hospital	105									
2	Baptist Hospital	104	88								
3	Doris Ison Community Health Center	53	78								
4	Coral Gables Hospital	37	CG*								
5	Doctors' Hospital	56									
6	Encompass Health Rehabilitation Hospital of Miami	31									
7	Hialeah Hospital	112	42	HI*	RA*						
8	Homestead Hospital (Baptist)	66	68								
9	Jackson Memorial / U.M. / V.A. Hospital	113	12	195	196	21	246	277			
		295	296	32	77	95	RA*				
10	Jackson North Medical Center	105	195	196	22	246	295	296	77	95	
11	Jackson South Community Hospital	252	287	31	34	38	39	52	57	PA*	
12	Kendall Regional Medical Center	40									
13	Kindred Hospital South Florida - Coral Gables	8									
14	Larkin Community Hospital	37	500	57	72	RA*					
15	Mercy Hospital	12									
16	Miami Children's Hospital	56									
17	Miami Jewish Home & Hospital for the Aged	10	202	54	9						
18	Mount Sinai Medical Center	103	110	113	115	150					
19	North Dade Health Center	217	27	297							
20	North Shore Medical Center	33									
21	Palmetto General Hospital	29	HI*								
22	Palm Springs General Hospital	29	33	54	HI*	HI*		HIA	HIA		
23	Selected Specialty Hospital	11	12	208	51	7					
24	South Miami Hospital	37	500	72	RA*						
25	Westchester General Hospital	24									
26	West Kendall Baptist Hospital	104	204	272	288	72	88				

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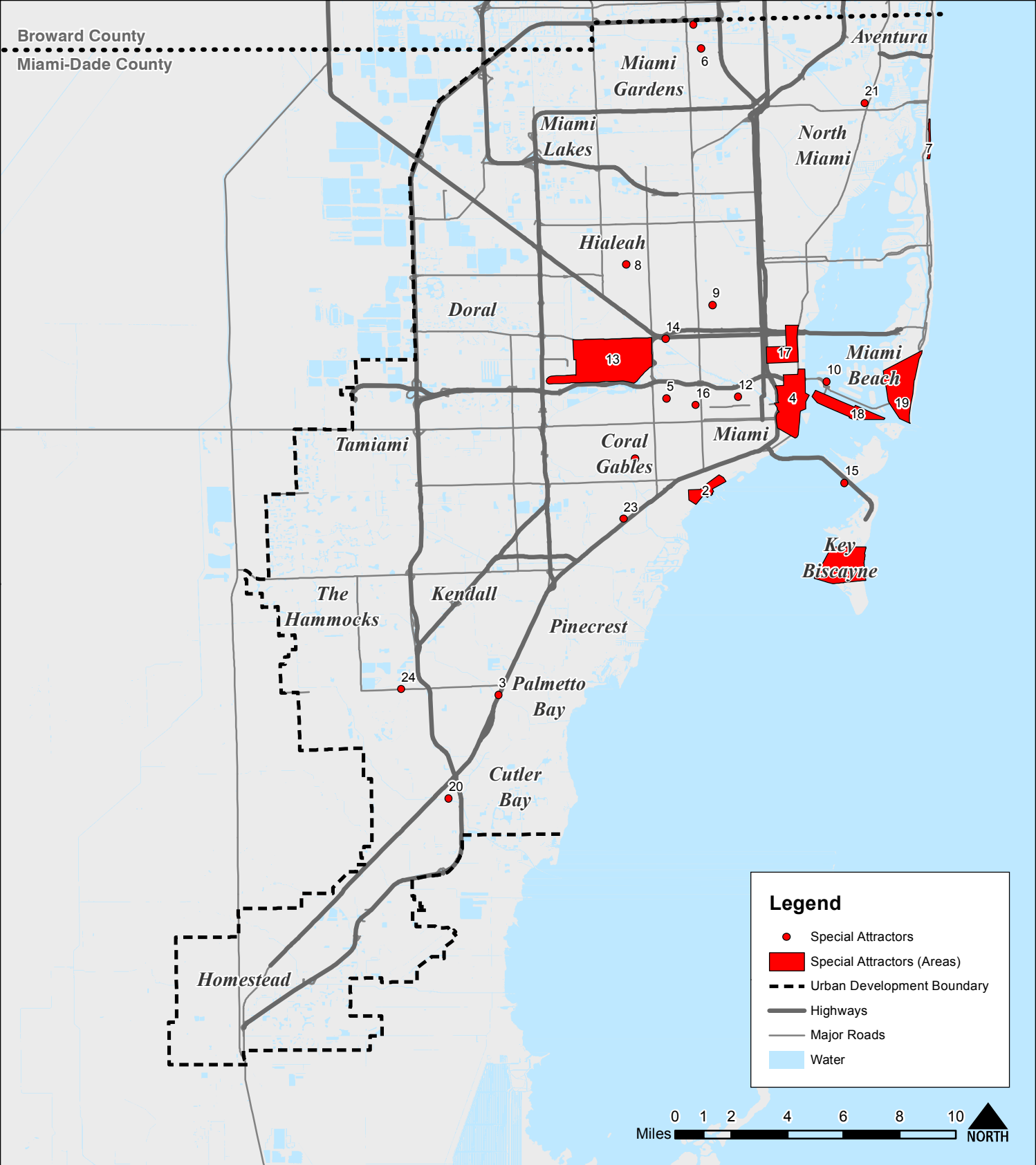
8.6 Special Attractors

Map ID	Special Attractors	ROUTES											
		99											
1	Calder Race Course/Casino	99											
2	Coconut Grove	22											
3	Coral Castle	287	31	34	38	39	PA*						
4	Downtown Miami	10	101	102	11	113	119	120	16	195	196		
		2	207	208	21	211	24	246	277	3	32		
		500	51	7	77	8	9	96	95	RA*	RA*		
5	Flagler Kennel Club / Magic City Casino	238	37	7									
6	Hard Rock Stadium	None											
7	Haulover Beach	None											
8	Hialeah Race Track	112	135	HI*									
9	Joseph Caleb Community Center	22	246	254	54								
10	Jungle Island / Miami Children's Museum	113	119	120									
11	Key Biscayne	102											
12	Marlins Park	17	7										
13	Miami International Airport	110	132	150	297	338	36	37	42	57	7	95	
14	Miami Jai-Alai	110	132	150	297	36	95	RA*					
15	Miami Seaquarium	102											
16	Miami-Dade County Auditorium	11	27	51									
17	Midtown / Wynwood / Design District	10	110	150	16	195	196	2	202				
		211	3	32	36	9	93	95					
18	PortMiami	None											
19	South Beach	101	103	112	113	115	119	120	150				
20	South Miami-Dade Cultural Arts Center	1	137	200	248	31	35	38	39	52			
21	The Cloisters of the Ancient Spanish Monastery	105	108	3	75	93	NM*						
22	Venetian Pool	24											
23	Watsco Center (Formerly Bank United Center)	500	56	RA*									
24	Zoo Miami	252											

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A.9 FDOT SERPM Approval Letter



Florida Department of Transportation

RICK SCOTT
GOVERNOR

1000 NW 111 Avenue
Miami, FL 33172-5800

ERIK FENNIMAN
SECRETARY

January 4, 2019

Ms. Monica Cejas, P.E.
Chief, Planning & System Development
Miami-Dade Department of Transportation & Public Works
701 NW 1st Court, 15th Floor
Miami, FL 33136

RE: Approval – Use of the FDOT SERPM model for the development of the Miami-Dade Department of Transportation and Public Works Fiscal Year 2020 – 2029 Transit Development Plan (TDP) Major Update

Dear Ms. Cejas:

The District 6 Modal Development Office has completed the review of the submitted request for Miami-Dade Department of Transportation & Public Works to use the FDOT SERPM for the development Fiscal Year 2020 - 2029 Transit Development Plan Major Update. This annual TDP review process is described in Rule 14-73, Florida Administrative Code and required by Florida Statute in order for Miami-Dade DTPW to receive State Transit Block Grant funding.

The request from Miami-Dade DTPW to use the FDOT SERPM model for the TDP Major Update is approved.

If you have any questions, feel free to contact me at 305 470-5255.

Sincerely,

Raymond Freeman
District Transit Programs Administrator

Cc: Nilia Cartaya, FDOT



TRANSIT DEVELOPMENT PLAN
MAJOR UPDATE