

## S.0 EXECUTIVE SUMMARY

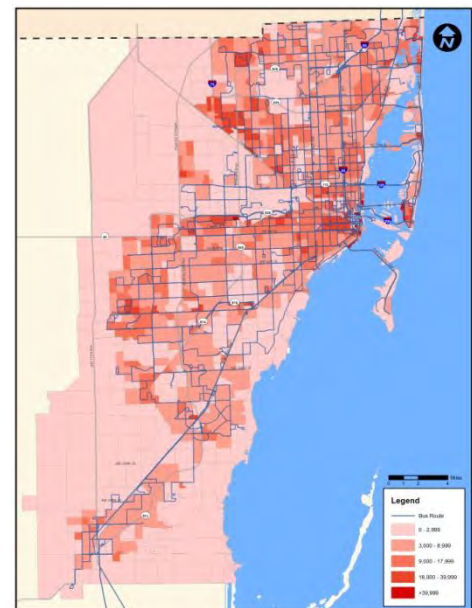
### S.1 Introduction

The fiscal year (FY) 2015 – 2024 Transit Development Plan (TDP), known as *MDT10Ahead*, serves as the strategic guide for public transportation in Miami-Dade County over the next 10 years. This TDP presents the current operational and capital improvement needs of Miami-Dade Transit (MDT) and also serves as a planning tool for the implementation and operation of transit services through 2024. This TDP represents planning efforts undertaken by MDT in 2013 and includes a forecast of operational and capital needs for FY 2015 - 2024.

### S.2 Operating Environment

Understanding the baseline conditions establishes the context for the delivery of transit services within Miami-Dade County and measures the extent to which MDT service effectively meets the transportation needs of the county. For example, the Miami-Dade County Urban Area is approximately 493 square miles of which MDT's service area covers approximately 306 square miles or 62 percent.

Miami-Dade is also the most populous county in Florida and the eighth (8<sup>th</sup>) most populous county in the nation. Since 2000, the County population has increased by ten percent (10%) or approximately 240,000 people from Census estimates spanning from 2000 to 2010. Travel times commuting back and forth to work are steadily increasing such that residents are spending more time commuting in traffic to reach employment centers every day.



### S.3 Miami-Dade Transit Overview

Miami-Dade Transit operates the 15<sup>th</sup> largest transit system in the United States. Miami-Dade Transit's service area covers approximately 306 square miles with an urbanized population of approximately 2.5 million. MDT operates four (4) modes of transit service: bus (Metrobus), heavy rail (Metrorail), automated people-mover (APM) (Metromover), and demand-response service (Special Transportation Services or STS).

Together Metrobus, Metrorail and Metromover comprise an integrated multi-modal transit system throughout Miami-Dade County. More than 353,000 average weekday boardings occur on the MDT system while STS's average daily boardings is approximately 5,500.

#### Miami-Dade Transit Mission Statement

*To meet the needs of the public for the highest quality of transit service: safe, reliable, efficient and courteous.*

## S.4 Performance Evaluation – Peer and Trend Analysis

As part of the TDP, MDT conducted a peer and trend analysis. The former compares the agency's performance to other peer agencies, while the latter compares the agency's performance to itself over the last five years.

MDT was typically on par with its peers in terms of performance although there were areas where MDT is performing better than its peers (e.g., bus operating cost per revenue hour) and areas where MDT could improve (e.g., rail farebox recovery). MDT's overall trend also shows mixed results. In some areas MDT has excelled (i.e., bus farebox recovery and STS weekend service) and in some it is showing need for improvement (e.g., rail average age of fleet).

## S.5 Public Involvement

MDT's robust public involvement effort was presented in its Public Involvement Plan which was approved by the Florida Department of Transportation. A summary of the public involvement outreach undertaken is presented in the following table. The input received indicated a need for increased transit service whether it be to add new

Type of Event	Total Number of Participants
Project Steering Committee Meetings	4
Focus Group Meetings	2
Outreach Events	36
Additional Comments Received via Online Survey	850
Comment Cards Returned by Mail	2,513
Surveys Completed	1,404
E-blasts Sent	7
E-blast Recipients	10,000
Presentations (TPTAC, CTAC, CITT, TAC, BCC)	5

service areas, increase frequencies, or add to the diversity of modes. Another common theme from the public involvement input is that current services would benefit from improved on-time performance and greater coordination between modes and other transit providers (e.g., Tri-Rail).

## S.6 Goals and Objectives

The preparation of the FY 2015 – 2024 TDP Major Update resulted in the development of seven (7) major goals, each with various objectives and corresponding measures. As documented in the TDP's Public Involvement Plan, many discussions were held with community leaders, key stakeholders, the Project Steering Committee, MDT staff, and the general public, among other organizations and individuals in formulating these goals.

- **Goal 1: Improve Convenience, Reliability and Customer Service of Transit Services**
- **Goal 2: Improve Operational Safety and Security**
- **Goal 3: Improve Coordination and Outreach**
- **Goal 4: Enhance the Integration of Transit Services to Support the Economy and Preserve the Environment Management/Operation**
- **Goal 5: Maximize Use of All Funding Sources**

- **Goal 6:** *Maximize and Expand Transit Services*
- **Goal 7:** *Transit system shall fully meet requirements of the Americans with Disabilities Act (ADA).*

## S.7 Situation Appraisal

The situation appraisal provides an appraisal of factors within and outside the provider that affect the provision of transit service. This section includes an evaluation of organizational issues, the effects of land use regulations support or hindrance of transit service, state and local transportation plans, other governmental actions and policies, socioeconomic trends, and technology on transit.

## S.8 Ten Year Implementation Plan FY 2015 - FY 2024

The Ten Year Implementation Plan presents the various transit improvement projects that are proposed for the MDT transit system over the planning horizon of the FY 2015-2024 TDP Major Update. These improvement projects include committed transit improvement initiatives related to capital, service, and infrastructure. In addition, the MDT Recommended Service Plan (RSP) serves as the needs plan for the MDT system.

Some of the improvements and adjustments reflected in the 2024 RSP are identified under the PTP one-half percent sales surtax approved by voters on November 5, 2002. Most of the improvements listed in the RSP beyond 2014 were not included in the original PTP improvements list, but may be funded with future PTP surtax funds. These improvements were deemed to be the most pressing or requested by the community after the original PTP list was completed.

### S.8.1 Recommended Service Plan – Existing Metrobus Routes

MDT is committed to provide a level of transit service that will provide efficient services to passengers throughout the Miami-Dade County service area. The provision of service is continuously considered while MDT seeks to properly address critical issues such as generating revenue, managing operational budgets, and prioritizing capital expansion programs.

Since the TDP comprises part of MDT's operational foundation for the future, the importance of "rightsizing" the RSP cannot be over emphasized. Service route improvement and adjustment needs outlined in the RSP are proposed for implementation throughout the TDP ten year planning horizon of FY 2015-FY 2024. The estimated total need for capital and operating improvements to existing transit routes over this ten year planning horizon is approximately \$129 million.

### S.8.2 Recommended Service Plan – New Metrobus Routes

Eleven (11) new transit routes have been proposed under the 2024 RSP to replace old existing routes or add new service. The preliminary programming of these routes was conducted in a systematic and regional approach based on coordination with major transit capital projects. These new routes represent MDT's response to citizens' requests for additional enhanced bus service throughout Miami-Dade County.

### S.8.3 Recommended Service Plan - Metromover

The expansion of the Metromover System would entail additional operations and maintenance costs, which is a topic of concern given MDT's approved 10-year operating budget and existing revenue sources. As such, there are no planned service extensions or expansion of the existing Metromover System under consideration by MDT at this time or within the planning horizon of this TDP Major Update.

### S.8.4 Recommended Service Plan – Metrorail

The completion of the Orange Line to MIA in 2012 represents a milestone achievement for MDT and the PTP. However, feasibility of future Metrorail extensions has been a topic of concern given MDT's approved 10-year operating budget and existing revenue sources. Therefore, MDT is considering an expansion plan that involves the development of less costly modal approaches to the expansion program such as Bus Rapid Transit and Express Bus Service.

### S.8.5 Recommended Service Plan – Special Transportation Services

Miami-Dade Transit has modified its Special Transportation Service area to complement fixed route service in the City of Homestead. The City of Homestead inaugurated seasonal service to Everglades and Biscayne National Parks in April 2014. Miami-Dade Transit will provide complementary STS Service that will be funded by the City of Homestead. The service will only operate on weekends from April to November.

### S.8.6 Infrastructure Renewal Program Needs

Miami-Dade Transit continually evaluates systemwide needs for the continual upkeep and maintenance of existing infrastructure to ensure the MDT transit system operates in a state of good repair. The infrastructure renewal program (IRP) includes planned investments in information technology; passenger amenities, rolling stock, systems, maintenance facilities, safety and security, track and guideway and systems maintenance. The unfunded need for IRP projects within the TDP ten year horizon is approximately \$494 million.

## S.9 Financial Plan

This TDP Major Update represents planning efforts undertaken by MDT in 2013 to include a forecast of operational and capital needs for FY 2015 through FY 2024. This TDP has been prepared on the basis of expenditure and revenue assumptions included within the Miami-Dade County Pro Forma capital budget as approved by the Miami-Dade County Board of County Commissioners (BCC) in September 2013.

### S.9.1 Operating Budget

The operating budget, as presented in the 2014 Pro Forma for the ten-year period from FY 2015 to FY 2024, is balanced. In FY 2015, the direct operating budget for MDT is projected to be approximately \$490 million. In addition to these direct operating expenses, MDT will support approximately \$167 million of other operating expenses, debt service payments, and funding of reserves.

For FY 2015, MDT is projected to spend approximately \$657 million. Miami-Dade Transit's operations are supported by a range of federal, state, local, and directly-generated revenue streams that totals \$650 million for FY 2015. 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 MDT is expected to grow at slightly over three percent (3%) annually.

### **S.9.2 Capital Budget**

The capital budget is presented in the FY 2014 Pro Forma for the ten-year period from FY 2015 to FY 2024. 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 MDT's budget, as described above, to guarantee debt coverage). For FY 2015, MDT's planned capital expenditures totals \$113.7 million with capital revenues totaling \$101.2 million.

### **S.9.3 Unfunded Needs**

MDT FY 2015 – FY 2024 TDP Annual Update is based upon initiatives as identified by MDT that are currently unfunded, which represent important areas of need. These unfunded project costs are presented in year-of-expenditure (YOE) dollars, according to the planned implementation schedules and inflation assumptions. MDT's total unfunded needs between FY 2015 – FY 2024 is \$786 million in YOE dollars.

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## 1.0 Introduction

The fiscal year (FY) 2015 – 2024 Transit Development Plan (TDP), known as *MDT10Ahead*, serves as the strategic guide for public transportation in Miami-Dade County over the next 10 years. This TDP presents the current operational and capital improvement needs of Miami-Dade Transit (MDT) and also serves as a planning tool for the implementation and operation of transit services through 2024.

This TDP represents planning efforts undertaken by MDT in 2013 and includes a forecast of operational and capital needs for FY 2015 - 2024. This TDP has been prepared on the basis of expenditure and revenue assumptions included within the Miami-Dade County FY 2013 – 2014 Pro Forma and the capital budget as approved by Miami-Dade County Board of County Commissioners (BCC) in September 2013.

It is important to emphasize that the needs forecasts and applied financial assumptions as presented in this TDP are subject to change correspondingly in line with the finalization of the County's Budget and Capital Operating Plan. An updated FY 2014 - 2015 Pro Forma and Capital Plan will be adopted by the BCC in September 2014.

The BCC, on May 3, 2011, approved a motion to fund Cutler Bay, Doral, and Miami Gardens (the "New Cities") out of the County's 80% share of the Transit System Sales Surtax proceeds. Although the funding will come out of the County's 80 percent share, this distribution to new cities will be subordinate to the existing and future PTP debt service payments. As a result of negotiations between the County and each New City, the BCC approved separate interlocal agreements with each that expired in August 2012.

The County during summer 2012, with amendment of the Surtax Ordinance (02-116), also authorized the distribution of the Net Proceeds to the New Cities. Their Interlocal Agreements (ILA's) include the County agreeing to pay each of the New Cities the amount of Net Surtax Proceeds each would have received for Fiscal Years 2009-2010, 2010-2011 and 2011-2012, totaling approximately \$17.3 million. The County has established a reserve funded from Net Transit System Sales Surtax Proceeds for such payments to be made without impairing any currently funded projects.

As of the date of this publication, ILA's between Miami-Dade County and those municipalities receiving Charter County Transportation Surtax funds (inclusive of the 31 "Original" cities and the three "New" cities) are under development. In the interim, the existing agreements will continue until such time as the new ILA's are entered into. All 34 cities continue to receive their pro rata share of Surtax funds via extension of the previous ILA's.

### 1.1 Transit Development Plan Requirements

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 TDP. A TDP major update is required every five years and TDP annual updates are required in interim years. TDP updates must be submitted to the Florida Department of Transportation (FDOT) by September 1st of each year.

This TDP Major Update meets the requirements and is in accordance with Florida Administrative Code (FAC) Rule 14-73.001. This Plan is to be used by MDT as a planning and guidance tool, as delineated in Section 341-052, F.S.:

*Transit Development Plans (TDPs) 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.*

FDOT has established guidelines stating that a TDP Major Update include the following information and content.

**Table 1-1: MDT10Ahead TDP Major Update Checklist**

Public Involvement Process	
✓	Public Involvement Plan (PIP)
✓	PIP approved by FDOT
✓	TDP includes description of Public Involvement Process
✓	Provide notification to FDOT
✓	Provide notification to Regional Workforce Board
Situation Appraisal	
✓	Land use
✓	State and local transportation plans
✓	Other governmental actions and policies
✓	Socioeconomic trends
✓	Organizational issues
✓	Technology
✓	10-year projections of transit ridership using approved methodology
✓	Assessment of whether land uses and urban design patterns support transit service provision
✓	Calculate farebox recovery
Mission and Goals	
✓	Provider's vision
✓	Provider's mission
✓	Provider's goals
✓	Provider's objectives
Alternative Courses of Action	
✓	Develop and evaluate alternative strategies and actions
✓	Benefits and costs of each alternative
✓	Financial alternatives examined
Implementation Program	
✓	10-year implementation program
✓	Maps indicating areas to be served
✓	Maps indicating types and levels of service
✓	Monitoring program to track performance measures
✓	10-year financial plan listing operating and capital expenses
✓	Capital acquisition or construction schedule
✓	Anticipated revenues by source
Relationship to Other Plans	
✓	Consistent with Florida Transportation Plan
✓	Consistent with local government comprehensive plans
✓	Consistent with MPO long-range transportation plans
✓	Consistent with regional transportation goals and objectives
Submission	
✓	Adopted by Governing Board
✓	Submitted to FDOT by September 1, 2014
✓	Official acceptance by FDOT

## 1.2 TDP Adoption Process

The TDP Major Update will be presented to the BCC for formal adoption in the fall of 2014.

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## 2.0 OPERATING ENVIRONMENT

This section provides an overview of the operating environment in which MDT provides transit service. The primary areas of focus include analysis of existing demographics, economic conditions, and land use patterns. These factors are presented in an effort to create a description of Miami-Dade County and measure the extent to which MDT service effectively meets the transportation needs of the county.

### 2.1 Service Area Description

According to the U.S. Census Bureau, Miami-Dade County encompasses a total area of 2,431 square miles. Approximately 1,946 square miles (80%) of the County is land and 485 square miles (20%) is comprised of water, most of which is Biscayne Bay and another significant portion being the adjacent waters of the Atlantic Ocean. Miami-Dade County borders two national parks. Biscayne National Park is located east of the mainland, in Biscayne Bay, and the western third of Miami-Dade County lies within Everglades National Park.

The Urban Area is approximately 493 square miles of which MDT's service area covers approximately 306 square miles or 62 percent (62%) (Figure 2-1). Miami-Dade County as a whole is composed of 34 individual municipalities (Islandia was formerly a city, and was unincorporated in 2012).

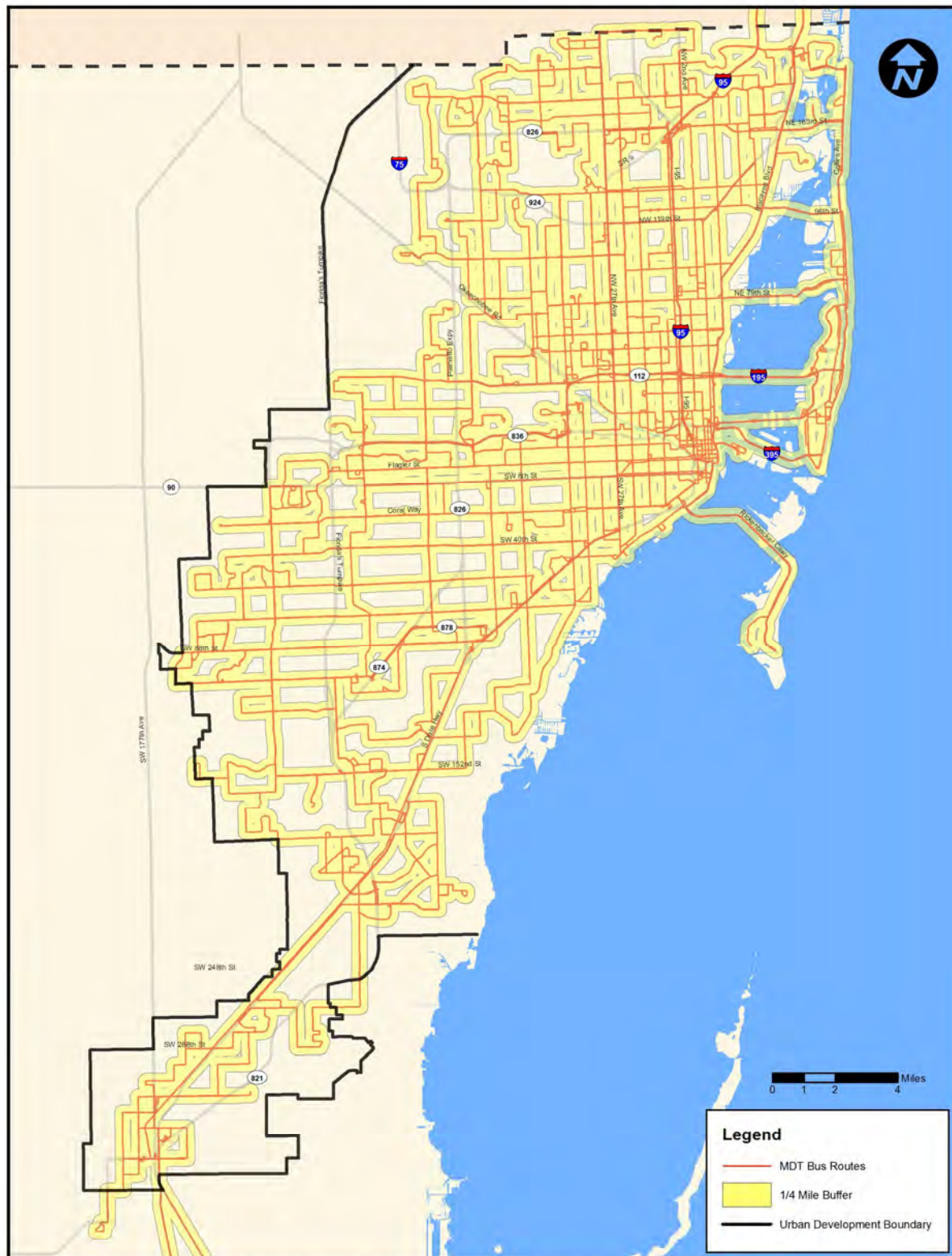
#### 2.1.1 Land Use

Existing land use for Miami-Dade County is classified by eleven (11) categories: Residential, Commercial and Service, (Hotel-Motel) Transient-Residential, Industrial, Institutional, Parks and Recreation, Transportation, Communication and Utilities, Agriculture, Vacant/Undeveloped Land, Inland Waters, and Coastal Water Bays and Ocean (Figure 2-2). Land uses comprising the largest proportion of Miami-Dade County are Parks and Recreational, Coastal Water Bays and Oceans and Residential (Table 2-1). There has not been a significant change in land use throughout Miami-Dade County; however, between 2009 and 2014, the amount of undeveloped land decreased by 36 percent (36%).

Future growth is governed by the Miami-Dade County Comprehensive Development Master Plan (CDMP), which includes the adopted plans of the CDMP Land Use Element and established land use and zoning patterns, as well as the County's policy regarding future zoning and land use patterns. The CDMP controls growth so that the expansion of the urban area occurs according to 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, well connected by multimodal intra-urban transportation facilities.
- In locations which optimize efficiency in public service delivery and conservation of valuable natural resources.

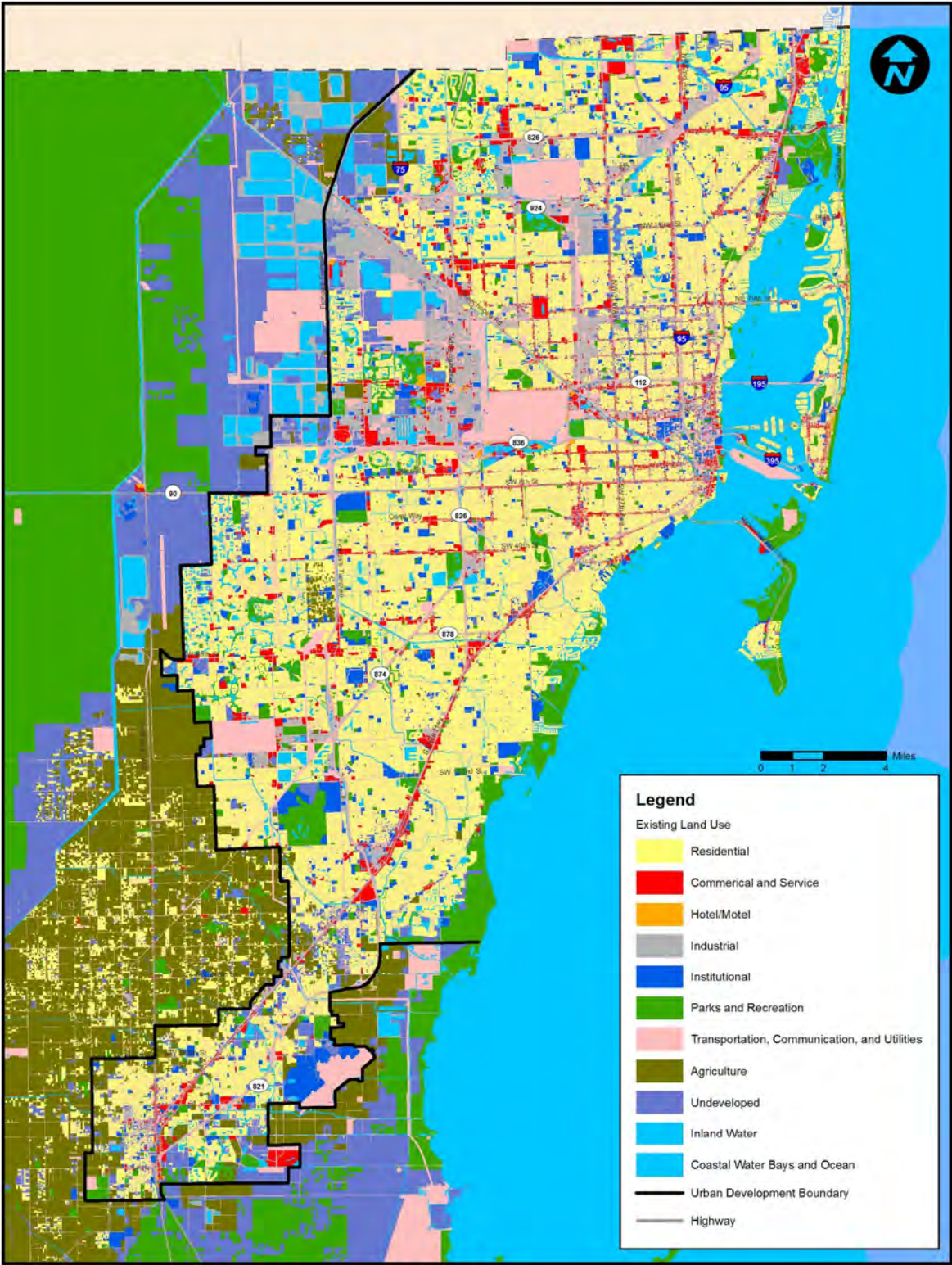
### Figure 2-1: MDT Service Area Coverage



Miami Dade Transit Bus Service Area Coverage. Source: Miami-Dade Transit, November 2013



Figure 2-2: Existing Land Use Map



Existing Land Use. Source: Miami Dade County GIS, September 2013

**Table 2-1: Miami-Dade County Land Uses**

Land Use	2014	
	Area (Acres)	Percentage
Parks & Recreation	833,552	53.8%
Coastal Water Bays and Ocean	282,387	18.2%
Residential	111,652	7.2%
Transportation, Communication, Utilities	87,438	5.6%
Undeveloped	86,293	5.6%
Agriculture	63,543	4.1%
Inland Water	36,932	2.4%
Industrial	17,722	1.1%
Institutional	14,632	0.9%
Commercial and Service	13,656	0.9%
Hotel/Motel	889	0.1%
<b>TOTAL</b>	<b>1,548,696</b>	<b>100%</b>

Source: Miami-Dade County GIS Department, 2014.

The objectives and policies in the Land Use Element of the CDMP emphasize concentration and intensification of future development around activity and urban centers located in areas having high county-wide multimodal accessibility and along linking major transit corridors.

The CDMP establishes that developments/redevelopments throughout Miami-Dade County are to be planned and developed in a manner that support transit use and alternative transportation modes that accommodate a concentration and variety of uses and activities which will attract large numbers of 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 use, and a pedestrian-friendly environment.

## 2.2 Miami-Dade County Transportation System

Miami-Dade County has 11 principal arterials as defined from the Florida Department of Transportation (FDOT) Functional Classification designations. Interstate 95 (I-95) is the main north-south highway throughout the county. This highway begins South of Brickell in Downtown Miami and extends north into Broward County. The Palmetto Expressway (SR 826), Interstate 75 (I-75), (SR 93) and Florida's Turnpike (SR 821) are also major expressways that extend throughout Miami-Dade County. The Miami-Dade Expressway Authority (MDX) manages five (5) tolled expressways [Dolphin Expressway (SR 836), Gratigny Expressway (SR 924), Airport Expressway (SR 112), Don Shula Expressway (SR 874), and Snapper Creek Expressway (SR 878)]. Figure 2-3 and Table 2-32 present the principal interstate, freeway, and expressway arterials found in Miami-Dade County.



Interstates, Freeways and Expressways. Source: FDOT Functional Classification, September 2013

**Table 2-2: Miami-Dade County Principal Interstate, Freeway, and Expressway Arterials**

Principal Arterials	Direction	No of Lanes
Florida's Turnpike (SR 821)	North-South	2/4/5/6/7/8/9/10
Don Shula Expressway (SR 874)	North-South	4/5/6/7/8
Interstate (I-75) (SR 93)	North-South	5/7/8
Palmetto Expressway (SR 826)	North-South	3/4/5/6/7/8/9/10/11/12
Interstate (I-95)	North-South	2/4/6/7/8/10
Snapper Creek Expressway (SR 878)	East-West	2/3/4
Dolphin Expressway (SR 836)	East-West	3/4/5/6/7/8/9
MacArthur Causeway (I-395)	East-West	2/3/4/5/6
Airport Expressway (SR 112)/ Julia Tuttle Causeway (I-195)	East-West	3/4/5/6/8
Gratigny Expressway (SR 924)	East-West	6/7/8
William H. Lehman Causeway (NE 192nd St) (SR 856)	East-West	4/6

Source: FDOT Number of Lanes, June 2010.

### 2.2.1 Miami-Dade County Street Grid System

Miami-Dade County is comprised of a contiguous street grid system that stretches from downtown Miami throughout other regions of the county. The street grid system was created with Flagler Street as the originating base street going east-west and Miami Avenue as the north-south originating base avenue. The street grid is primarily numerical such that all street addresses north of Flagler Street and west of Miami Avenue have NW in their address (e.g. NW 27th Avenue) likewise for the other quadrants. In Miami-Dade County, the Northwest (NW) and Southwest (SW) quadrants are much larger than the Southeast (SE) and Northeast (NE) quadrants. Many major roads are also named in addition to the numerical numbering system.

### 2.2.2 Roadway Capacity

Miami-Dade County's urbanized area experiences high levels of congestion on its roadways due to population growth and land use development patterns. Level of service maps are developed based on the volume to capacity (v/c) ratio which is a common measure of effectiveness utilized in the analysis of transportation systems. The volume is the daily traffic expected on a particular roadway. The roadway capacity is the maximum number of vehicles that can travel through a given point during a specified period under prevailing roadway, traffic and control conditions.

The v/c ratio analysis is based on best available count data describing existing conditions. The Arterial Grid Analysis Phase II Study prepared the LOS for Existing Conditions along non-State section line and half-section line corridor segments in 2011/2012 (Figure 2-4) applied methodologies established by FDOT's Quality/Level of Service Handbook for daily roadway volumes and capacities.

Arterial Grid Analysis Study - Phase II - Existing Conditions Level of Service (2011/12). Source: MPO Arterial Grid Analysis Study, 2014



Figure 2-4 highlights the estimated v/c ratios for the roadways operating at level of service<sup>1</sup> (LOS) up to LOS F when the projected demand exceeded the capacity of the roadway for 2011 and 2012. A transportation facility operating at LOS F implies failing or heavy congested conditions.

## 2.3 Demographic and Economic Analysis

This section reviews the area of Miami-Dade County which includes a physical description of the study area, population profile and trends, demographic characteristics, and journey-to-work characteristics. A series of maps are included to illustrate select population, demographic, and journey-to-work characteristics. The primary data sources include the 2010 Census and 2008-2012 American Community Survey Data, both represent the most comprehensive current available information. Traffic Analysis Zone (TAZ) data was used as an additional source for the creation of the demographic maps within this section.

### 2.3.1 Data Sources

#### **United States Census**

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. U.S. Census data used within this section is from the year 2010.

#### **American Community Survey (ACS)**

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 questions than the decennial census. Each year the survey randomly samples around 3.5 million addresses and produces statistics that cover 1-year, 3-year and 5-year periods for geographic areas in the United States and Puerto Rico. The 5-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.

In December 2013, ACS provided a five-year estimate (based on data collected in five consecutive years). This document sources the ACS 2008-2012 five-year estimates for analytic purposes to provide a more comprehensive descriptive average of demographic and economic conditions during this time period. To help understand the assumptions of the five-year estimates the following characteristics for this type of estimates is as follows:

- Published for all geographic areas including those with populations under 20,000.
- Represent the average characteristics over the five-year period of time.

<sup>1</sup> LOS A and B reflect excellent condition (no delay); LOS C and D are considered satisfactory (some delay); LOS E indicated the presence of significant congestion (major delay); and LOS F reflects substantial congestion.



- Have larger sample size than the one-year and three-year estimates.
- More precise than the one and three-year estimates.

ACS five-year estimates were used for this analysis since it is recognized as a second tier reliable source of economic and demographic data.

### 2.3.2 Miami-Dade County Population Characteristics

According to ACS estimates for 2012, Miami-Dade County was the most populous county in Florida and the eighth (8<sup>th</sup>) most populous county in the nation. Miami-Dade County has experienced population growth of ten percent (10%) or approximately 240,000 people from Census estimates spanning from 2000 to 2010. Population growth since 2000 has steadily impacted Miami-Dade County, as well as, the greater South Florida region (Table 2-3). Census population estimates indicate that growth in Miami-Dade County continues and increased by one percent (1%) from 2010 to 2012.

**Table 2-3: South Florida Population Growth, 2000-2012**

County	2000	2010	Percent Growth (2000-2010)	2012 Population Estimate	Percent Growth (2010-2012)
Miami-Dade	2,253,400	2,496,435	10%	2,512,219	1%
Broward	1,623,000	1,748,066	7%	1,761,993	1%
Palm Beach	1,131,200	1,320,134	14%	1,324,085	0%

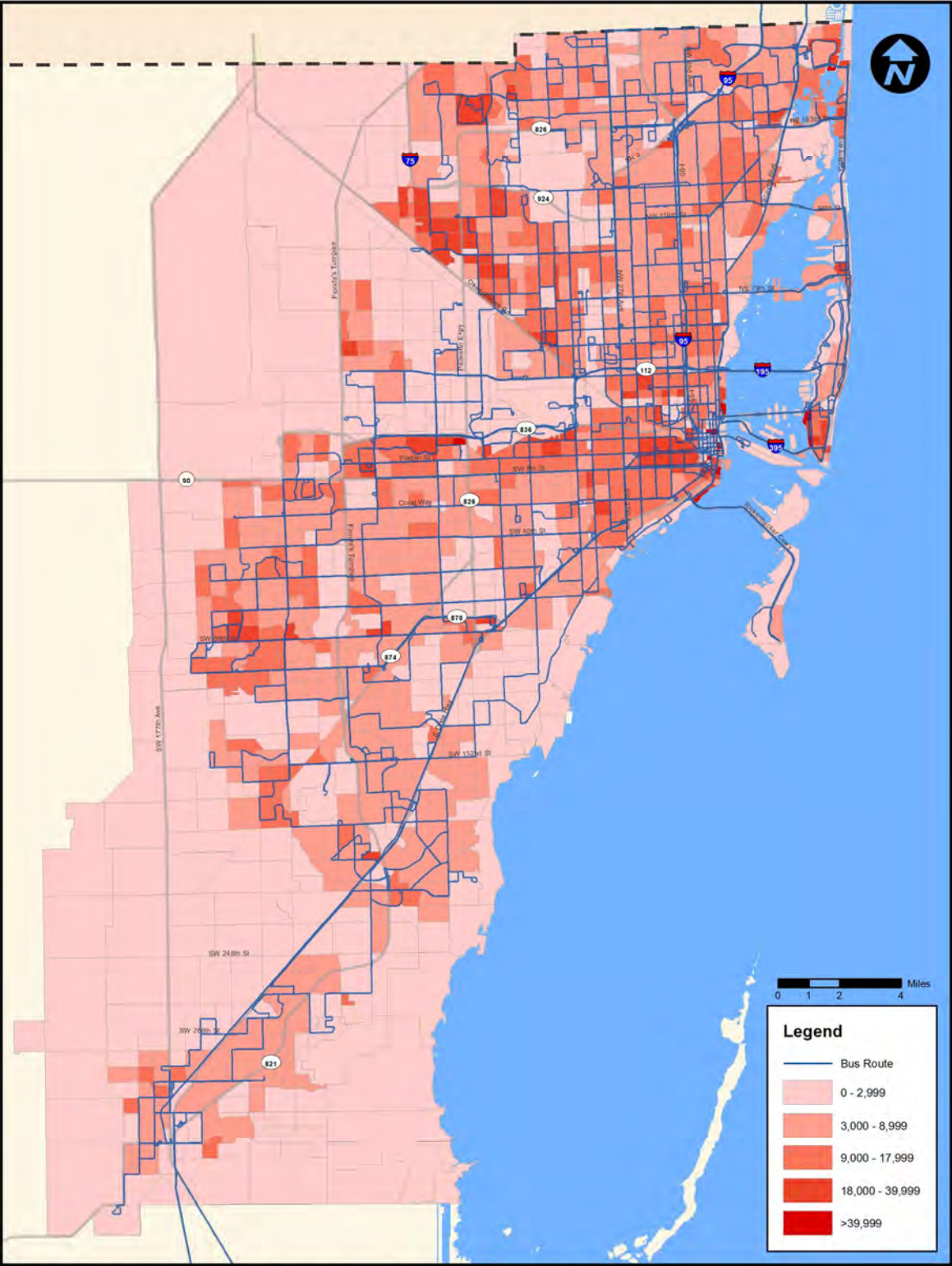
Source: U.S. Census 2010, 2008-2012 American Community Survey.

The median population density of Miami-Dade County is about 5,620 persons per square mile in 2010 (Figure 2-5a). Density throughout the report is calculated based upon current demographic data provided from the Miami-Dade County Metropolitan Planning Organization (MPO).

### 2.3.3 Miami-Dade County Employment Characteristics

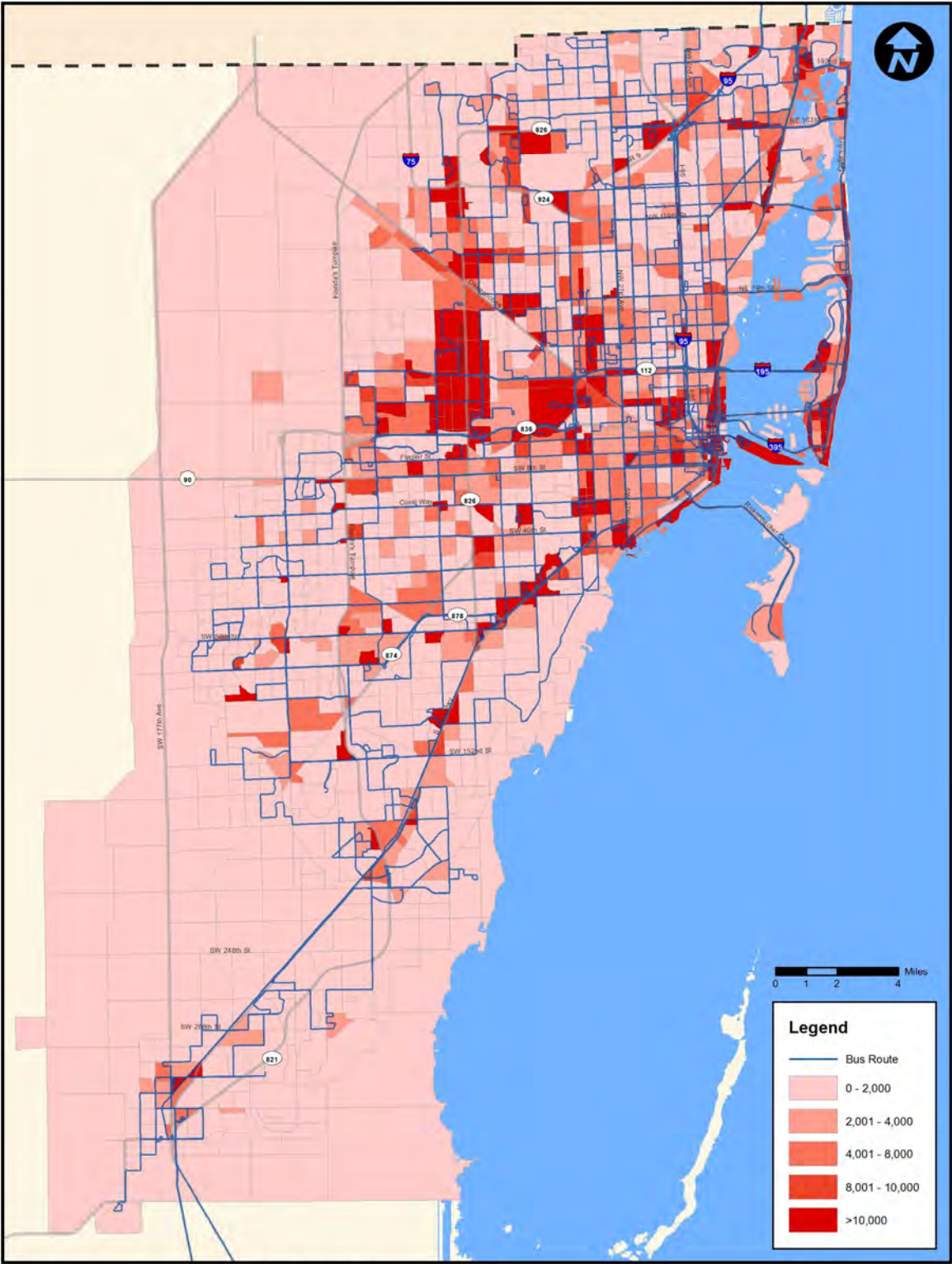
The median employment density of Miami-Dade County is about 1,810 persons per square mile in 2010 (Figure 2-5b). Employment density for the year 2010 in this report is calculated based on South East Regional Planning Model (SERPM 6.7 version).

Figure 2-5a: Miami-Dade County Population Density, 2010



Population Density per Square Mile. Source: Miami-Dade MPO, October 2013

Figure 2-5b: Miami-Dade County Employment Density, 2010



Employment Density per Square Mile. Source: SERPM 6.7 Model



### 2.3.4 Age Distribution Characteristics

In 2010, Miami-Dade County had a relatively young population with the median age of 38 years old. The age distribution revealed that persons age 18 years and younger made up 22 percent (22%) of the population. Elderly residents age 65 years and over made up 14 percent (14%)

**Table 2-4: Age Distribution Characteristics, 2008-2012**

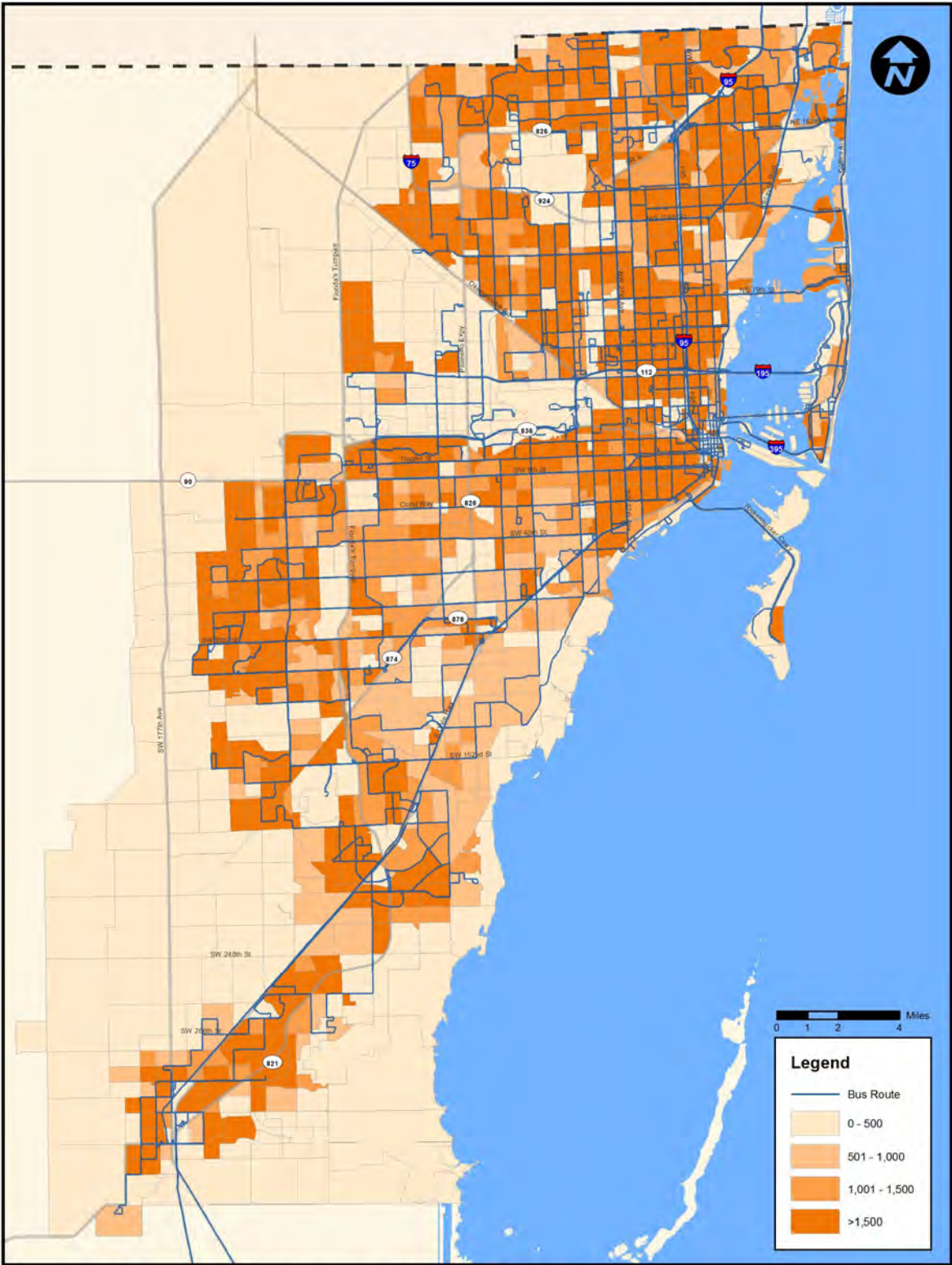
Population	18 and Under (%)	65 Years and Over (%)	Median Age
<b>2010 Census</b>			
2,496,435	22%	14%	38
<b>2008-2012 ACS Estimates</b>			
2,512,219	22%	14%	38

Source: U.S. Census 2010, 2008-2012 American Community Survey.

Trends remained consistent during the 2008-2012 time periods. The percentage of 18 years old and younger remained at 22 percent (22%), the percentage of over 65 years and older remained at 14 percent (14%) and the median age remained at 38 years of age.

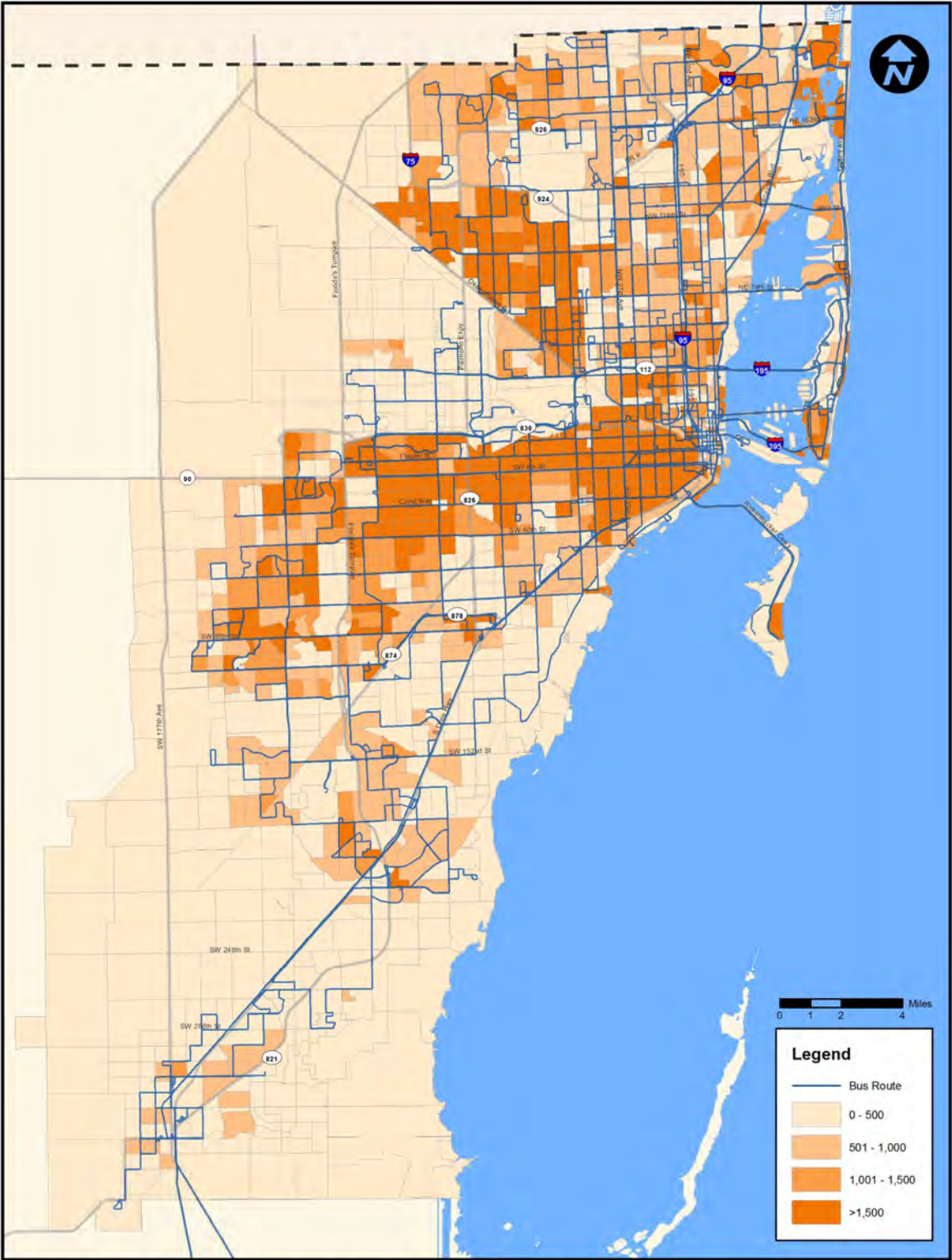
Figure 2-6 illustrates youth population density and Figure 2-7 illustrates the elderly population density in Miami-Dade County.

Figure 2-6: Miami-Dade County Population Density under 18 Years of Age



Population Density Under 18 Years of Age. Source: Miami-Dade MPO, October 2013

Figure 2-7: Miami-Dade County Population Density age 65 Years and Over



Population Density 65 Years of Age and Over. Source: Miami-Dade MPO, October 2013



### 2.3.5 Household Characteristics

The 2010 Census reported Miami-Dade County had 867,350 households with an average household size of three (3) persons. Households with children (36%) comprised the majority of households within the county. One person households (30%) and households with elderly (30%) also represent a large portion of the total number of county households. (Table 2-5)

**Table 2-5: Miami-Dade County Household Characteristics, 2008-2012**

Households (HH)	Average HH size	1-Person HH	HH with children	HH with elderly
<b>2010 Census</b>				
867,352	3.00	30%	36%	30%
<b>2008-2012 ACS Estimates</b>				
826,179	3.00	31%	35%	29%

Source: U.S. Census 2010, 2008-2012 American Community Survey.

Notes: HH=household. 1 person HH refers to 1 person non-family household. HH with children are considered HH with one or more persons age 18 years and younger. HH with elderly are considered HH with one or more persons age 65 years and over.

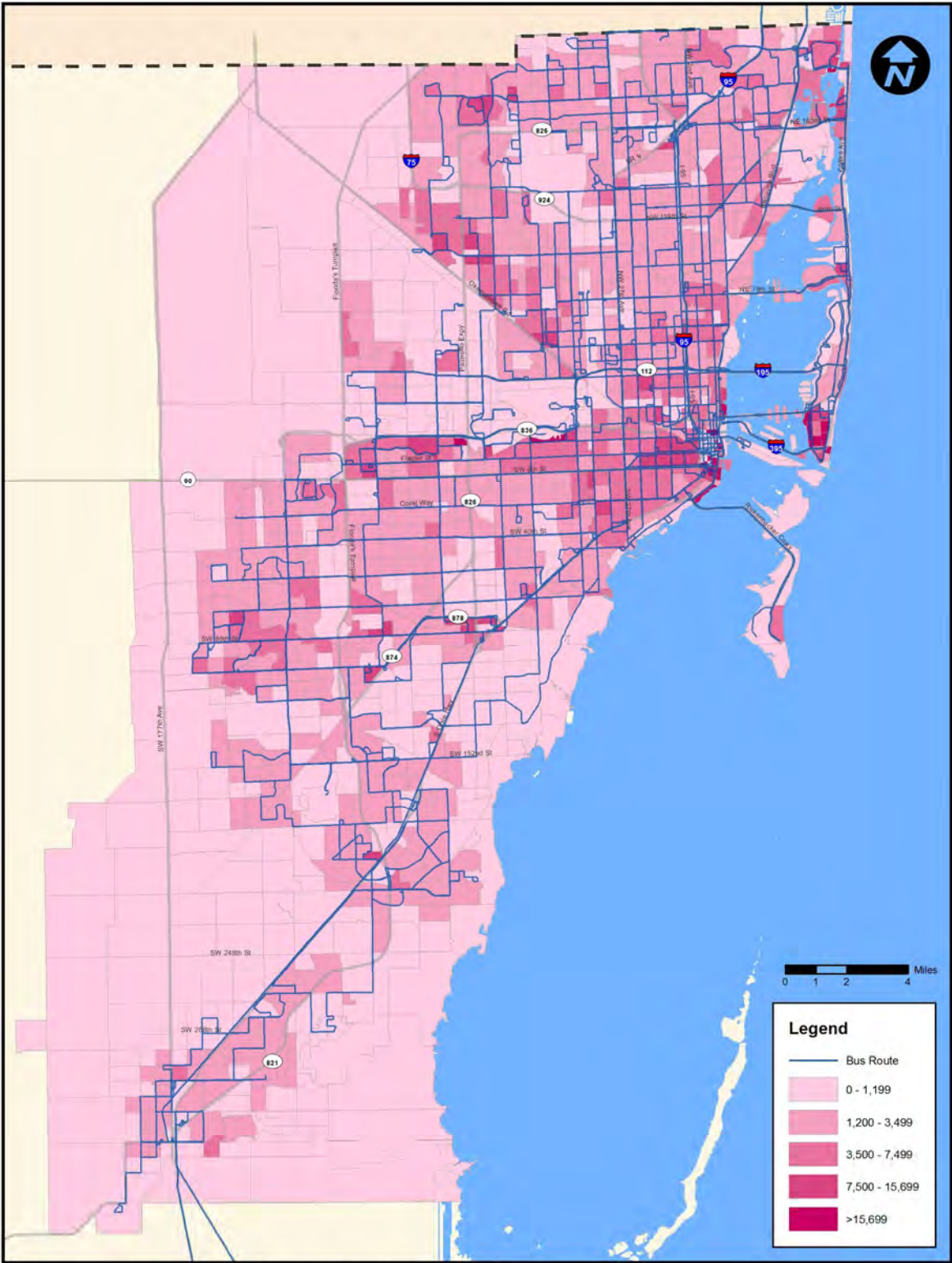
Household characteristics changed slightly during the period of 2008-2012 according to ACS five-year estimates. It was during this period that the estimated number of Miami-Dade County households decreased by about 41,000 to 826,200 households with an average household size of three (3) persons.

The types of households in Miami-Dade County were comprised of various family types. The majority of households (35%) continued to be those with children age 18 and younger, but experienced a slight decrease from 2010 estimates. Following closely were 1-person households slightly increased to 31 percent (31%) and households with elderly slightly decreased to 29 percent (29%) of all county households.

#### **Miami-Dade County Housing Density**

Miami-Dade County is primarily considered a community of single-family homes. However, there is a high concentration of condominiums in the downtown and Miami Beach urban core and along the Atlantic coastline. This development pattern is due to the lack of available land within the urban development boundary and the continued redevelopment of urban centers. Miami-Dade County offers high-density living in the downtown and many urbanized areas. Median housing densities based upon MPO 2010 data is 1,759 households per square mile as presented in Figure 2-8.

Figure 2-8: Miami-Dade County Housing Density (2010)



Housing Density per Square Mile. Source: Miami-Dade MPO, October 2013

### 2.3.6 Racial and Ethnic Characteristics

Miami-Dade County is one of the most diverse regions in the state of Florida in terms of race and ethnicity. In 2010, for people reporting one race alone, 74 percent (74%) were white and 23 percent (23%) non-white. From 2008-2012, the percentage of whites increased to 75 percent (75%) and non-white increased to 24 percent (24%). The Hispanic community comprised more than half of the entire population in both 2010 (63%) and during 2008-2012 (65%). The Hispanic community includes persons of Hispanic origin of any race and remains the largest ethnic group represented in Miami-Dade County. (Table 2-6)

**Table 2-6: Miami-Dade County Racial Characteristics, 2008-2012**

Population	Percent White	Percent Non-white	Percent Hispanic
<b>2010 Census</b>			
2,496,435	74	23	63
<b>2010-2012 ACS Estimates</b>			
2,512,219	75	24	65

Source: U.S. Census 2010, 2008-2012 American Community Survey.

### 2.3.7 Travel Time to Work

Table 2-7 shows the distribution of workers by industry for Miami-Dade County. Travel times commuting back and forth to work are steadily increasing throughout the South Florida region. A majority of residents living in western regions of the county reported travel times between 30 to 45 minutes. This reveals that residents are spending longer amounts of time commuting in traffic to reach employment centers everyday. Figure 2-9 and Figure 2-10 illustrates commute time to work.

**Table 2-7: Miami-Dade County Distribution of Workers by Industry, 2008-2012**

Industry	2008-2012
Agriculture, forestry, fishing and hunting, and mining	0.7%
Construction	7.2%
Manufacturing	5.1%
Wholesale trade	4.3%
Retail trade	12.4%
Transportation and warehousing, and utilities	7.1%
Information	2.2%
Finance and insurance, and real estate and rental and leasing	7.5%
Professional, scientific, management, administrative and waste management services	12.4%
Educational services, and health care and social assistance	20.2%
Arts, entertainment, and recreation, and accommodation and food services	10.5%
Other services, except public administration	6.3%
Public administration	3.8%

Source: 2008-2012 American Community Survey. Note: Estimates include civilians employed in population age 16 years and over only.



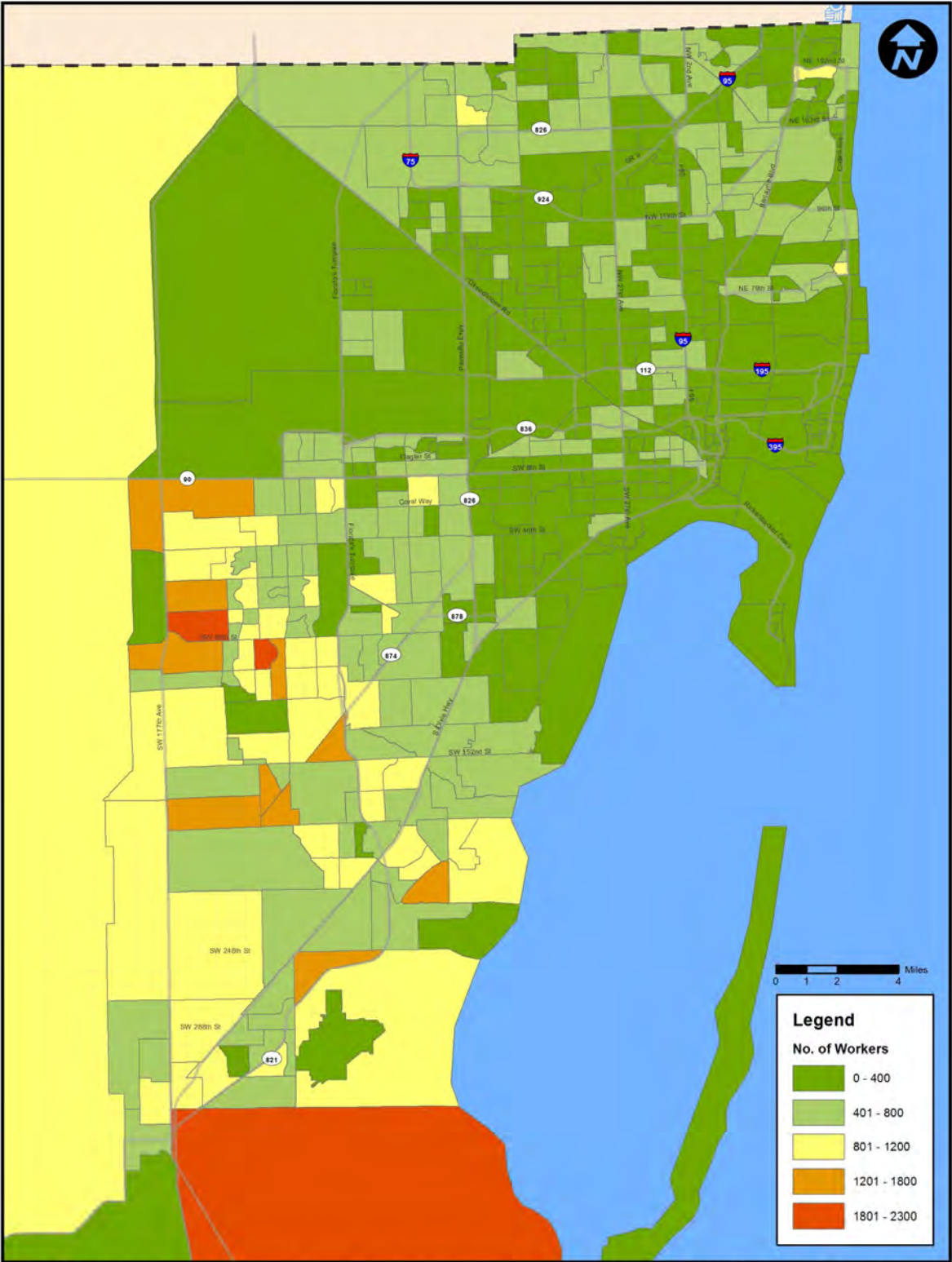
**Legend**

**No. of Workers**

- 0 - 400
- 401 - 800
- 801 - 1,200
- 1,201 - 1,800
- 1,801 - 3,400

Transit Development Plan FY 2015 - 2024 | December 2014

Figure 2-10: Miami-Dade County Commute Times Greater than 45 Minutes in 2010



Workers (Age 16 and over) with Commute Times Greater than 45 minutes. Source: ACS 5 yr (2008-2010) data at Census tract level.

### 2.3.8 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 MDT. Chapter 427 of the Florida Statutes defines transportation disadvantaged (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 to include:

- Families below Poverty Level
- Zero Vehicle Population
- Mobility Limited
- Elderly persons age 65 and older

Table 2-68 presents the Miami-Dade County Transportation Disadvantaged Characteristics between 2008 and 2012. This segment of the population has remained unchanged based on the ACS data with the exception of a slight increase in the disabled population segment.

**Table 2-8: Miami-Dade County Transportation Disadvantaged Characteristics, 2008-2012**

Population	Families Below Poverty	Disabled	Zero Vehicle Population	Elderly Age 65 and older
<b>2010 ACS Estimates</b>				
2,496,435	16%	12%	5%	14%
<b>2008-2012 ACS Estimates</b>				
2,512,219	16%	13%	5%	14%

Source: American Community Survey 2008-2012, American Community Survey 2010.

Note: Disabled: Civilian non institutionalized individuals of age 18 years and or older who have long lasting sensory, physical, mental or emotional conditions and independent living difficulty. Zero vehicle population include workers who are 16 years of age and over in households with zero vehicle availability.

### 2.3.9 Employment

The Miami-Dade County employment industry spans many different fields and industries. The major public and private employers within Miami-Dade County are presented in Table 2-9 represent a broad cross-section of industries including educational, government, and healthcare industries. According to ACS estimates, the five (5) major industries within Miami Dade County include educational and health care



services (20.2%), professional, scientific, and management (12.4%), retail trade (12.4%), arts, entertainment recreation (10.5%), and finance, insurance, and real estate (7.5%).

Despite this diverse employment culture, the Miami-Dade County population includes factions of residents which are economically disadvantaged, children at-risk, disabled community, seniors, unemployed, the homeless, and adults at-risk. There are over 130,000 economically disadvantaged seniors and approximately 5,000 Social Security [SSI & SSDI] enrolled in the Golden Passport program; approximately 300,000 Medicaid recipients, and approximately 25,000 enrolled in the Special Transportation Services program for the disabled.

**Table 2-9: Miami-Dade County Major Employers**

Public Employers		Private Employers	
Organization	Employment	Organization	Employment
Miami-Dade Public Schools	48,571	University of Miami	16,000
Miami-Dade County	29,000	Baptist Health South Florida	13,376
Federal Government	19,500	Publix Super Markets	10,800
Florida State Government	17,100	American Airlines	9,000
Jackson Health System	12,571	Precision Response Corporation	5,000
Florida International University	8,000	Florida Power & Light Company	3,840
Miami-Dade College	6,200	Carnival Cruise Lines	3,500
City of Miami	4,309	Winn-Dixie Stores	3,400
Homestead AFB	2,700	AT&T	3,100
Miami V A Healthcare System	2,385	Mount Sinai Medical Center	3,000

Source: Beacon Council Website, 2014.

### 2.3.10 Income Characteristics

In 2010, Miami-Dade County median household income averaged approximately \$40,219. Family poverty levels and households participating in government programs were 16 percent (16%) and seven percent (7%) respectively. The numbers of persons working in the labor force in 2010 were estimated to be slightly less than half of the total population (49%).

During 2008-2012, income characteristics in Miami-Dade County experienced moderate growth (Table 2-10). The median household income rose from year 2010 levels at \$40,200 to \$43,500. However, the number of families living below poverty (16%) and receiving public assistance (7%) decreased slightly although the percentages stayed the same. Most noteworthy is that a greater proportion of the population is gainfully employed in the labor force and was estimated to be about 51 percent (51%) of the population.

**Table 2-10: Miami-Dade County Income Characteristics, 2008-2012**

Households (HH)	Median HH Income	Families Below Poverty	Per Capita Income	HH receiving Public Assistance	In Labor Force
<b>2010 ACS Estimates</b>					
809,689	\$40,219	16%	\$20,970	7%	49%
<b>2008-2012 ACS Estimates</b>					
826,179	\$43,464	16%	\$23,304	7%	51%

Source: 2010, 2008-2012 American Community Survey.

Note: 2010 Estimates for Median HH Income and Per Capita income represent 2009 inflation-adjusted dollars. 2008-2012 Estimates for Median HH income and per capita income is represented in 2012 inflation-adjusted dollars. Labor force represents the population 16 years and over. Public assistance includes food stamp benefits and cash public assistance income.

### 2.3.11 Zero Vehicle Populations

The ACS indicates the number of vehicles available to each household. From this data, the percentage of the population with no vehicles available for personal use is available and identifies a segment of the population most likely to use transit services. These households may result from a personal choice to not own a vehicle, physical ability to operate a vehicle, or the lack of financial means by which to own a vehicle. In 2010, the zero vehicle population households made up 11 percent (11%) of occupied households in Miami-Dade County. There was no change in the percentage of households with no vehicle from 2010 to 2012 (Table 2-11).

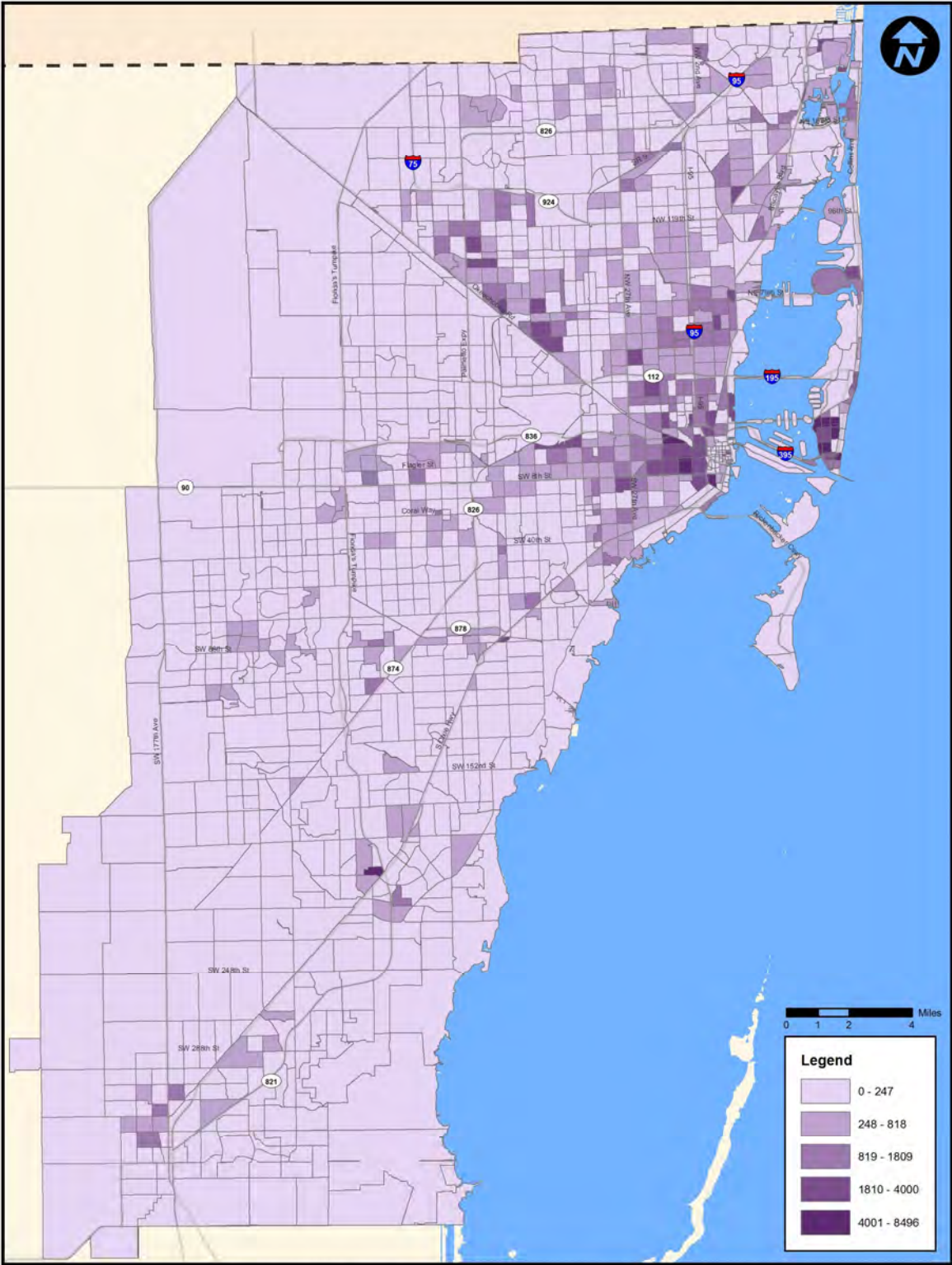
ACS five-year (2008-2010) vehicle data is only available at the Census Tract level (Census Tract level files do not align properly with the base map), for this reason the Census Transportation Planning Product (CTPP) five-year (2006-2010) data at the Census TAZ level shapefile were integrated with the Miami-Dade MPO's Census TAZ shapefiles to illustrate zero car household densities in Miami-Dade County as shown in Figure 2-11.

**Table 2-11: Number of Vehicles Available, 2008-2012**

Households	Number of Vehicles Available			
	0	1	2	3 +
<b>2010 ACS Estimates</b>				
809,689	11%	40%	35%	14%
<b>2008-2012 ACS Estimates</b>				
826,179	11%	40%	35%	14%

Source: 2010, 2008-2012 American Community Survey.

Figure 2-11: Zero Car Household Density, CTPP 2006 – 2010 (Census TAZ Level)



Zero Car Households Density per Square Mile. Source: CTPP 2006 - 2010, Miami Dade MPO October 2013.

### 2.3.12 Mobility Limited

An important component of understanding TD populations is the identification of the number of mobility limited persons residing within Miami-Dade County. For the mobility limited, the transit dependence stems from the inability to go outside of the home alone. This category does not include persons that are institutionalized and would otherwise not leave the home without assistance (for example, persons in a nursing home).

In 2010, a total of six percent (6%) of Miami-Dade County's population age 18 and over were considered mobility limited. According to average estimates compiled from the Census for the time period between 2008 and 2012, a total of five percent (5%) of county residents were mobility limited. The number of mobility limited elderly persons age 65 and over in the county during this same period was estimated at three percent (3%). (Table 2-12)

**Table 2-12: Mobility Limited Populations, 2008-2012**

Population	18 to 64 years	65 and over
<b>2010 ACS Estimates</b>		
2,496,435	2%	4%
<b>2008-2012 ACS Estimates</b>		
2,512,219	2%	3%

Source: 2010, 2008-2012 American Community Survey.

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### 3.0 MIAMI-DADE TRANSIT SYSTEM OVERVIEW

MDT operates the 15th largest transit system in the United States and the largest transit system in the State of Florida. MDT is one of the largest departments in Miami-Dade County government and responsible for planning and providing all public transit services in the County.

Miami-Dade Transit's service area covers approximately 306 square miles with an urbanized population of approximately 2.5 million. Miami-Dade County as a whole is composed of 34 individual municipalities. A trend persists in some areas throughout the county to incorporate, leaving a large portion of the county populated by disadvantaged individuals, in unincorporated areas that are totally dependent upon county services.

The transit agency is led by a Department Director that reports to the Deputy Mayor. The table of organization for MDT can be found in Appendix A.1.

#### Miami-Dade Transit Mission Statement

*To meet the needs of the public for the highest quality of transit service: safe, reliable, efficient and courteous.*

MDT operates four (4) modes of transit service: bus (Metrobus), heavy rail (Metrorail), automated people-mover (APM) (Metromover), and demand-response service (Special Transportation Services or STS). Together Metrobus, Metrorail and Metromover comprise an integrated multi-modal transit system throughout Miami-Dade County. More than 353,000 average weekday boardings occur on the MDT system while STS's average daily boardings is approximately 5,500. Table 3-13-1 presents MDT service characteristics by transit mode.

#### 3.1 Metrobus

Metrobus is a fixed-route bus service that MDT operates seven (7) days a week, 24 hours per day. A total of ninety-three (93) routes comprise MDT's regular bus service structure as served by a total fleet of 824 buses and two (2) contracted routes with ten (10) buses.

Miami-Dade Transit's family of services for Metrobus is described below and includes local, feeder, circulator, limited-stop, express, and BRT (Arterial Busway) services. Figure 3-13-1 illustrates the MDT Metrobus system route map as of December 2013. A detailed service schedule for current MDT operated Metrobus routes, as of December 2013 is presented in Appendix A.2.



##### 3.1.1 Local Service

The operation of local bus service throughout Miami-Dade County collects and distributes high-turnover ridership along arterials radiating to and from dense activity centers. This service type is characterized by frequent stops, short and moderate passenger trips, and slow average bus speeds over the course of an entire route.



**Table 3-1: MDT Service Characteristics by Transit Mode, 2013**

System Characteristics	Metrobus		Metrorail	Metromover	STS
	MDT Operated Routes	Contracted Routes			
Operating Hours	24 hours <sup>1</sup>	5:15am-1:10am	5:00am-12:48am	5:00am-12:00am	24 hours
Number of Routes	93	2	2	3	Demand Resp.
No. of Stations/Stops*	8,828	32 <sup>2</sup>	23	21	N/A
Peak Headways*	7½-80 minutes	N/A	5-10 minutes**	1½ -5 minutes	(Pick up +/-30 minutes of scheduled time)
Midday Headways*	12 -60 minutes	N/A	15 minutes	1½ - 3 minutes	
Weekend Headways*	12 -60 minutes	N/A	30 minutes	3-6 minutes	
Routes Miles	2,582 (Round Trip Miles)	202.8 (Round Trip Miles)	24.8 miles	4.4 miles	N/A
Peak Vehicle Requirements	692	7	78	21	336
Total Fleet Size	824	10	136	46	380 <sup>3</sup>
Annual Revenue Miles*	28,366,268	569,765	7,884,786	1,222,385	14,139,842
Annual Boardings*	78,500,785	392,192	21,198,687	9,643,713	1,711,693
Park-Ride Spaces	2,922	N/A	10,060	0	N/A
Annual Operating Expense*	\$302,261,718	N/A	\$77,684,301	\$22,487,177	\$45,742,809
Annual Operating Revenue*	\$86,505,094	\$577,733	\$22,845,276	\$0	\$4,696,661
Annual Revenues (Other)*	\$5,065,717 <sup>4</sup>	\$0	\$0	\$0	N/A
Base Fare	\$2.25	\$2.25	\$2.25	Free	\$3.50

\*Source: National Transit Database, Miami-Dade Transit, 2nd Submission Close Out – 2013.

\*\*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.

### 3.1.2 Circulator Service

Circulator or shuttle bus service operates short route connections between activity centers, or as a feeder to provide a connection with another transit service. For MDT, these routes include the Tri-Rail commuter rail shuttles in Miami-Dade County, and short localized area-specific routes. Route 211, the Overtown Circulator, is an example of MDT's circulator service operating on weekdays.

<sup>1</sup> Seven (7) Metrobus routes (L, S, 3, 11, 27, 38/Busway MAX, 77) operate 24 hours per day. Two other routes, 246/Night Owl and 500/Midnight Owl, provide hourly bus service approximately between 12:00 am - 5:30 am.

<sup>2</sup> In addition to the 32 designated bus stops for the two routes, buses pick up passengers anywhere along the routes when hailed.

<sup>3</sup> STS fleet includes 179 sedans, 8 minivans, 66 standard vans and 127 lift equipped vans.

<sup>4</sup> Includes all modes.

### 3.1.3 Limited-Stop Service

Limited-stop service serves a limited number of designated bus stops along a route. With fewer stops, limited routes have significantly increased operating speeds when compared to local service. The MAX routes serve stops at major transfer points or approximately every one-half mile (in the Miami Central Business District (CBD)) to one mile (in suburban areas) along a route. The 7th Avenue MAX is an example of a limited-stop type of bus service that operates during the morning and evening rush hours.

### 3.1.4 Express Service

Express service is a type of service similar to limited-stop service that has fewer stops and operates at a higher speed than local service. Express routes serve outlying areas (serving designated park-and-ride lots or shopping centers), some with direct service to the Miami CBD. They usually operate along a freeway or major arterial road to increase the operating speed.



The 95 Dade-Broward Express that operates within the I-95 express lanes is an existing express service operated by MDT.

### 3.1.5 Bus Rapid Transit (Arterial Busway)

The South Miami-Dade Busway is a 19.8-mile exclusive, dedicated two-lane, at-grade busway corridor for MDT bus service along U.S. 1 from SW 344th Street in South Miami-Dade to the Dadeland South Metrorail Station. Full-size buses serve 29 bus stations and five park-and-ride areas along the Busway. Buses also operate within adjacent neighborhoods and enter the exclusive lanes at major intersections.



Most of the routes operating on the Busway provide limited-stop service, or have sections that offer limited stop service in order to maximize use of the busway and its travel time savings features such as exclusive ROW, fewer stops, and preferential signal phasing at intersections. Such routes include 31, 34, 38, 52, 252 and 287.

**Figure 3-1: MDT Metrobus Route Map 2013**



Source: Miami-Dade Transit, December 2013



### 3.2 Metrorail

Metrorail provides passenger service to 23 stations on a 24.8-mile heavy rail electrified line. The system operates primarily on an elevated guideway with transfer points to Tri-Rail passenger rail service and the MDT Metromover system. MDT maintains a total fleet of 136 Metrorail vehicles. Daily passenger service starts at 5:00 a.m. from the terminal stations and ends with the last train arriving at the terminal station at 12:48 a.m.



Two lines of service with four (4) and six (6) car trains are provided: the legacy Green Line from Palmetto to Dadeland South station and the new Orange Line from the Miami Intermodal Center (MIC) at Miami International Airport to Dadeland South station. The Orange Line provides direct service between the MIC and Dadeland South Station every 10 minutes during peak hours. The Green Line operates at 10-minute headways during the peak AM and PM travel times between the Palmetto Station and Dadeland Station.

Both lines provide premium transit service with a combined headway of five (5) minutes during the peak AM and PM travel times from Dadeland South Station to the Earlington Heights Station. Mid-day off-peak headways are 15 minutes. Weekend and holiday service operates with headways of 30 minutes. Figure 3-2 illustrates the MDT Metrorail system map as of December 2013.



Figure 3-2: MDT Metrorail System 2013



Source: Miami-Dade Transit, December 2013

### 3.3 Metromover

MDT's automated people mover (APM) or Metromover is an elevated system that serves 21 stations and is comprised of three loops: the Downtown Miami Central Business District (Inner/Downtown Loop); the Adrienne Arsht Center and Perez Arts Museum to the north (Outer/Omni Loop); and the Brickell area to the south (Outer/Brickell Loop).



MDT maintains a fleet of 46 Metromover vehicles and operates with a maximum of two (2) cars per train. Metromover operates free of charge and stops at 21 wheelchair-accessible stations from the School Board area to Brickell, serving major destinations throughout Downtown Miami. Metromover's Inner/ Downtown, Outer/Omni and Brickell loops operate from 5:00 a.m. to 12:00 a.m. During the AM/PM peak period, service frequency is every 90 seconds in the central business district 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. Figure 3-33-3 illustrates the MDT Metromover system map as of December 2013.

### 3.4 Special Transportation Services

MDT also operates a demand-response service known as Special Transportation Services (STS). STS is a shared-ride, door-to-door transportation service for qualified



individuals with disabilities who are unable to utilize the accessible fixed-route transit system. Service is provided by sedans, vans and lift-equipped vehicles, seven (7) days a week, 24 hours per day. Presently, there are 380 vehicles available for ambulatory transportation. Currently, these vehicles are privately contracted. There are 34,891 eligible clients enrolled in the STS program including both ambulatory and non-ambulatory clients, as of December 2013.

### 3.5 Maintenance and Storage Facilities

Miami-Dade Transit currently operates three (3) maintenance bus garages to serve a fleet of 824 buses. The MDT 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; serving 39 bus routes
- Coral Way Facility: 2775 SW 74th Avenue, Miami, Florida 33155; serving 31 bus routes and,
- Northeast Facility: 360 NE 185th Street, Miami, Florida 33179; serving 25 bus routes

The Metrorail fleet of 136 rail cars is maintained and stored at the William E. Lehman Center located at 6601 NW 72nd Avenue, Miami, Florida 33166. The Metromover fleet of 46 cars is supported by the maintenance facility located at 100 SW 1st Avenue in Downtown Miami.

**Figure 3-3: MDT Metromover System 2013**



Source: Miami-Dade Transit, December 2013



### 3.6 Park-and-Ride Facilities

Miami-Dade Transit currently has more than 11,000 available parking spaces, including 28 park-and-ride lots all of which serve one or more Metrobus routes. Seventeen of those locations are located at Metrorail stops. On average about 71 percent (71%) of available parking spaces are utilized on any given weekday. However, actual parking usage is highest on the southern portion of the Metrorail line, and to the north at the Metrobus Golden Glades park-and-ride lot. Figure 3-43-4 identifies the location of existing park-and-ride sites that serve the MDT system.

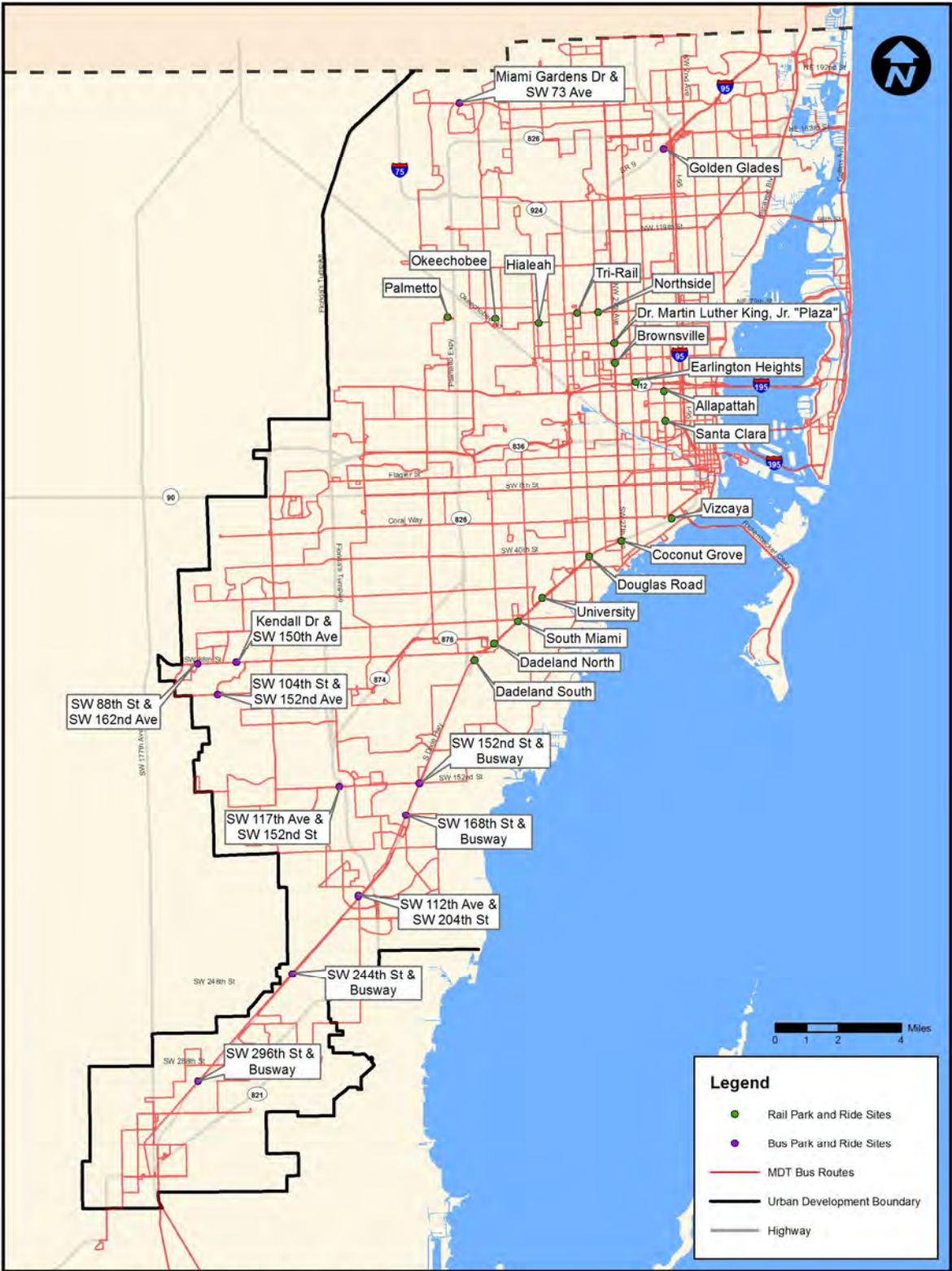
### 3.7 Municipal Transit Services

Miami-Dade Transit continues to coordinate mass transit planning with the plans and programs of local municipalities in an effort to avoid duplication of transit services and allow for efficient transit operations that complement one another. There are currently 34 municipalities that are eligible to receive surtax funding with 33 participating in the program (Indian Creek is not participating). Of the 34 municipalities within the county, 26 have local transit circulators that supplement MDT bus routes. The City of Miami Gardens is expected to become the 27<sup>th</sup> municipality to offer transit services when they begin operating their routes in 2015. Figure 3-5 Figure 3-4 presents a draft of a map of MDT bus routes and the local circulators. The 26 municipalities listed below either operate a circulator, partner with another municipality or partner with MDT.

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

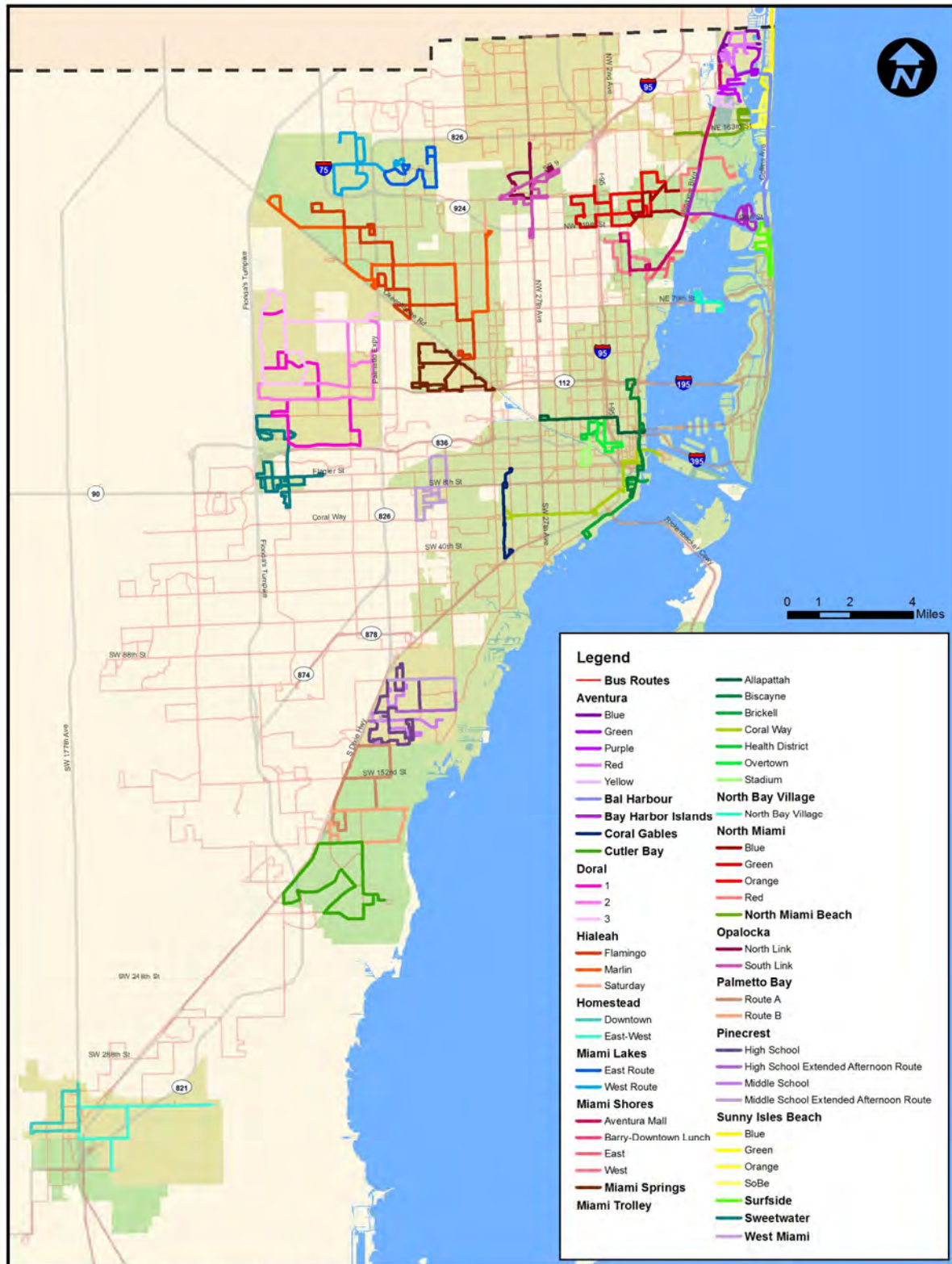


Figure 3-4: MDT Existing Park-and-Ride Sites 2013



Existing Park-and-Ride Sites. Source: Miami Dade Transit, 2013

Figure 3-5: Municipal Circulator Routes



Transit Circulators - Source: Municipality Websites



Ridership on these circulators now exceeds seven (7) million passenger trips annually overall. The annual ridership of the six (6) largest circulator systems – (1) City of Miami, (2) City of Miami Beach, (3) City of Coral Gables, (4) City of Hialeah, (5) City of North Miami, and (6) City of Doral - totaled 6,372,162 in 2013. It should be noted that many of the municipalities operating circulator systems exceed the 20% minimum surtax transit expenditure requirement. Appendix A.3 provides a listing of each municipality, respective service operator and website.

### 3.8 REGIONAL TRANSIT SERVICE CONNECTIONS

#### 3.8.1 Broward County Transit (BCT)

The Broward County Office of Transportation operates BCT, fixed route bus service, which connects with MDT service. BCT operates 44 routes during weekdays, 31 routes on Saturday and 29 routes on Sundays, with varying service schedules spanning from before 4:00 AM to after midnight on weekdays. BCT also operates three (3) limited stop transit service called the Breeze. A regular one-way fare is \$1.75 while a reduced one-way fare is \$0.85, and an all day pass is \$4.00. MDT to BCT will provide the BCT bus operator with the Inter-County Ticket and pay \$0.50. Passengers transferring from BCT to MDT will provide the MDT 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 an express-bus discounted fare transfer. BCT and MDT have partnered to provide regional bus service between Broward and Miami-Dade Counties. Currently, MDT buses travel into Hallandale Beach (southern Broward), and BCT buses travel into Miami-Dade County in areas such as Aventura, North Miami, Miami Gardens, and the Golden Glades interchange. Additional bus service from both agencies operates within the express lanes on I-95 to connect northern and central Broward communities with downtown Miami. BCT operates the 595 Express which connects western Broward communities to the Civic Center and Downtown Miami. The following table lists those locations and BCT bus routes that provide connecting service to Metrobus routes:

**Table 3-2: BCT Routes Serving Miami-Dade County**

Bus Route	Service Connection Location
1	Aventura Mall, US 1
2	NW 207 Street, NW 27 <sup>th</sup> Avenue, University Drive
18	Golden Glades, State Road 7
28	Aventura Mall, State Road 7
441 Breeze, University Breeze	Golden Glades, Miami Gardens Drive
US 1 Breeze	Aventura Mall, US 1
595 Express Miami/Brickell	Overtown Metrorail Station, Eighth Street, Metromover Station, Brickell Metrorail Station
95 Express Miramar, 95 Express Pembroke Pines	Miami VA Hospital, Jackson Memorial Hospital, Miami Civic Center, University of Miami Hospital
95 Express Hollywood	Miami VA Hospital, Jackson Memorial Hospital, Miami Civic Center, University of Miami Hospital, Overtown Metrorail Station, Downtown Miami Transit Terminal

Source: Broward County Transit, 2014.

### 3.8.2 South Florida Regional Transportation Authority

The South Florida Regional Transportation Authority (SFRTA) operates Tri-Rail a commuter rail service that operates along 72 miles of the South Florida Rail Corridor which spans Palm Beach County, Broward County, and Miami-Dade County. Tri-Rail primarily runs through the eastern urbanized areas of the three counties between the Mangonia Park station in Palm Beach County and the Miami International Airport (MIA) in Miami-Dade County. Tri-Rail serves 18 passenger stations and averages more than 14,000 boardings per weekday.

Weekday service spans from 4:00 AM to 11:35 PM, with operations of 20 minute headways in each direction during the morning peak, 10-20 minute headways in the northbound direction during the evening peak, and 20 minute headways in the southbound direction during the evening peak. Off-peak headways are 60 minutes in each direction. Weekend service spans from 5:20 AM to 11:45 PM with 60 minute headways. Tri-Rail operates a zonal fare system and is comprised of six (6) equidistant zones. Fares are determined by the sum of zones traveled; the regular base fare for one-way travel is \$2.50, discounted one-way is \$1.25, regular roundtrip is \$4.40 and discounted roundtrip is \$2.50. The cost for the Tri-Rail monthly pass is \$145 (\$72.50 discounted for children, seniors, and persons with disabilities).

Tri-Rail passengers transferring from Tri-Rail at a Tri-Rail transfer point to the MDT system are required to pay the following fares as presented in the following table.

**Table 3-3: Tri-Rail-MDT Transfer Fares**

Transferring from Tri-Rail	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: Miami-Dade Transit, 2014.

Tri-Rail has five (5) station locations in Miami-Dade County that connect with MDT services including both Metrobus and Metrorail. The five (5) Tri-Rail stations include Golden Glades (Metrobus routes 105 E, 22, 77, 246 Night Owl, 277 NW 27th Ave MAX), Opa-Locka (Metrobus routes 32, 42, 135), Tri-Rail/Metrorail Transfer (Metrobus routes 42, 112 L, Metrorail), Hialeah Market (Metrobus route 110 J, 36, 37, 57, 132, 133), and the Miami International Airport (MIA) Tri-Rail station (110 J, 36, 37, 57, 133, 42, 7, 150 Miami Beach Airport Flyer, 238 East-West Connector, 238 Weekend Express, 297 27th Avenue Orange Max). Since September 2011, the Hialeah Market Station has served as the southern terminus for Tri-Rail service due to the MIA Station is being rebuilt and will be connected to the airport via an escalator and people mover. It is expected to open to the public in 2014.



**Table 3-4: Tri-Rail Stations and MDT Route Connections**

Tri-Rail Station	MDT Route	Major Destinations
<b>Broward County</b>		
Fort Lauderdale	95 Dade-Broward Express	Downtown Miami, , Fort Lauderdale Tri-Rail Station
Sheridan St	95 Dade-Broward Express	Downtown Miami, Sheridan Street Tri-Rail Station
<b>Miami-Dade County</b>		
Golden Glades	105 E	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, Earlington Heights Metrorail station, 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
	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 Ave MAX	Downtown Miami, Government Center Metrorail station, Culmer Metrorail station, Edison Center, North Miami, Biscayne Gardens
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, 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
	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 Metrorail station, Allapattah Metrorail station, City of Miami Beach
	37	City of Hialeah, Dept. of Children & Families, Hialeah Metrorail station, Tri-Rail Airport station, Miami International Airport Metrorail station, Douglas Road Metrorail station, City of South Miami, South Miami Metrorail station
	36*	Dolphin Mall, Miami International Mall, Miami Dade College West Campus. Doral Center, City of Miami Springs , Miami Springs High School, Allapattah Metrorail station
	57	Tri-Rail Airport Station, Miami International Airport (MIA) Metrorail station, South Miami Metrorail station, Busway at SW 152 Street, SW 152 Street Park & Ride Lot, Jackson South Hospital

**Table 3-4: Tri-Rail Stations and MDT Route Connections (Continued)**

	132 Doral/ Tri-Rail Shuttle	Doral Executive Center, Doral Country Club, Atrium Shopping Center, Miami Springs, Hialeah Market, Tri-Rail Station
	133 Airport/ Tri-Rail Shuttle**	Hialeah Market Tri-Rail Station, Miami International Airport, Tri-Rail Metrorail Station
	238 East-West Connection	Dolphin Mall, Miami International Mall, Airport Corporate Center, Airport Cargo City, Airport Hilton Hotel and Miami International Airport (MIA) Metrorail station.
Miami International Airport	238 Weekend Express	Dolphin Mall and Miami International Airport
	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
	297 27th Avenue Orange MAX	Miami International Airport (MIA) 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 (MIA) Metrorail station, City of Miami Beach
	7	Miami International Airport (MIA) 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

Source: Miami-Dade Transit, June 2014, SFRTA, June 2104

\*This routes do not enter the Tri-Rail station; passengers must access MDT Routes from 36th Street.

\*\*This route will be in effect until the new Tri-Rail Station at the Miami International Airport opens.

### 3.9 Miami-Dade Transit Passenger Fare Structure

MDT's automated passenger fare collection system for Metrorail and Metrobus is known as the EASY Card. Cash fare payments are still accepted on Metrobus; however Metrobus passengers are encouraged to purchase the MDT EASY Card to take advantage of discounted transfer fees. Metrorail passengers are now required to purchase and load the contactless MDT EASY Card. These cards are purchased at a fee of \$2.00 and loaded with appropriate fare amounts for passage. Table 3-5 presents the current fare structure.

**Table 3-5: MDT Fare Structure Summary, December 2013**

	Regular Fare	Discount Fare <sup>4</sup>
Metrobus	\$2.25	\$1.10
Express Bus	\$2.65	\$1.30
Shuttle Bus <sup>5</sup>	25¢	10¢
Metrorail	\$2.25	\$1.10
Metrorail daily parking fee	\$4.50	Not Applicable
Metrorail monthly parking permit <sup>6</sup>	\$11.25	Not Applicable
Metromover	Free	Free
Special Transportation Service (STS)	\$3.50	Not applicable
Bus-to-Bus Transfer <sup>7</sup>	Free	Free
Bus-to-Express Bus Transfer <sup>1</sup>	50¢+45¢ upgrade=95¢	25¢+20¢ upgrade=45¢
Bus-to-Rail Transfer <sup>1</sup>	60¢	30¢
Rail-to-Bus Transfer <sup>1</sup>	60¢	30¢
Shuttle Bus-to-Bus or Rail Transfer <sup>1, 4</sup>	\$2.00	\$1.00
Shuttle Bus-to-Express Bus Transfer <sup>1, 4</sup>	\$2.40	\$1.20
1-Month Pass	\$112.50	\$56.25
1-Month Pass + Monthly Metrorail Parking Permit	\$123.75	\$67.50

<sup>4</sup> 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.

<sup>5</sup> Nine shuttles: 123/South Beach Local, 132/Doral-Tri-Rail Shuttle, 133/Airport-Tri-Rail Shuttle, 200/Cutler Bay Local, 211/Overtown Circulator, 212/Sweetwater Circulator, 249/Coconut Grove Circulator, 254/Brownsville Circulator, and 286/North Pointe Circulator. There is no fare for routes 132 (Doral-Tri-Rail Shuttle) and 133 (Airport-Tri-Rail Shuttle).

<sup>6</sup> Only available with the purchase of a monthly pass.

<sup>7</sup> Transfer fees are for passengers using an EASY Card or EASY Ticket only. Passengers paying with cash must pay the full fare each time they board a bus.

**Table 3-5: MDT Fare Structure Summary, December 2013 (continued)**

1-Month Pass - Group Discount 4-99 passes	\$101.25	Not applicable
1-Month Pass - Group Discount 100 or more passes	\$95.65	Not applicable
7-Day Pass	\$29.25	\$14.60
1-Day Pass	\$5.65	\$2.80
College/Adult Education Center Monthly Pass	\$56.25	Not applicable
Golden Passport or Patriot Passport	Free	Free
EASY Card (cost of media)	\$2.00	Not applicable
EASY Ticket (cost of media)	Free	Not applicable

Source: Miami-Dade Transit, December 2013.

### 3.9.1 Farebox Recovery Ratio

The farebox recovery ratio of a passenger transportation system is the fraction of operating expenses which are met by the fares paid by passengers. It is calculated by dividing the system's total fare revenue by its total operating expenses. Most systems are not fully self-supporting, so advertising revenue, government subsidies, and other sources of funding are usually required to cover total costs. Table 3-6 illustrates MDT's farebox recovery ratio as reported to National Transit Database for each mode. Note that MDT's Metromover is a free fare service and therefore collects no farebox revenue.

**Table 3-6: Farebox Recovery by MDT Mode**

Mode	FY 2010	FY 2011	FY 2012
<b>Metrobus</b>	25.6%	27.0%	27.7%
<b>Metrorail</b>	23.4%	23.7%	27.8%

Source: National Transit Database - 2010, 2011, 2012.

### 3.10 Miami-Dade Transit's Special Programs

Section 427, Florida Statutes and Rule 41-2 Florida Administrative Code, establishes and mandates the creation of the Commission for the Transportation Disadvantaged in the State of Florida. A Community Transportation Coordinator (CTC) in each county is appointed by the Commission for the Transportation Disadvantaged and is responsible for the coordination and provision of cost-efficient transportation services, and the elimination of duplication through a coordinated system. In Miami-Dade County, the County government is the local coordinator, and MDT is charged with the responsibility of creating programs, applying for the grants, and coordinating transportation services for the disadvantaged.

Programs such as the Section 5310, Medicaid Metropass, Golden Passport, Patriot Passport, STS, Lifeline Services and Medicaid Transportation are also included in the Coordinated Transportation System.



### 3.10.1 Transportation Disadvantaged Program

The Transportation Disadvantaged Program, through a State Funded Grant, provides transit passes on a monthly basis to social service agencies that service transportation disadvantaged (disabled, poor, homeless, children and adults at risk, unemployment training) residents of Miami-Dade County. The purpose of this program is to provide EASY Tickets to qualifying agencies to distribute to their clients for use on Miami-Dade County transit system. Currently there are 100 agencies enrolled in the program.

### 3.10.2 Section 5310 Program

MDT actively participates in the Federal Transit Administration (FTA) Section 5310 program by participating in the grant review, evaluation and award process. MDT in its role as the CTC is responsible for the program coordination with local non-profit agencies serving elderly and disabled residents in Miami Dade County.

### 3.10.3 Corporate Discount Program

Miami-Dade Transit's Corporate Discount Program (CDP) allows participants to save on commuting costs through group discounts and pre-tax savings, by purchasing public transportation through a tax deduction from their employer under IRS Code 132(f). It allows employees to pay for their public transit rides using pre-tax dollars, up to \$245 month (\$2,940/year) in 2013. The CDP provides monthly transit passes on Corporate EASY Cards, good for a month of unlimited rides on Metrobus and Metrorail, at a 10 percent (10%) discount for groups of 4-99 participants, and a 15 percent (15%) discount for groups of 100+ participants. In 2013, the CDP generated over \$9.3 million in revenue. The program currently has over 205 participants.

### 3.10.4 College/Vocation School Discount Program

College, university, vocational/technical and adult education school students can purchase a one-month pass on an Orange EASY Ticket for \$56.25, half the cost of a full price monthly pass. This program is offered to full-time students using MDT's public transportation system to get to school. There are over 45 active schools participating in the program generating over \$4 million in annual sales.

### 3.10.5 K-12 Discount Program

Miami-Dade County students in grades K-12 can ride Metrobus and Metrorail at 50 percent (50%) off the regular fare. Eligible students need to obtain a specially encoded EASY Card at the Transit Service Center Kiosk located on the second floor of the Stephen P. Clark Center, at 111 NW 1st Street. The cost for the card is \$2.00 and the student is required to fill out a registration form. The card is then assigned to the student. This program is open to any student attending public or private schools in Miami-Dade County. Currently, there are 28,176 K-12 customer accounts.

### 3.10.6 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 Metrorail Monthly Parking Permits are also available at select outlets.

The Marketing Division within MDT is responsible for training new vendors and maintaining 125 EASY Card Sales Outlets providing MDT with an average of \$8 million in revenue a year.

### 3.10.7 Golden Passport Office

The Golden Passport EASY Card provides free transportation to senior citizens 65 years and over, or a Social Security beneficiary who is a permanent Miami-Dade County resident. A Patriot Passport provides free transportation to disabled veterans who are a permanent Miami-Dade County resident. Currently, there are 231,894 certified Golden Passport/Patriot Passport customer accounts; this includes 162,045 Golden Passport over 65 years of age, 61,260 Golden Passport under 65 years of age and 8,589 Patriot Passport customers.

### 3.10.8 Medicaid Metropass Program

Under federal law, Medicaid recipients are entitled to transportation to and from covered medical services. Miami-Dade County does not have a mandate to provide Medicaid Non-Emergency Transportation (NET) services. That onus, by federal law is on the Agency for Health Care Administration (AHCA). Until the mid-1980's, the State's Medicaid Office provided individual taxi transportation for NET services. In the mid to late 1980's, Miami-Dade County and AHCA entered into an arrangement wherein Medicaid recipients would be transported under a County paratransit contract. As a result, the County acted as the designated Subcontracted Transportation Provider under an agreement with the Florida Commission for the Transportation Disadvantaged (CTD). The Florida CTD serves as the statewide managing entity for AHCA, the state-agency legally charged with the provision of Medicaid and Medicaid-related services.

In November 2007, MDT issued a notice of non-renewal of the subcontracted transportation provider agreement to the Florida CTD. Subsequently, on December 31, 2007, MDT's agreement with the Florida CTD expired and there were no County commitments beyond December 31, 2007 to the Florida CTD. Though MDT's contractual obligation to the Florida CTD for the provision of Medicaid Transportation ended on December 31, 2007, MDT staff assisted the CTD's new provider in the training and implementation of gatekeeping procedures and accuracy of ridership data to ensure Miami-Dade residents would continue to receive uninterrupted service. On January 1, 2008, LogistiCare began operating the Medicaid transportation service under direct contract with the Florida CTD. As such, the Medicaid Metropass Program is no longer under MDT's purview.

### 3.10.9 Services Provided by Private Contractors

Complimentary paratransit service, locally known as the Special Transportation Service is provided throughout Miami-Dade County as mandated by the Americans with Disabilities Act (ADA) and is contracted through Transportation America. The state has several contractors that provide for the provision of Medicaid Transportation Services.

The paratransit contract provides demand-responsive service in ambulatory and non-ambulatory transportation modes using sedans, vans and lift-equipped vans. Medicaid service contractors provide stretcher and ambulance transportation in addition to lift van service transportation. American Transportation provides fixed route bus service up to

Mile Marker 50 into Monroe County. The private sector is also involved in the provision of several transit support services, such as:

- Security at Metrorail/Metromover stations, as well as other MDT facilities;
- Maintenance-type service, such as tires, janitorial, elevators/escalators, etc;
- Marketing and other similar contracts;
- Planning and technical support;
- Maintenance of bus benches/shelters at no cost to the County; and,
- Bus/rail advertising services.

### 3.11 Customer Information/Convenience

The Marketing Division is recognized as one of the top Marketing groups in Florida. In 2012, they were the recipients of the Florida Public Transportation Association (FPTA) Best In Class award for Sustaining Campaigns, Special Events and Communications & Website for the Save at the Pump Campaign.

#### 3.11.1 Smartphone Mobile Application (iPhone and Android)

Miami-Dade Transit has deployed real-time iPhone and Android applications for Metrorail/Metrobus/Metromover arrival/departure, route and schedule information. These mobile applications provide MDT passengers with everything that is currently present on the MDT mobile web site as well as additional smartphone-specific features in the form of an app to include: rider alerts; Train Tracker; Bus Tracker; service updates; elevator/escalator operational status; Metrobus schedules and routes; Metrorail station information; Metromover station information; fare information; rider alerts registration; contact numbers; feedback zone; Where Am I?; and Live Mapping. By developing these apps, MDT ensures that riders have the most up-to-date and accurate transit service information free of charge.

#### 3.11.2 Electronic Transit Rider Alert System / Train Tracker / Mover Tracker

Miami-Dade Transit continues to implement customer convenience enhancements to their Rider Alert system that notifies passengers about transit service delays. Registered users receive electronic alerts on detours, route changes, and updates for Metrobus as well as service interruptions for Metrorail, Metromover, Metrobus and Special Transportation Services. The Rider Alert system also provides the operational status of Metrorail or Metromover station elevators and escalators. Customers must sign-up to receive these electronic alerts to their cellular phones, email addresses, text pagers, and Blackberry devices or smart phones. There are currently 1,622 customers who are signed up to receive these electronic alerts. Train Tracker service allows users to see, via the web and on mobile devices, the estimated time of arrival of the next Metrorail train.

MDT has a real-time Metromover Tracker System, “Mover Tracker” using the web-based technology and is available via computer desktops, cell phones/smartphones, personal digital assistants (PDAs) and tablets. These software applications also provide other

useful transit information such as service alerts, rail and mover station information and elevator/escalator status.

### 3.12 Past Year's Accomplishments (2013)

This fiscal year (FY) 2015 – 2024 TDP Major Update, reports project data as of December 2013. Throughout 2013, MDT achieved a number of notable accomplishments that improved customer convenience while also assuring the operation of an efficient, responsive, and financially sustainable transit system. These achievements are categorized as part of this TDP Major Update according to the type of improvement related to service operations, capital investment, and passenger information/convenience.

### 3.13 Service Operations

#### 3.13.1 New Bus Service Routes

MDT did not implement any new bus service routes in 2013.

#### 3.13.2 Bus Service Adjustments

A major initiative being undertaken by MDT is to improve Metrobus service efficiency through a restructuring of the Metrobus route system while minimizing the impact to customers. In December 2009, MDT implemented service route adjustments to improve overall service performance while maintaining existing service area coverage. The estimated transit operating cost savings as a result of this effort was approximately \$12.3 million.



In 2012, this effort continued with additional route improvements made in the July and December 2012 line-ups. The new modified grid system was based upon ridership data obtained from the Automated Passenger Counter (APC), Easy Card as well as coordination with local municipal transit services and the Miami-Dade Metropolitan Planning Organization (MPO) to maximize interconnectivity and efficiency.

In November 2012, MDT issued notice-to-proceed to a consultant to begin work on the Transit Service Evaluation Study – Phase 2. The purpose of this project was to evaluate the current bus system of MDT, identify service efficiencies and design a grid-oriented route network. The study will identify a service plan that maximizes the efficiency and effectiveness of the system. The final product is a schedule-ready detailed plan which includes estimated impact on ridership, resources, and operating cost. The study is expected to be completed by mid/late 2013.

#### 3.13.3 Miami-Dade Transit Service Standards

Miami-Dade Transit established specific transit service standards for bus service to assess annual operational performance. Revised service standards were adopted by the Miami-Dade Board of County Commissioners in November 2009. MDT continues to implement route changes in accordance with the adopted service standards resulting in more efficiencies and lower operating costs.



MDT is updating its service standards to define service types, create service families, and create a framework to support the development of a Rapid Transit Network. As part of this project, MDT is also developing design guidelines for bus stops, stations, terminals, and transit centers specific to each service type. The new service types and service families, along with the service standards and performance measures, will guide MDT decisions regarding service function, expansion, modification, reduction or elimination of transit service. Classification of service types will reduce service overlap and improve service performance evaluations. Well defined service types will ensure that performance comparisons are based on the performance of that specific service type. This project is expected to begin in the spring of 2014 and be complete by the winter of 2015.

### 3.14 Capital Improvements

#### 3.14.1 AirportLink Metrorail Extension

Miami-Dade Transit’s AirportLink Project, the 2.4-mile Metrorail extension (Orange Line) that provides a fast, reliable connection to Miami International Airport (MIA) and the newly constructed MIA Metrorail station, was awarded the Local and State Collaboration Award by the Florida Association of County Engineers and Road Superintendents (FACERS) on June 28, 2013.

Only those construction projects that are held in high professional regard and have made significant contributions to their local departments and communities are chosen for this statewide



honor. The AirportLink Project was selected due to the fact that it was completed on-time and under-budget, as well as its vital importance as an alternative method of transportation to and from the community’s central economic engine, Miami International Airport.

More than 750,000 people have passed through the MIA Metrorail Station since its inauguration on July 28, 2012. Metrorail’s yearly ridership has increased by nearly 13% over the previous year since the implementation of the Orange Line and increased service frequencies between the Dadeland South and Earlington Heights stations. This increase exceeds the 12 percent increase in ridership that had been projected for the first year of Metrorail service to MIA. Construction of the 2.4-mile extension and MIA Station was funded with \$404.7 million from the People’s Transportation Plan (PTP) surtax, which is overseen by the 15-member Citizens’ Independent Transportation Trust (CITT). The remainder of the project cost – \$101.3 million – came from the Florida Department of Transportation (FDOT).

#### 3.14.2 Metrobus New Vehicle Replacement

Miami-Dade Transit continues to implement its bus replacement program. Funding for this



program was provided through various sources including the PTP, FDOT and Federal funding sources. In August 2010, MDT took delivery of 13 40-foot diesel/electric hybrid buses for fleet replacement which were put into service in the fall of 2010. In addition, 25 60-foot diesel/electric hybrid buses have been in service since the summer 2010 – 16 are being used on the inter-county 95 Dade-Broward Express bus route and nine on the Kendall Cruiser bus route. MDT also took delivery of five 40-foot diesel/electric hybrids which were put into service in early 2011. Table 3-7 provides the Bus Replacement/Enhancement Schedule in accordance with the FTA bus retirement criteria (500,000 miles/12 years of service life).

**Table 3-7: MDT Bus Replacement/Enhancement Schedule**

Year	Total Replacement/Enhancements	
	40 ft	60 ft
2015	103	44
2016	110	10
2017	108	10
2018	76	0
2019	0	0

Source: Miami-Dade Transit, 2013 .

The procurement of alternative fuel buses for replacements and enhancements would not only be an improvement to transit but also promote the county's long-term initiative towards state of good repair, economic competitiveness, livability, sustainability, safety, job creation, and economic stimulus. Table 3-83-7 provides MDT's diesel/electric hybrid bus procurement scheduled for 2015.

**Table 3-8: MDT Diesel/Electric Hybrid Bus Procurement Schedule**

Project	Bus Type	Bus Size	No. of buses to be procured	Scheduled Completion
South Miami-Dade Busway	Low floor Hybrid BRT	60 ft	2	September 2015
Biscayne Enhanced Bus Service	Low floor Hybrid BRT	60 ft	18	September 2015
Kendall Enhanced Bus Service	Low floor Hybrid BRT	40 ft	3	January 2015
South Miami-Dade Busway	Low floor Hybrid BRT	60 ft	12	April 2015
FTA funded project	Low floor diesel BRT	40 ft	32	January 2015

Source: Miami-Dade Transit, 2013.

After examining various alternative fuels, Miami Dade Transit decided to migrate its bus fleet to clean-burning, compressed natural gas (CNG). A Request for Proposal for a Public Private Partnership (P3) was released.

MDT expects to select an experienced CNG developer to enter into a Master Developer Agreement which will be dedicated to the conversion of Miami-Dade Transit heavy fleet vehicles to CNG.

Specifically, through the Master Developer Agreements, MDT intends to form a public partnership with the selected Proposer(s) that allows the MDT to take advantage of the savings associated with the use of CNG for its fleet. The Program objectives to be achieved by the selected Proposer(s) include the following:

1. Design, build, finance, operate and maintain CNG fuel service stations;
2. Upgrade existing County infrastructure including upgrading and/or converting MDT maintenance facilities and existing fuel stations to provide CNG;
3. Purchase and/or lease CNG powered buses;
4. Supply CNG ; and
5. Generate revenues for the County through the sale of CNG to third parties

### 3.14.3 Metrorail New Vehicle Replacement

The Miami-Dade BCC and the CITT in March 2008 approved the \$401 million procurement of 136 new rail vehicles for replacing the existing fleet. The existing vehicles will reach the end of their useful life of 30 years in 2014 before delivery of the new vehicles currently projected to commence in 2015.



A Request for Proposals (RFP No. 654) was issued March 31, 2009. The new vehicles will feature the latest technologies applicable to rapid transit heavy rail vehicles including electric AC traction motors and inverter drives, roof mounted HVAC, bike racks, Wi-Fi, digital Passenger Information System (PIS) and many other technological advances which will significantly improve passenger comfort, efficient maintenance and operations. Car manufacturers Alstom, AnsaldoBreda, and CAF submitted proposals on September 25, 2009.

A memorandum from the Mayor recommending award to the selected car builder was filed with the Clerk of the Board in September 2012. The award recommendation was approved by the CITT in October 2012 and by the Board of County Commissioners in November 2012.

Notice to Proceed was issued December 2012 with delivery of Pilot Rail vehicles to commence in July 2015. The Contractor is working on the first phase of vehicle design. This project is scheduled for completion in March 2018.

### 3.14.4 Metromover New Vehicle Replacement

Miami-Dade Transit has completed the replacement of its original 12 Metromover cars. This has contributed to improved Metromover reliability and passenger comfort. Since implementation, Metromover cars now travel on average about 17.5 percent further

before experiencing any mechanical failures. There has also been a decrease in the percentage of Metromover vehicles that are inoperable at any given time. In addition, another 17 vehicles were ordered for Phase II of procurement for a total of 29 new vehicles. All 29 replacement vehicles have been accepted; 3 vehicles remain under warranty. This project is scheduled for completion on January 2014.

#### 3.14.5 ADA Pedestrian Improvements along the Busway

Miami-Dade Transit plans to implement ADA pedestrian improvements within a quarter (1/4) mile radius of bus stations along the South Miami-Dade Busway Phase I alignment from Dadeland South Metrorail Station to SW 200<sup>th</sup> Street Station to provide better accessibility. Infrastructure improvements include the construction of sidewalks, ramps and crosswalks. The ADA Pedestrian Improvement project along the Busway is scheduled for completion in June 2016.

#### 3.14.6 Lehman Yard Rehabilitation – Expansion Phase I

Miami-Dade Transit has proposed to construct five (5) storage tracks and two (2) Maintenance of Way (MOW) tracks at the existing Metrorail Lehman Center Facility. This expansion is necessary to provide the required storage and transition facility in support of the new 136 Metrorail vehicles scheduled for delivery in 2015. This project is scheduled for completion in September 2015.

#### 3.14.7 Lehman Center Test Track

Miami-Dade Transit has proposed to construct a new test track (2,500 feet) at the existing Metrorail Lehman Center Facility. The test track will provide the necessary support for the existing and new Metrorail fleet of 136 vehicles to be delivered beginning in 2015. This project is scheduled for completion in September 2015.

#### 3.14.8 Metrorail Central Control Upgrade

This project will update the existing Metrorail portion of the MDT Control Center replacing the existing 25-year-old system and expanding it to handle the new Orange Line Metrorail Extension.

This upgrade and expansion will ensure that switches and communications are automatically executed by the train control system for safe and reliable service operations for the Metrorail system. This project is scheduled for completion by July 2014.

#### 3.14.9 Northeast Transit Hub Enhancements

Since determining that the Northeast Passenger Activity Center (NEPAC) project was no longer feasible, MDT identified an alternative project which includes transit hub improvements at NE 163<sup>rd</sup> Street. This transit hub serves the northeast portion of the County and major destinations with important bus connections, but each has multiple deficiencies. The Northeast Transit Hub Enhancements (NETHE) will upgrade the transit hub sites to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities. The completion date for NETHE – 163<sup>rd</sup> Mall is estimated for October 2015 (NETHE – Aventura Mall project has



been cancelled as an MDT project and will be included as part of the Aventura Mall master plan expansion project).

#### 3.14.10 Pedestrian Overpass at University Metrorail Station

This project encompasses the construction of a Pedestrian Overpass over US-1/South Dixie Highway to serve the University Metrorail Station. This overpass is a low-profile pedestrian bridge structure comprised of two vertical circulation towers providing access/egress to the pedestrian bridge that spans across US-1/South Dixie Highway. The project is located at the intersection of Mariposa Court and US-1/South Dixie Highway. This project is scheduled for completion by March 2016.



#### 3.14.11 Systemwide Safety and Security Upgrades

Miami-Dade Transit has programmed funding to purchase security equipment to upgrade and install closed circuit camera television (CCTV) system and its respective software components, and to continue the replacement of fire detection and reporting systems. MDT's commitment to the safety and security of the MDT system, patrons, and employees is of the highest of priorities. In an effort to further complement its existing security infrastructure, MDT continues to aggressively add state-of-the art technology to both reduce crime and to aid law enforcement in proactively securing and safeguarding the transit system. FDOT Rule 14-15.017(2.2.1), however, prevents MDT from disclosing these improvements/installations in greater detail.

#### 3.14.12 Park-and-Ride Facilities

**Parking Space Counters and Real-Time Dynamic Message signs at Metrorail Station Park-and-Ride Facilities:** MDT proposes to provide real-time parking space counters and dynamic message signs at all Metrorail Station Park-and-Ride Facilities. MDT will implement this project incrementally starting with the larger and higher demand Metrorail parking facilities. This project will allow Metrorail customers to check real-time parking availability along with the estimated time of arrival of the next train approaching a particular station via the Internet, smartphones, Personal Digital Assistants (PDAs), tablets, and electronic signs. The following park-and-ride facilities have been selected for phase I implementation:

- Dadeland South;
- Dadeland North;
- South Miami;
- Earlington Heights; and
- Okeechobee.

The completion date for phase I implementation is December 2017.

**NW 27<sup>th</sup> Avenue and NW 215<sup>th</sup> Street:**

A 14-acre vacant parcel adjacent to the intersection of the Turnpike and NW 27<sup>th</sup> Avenue has been identified as a strategic park-and-ride location for the NW 27<sup>th</sup> Avenue Enhanced Bus Service project. Up to 350 parking spaces are proposed for this facility which would serve the northern most station for new enhanced bus or BRT service in the corridor. This park-and-ride lot also provides strategic transit oriented development (TOD) opportunities. This facility is anticipated to open in late 2018.



**SW 127<sup>th</sup> Avenue/SW 88<sup>th</sup> Street/Kendall Drive:** MDT is planning to construct a 180-space park-and-ride lot on approximately 2.8 acres at the southeast corner of SW 88<sup>th</sup> Street and SW 127<sup>th</sup> Avenue. This park-and-ride facility will serve the Kendall Cruiser which began service in June 2010. The County is currently in negotiations with Florida Power and Light to lease the land. The completion date for this facility is estimated for February 2017.

**SW 88<sup>th</sup> Street/Kendall Drive and SW 149<sup>th</sup> Avenue:** On June 28, 2010, MDT opened a new 109-space park-and-ride lot to provide free, convenient parking for customers who commute using the Kendall Cruiser bus route. MDT is now pursuing the right-of-way acquisition, design, and construction of a park-and-ride directly adjacent to this location. The proposed park-and-ride facility will accommodate approximately 100 parking spaces, bus bays and bicycle racks. This project is the first step in the evolution of the Kendall Corridor toward BRT service and it establishes a model for premium transit corridor services. The completion date for this facility is estimated for December 2016.

**Busway and Quail Roost Drive/(Busway and SW 184<sup>th</sup> Street:** MDT is pursuing the purchase of approximately three (3) acres of vacant property located adjacent to the Busway (between SW 184<sup>th</sup> Street and SW 186<sup>th</sup> Street) on which a park-and-ride facility is planned to be constructed. The proposed park-and-ride facility will accommodate approximately 279 parking spaces and six (6) kiss-and-ride spaces. The facility will also include fencing, landscaping and lighting improvements. It is anticipated that this facility will be completed in May 2017.

**Busway and SW 344<sup>th</sup> Street (Florida City):** Miami-Dade Transit is planning to build a 266-space parking lot with bus bays and shelters, to be located west of the southern end of the Busway between NW 2<sup>nd</sup> Avenue and NW 3<sup>rd</sup> Avenue at SW 344<sup>th</sup> Street (Palm Drive) in Florida City. Design and relocations are complete. Demolition of existing structures is in progress. The project's estimated completion date is February 2015.

**Dolphin Station (HEFT and NW 12<sup>th</sup> Street):** Property owned by FDOT located adjacent to the intersection of the Homestead Extension of the Florida Turnpike (HEFT), SR 836 and NW 12<sup>th</sup> Street has been identified as a strategic location for a Transit Hub

with a park-and-ride facility. This transit hub would support the SR 836 Express Enhanced Bus Service project and provide a potential terminus or stop for several local bus routes serving the Dolphin Mall and nearby cities of Sweetwater and Doral.

**SW 8<sup>th</sup> Street and SW 147<sup>th</sup> Avenue:** An 8-acre vacant parcel of land on the SW corner of the intersection at SW 8<sup>th</sup> Street and SW 147<sup>th</sup> Avenue has been identified as a strategic park-and-ride location for the SR 836 Express Bus Service project. The proposed park-and-ride facility will accommodate approximately 500 parking spaces, which would serve as the western most station for the new premium bus service in the corridor.



The estimated completion date is 2019.

### 3.14.13 Current Joint Development and Transit Oriented Development Projects

**Brownsville Metrorail Station:** On June 23, 2010, MDT broke ground for the construction of the Brownsville Transit Village, a 5.8-acre, joint-development project next to the Brownsville Metrorail station. The project is being built in five phases, each geared toward providing housing for workforce families, the elderly and the entire Brownsville community. The project will include approximately 401 workforce housing units, with five (5) mid-rise apartment buildings, townhomes and a 706-space parking garage with 100 spaces reserved for transit patrons and the balance reserved for residents and retail customers. Ground-floor commercial space and Metrorail station improvements, such as an additional passenger drop-off lane and attractive landscaping are also planned.



Brownsville Transit Village residents will benefit from immediate access to Metrorail and amenities such as a community center, a computer lab and an exercise room. In addition, onsite community programs will offer literacy training, health and nutrition classes, and first-time homebuyer seminars.

**NW 7<sup>th</sup> Avenue Transit Village (NW 7<sup>th</sup> Avenue and NW 62<sup>nd</sup> Street):** This proposed MDT joint development project is expected to provide opportunities for an enhanced transit facility within the context of an active, mixed-use development including space for housing, community-serving activities and functions in addition to retail use. This project includes 25 park-and-ride spaces. MDT has completed the right-of-way acquisition and the relocation process is nearly complete. The project is scheduled for completion in September 2015.





**Brickell Citicentre:** Brickell Citicentre is a 4.7 million square foot, 10 acre, \$1.1 billion commercial mixed-use project being developed by Swire Properties in the Brickell area along South Miami Avenue between SE 6th Street and SE 8th Street. As a result of the agreements awarded to the developer, a portion of a multi-level condominium parking garage will be constructed on a small vacant parcel of transit property and the development will be totally integrated into the Eighth Street Metromover Station.

The developer is planning to provide direct access to the station at the ground level and to construct a third level “sky lobby” over the station which will also provide direct access from the development into the station. The developer will also construct enhanced and additional elevator and escalator access into the station and provide enhanced landscaping on Metromover property within the development. All of these improvements will also be maintained by the developer.

**Palmer Lake:** On June 2, 2009 the Board of County Commissioners passed Resolution 728-09 requesting a charrette area plan study for the area bounded by the Miami River on the north and east, NW 37th Avenue on the west and the Tamiami Canal on the south. The area is immediately east of the new MIC and in close proximity to MIA. As a result of the charrette process a plan containing recommendations for the future development of this area has been developed. The Board of County Commissioners adopted these recommendations on May 1, 2012 which will form the basis of future land use policy development for the area.

MDT acquired approximately three (3) acres of property within the study area for the construction of the AirportLink, the extension of Metrorail connecting the Earlington Heights Station to the MIC. Only a small portion of the property was needed for the placement of Metrorail columns. Recommended uses for the remaining MDT property include a water taxi terminal, police station, a cargo shipping facility and/or use as public waterfront access and park area.

**Okeechobee Metrorail Station:** Approximately four (4) acres of MDT property immediately adjacent to the Okeechobee Metrorail Station has been transferred to the Public Housing and Community Development Department (PHCD). That department is in the process of negotiating a 99-year ground lease with the City of Hialeah. The City is planning to construct an affordable senior housing development on the property containing approximately 100 units of affordable senior housing with some incidental retail space.



**Northside Metrorail Station:** MDT property adjacent to the Northside Metrorail Station containing approximately 3.3 acres was also transferred to the PHCD. A developer has been selected for a joint development project as a result of an Invitation to Negotiate process. The proposed development will be carried out in four phases with two family and two senior developments consisting of approximately 438 total units of one bedroom up to four bedroom units and approximately 20,000 square feet of retail/commercial space with a total estimated development cost of \$88.1 million. The development will contain a total of 598 parking spaces of which 250 will be dedicated for the exclusive use of transit patrons.



**Senator Villas:** The County is in the process of issuing a Request for Proposals (RFP) for the long-term lease and development this site located on SW 40<sup>th</sup> Street between SW 89<sup>th</sup> Avenue and SW 89<sup>th</sup> Court. The RFP anticipates the development of a 23-unit affordable senior housing apartment building with a small transit park-and-ride lot reserved for transit patrons.

**NW 215<sup>th</sup> Street Project:** A 14-acre parcel of land located at the southwest quadrant of the intersection of NW 27<sup>th</sup> Avenue and NW 215<sup>th</sup> Street was purchased by Miami-Dade County. The County has completed a study to cultivate recommendations for the development of this property. The recommendations include development of a transit terminal adjacent to NW 27<sup>th</sup> Avenue. Enhanced bus service along the NW 27<sup>th</sup> Avenue corridor is planned to be implemented in conjunction with the construction of the terminal which will include bus bays with passenger shelters and a park-and-ride lot.

The study recommends that the remaining property be designated as a Community Urban Center (CUC) which calls for moderate to high-intensity, mixed use development. Such development may contain institutional, office and retail in an environment that encourages pedestrian activity with a defined, transit oriented center.

**Caribbean Boulevard:** MDT property located on Caribbean Boulevard and US-1 adjacent to the Busway was transferred to the Public Housing and Community Development Department. As a result of an Invitation to Negotiate process a developer has been selected for this property. The developer has proposed a multi-phase, mixed-use high-rise and mid-rise development of approximately 170 affordable housing units with approximately 12,500 square feet of retail/commercial space.

The development will also include a parking garage with 150 spaces dedicated to the Busway patrons. The total estimated development cost is \$46.1 million.

#### 3.14.14 South Miami-Dade Busway and SW 296<sup>th</sup> Street:

The County will be issuing an RFP for a long-term lease for development of this site as a TOD. The northernmost portion of the site is improved with an existing park-and-ride facility that contains 140 parking spaces to serve Busway patrons.

The proposed development of this site will not affect the existing park-and-ride use already established on the property. Rather, the proposed joint development project is expected to enhance the Busway and existing park-and-ride facility by introducing a commercial component to this site which will provide amenities for transit patrons and focus density around the station.

### 3.14.15 Future Joint Development and Transit Oriented Development Projects

It is anticipated that Miami-Dade County will pursue joint development opportunities at Douglas Road, Palmetto, Coconut Grove South Miami Metrorail Stations and the park-and-ride located along the Busway at Quail Roost Drive, Omni Bus Terminal as well as at other locations in the future (Figure 3-63-6).

**Douglas Road Metrorail Project:** The County will issue an RFP in 2014 for a long-term lease for the joint development of this site which will produce a significant long-term source of revenue for MDT which would help to offset expenses, focus density around the station and promote increased patronage of the Metrorail System.

### 3.14.16 Infrastructure Renewal Projects (IRP)

#### **Dadeland South Intermodal Station:**

The Dadeland South Intermodal Station project includes facility improvements to the parking garage, roadways, signage, fencing, painting, landscaping, canopy, escalators, and lighting up-grades. The project is in final design. The estimated completion date is February 2015.



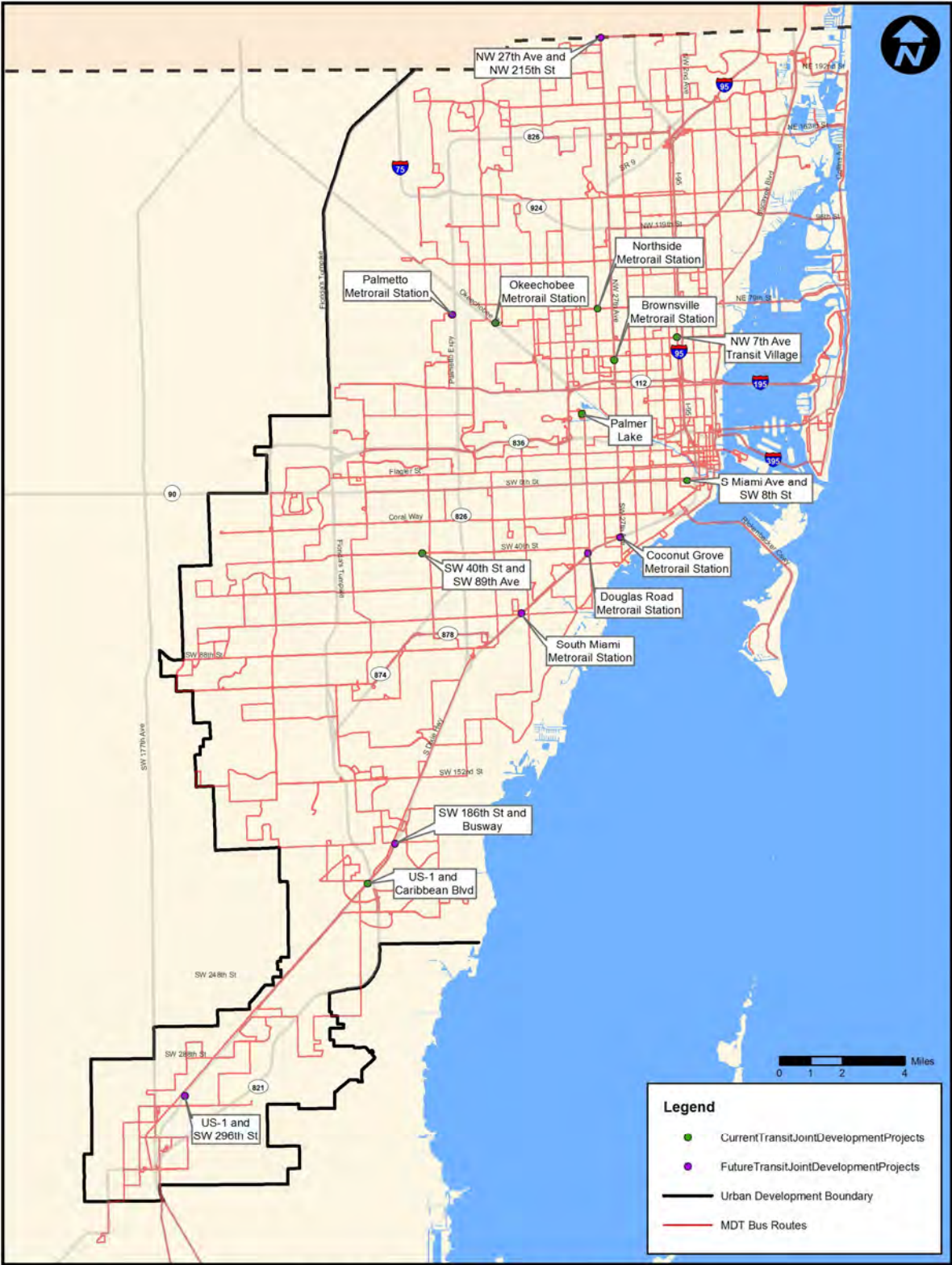
**Replace Pool Vehicles:** This project will replace 15 light fleet vehicles that have been retired or have over 100,000 miles. This project was completed in September 2013.

**Electric Engine Cooling Fan System:** Existing conventional hydraulic cooling system will be retrofitted with an electric engine cooling fan system on an estimated 100 MDT buses. This project is scheduled for completion in March 2015.

**Metrorail Floor Replacement:** This project identified railcars having deteriorated sub-flooring and installed Nora Flooring in 60 railcars. The work also included the removal and replacement of interior seating, panels and stanchions. This project was completed in December 2013. Additional flooring in railcars to be replaced as funding becomes available.

**Metrorail Local/Supervisor Control Panels:** This project includes replacement of local/supervisor control panels at 21 Metrorail stations. Local control panels for the Martin Luther King Station have been ordered from the manufacturer and are pending installation. This project was completed in October 2013.

Figure 3-6: Current and Future Transit Joint Development Projects



Current and Future Joint Development Projects. Source: Miami-Dade Transit, December 2013



**Metrorail Acoustical Barrier Replacement:** Metrorail guideway has approximately 12,000 feet of metal acoustic barrier panels. Rusting of the metal connections escalated safety concerns and MDT decided to replace these panels and purchased acoustical barriers and hardware for an additional 8,000 feet; in-house forces will install the replacement barriers as well as the additional 8,000 feet in specific areas identified by the Project Development and Environment (PD&E) noise study.

**Coverboard Replacement for Metrorail:** This project includes the procurement and installation of 53.3 miles of coverboard and brackets, 28,150 insulators and 800 hurricane anchors. Installation will be completed by an in-house crew. The project is anticipated to be completed in December 2016.

**Rail Fastener Replacement:** MDT will replace 50,000 rail fasteners and shims in mainline curves, the work includes core drilling and replacing anchor bolt inserts. This replacement project helps in meeting the mandated track standards issued by FTA and MDT. This project is scheduled for completion in September 2014.

**Metrorail and Metromover Girder and Pier Coating:** This project will protect the girders and piers from weathering and provide an aesthetic appeal by concealing all the construction joints and repairs that have been done over past 25 years. Also included is the clearing of drains that are causing stains on piers. This project is scheduled to be completed in December 2017.

**Parking Garage Fire Suppression:** Miami-Dade Transit will perform repairs to the fire protection systems for parking garages at Dadeland South, Dadeland North, Earlington Heights and Okeechobee Metrorail stations. These repairs include the replacement of all sprinkler heads, flow switches, tamper switches, gate valves, inspector test flow valve assemblies, and various sections of sprinkler piping. The project is scheduled for completion in March 2014.

**Roof Repair for Bus Garages:** Miami-Dade Transit plans to install new roofing at the Central Bus Garages and Offices. The scope of work is in the process of being revised to match allocated funds. The project is scheduled for completion in April 2015.

**Bus Garage Plumbing Improvements:** The original scope of work for the project includes renovation of existing bathrooms at the Central Bus Facility, Procurement Office, Materials Management, Fuel Island and Warranty Administration. The project scope is being revised to match available funding. Currently, the focus of this project is the renovation of the existing bathrooms at the Central Bus Facility OEI Building 2nd Floor. The project is scheduled for completion in July 2014.

**Replace Air Compressors at Bus Locations:** Miami-Dade Transit is planning to replace air compressors at all bus garages through the purchase, removal, and installation of new air compressors, air dryers, receiver tanks and necessary piping at Central, Coral Way and Northeast Bus Garage Facilities. Due to funding constraints only the Central Bus Garage was completed. The project was completed in January 2013.



### 3.14.17 ARRA Funded Projects

**Palmetto Station Traction Power Sub Station:** This will be a Design/Build procurement to install a new Traction Power Sub Station at the existing Palmetto Metrorail station. Completion of this project is necessary to provide the required minimum higher 600 Volts Direct Current (VDC) for the 136 new Metrorail vehicles starting delivery in 2015. The present system provides lesser voltage at the Palmetto station and will not be able to operate new vehicles. The project was completed in January 2014.

**Metromover Inner/Downtown Loop Stations Escalator Replacement and New Canopies:** The scope of work consists of the preparation of a complete set of biddable documents and construction work required for the installation of canopy covers over the existing escalators/stairs at the following seven (7) Metromover stations: Government Center Station, Miami Avenue Station, Bayfront Park Station, First Street Station, College Bayside Station, College North Station and Wilkie D. Ferguson Jr. Station. The scope of work also includes replacement of the existing escalators at the aforementioned locations. The primary function of these canopies is to provide passengers weather protection on stairs and escalators at Metromover stations. The project was completed in August 2013.

**Metromover Bicentennial Park Station Rehabilitation:** The construction of the new Perez Art Museum facility adjacent to this station will foster the reopening of the station for service. The scope of work to reopen this station includes: the rehabilitation of the elevator and escalators, replacement of lamps throughout the station, replacement of aluminum ceiling slats with new support system at ground level, repair of the communication system, replacement of stair metal plates, testing of electrical circuits to assure proper function, new fire cabinets and ancillary devices, replacement of floor tiles, repair of cracks at exterior walls, painting and landscaping. Construction was completed in November 2013.

**Transit Operations System Replacement Project:** The Transit Operations System (TOS) is over 20 years old and at the end of its life cycle with numerous software limitations. This project replaces the current manual processes of Miami-Dade Transit's mission-critical Operator Workforce Management System, with state-of-the-art technology, automating critical operational functions: operator bidding, dispatching, work assignment, bus availability, time keeping and operator performance management.

The new system will interface with other MDT systems including: fixed-route scheduling system, Automated Fare Collection-Smart card system, Miami-Dade County Payroll System, Computer-Aided Dispatch/Automated Vehicle Location System (CAD/AVL), Enterprise Asset Management System (EAMS), Random Drug and Alcohol Substance Abuse System, Disciplinary Action Reporting System and the Automatic Passenger Counter (APC) system.

This new system will greatly improve line-up timing and process as well as significantly improve bus and rail operational effectiveness and efficiencies by reducing labor costs and increasing data accuracy. The Notice to Proceed was issued on March 25, 2013, with anticipated completion in June 2015.

**Metromover Fiber Optic Cable Replacement:** The replacement of fiber optic cable equipment throughout the Metromover system at all stations and at Central Control has been scheduled for implementation in September 2013. The installation of Giga-Bit Ethernet and wireless networking capability at all stations is also included in the scope of work. The scope of work was modified based on a revised estimate for the Programmable Logic Controller (PLC) replacement portion of the project. The objective is to include the cost of the PLC within the available ARRA Grant allocation. The project is scheduled for completion in December 2014.

**Metromover Closed Circuit Television Camera Replacement and Installation:** MDT has set forth the installation of new digital cameras at all Metromover Station platforms with Network Video Recorders (NVR) for independent 24/7 recording. The new recorders will be networked into the MDT Video System and new digital displays will be installed at the Mover Central Control. The project is scheduled for completion in December 2014.

**Existing Metrorail Stations (Part 2A) Graphics and Signage Retrofit:** The project requires the selected Design-Build firm to furnish, install and test a complete way finding signage and graphics system for ten (10) existing Metrorail Stations and the new Metrorail station at the MIC, in accordance with contract documents and industry standards. Also, included are all required materials to furnish signage, all equipment, labor, services, and all incidental items required to complete the work, as per the contract documents. Part 1 of this project was completed under a separate contract. The construction completion date is scheduled for June 2014.

**Existing Metrorail Stations (Part 2B) Graphics and Signage Retrofit:** The project requires the selected contractor firm, ABC Construction Inc., to furnish, install signage and graphics system for fifteen (15) Metrorail Stations in accordance with the Contract Documents and industry standards. The project includes supplementing the completed way finding signage and graphics system created to provide information about the location of Metrorail stations, parking garages and parking surface lots serving Metrorail Stations.

The work includes permitting, installation, changing refurbishments and removal of signage in fifteen (15) stations. Also included are all required materials to furnish signage, all equipment, labor, services and incidental items required to complete the work as per the contract documents. This project is scheduled for completion in June 2014.

### 3.14.18 Wireless Service on Rail/Bus Vehicles/Electronic Signage Information

In February 2011, MDT implemented free wireless services in all Metrorail and Metromover vehicles, plus 133 buses on Express Routes (as of June 2011, 100% implemented). The rest of the bus fleet will be equipped with WiFi devices as funding becomes available.

As a complement to this initiative, free public Wi-Fi is also being phased in at all Metrorail Stations through the Electronic Signage Information System (ESIS) project. Electronic signs installed on the Metrorail station platforms provide passengers with real-

time arrival times, emergency information, elevator/escalator status, route detours, special events and other important announcements in an ADA-compliant format so that all transit passengers are kept informed of changes to their daily commutes and schedules.

The first electronic signs were installed at the MIA and Earlington Heights stations and became operational in July 2012, along with the opening of the Orange Line. All 23 Metrorail station signs were installed by September 2013. There are also electronic kiosks located at the Hialeah, Northside, Allapattah, Civic Center, Brickell and Douglas Road stations providing real time information and other passenger amenities like trip planning.

#### 3.14.19 CAD/AVL System Replacement

MDT plans full implementation of the Bus Tracker System / Computer Aided Dispatch/Automated Vehicle Locator (CAD/AVL) technology project by replacing the infrastructure, on-board equipment, back-office and communications hardware and software – the systems currently used to manage and monitor the transit fleet. The project will facilitate delivery of real time bus predictive arrival/departure via the Internet, to mobile devices and electronic signs, using the County's satellite/radio technologies.

Upgrading and replacing this infrastructure will greatly improve managing and dispatching the transit fleet by providing real time Bus Bunching, Service performance, Vehicle diagnosis, on demand or subscription alerts; enabling remote video look in and on-board PA announcements; and centralized incident management. Full implementation is targeted to be completed by December 2015.

#### 3.14.20 Real-Time Analytics and Reporting for Operational Efficiencies

MDT is actively seeking funding for projects that will enhance operational efficiencies by developing public/private partnerships to interface with external data sources such as traffic management data, video feeds, and major detours/incidents affecting transit service delivery.

#### 3.14.21 Transit Signal Priority (TSP)

Through integration with the County's Advanced Traffic Management System (ATMS), major corridors and vehicles will be equipped with Transit Signal Prioritization (TSP) technology which enables communication with each of the traffic signal controllers along major corridors. TSP facilitates improved on-time performance in bus services. Kendall Drive/SW 88<sup>th</sup> Street will be the first major corridor to feature TSP technology. Implementation along Kendall Drive/SW 88<sup>th</sup> Street will be completed by March 2015.

## 4.0 PEER COMPARISON AND TREND ANALYSIS

Miami-Dade Transit (MDT) is in the process of developing the Fiscal Year 2015-2024 Transit Development Plan (TDP) Major Update. A component of the TDP Major Update is a peer comparison and trend analysis for each mode that MDT operates.

### 4.1 Peer Comparison Overview

A peer review analysis was conducted for Miami Dade Transit's (MDT) fixed-route bus (Metrobus), heavy rail (Metrorail), and automated guideway/people mover service (Metromover), as well as MDT's demand response service (Special Transportation Services), to compare its performance with other transit systems having similar characteristics. The review was conducted using data from the National Transit Database (NTD), which is a standard database maintained by the Federal Transit Administration (FTA) and to which all US Federally-funded transit agencies must provide information each year. As part of the peer review process, selected operating and financial performance measures are provided to illustrate the performance of MDT's service modes relative to the peer group. The purpose of the peer review is to evaluate the efficiency and effectiveness of MDT service operations as compared to peer agencies.

#### 4.1.1 Peer System Selection Methodology

Peers were selected based on a review of the peers selected during the last TDP as well as consultation with MDT staff. Peers were also selected based on their similarities to MDT's operating service characteristics (Table 4-1).

### 4.2 Trend Analysis Overview

Part of the methodology requires an analysis on the performance of their various services over the past six years from 2007 through 2012. This report summarizes the data used for the analysis as obtained from the FTA National Transit Database and the results of the analysis. The following data were downloaded from the National Transit Database for years 2007 through 2012 for each mode of transit:

- Route miles
- Unlinked passenger trips
- Average fleet age (calculated using manufacture year of vehicles)
- Passenger miles traveled and average passenger trip length
- Vehicle revenue hours and miles
- Passenger trips per revenue hour and mile
- Operating expenses per passenger trip and revenue hour
- Weekend service availability
- Operating and maintenance expenses



- Fare revenues and farebox recovery ratio

### 4.3 Findings Summary

This peer and trend review of MDT's service suggests that MDT's service generally fall within the normal range for its peers and that trends are generally positive or normal for the time period analyzed. A summary of several findings are provided below:

- **Metrobus Service:** The volume of Metrobus service has declined over the analysis period which has resulted in a decrease in unlinked passenger trips as well as a decline in revenue hours and revenue miles. However, within the last two years passenger trips are increasing while revenue hours and miles remain steady. Farebox revenues have been increasing annually with a 27.7 percent farebox recovery ratio.
- **Metrorail Service:** Metrorail service has low passenger productivity and a high cost per passenger trip in comparison with peer agencies that operate heavy rail service. In comparison to its peers, MDT's Metrorail vehicle fleet has the highest average age. Passenger trips continue to increase with average passenger trip length being more than seven miles which is the longest when compared to with other heavy rail peer systems.
- **Metromover Service:** MDT's Metromover has the highest level of unlinked passenger trips and high passenger productivity compared with peer agencies. All of the peers charge a fare for their systems. MDT, however, does not.
- **Special Transportation Service:** Passenger trips have remained fairly steady and average trip lengths have slightly declined over the last six years. MDT had the second highest passenger trips as well as the second highest fare revenues compared with peer agencies.

**Table 4-1: Peer Agencies**

Agency	Location	Metrobus	Metrorail	Metromover	Special Transportation Service (STS)
		Bus	Heavy Rail	Automated Guideway	Paratransit/Demand Response
Broward County Transit Division (BCT)	Plantation, FL	PEER			
Jacksonville Transportation Authority (JTA)	Jacksonville, FL	PEER		PEER	
King County Department of Transportation (King County Metro)	Seattle, WA	PEER			
Massachusetts Bay Transportation Authority (MBTA)	Boston, MA	PEER	PEER		
Southeastern Pennsylvania Transportation Authority (SEPTA)	Philadelphia, PA	PEER	PEER		PEER
Washington Metropolitan Area Transit Authority (WMATA)	Washington, DC	PEER	PEER		
Maryland Transit Administration (MTA)	Baltimore, MD	PEER	PEER		PEER
Metropolitan Atlanta Rapid Transit Authority (MARTA)	Atlanta, GA	PEER	PEER		
The Greater Cleveland Regional Transit Authority (GCRTA)	Cleveland, OH	PEER	PEER		PEER
Chicago Transit Authority (CTA)	Chicago, IL	PEER	PEER		
Detroit Transportation Corporation (DTC)	Detroit, MI			PEER	
Metropolitan Transit Authority - Harris County (MTA Harris County)	Houston, TX				PEER

#### 4.4 Bus Peer Comparison and Trend

Table 4-2 compares MDT and the selected peer agencies in a wide range of measures relating to their operation of fixed-route bus service. Table 4-3 presents the trend of the six years of data as made available from the NTD for the operation and performance of MDT's fixed-route Metrobus service.

The trend analyses allow MDT to assess how bus service has changed over the last several years and can suggest potential areas of service that should be further examined or adjusted to improve performance.



## Peer and Trend Analysis

**Table 4-2: Bus Peer Comparison (2012)**

Agency	MDT	BCT	JTA	King County Metro	MBTA	SEPTA	WMATA	MTA	MARTA	GCRTA	CTA	Peer Mean
City	Miami, FL	Plantation, FL	Jacksonville, FL	Seattle, WA	Boston, MA	Philadelphia, PA	Washington, DC	Baltimore, MD	Atlanta, GA	Cleveland, OH	Chicago, IL	
Route Miles	1,923.20	1,117.60	972.3	1,951.10	1,797.00	2,502.70	2,628.40	1,064.00	1,445.50	1,485.90	1,317.70	1,655.04
Unlinked Passenger Trips	77,858,973	37,917,735	11,500,899	95,592,084	116,468,455	189,040,211	136,795,328	73,574,828	61,596,727	33,857,969	314,423,578	104,420,617
Average Age (yrs.) of Bus Fleet	8.84	5.76	6.46	7.59	7.41	2.85	4.09	7.66	8.71	8.56	6.58	6.77
Passenger Miles Traveled	442,282,825	180,294,017	70,451,983	458,098,243	301,812,834	561,647,331	415,814,008	228,817,715	228,212,492	144,368,655	725,064,380	341,533,135
Average Passenger Trip Length	5.68	4.75	6.13	4.79	2.59	2.97	3.04	3.11	3.7	4.26	2.31	3.94
Vehicle Revenue Hours	2,412,709	993,637	603,438	2,768,315	2,404,138	4,009,611	3,901,279	1,750,948	1,876,643	1,035,774	5,658,426	2,492,265
Vehicle Revenue Miles	28,838,288	13,675,110	8,839,795	33,317,426	24,222,296	40,577,223	40,327,909	19,063,338.00	22,803,997	12,224,802	52,427,711	26,937,990
Passenger Trips per Revenue Hour	32.27	38.16	19.06	34.53	48.44	47.15	35.06	42.02	32.82	32.69	55.57	37.98
Passenger Trips per Revenue Mile	2.7	2.77	1.3	2.87	4.81	4.66	3.39	3.86	2.7	2.77	6	3.44
Operating Expense per Passenger Trip	\$3.92	\$2.57	\$5.45	\$4.50	\$3.20	\$3.15	\$4.14	\$4.04	\$3.43	\$4.22	\$2.44	\$3.73
Operating Expense per Revenue Hour	\$126.34	\$98.06	\$103.96	\$155.38	\$154.85	\$148.72	\$145.03	\$169.84	\$112.72	\$138.06	\$135.74	\$135.34
Weekend Service Availability (Revenue Hrs)	9,260	3,184	1,879	10,452	7,595	13,793	11,601	5,873	7,253	3,206	21,698	8,709
Total Operating Expenses	\$304,832,932	\$97,432,331	\$62,730,556	\$430,144,035	\$372,287,102	\$596,307,945	\$565,803,610	\$297,374,548	\$211,539,134	\$142,998,626	\$768,077,305	\$349,957,102
Maintenance Expenses	\$85,141,374	\$17,792,427	\$12,951,441	\$99,001,716	\$110,980,218	\$160,075,953	\$161,199,752	\$64,237,409	\$60,117,538	\$37,360,578	\$168,073,681	\$88,812,008
Farebox Revenues	\$84,414,416	\$33,011,465	\$11,607,208	\$117,724,121	\$82,359,171	\$177,847,064	\$137,450,600	\$60,207,260	\$58,666,663	\$35,208,409	\$288,620,266	\$98,828,786
Farebox Recovery Ratio	27.69%	33.88%	18.50%	27.37%	22.12%	29.82%	24.29%	20.25%	27.73%	24.62%	37.58%	26.71%
Employee Comparison	3,206	957	669	3,551	2,907	5,131	4,971	2,611	2,365	1,482	6,227	3,098

Data Source: 2012 NTD



**Table 4-3: MDT Metrobus 2007-2012 Trend**

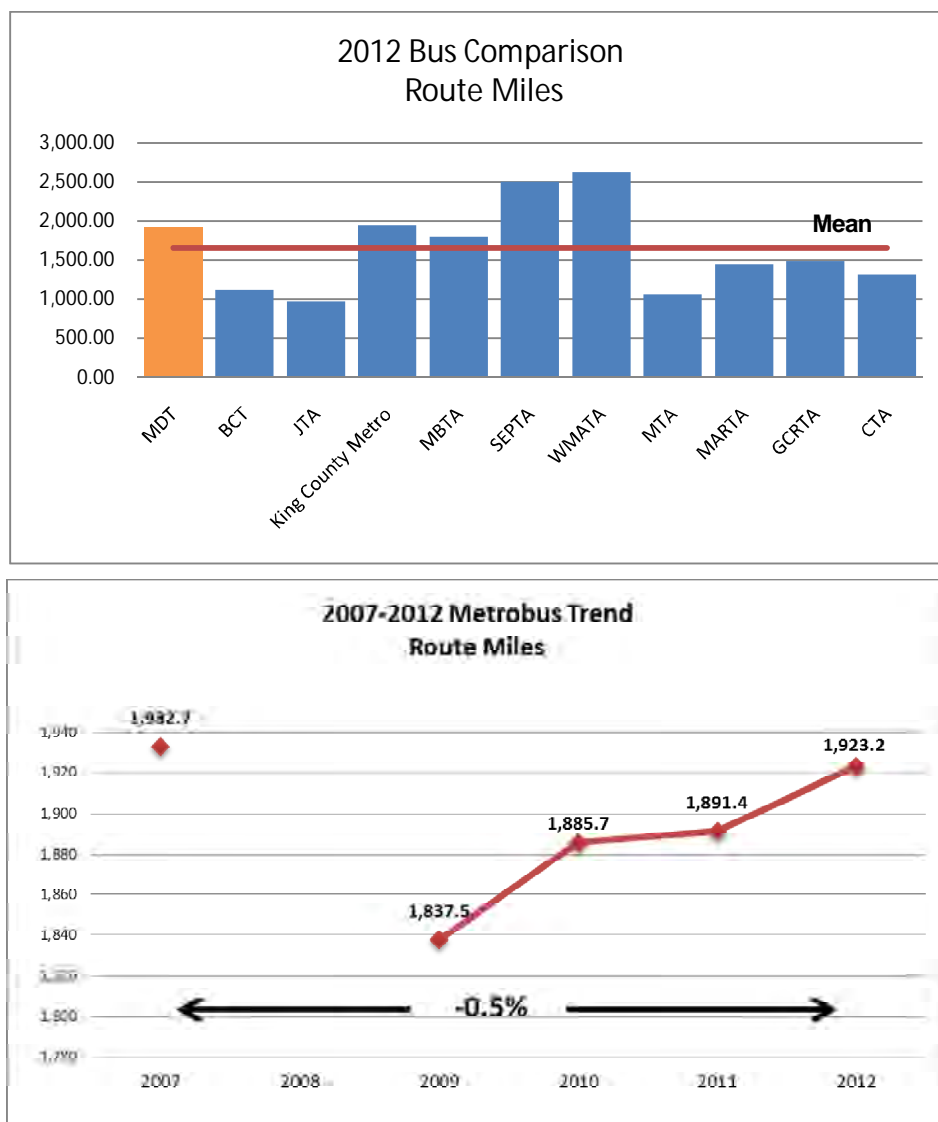
Performance Measures	2007	2008	2009	2010	2011	2012
Route Miles	1,932.7	Not Reported	1,837.5	1,885.7	1,891.4	1,923.2
Unlinked Passenger Trips	83,458,376	85,789,745	75,608,000	70,291,985	75,723,805	77,858,973
Average Age (yrs.) of Bus Fleet	5.2	5.4	6.3	7.0	7.5	8.6
Passenger Miles Traveled	427,626,902	426,400,643	391,313,187	379,704,686	407,782,273	442,282,825
Average Passenger Trip Length	5.12	4.97	5.18	5.40	5.39	5.68
Vehicle Revenue Hours	2,923,018	2,752,703	2,629,625	2,444,526	2,424,028	2,412,709
Vehicle Revenue Miles	35,654,448	33,407,289	31,547,096	29,177,775	28,860,941	28,838,288
Passenger Trips Per Revenue Hour	28.55	31.17	28.75	28.75	31.24	32.27
Passenger Trips Per Revenue Mile	2.34	2.57	2.40	2.41	2.62	2.70
Operating Cost Per Passenger Trip	\$3.83	\$3.94	\$4.43	\$4.38	\$4.03	\$3.92
Operating Cost Per Revenue Hour	\$109.25	\$122.75	\$127.29	\$125.94	\$125.95	\$126.34
Weekend Service Availability (Rev. Hrs)	11,095	9,836	9,863	8,396	9,181	9,260
Operating Expenses	\$319,327,599	\$337,894,421	\$334,727,320	\$307,852,630	\$305,311,580	\$304,832,932
Maintenance Expenses	\$86,883,261	\$91,115,182	\$94,060,724	\$80,759,398	\$85,115,796	\$85,141,374
Farebox Revenue	\$71,186,530	\$71,722,693	\$78,650,396	\$78,687,636	\$82,454,846	\$84,414,416
Farebox Recovery Ratio	22.29%	21.23%	23.50%	25.56%	27.01%	27.69%

Data Source: NTD (2007 – 2012)

#### 4.4.1 Route Miles

Figure 4-1 shows 2012 bus system route miles for MDT and its peer agencies, and as a comparison, the peer mean is also part of the graphs presented in this section. As the graphic shows, MDT's Metrobus service provides more route miles than most of the peer agencies, except King County Metro, SEPTA, and WMATA. For MDT, between 2007 and 2009 the bus system route miles decreased as a result of the implementation of an initiative to operate a more efficient bus service through a grid operational network of service routes. Route miles were not reported to NTD in 2008.

**Figure 4-1: Bus Route Miles**

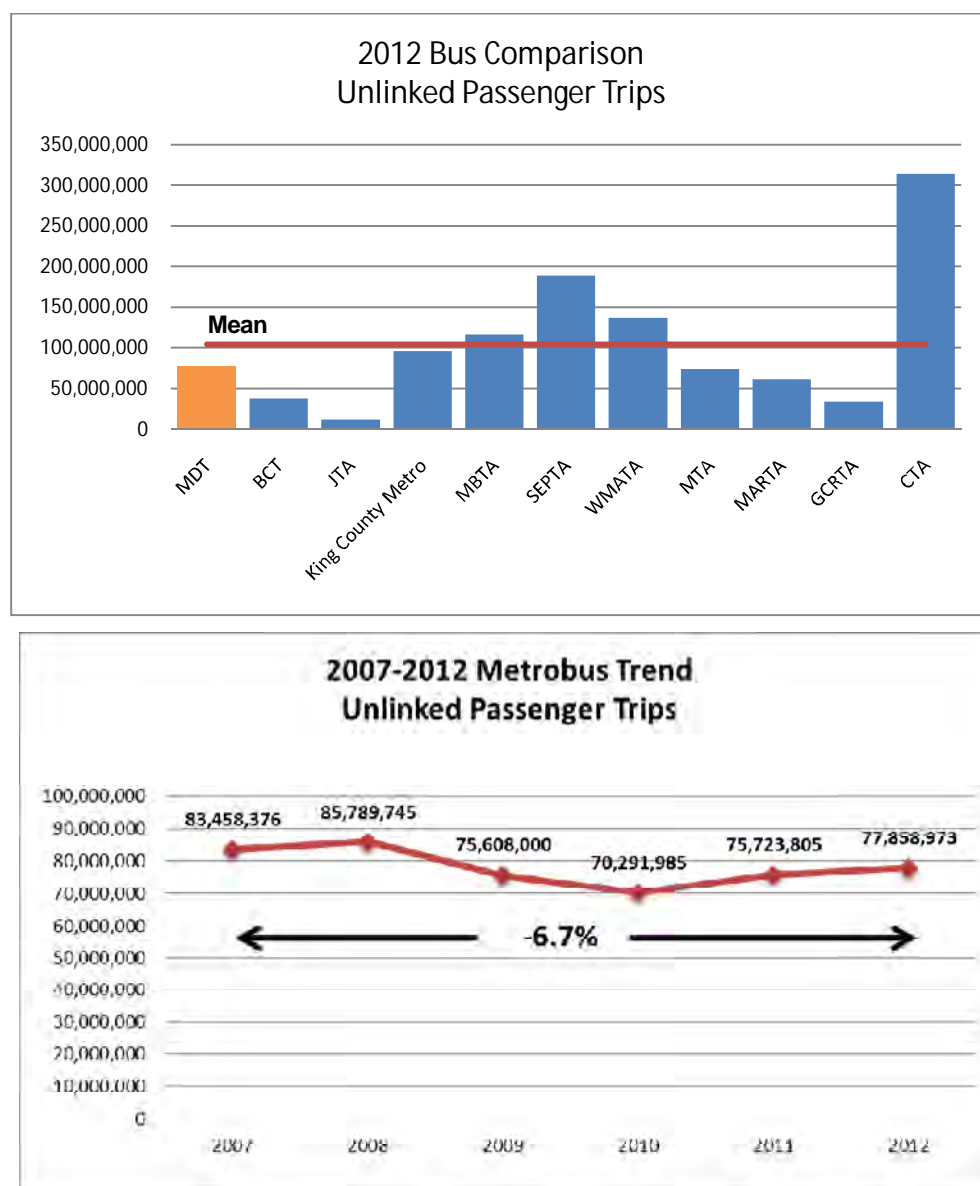


Data Source: NTD (2007 – 2012)

#### 4.4.2 Unlinked Passenger Trips

Figure 4-2 shows 2012 unlinked passenger trips (transit ridership) for MDT and its peer agencies. As the graphic shows, MDT's Metrobus service has fewer passenger trips compared to the peer mean. MDT's Metrobus service is most similar to King County Metro, MTA and MARTA in terms of the number of unlinked passenger trips that its bus system handled. It is important to note that in 2012, MDT served more passengers than any of the other Florida transit systems analyzed in this report. Metrobus unlinked passenger trips experienced an overall decrease of 6.7% percent from 2007 to 2012, but have been increasing since 2010.

**Figure 4-2: Bus Unlinked Passenger Trips**

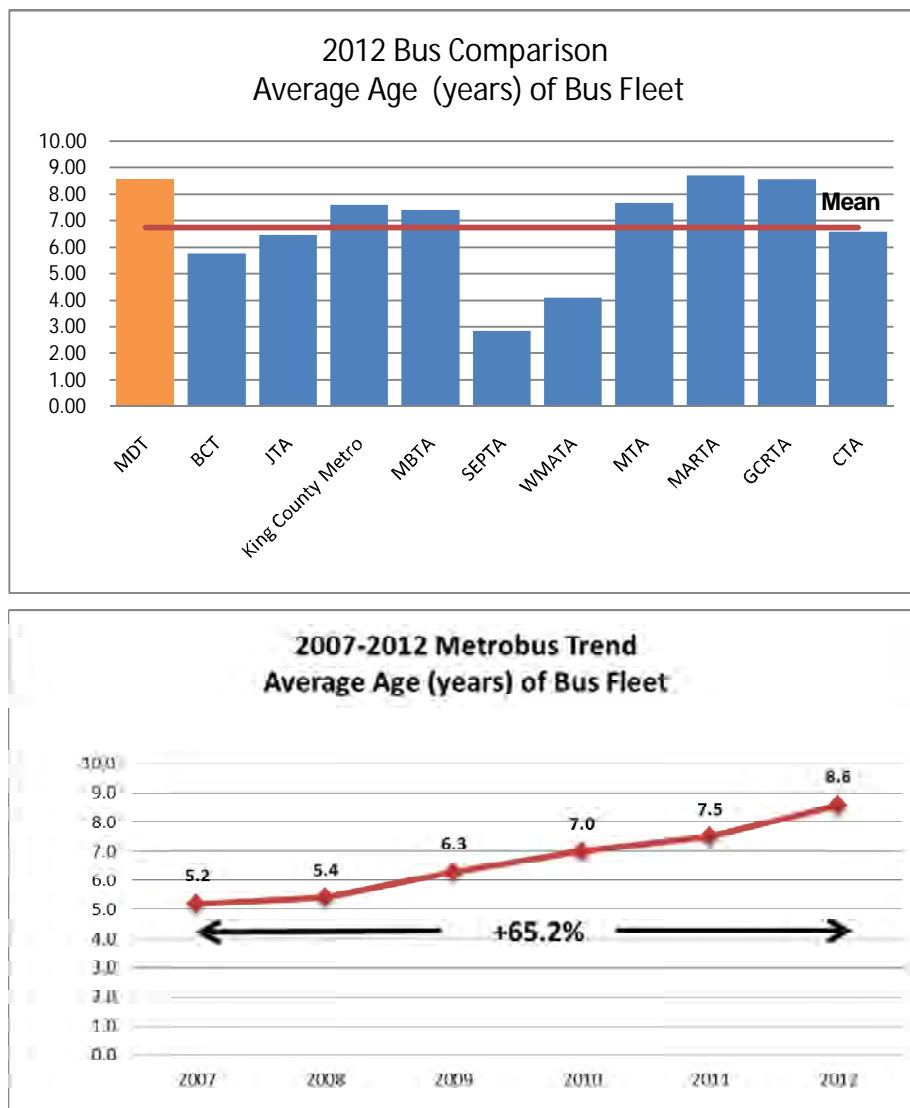


Data Source: NTD (2007 – 2012)

#### 4.4.3 Average Age (years) of Bus Fleet

Figure 4-3 shows the average age<sup>1</sup> of bus fleet. At an average age of 8.59 years, MDT's bus fleet is older than all its peers, except for MARTA whose bus fleet has an average age of 8.71 years. Since 2008, MDT's bus fleet has steadily continued to age as a result of minimal replacement of existing buses with newer vehicles. MDT has extended the fleet life from 12 to 14 years by doing additional heavy maintenance.

**Figure 4-3: Average Age (years) of Bus Fleet**



Data Source: NTD (2007 – 2012)

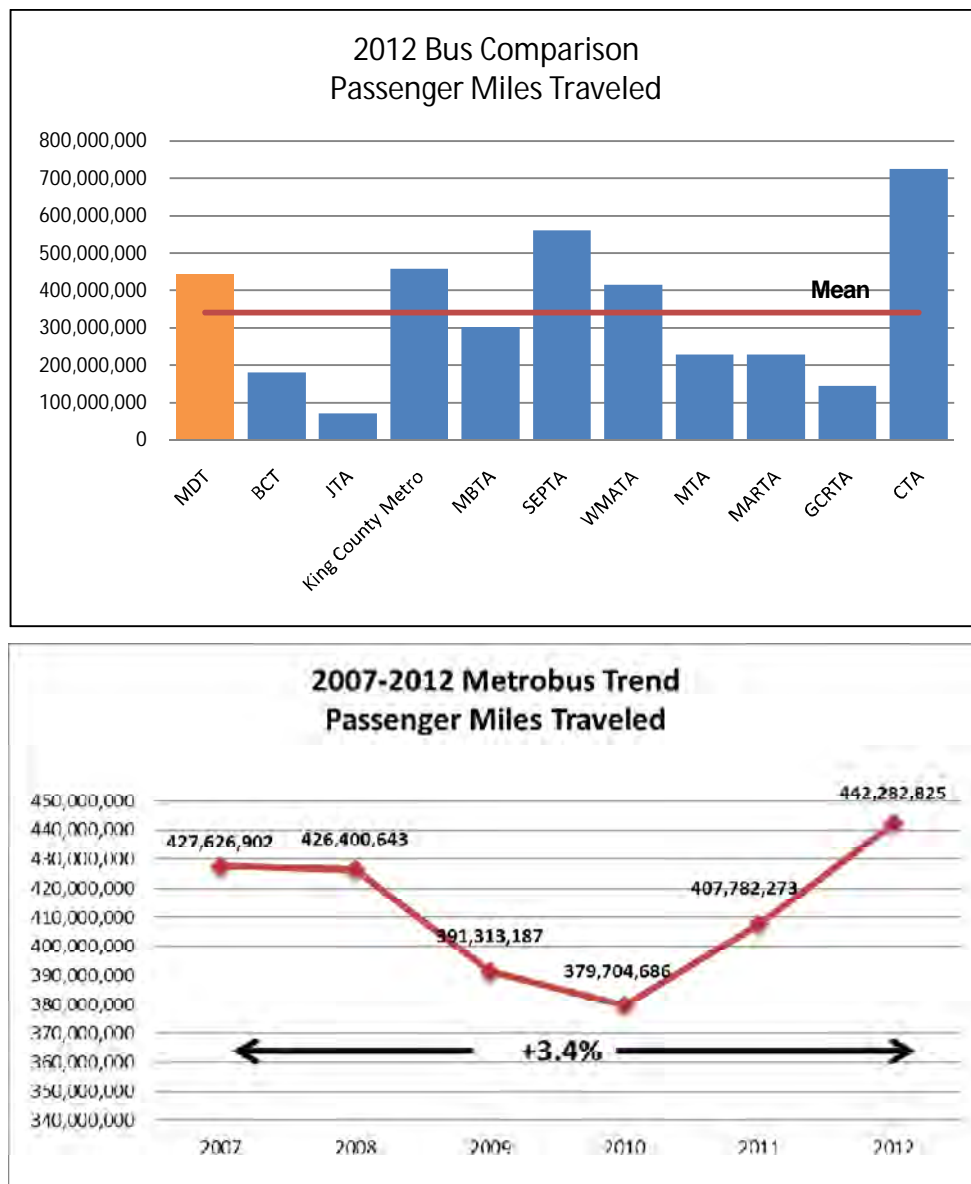
<sup>1</sup> Average age is based on the vehicle's manufacture year, or re-build year if applicable. If a vehicles' manufacture year or re-build year were not reported by the agency, those vehicles were not included in the calculation.



#### 4.4.4 Passenger Miles Traveled and Average Passenger Trip Length

Figure 4-4 shows bus passenger miles traveled. MDT's system carries more passenger miles than the peer mean. Given that MDT's total passenger trips are lower compared to some of its peers, this indicates that MDT customers tend to make longer trips than their counterparts using peer systems. Metrobus passenger miles traveled decreased from 2008 to 2010, but has been steadily increasing since. Overall, there was a 3.4 percent increase in passenger miles traveled from 2007 to 2012.

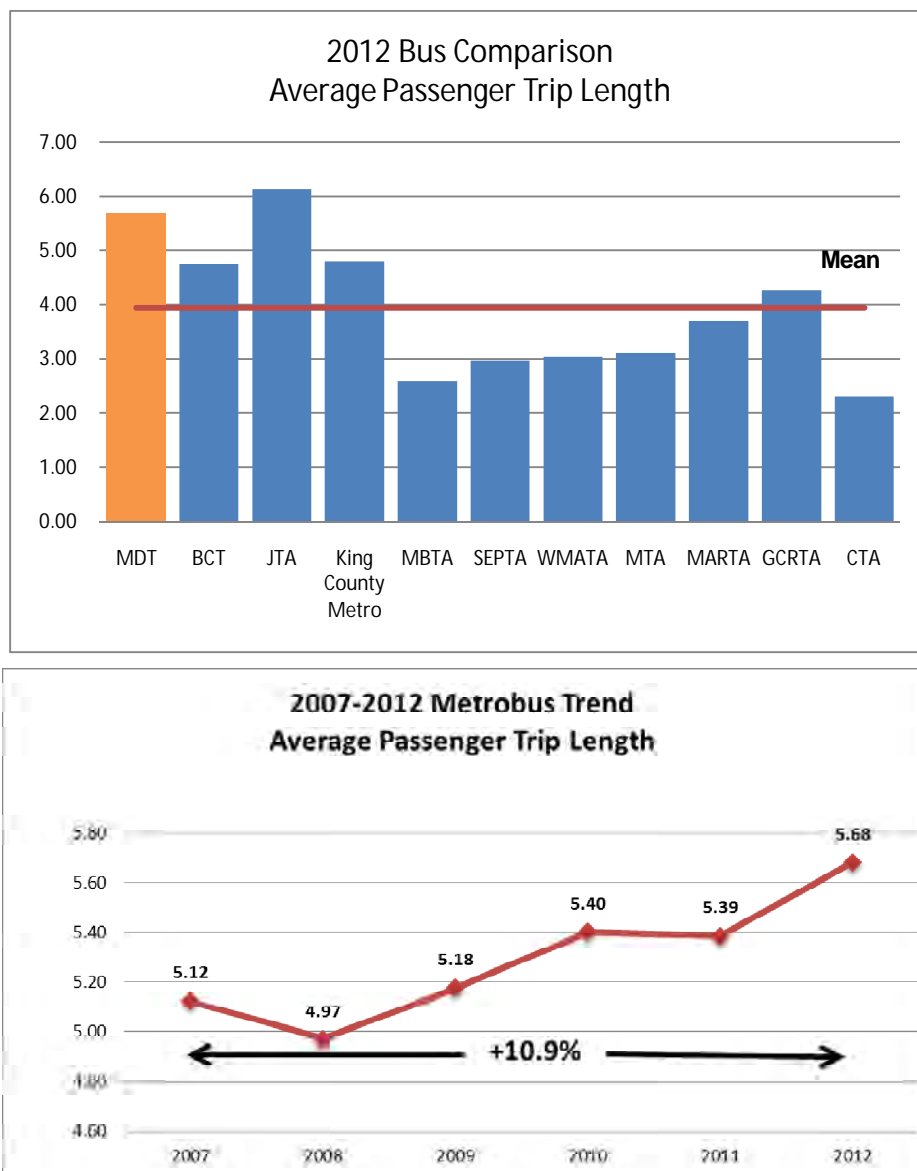
**Figure 4-4: Bus Passenger Miles Traveled**



Data Source: NTD (2007 – 2012)

Passenger miles have increased at a greater rate than unlinked passenger trips during this period indicating that the average passenger trip length is increasing. Figure 4-5 presents the average passenger trip length, which has increased by 10.9 percent during the analysis time period.

**Figure 4-5: Bus Average Passenger Trip Length**

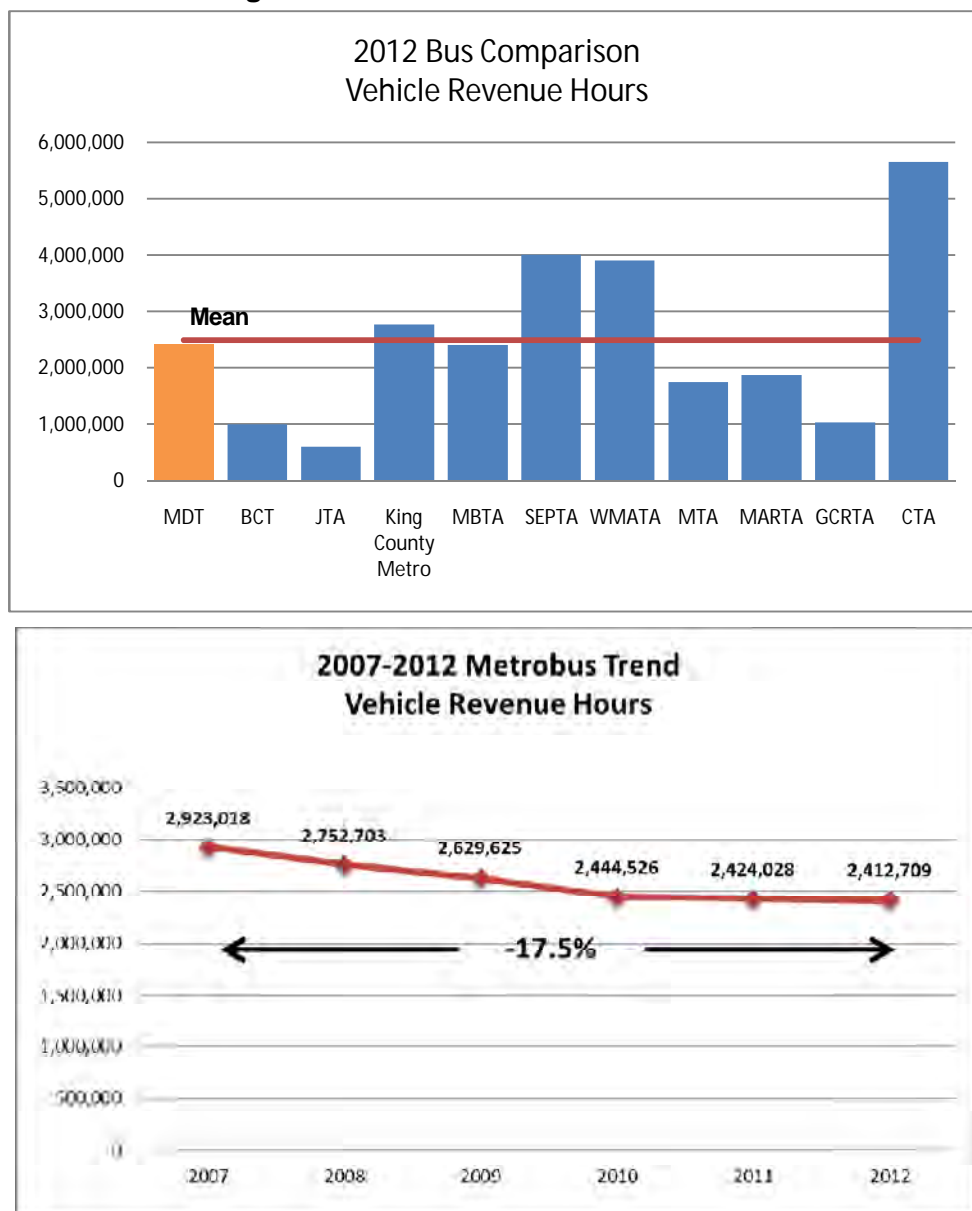


Data Source: NTD (2007 – 2012)

#### 4.4.5 Vehicle Revenue Hours and Vehicle Revenue Miles

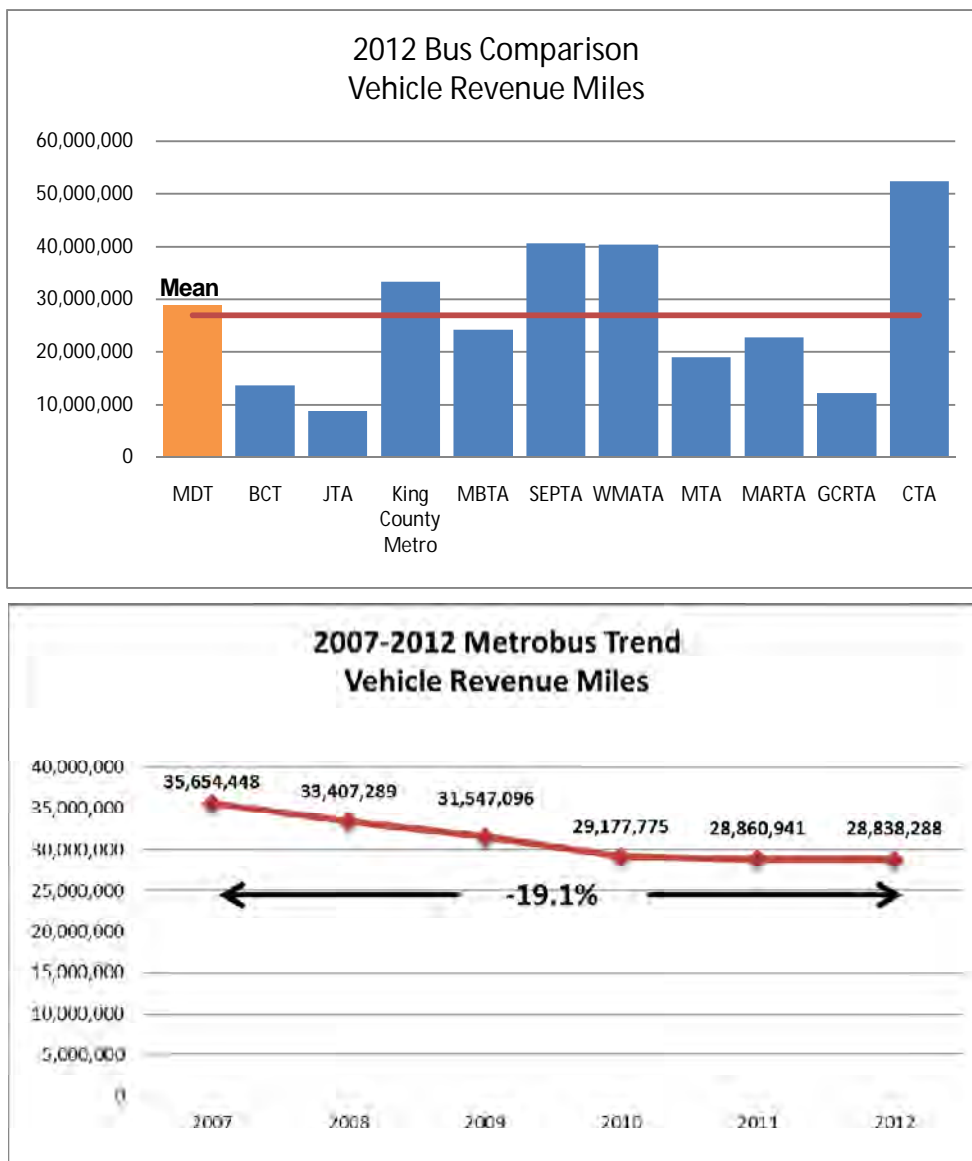
Figure 4-6 and Figure 4-7 show the annual vehicle revenue hours and vehicle revenue miles for MDT and its peer agencies, respectively. As both figures show, MDT operates bus service close to the peer mean. The trends for Metrobus vehicle revenue hours and vehicle revenue miles have steadily decreased since 2007. Overall, vehicle revenue hours decreased by 17.5 percent from 2007 to 2012 while vehicle revenue miles decreased by 19.1 percent from 2007 to 2012. During this time MDT has undergone the restructuring of Metrobus routes to improve service efficiency. This indicates that average route length has also decreased.

**Figure 4-6: Bus Vehicle Revenue Hours**



Data Source: NTD (2007 – 2012)

**Figure 4-7: Bus Vehicle Revenue Miles**



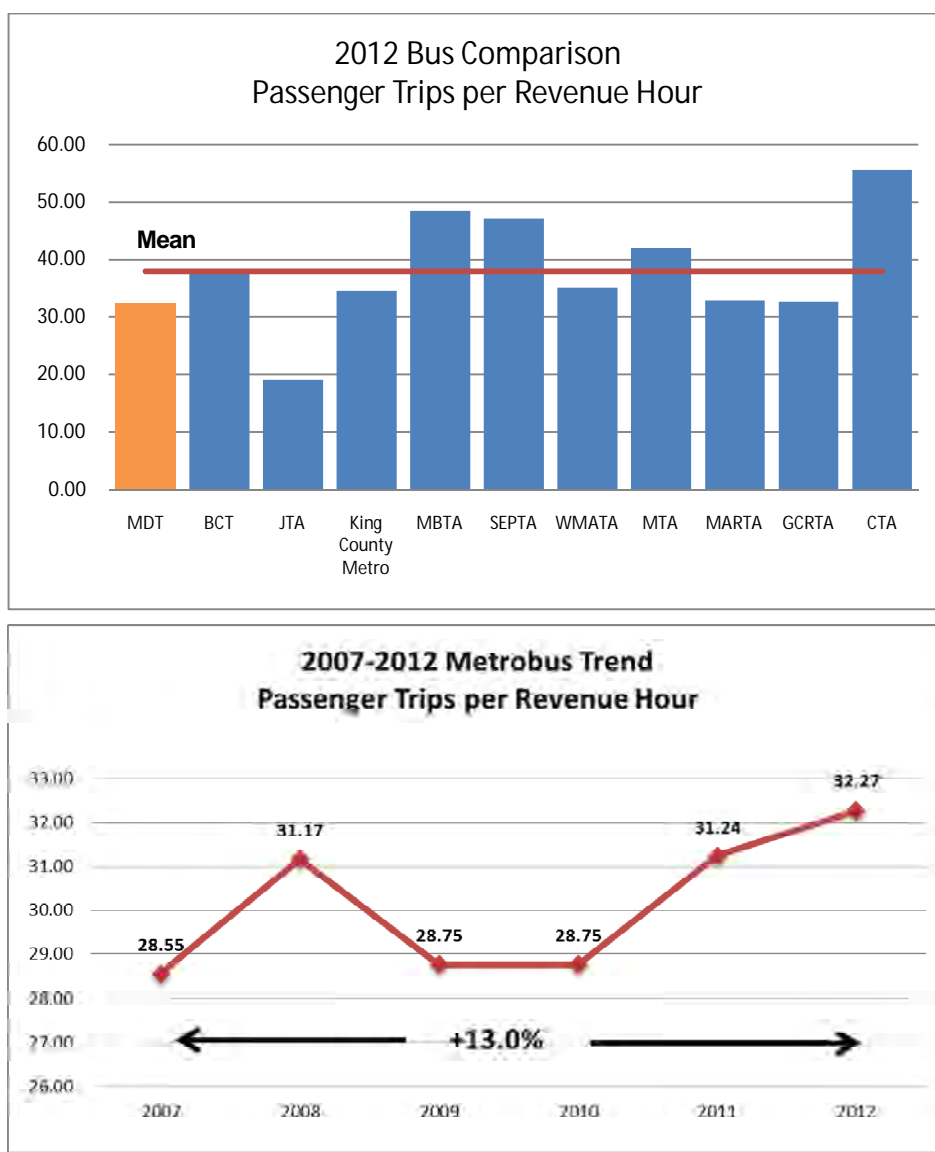
Data Source: NTD (2007 – 2012)



#### 4.4.6 Passenger Trips per Revenue Hour and Revenue Mile

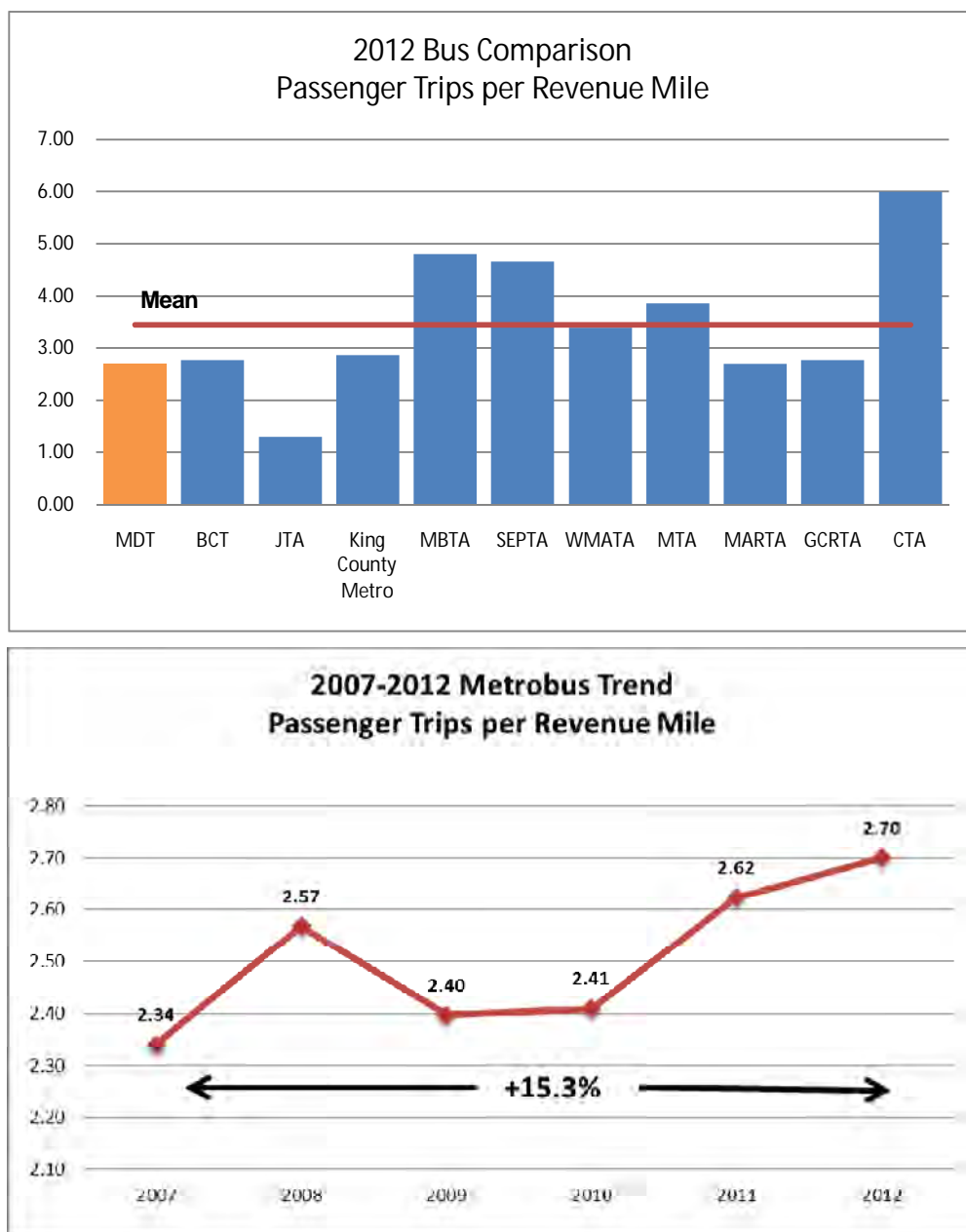
Figure 4-8 and Figure 4-9 show the average number of passenger trips per revenue hour and revenue mile, respectively. MDT operates slightly below the mean in both categories and about the same as MARTA and GCRTA. This is attributed to the relative high number of revenue hours and miles of service relative to the system ridership. Metrobus passenger trips per revenue hour and per revenue mile both decreased sharply from 2008 to 2009 but have increased steadily since 2010. Overall, passenger trips per revenue hour and per revenue mile have increased by 13.0 percent and 15.3 percent, respectively. This is due to an increase in productivity between 2010 and 2012 due to a decline in revenue hours and miles.

**Figure 4-8: Bus Passenger Trips per Revenue Hour**



Data Source: NTD (2007 – 2012)

**Figure 4-9: Bus Passenger Trips per Revenue Mile**

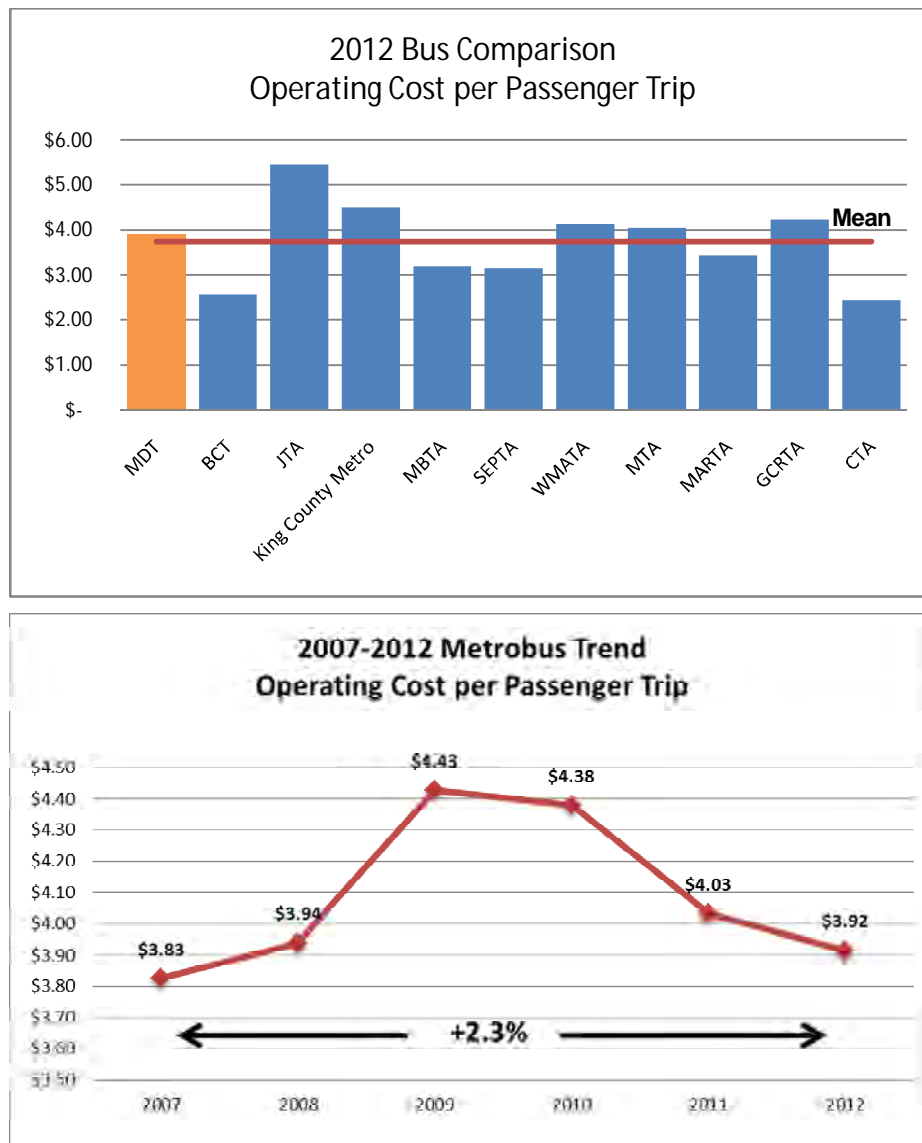


Data Source: NTD (2007 – 2012)

#### 4.4.7 Operating Cost per Passenger Trip and Revenue Hour

Figure 4-10 shows operating cost per passenger trip and Figure 4-11 shows operating costs per revenue hour, for MDT and its peer agencies. MDT's operating cost per passenger trip is \$3.92, which is close to the peer mean and lower than JTA, King County Metro, WMATA, MTA and GCRTA. The agency's operating cost per revenue hour of \$126.34 is lower than the peer mean and most of the peer agencies, except BCT, JTA, and MARTA.

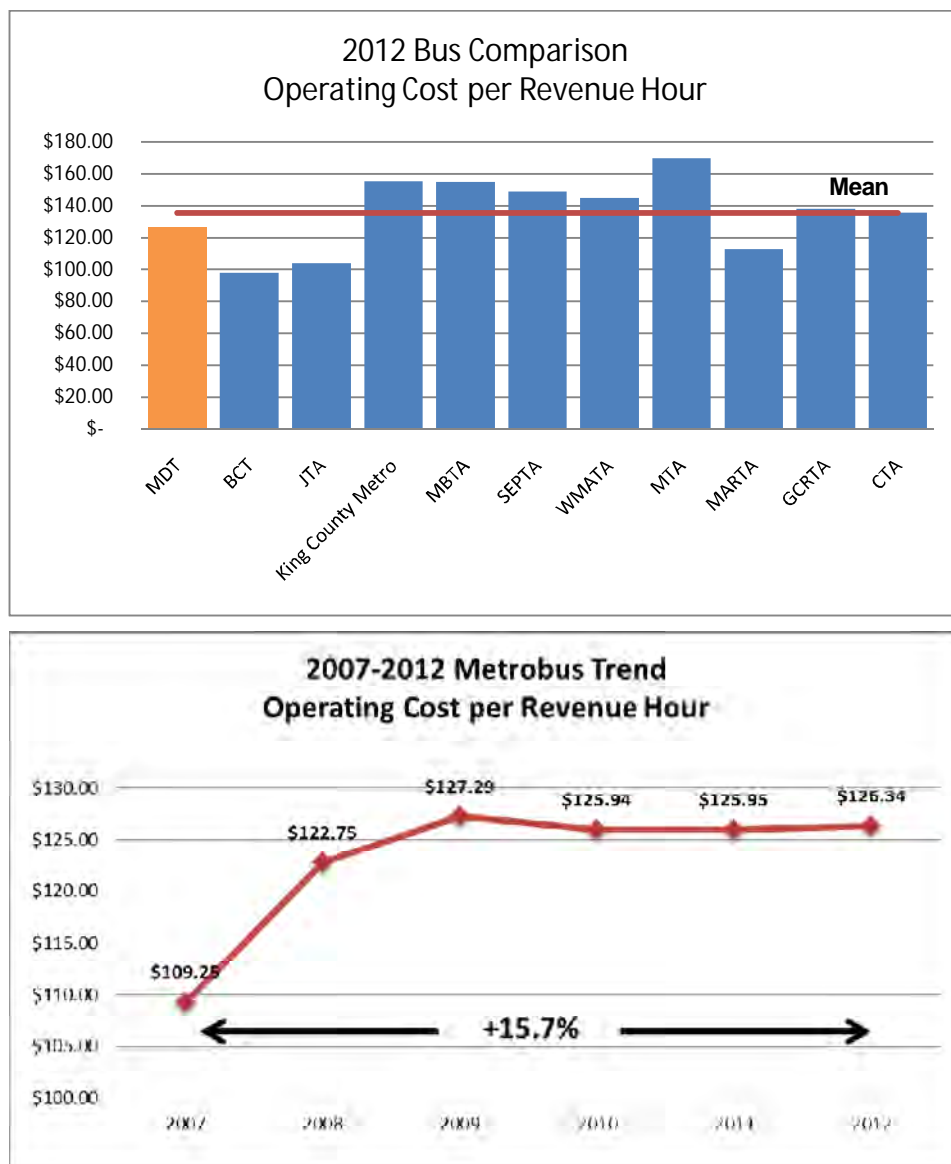
**Figure 4-10: Bus Operating Expense per Passenger Trip**



Data Source: NTD (2007 – 2012)

The analysis indicates an overall increase of 15.7 percent in operating costs per revenue hour with the biggest jump occurring between 2007 and 2008. This increase can be partly attributed to a spike in fuel prices during that period. Metrobus operating cost per passenger trip increased significantly from 2008 to 2009, but has since been on a decline. Overall, there was a 2.3 percent increase in operating cost per passenger trip from 2007 to 2012.

**Figure 4-11: Bus Operating Cost per Revenue Hour**



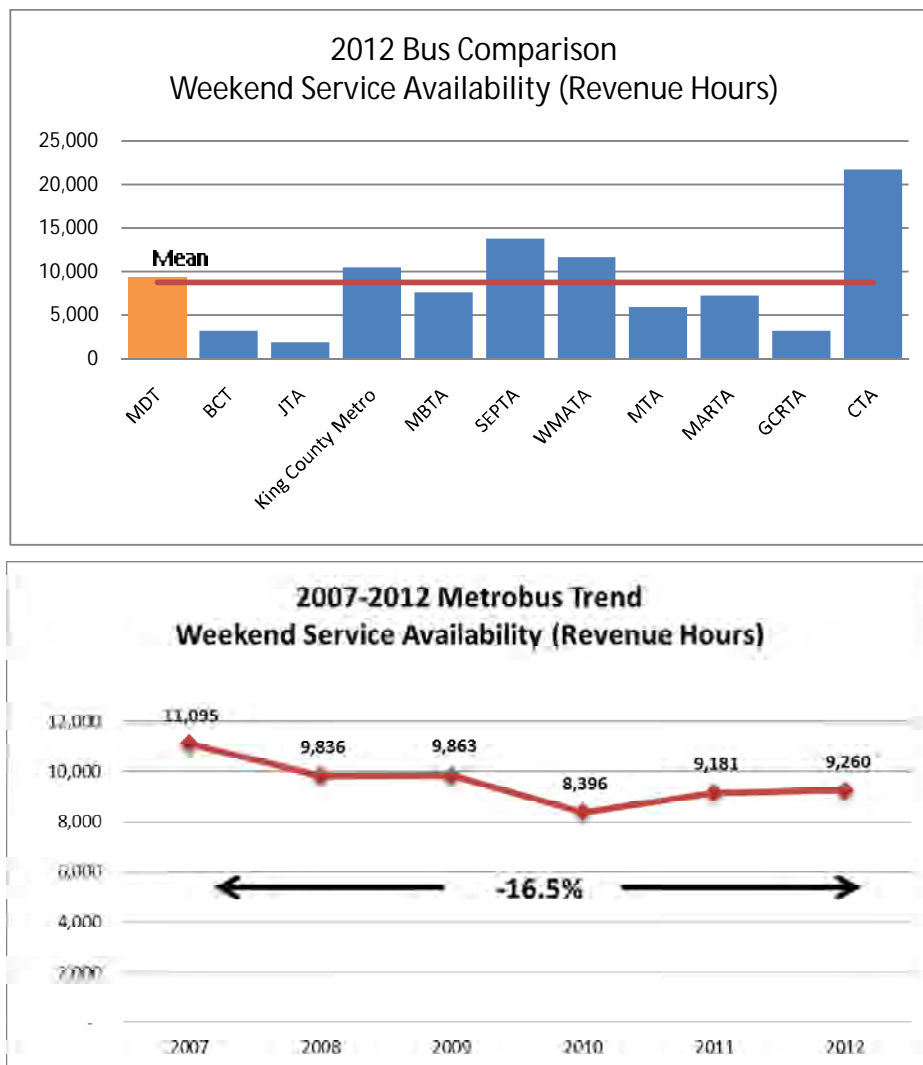
Data Source: NTD (2007 – 2012)



#### 4.4.8 Weekend Service Availability (Revenue Hours)

Figure 4-12 shows revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. As the graphic shows, MDT provides weekend service close to the mean, behind only CTA, WMATA, SEPTA, and King County Metro. Since 2007, the amount of weekend service revenue hours have decreased but remained practically unchanged in 2011 and 2012. This decrease is consistent with a reduction in revenue hours occurring during the same time period as a result of MDT's service efficiency adjustment to Metrobus routes.

**Figure 4-12: Bus Weekend Service Availability (Revenue Hours)**

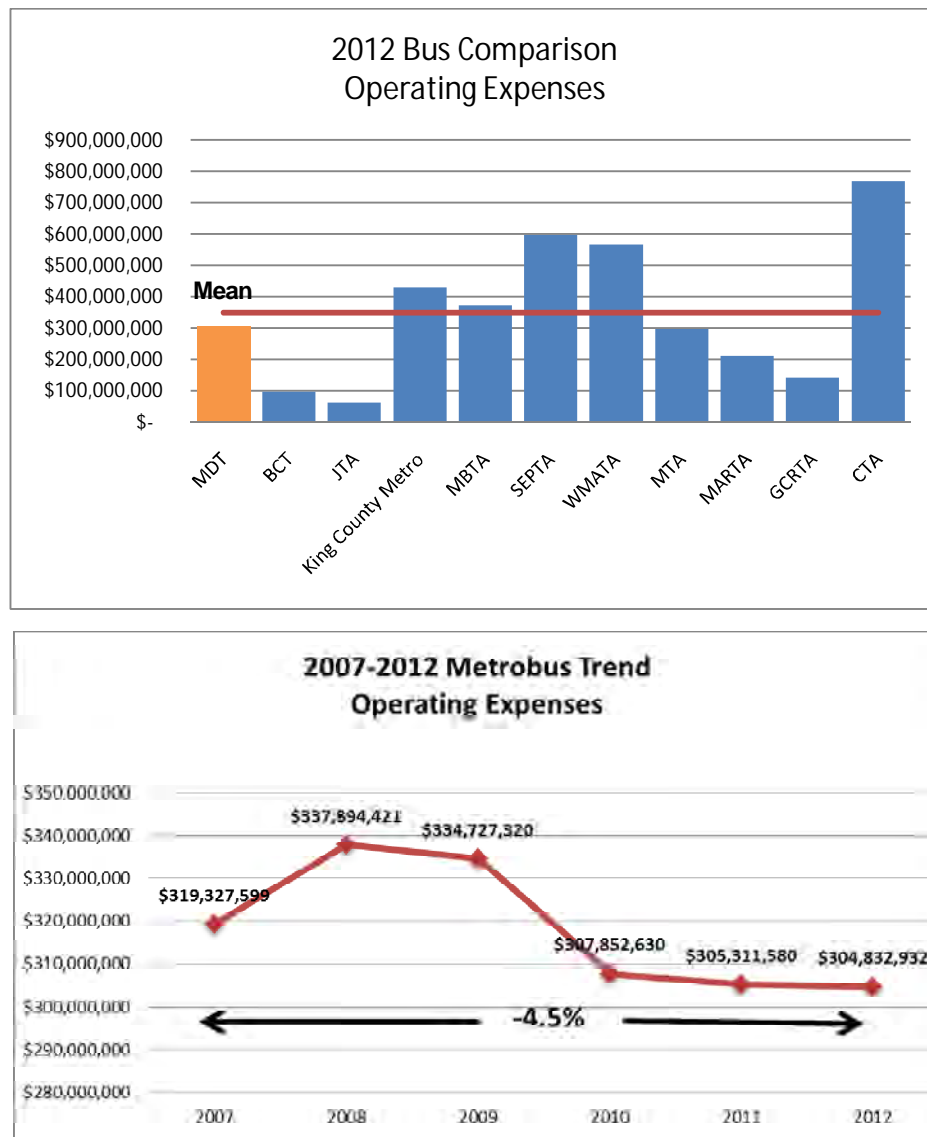


Data Source: NTD (2007 – 2012)

#### 4.4.9 Operating Expenses

Figure 4-13 shows operating expenses for MDT and its selected peers. MDT's total operating expense for Metrobus in 2012 was close to \$305 million, which is below the peer mean. Operating expenses for Metrobus have been declining since 2009 when MDT implemented a Service Efficiency and Restructuring Initiative (SERI) which restructured bus routes creating efficiencies. Operating expenses are 4.5 percent less than in 2007.

**Figure 4-13: Bus Operating Expenses**

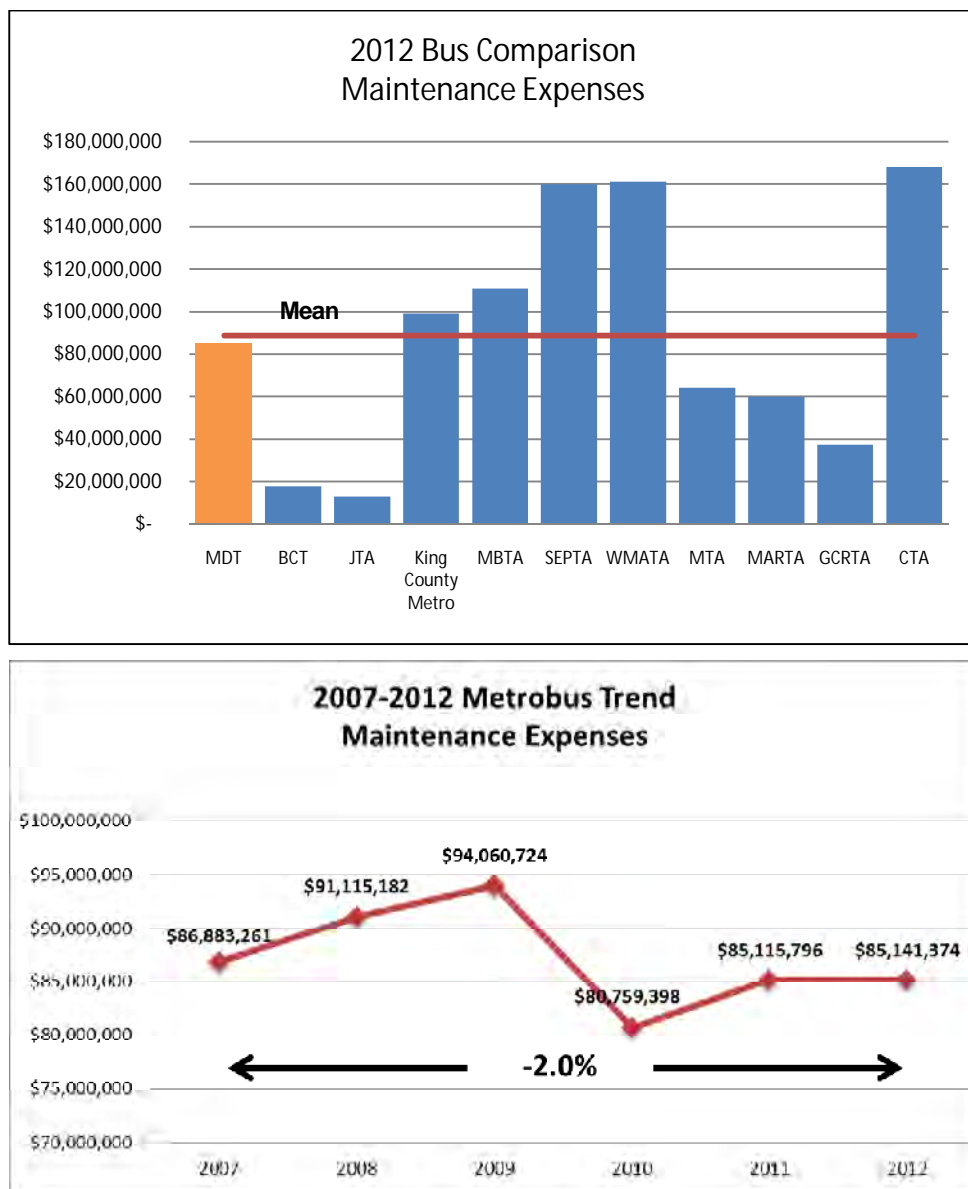


Data Source: NTD (2007 – 2012)

#### 4.4.10 Maintenance Expenses

Figure 4-14 presents the amount of maintenance expenses<sup>2</sup> for MDT and its selected peers. MDT's maintenance expenses are close to the peer mean of \$88.8 million, and about half of SETPA, WMATA and CTA's maintenance expenses. MDT's maintenance expenses have declined by 2.0 percent since 2007.

**Figure 4-14: Bus Maintenance Expenses**



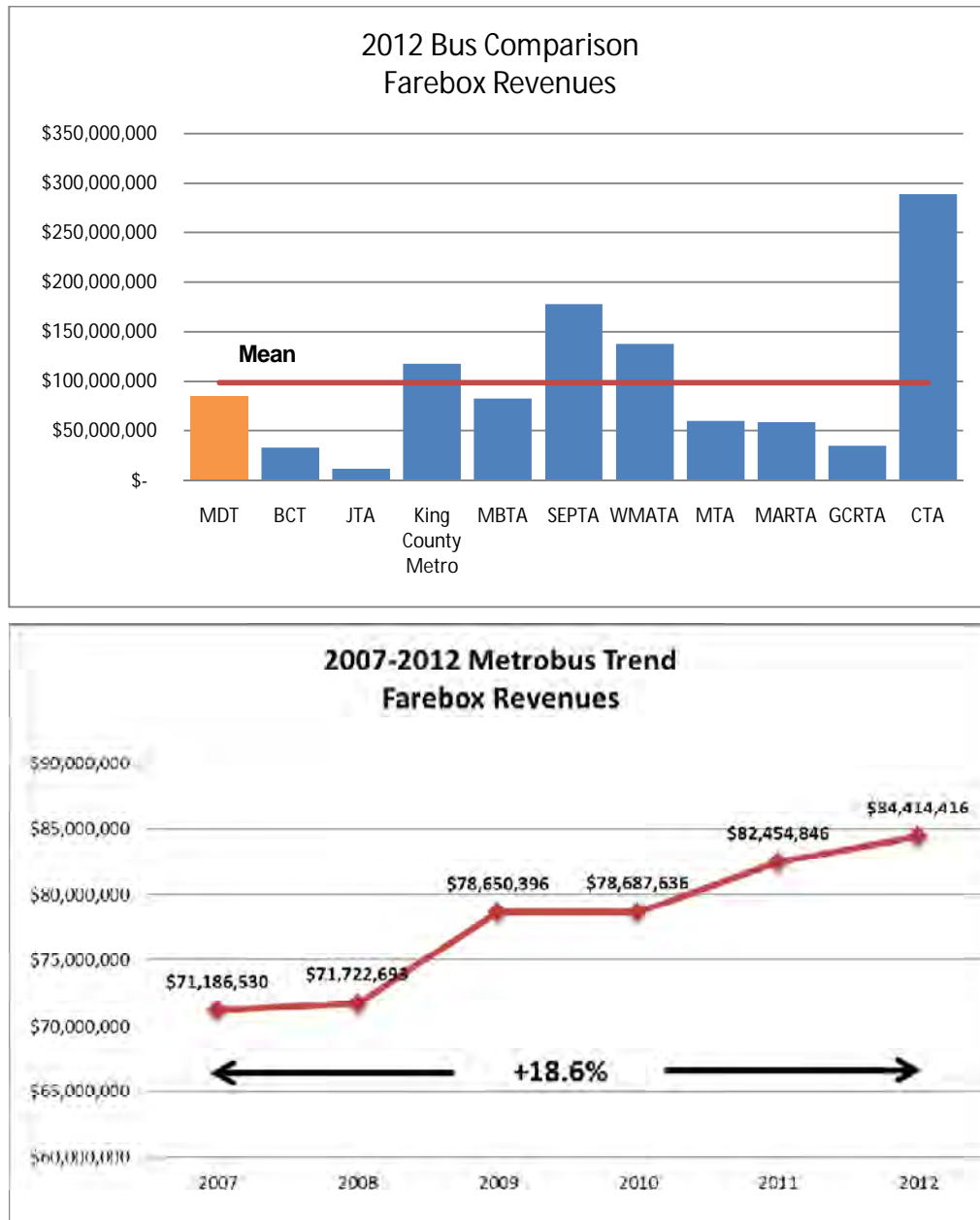
Data Source: NTD (2007 – 2012)

<sup>2</sup> Maintenance expenses are a subset of total operating expenses in the data provided by NTD.

#### 4.4.11 Farebox Revenues

Figure 4-15 shows fare revenue for MDT and the selected peer agencies. MDT's fare revenue in 2012 was about \$84.5 million, which ranks fifth among its selected peers. Metrobus fare revenues have steadily increased since 2007 resulting in an 18.6 percent increase over the last five years.

**Figure 4-15: Farebox Revenues**



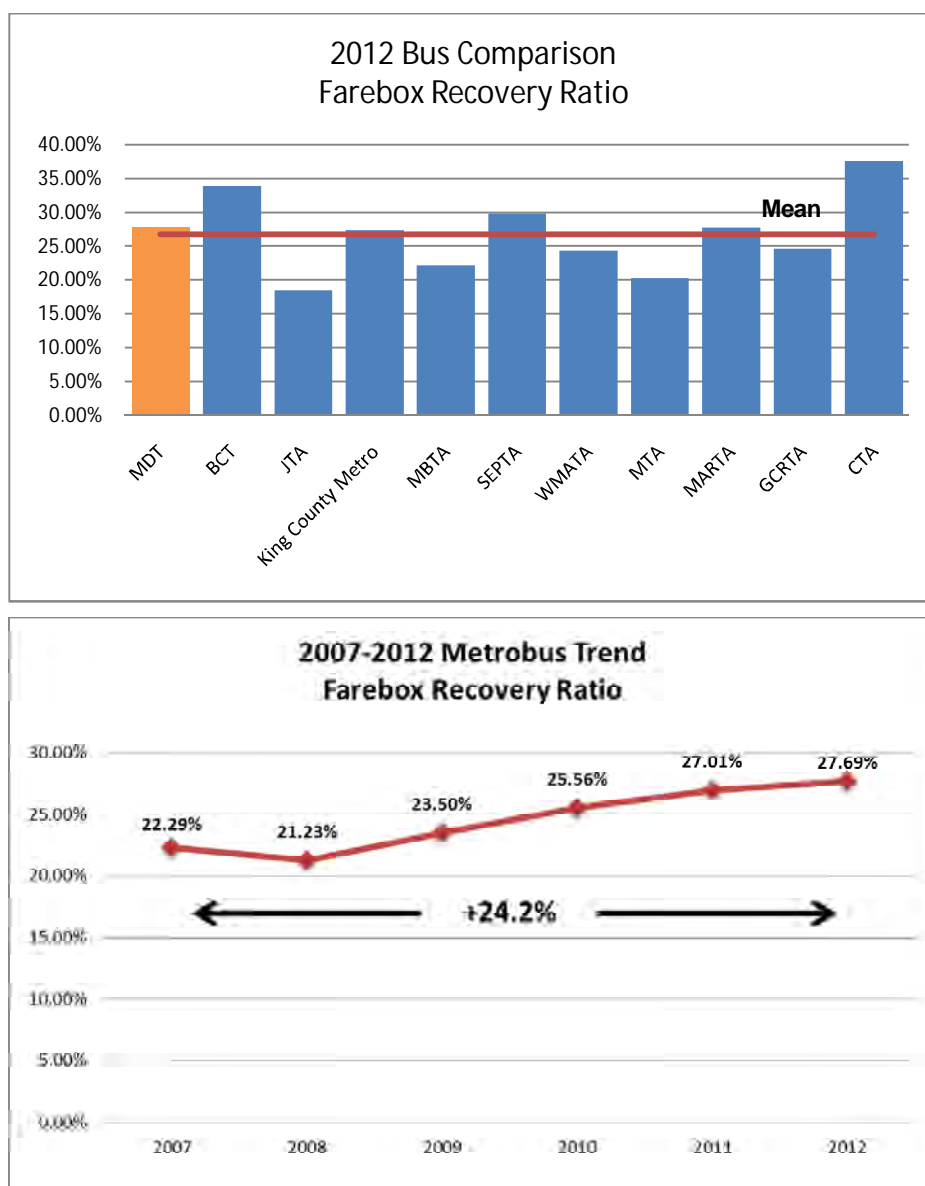
Data Source: NTD (2007 – 2012)



#### 4.4.12 Farebox Recovery Ratio

Figure 4-16 shows the peer comparison for farebox recovery ratio, which is the percentage of the total operating cost recuperated by fares. Despite MDT's Golden and Patriot Passport programs, which offer free passes to seniors and eligible veterans, MDT's farebox recovery ratio for bus of 27.69 percent is slightly above the peer mean, and is only lower than BCT, SEPTA, and CTA. Metrobus experienced a slight decrease in farebox recovery from 2007 to 2008, but has been increasing steadily since 2008. Overall, the farebox recovery increased 24.2 percent from 2007 to 2012. This is an indication of decreasing operating costs relative to passenger ridership.

**Figure 4-16: Bus Farebox Recovery Ratio**



Data Source: NTD (2007 – 2012)

#### 4.5 Heavy Rail Peer Comparison and Trend

Table 4-4 compares statistics for MDT's heavy rail service (Metrorail), with the selected peer agencies that operate heavy rail. Seven (7) of the ten (10) peer agencies selected for this analysis operated heavy rail in 2012, and these are listed in the following table. Currently, MDT is the only Florida transit agency that provides heavy rail service.

Table 4-5 presents the trend analysis which provides an opportunity to assess how service is changing over the six most recent years. This analysis can also identify potential areas of service that should be further examined or adjusted to improve system performance.



**Table 4-4: Heavy Rail Peer Comparison (2012)**

Agency	MDT	MBTA	SEPTA	WMATA	MTA	MARTA	GCRTA	CTA	Peer Mean
City	Miami, FL	Boston, MA	Philadelphia, PA	Washington, DC	Baltimore, MD	Atlanta, GA	Cleveland, OH	Chicago, IL	
Route Miles	58.30	108.00	99.80	269.80	34.00	103.70	41.90	287.80	125.41
Unlinked Passenger Trips	18,706,102	166,961,143	102,796,169	285,306,675	15,199,117	72,711,487	6,240,495	231,154,339	112,384,441
Average Age (yrs.) of Rail Fleet	30.00	21.26	4.87	21.99	27.44	7.93	9.67	11.98	16.89
Passenger Miles Traveled	139,721,133	581,700,354	456,868,171	1,584,631,040	77,435,638	463,168,559	43,551,128	1,541,186,268	611,032,786
Average Passenger Trip Length	7.47	3.48	4.44	5.55	5.09	6.37	6.98	6.67	5.8
Vehicle Revenue Hours	288,095	1,460,305	870,896	2,883,528	189,996	674,278	102,597	3,575,439	1,255,642
Vehicle Revenue Miles	6,819,311	23,808,394	16,962,968	70,867,572	4,627,288	17,661,018	1,989,328	65,222,890	25,994,846
Passenger Trips per Revenue Hour	64.93	114.33	118.03	98.94	80.00	107.84	60.83	64.65	88.69
Passenger Trips per Revenue Mile	2.74	7.01	6.06	4.03	3.28	4.12	3.14	3.54	4.24
Operating Cost per Passenger Trip	\$4.08	\$1.85	\$1.79	\$2.96	\$3.52	\$2.45	\$4.71	\$2.23	\$2.95
Operating Cost per Revenue Hour	\$264.79	\$211.92	\$211.62	\$292.58	\$281.96	\$263.71	\$286.19	\$144.04	\$244.60
Weekend Service Availability (Revenue Hrs)	814	5,545	2,936	10,573	603	3,225	486	13,344	6,257
Operating Expenses	\$76,284,971	\$309,471,439	\$184,296,621	\$843,658,227	\$53,571,599	\$177,812,219	\$29,362,013	\$515,014,905	\$273,683,999
Maintenance Expenses	\$38,988,459	\$133,173,629	\$68,424,782	\$405,464,558	\$26,894,753	\$73,911,352	\$20,095,422	\$233,346,915	\$125,037,484
Farebox Revenues	\$21,194,397	\$162,016,921	\$97,239,558	\$569,237,545	\$12,507,728	\$70,440,991	\$6,489,400	\$262,542,243	\$150,208,598
Farebox Recovery Ratio	27.78%	52.35%	52.76%	67.47%	23.35%	39.62%	22.10%	50.98%	42.05%

Data Source: 2012 NTD

Table 4-5: MDT Metrorail 2007-2012 Trend

Performance Measures	2007	2008	2009	2010	2011	2012
Route Miles	55.9	55.9	55.9	55.9	55.9	58.3
Unlinked Passenger Trips	17,504,736	18,538,741	18,244,476	17,371,553	18,134,784	18,706,102
Average Age (yrs.) of Heavy Rail Fleet	25.0	26.0	27.0	28.0	29.0	30.0
Passenger Miles Traveled	134,407,819	142,152,120	132,769,722	128,388,247	137,011,934	139,721,133
Average Passenger Trip Length	7.68	7.67	7.28	7.39	7.56	7.47
Vehicle Revenue Hours	359,326	318,765	294,140	295,254	294,533	288,095
Vehicle Revenue Miles	8,354,432	7,158,361	6,691,511	6,709,459	6,366,821	6,819,311
Passenger Trips Per Revenue Hour	48.72	58.16	62.03	58.84	61.57	64.93
Passenger Trips Per Revenue Mile	2.10	2.59	2.73	2.59	2.85	2.74
Operating Cost Per Passenger Trip	\$4.61	\$4.44	\$4.30	\$4.39	\$4.35	\$4.08
Operating Cost Per Revenue Hour	\$224.39	\$258.44	\$266.54	\$258.04	\$267.89	\$264.79
Weekend Service Availability (Rev. Hrs)	1,161	1,136	758	826	754	814
Operating Expenses	\$80,628,996	\$82,381,902	\$78,399,299	\$76,188,170	\$78,903,279	\$76,284,971
Maintenance Expenses	\$34,272,813	\$36,316,586	\$33,406,733	\$32,770,205	\$36,808,567	\$38,988,459
Farebox Revenue	\$13,435,411	\$13,246,540	\$15,725,268	\$17,827,407	\$18,690,279	\$21,194,397
Farebox Recovery Ratio	16.66%	16.08%	20.06%	23.40%	23.69%	27.78%

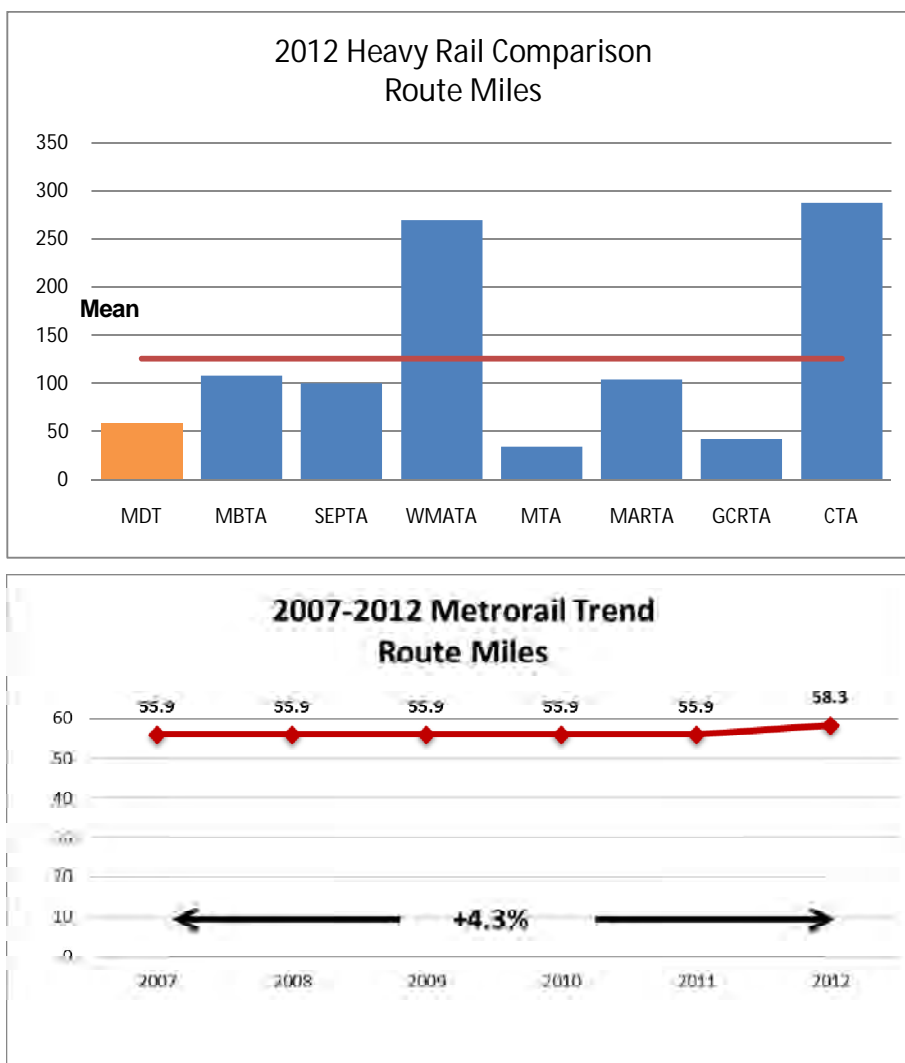
Data Source: NTD (2007 – 2012)



#### 4.5.1 Route Miles

Figure 4-17 shows the number of heavy rail route miles operated in 2012 by MDT and its peer agencies. As the graph shows, WMATA and CTA operate more than twice the number of route miles than the next closest peer, with MDT having one-fifth of the route miles of these two agencies. Metrorail route miles have remained constant between 2007 and 2011. In 2012, route miles increase as a result of the new AirportLink Metrorail extension being placed into revenue service which provides a direct connection to the Miami Intermodal Center.

**Figure 4-17: Heavy Rail Route Miles**



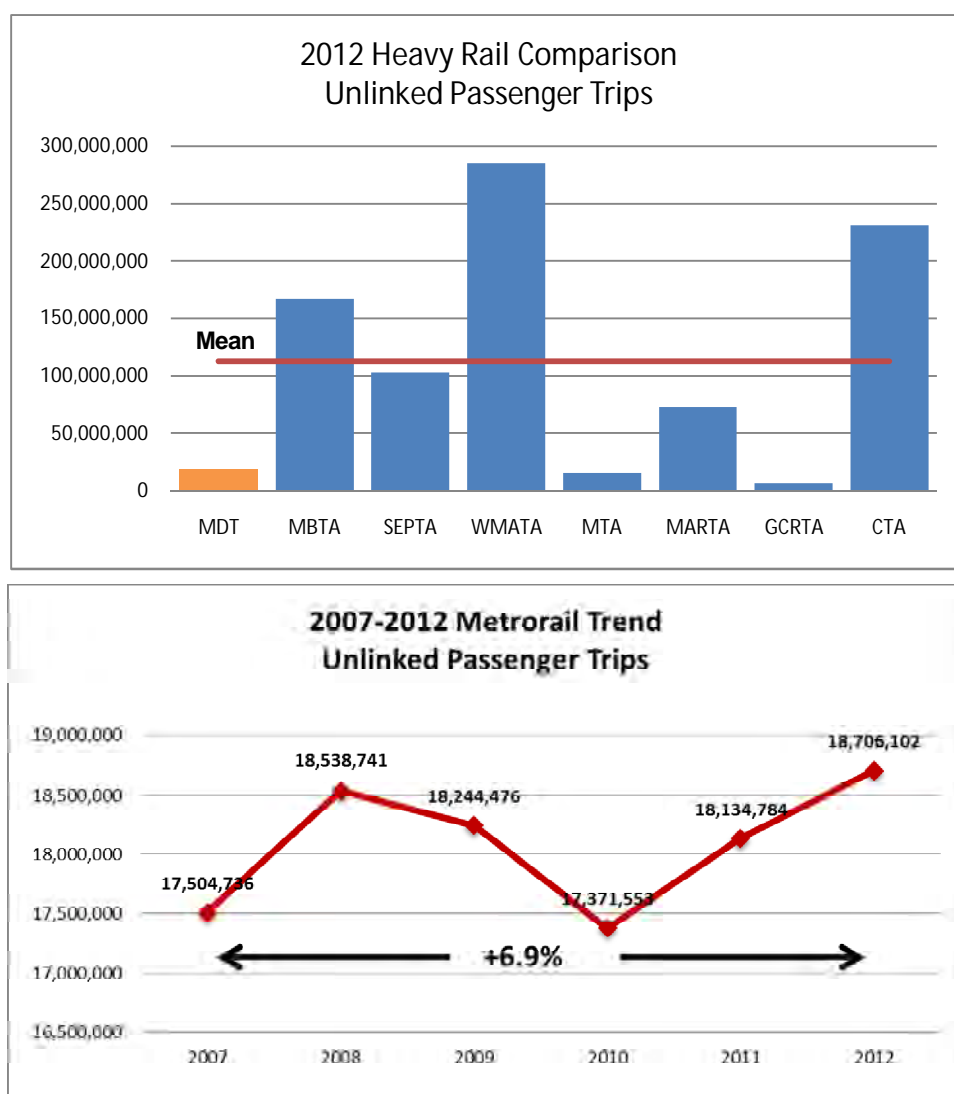
Data Source: NTD (2007 – 2012)

#### 4.5.2 Unlinked Passenger Trips

Figure 4-18 graphically displays the number of unlinked passenger trips for MDT and each of the peer agencies. As the graph shows, in 2012 MDT's Metrorail system carried fewer unlinked passenger trips than any of the peer agencies except for MTA in Baltimore and GCRTA in Cleveland.

Metrorail unlinked passenger trips increased from 2007 to 2008, decreased from 2008 to 2010, and increased again from 2010 to 2012. Overall, passenger trips increased 6.9 percent from 2007 to 2012 for a total of 18.7 million trips in 2012.

**Figure 4-18: Heavy Rail Unlinked Passenger Trips**

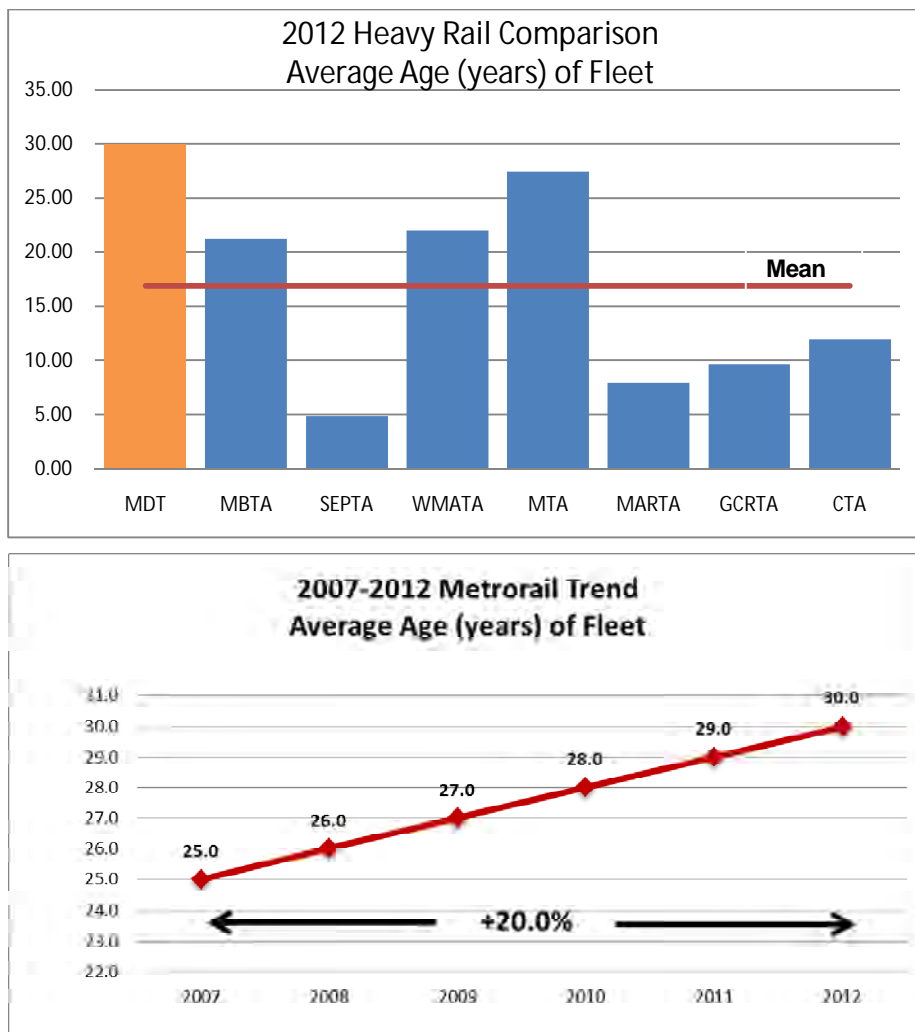


Data Source: NTD (2007 – 2012)

#### 4.5.3 Average Age (years) of Heavy Rail Fleet

Figure 4-19 shows the average age<sup>3</sup> of the heavy rail fleet for MDT and its peers. At an average age of 30 years, MDT's fleet is older than all its peers. Overall, the average age of MDT's Metrorail fleet increased by 20.0 percent from 2007 to 2012. However, MDT is currently in the process of implementing a new vehicle replacement program to replace the entire existing fleet of 136 Metrorail vehicles by 2018.

**Figure 4-19: Average Age (years) of Heavy Rail Fleet**



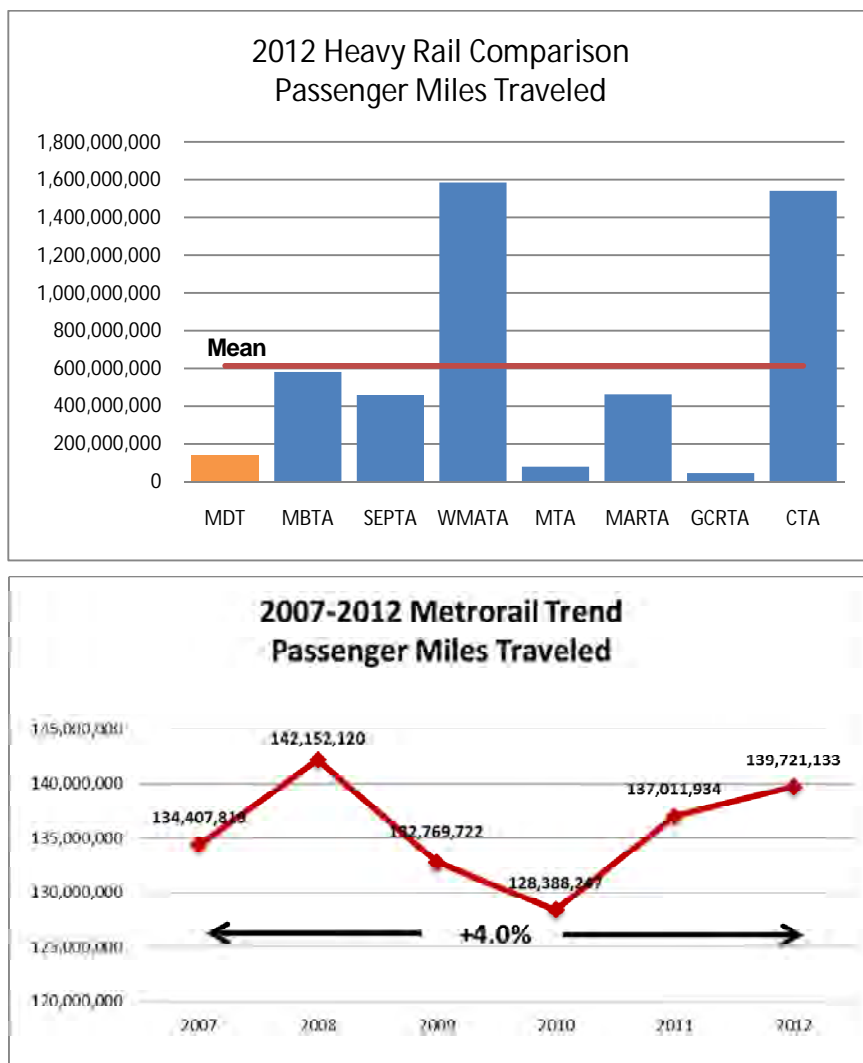
Data Source: NTD (2007 – 2012)

<sup>3</sup> 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.

#### 4.5.4 Passenger Miles Traveled and Average Passenger Trip Length

Figure 4-20 shows heavy rail passenger miles traveled. MDT's Metrorail system carries more passenger miles than two peer agencies: MTA in Baltimore and GCRTA in Cleveland. Metrorail passenger miles traveled experienced a similar pattern to passenger trips. From 2007 to 2008 passenger miles increased, then decreased from 2008 to 2010 and increased again from 2010 to 2012. Overall, passenger miles increased 4.0 percent from 2007 to 2012.

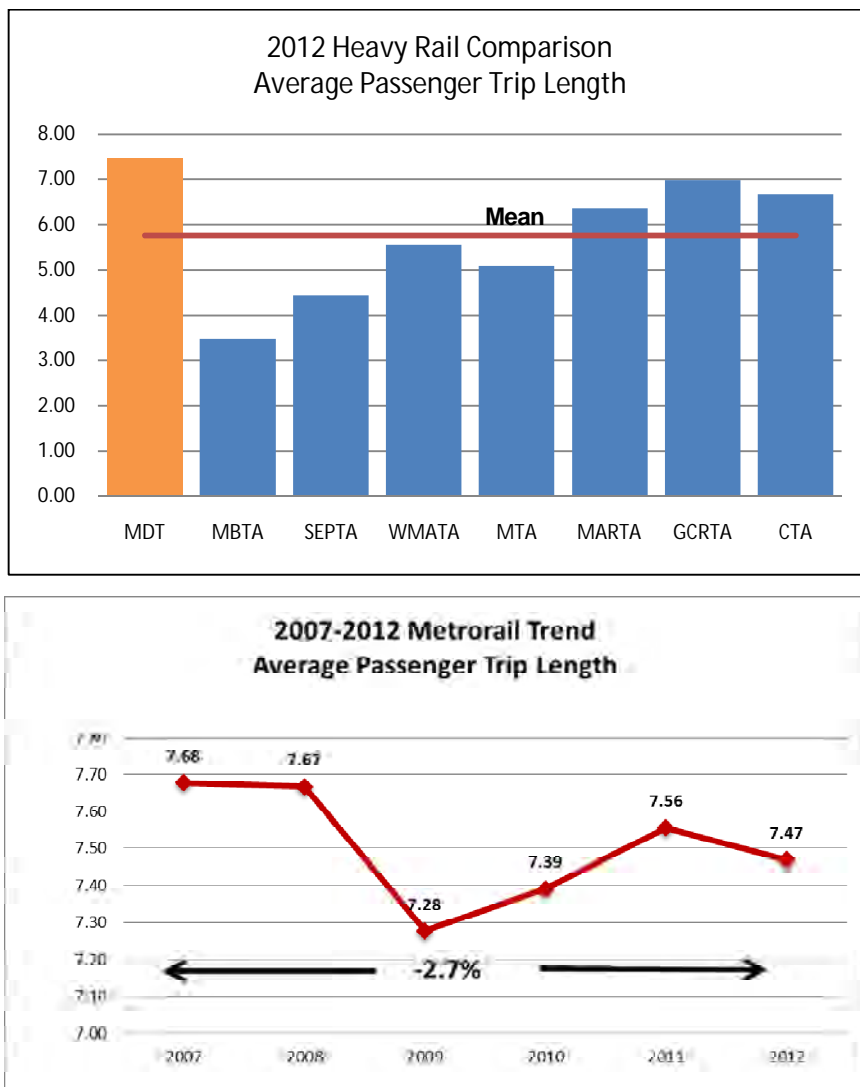
**Figure 4-20: Heavy Rail Passenger Miles Traveled**



Data Source: NTD (2007 – 2012)

MDT's average rail passenger trip is longer than all its peers, as shown in Figure 4-21. Overall, Metrorail's average passenger trip length has been fairly constant with only a 2.7 percent decline since 2007.

**Figure 4-21: Heavy Rail Average Passenger Trip Length**



Data Source: NTD (2007 – 2012)

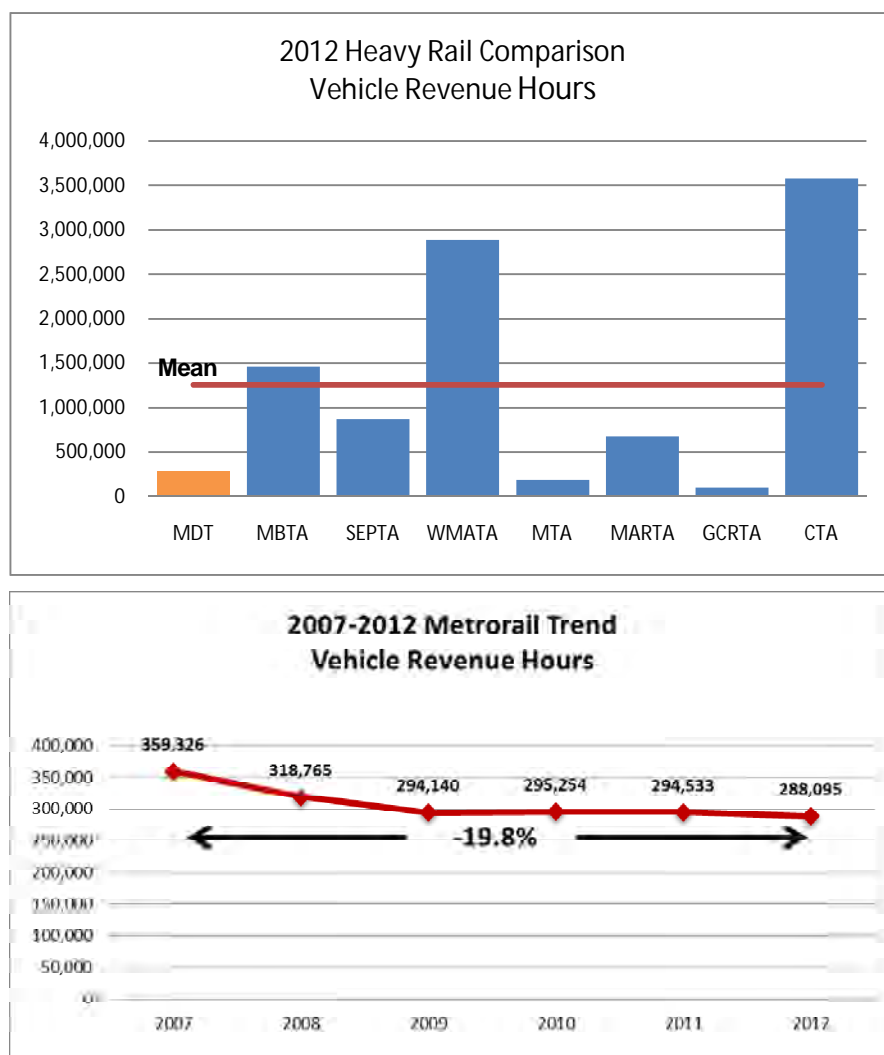


#### 4.5.5 Vehicle Revenue Hours and Vehicle Revenue Miles

Figure 4-22 and Figure 4-23 show MDT's and its peer agencies' heavy rail vehicle revenue hours and vehicle revenue miles, respectively. As previously discussed, and as both figures show, MDT operates only a fraction of revenue miles and revenue hours compared to WMATA in Washington, DC, and CTA in Chicago.

This level of service comparison with other peer agencies illustrates a corresponding level of passenger trips per revenue hour and per revenue mile. From 2007 to 2012, Metrorail vehicle revenue hours decreased by 19.8 percent.

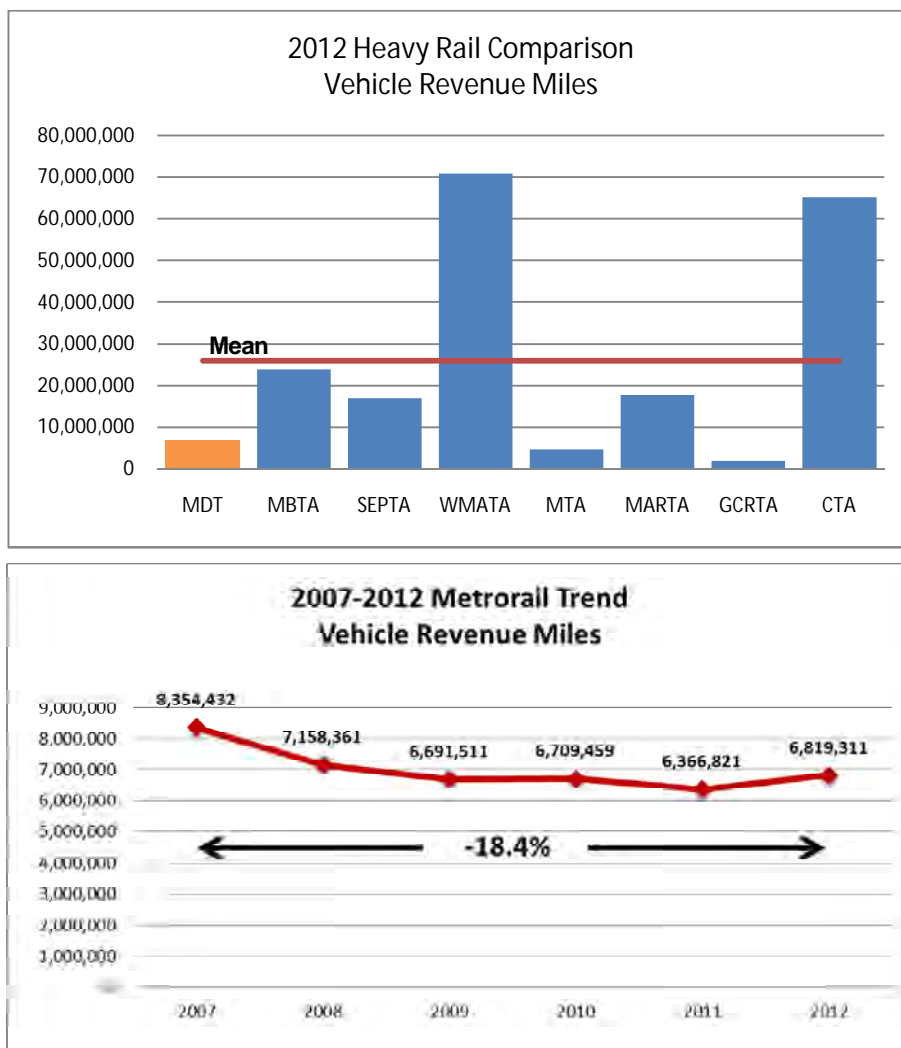
**Figure 4-22: Heavy Rail Vehicle Revenue Hours**



Data Source: NTD (2007 – 2012)

Metrorail vehicle revenue miles followed the same trend as revenue hours and decreased by 18.4 percent from 2007 to 2012.

**Figure 4-23: Heavy Rail Vehicle Revenue Miles**

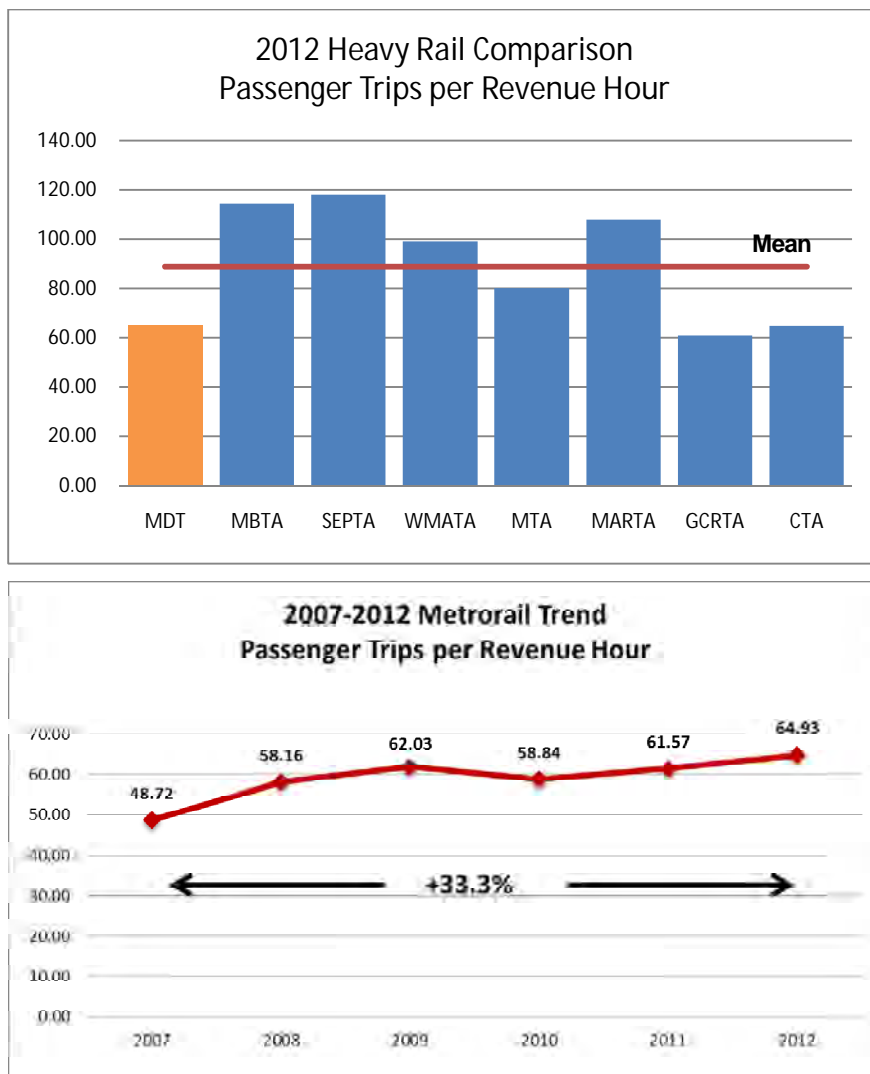


Data Source: NTD (2007 – 2012)

#### 4.5.6 Passenger Trips per Revenue Hour and Revenue Mile

Metrorail passenger trips per revenue hour and per revenue mile increased from 2007 to 2009, decreased slightly from 2009 to 2010, then increased from 2010 to 2012. Overall, passenger trips per revenue hour and per revenue mile have increased by 33.3 percent and 30.9 percent respectively. Both of these measures have similar trends which reflect MDT's passenger trip increases and decreases over the last six years.

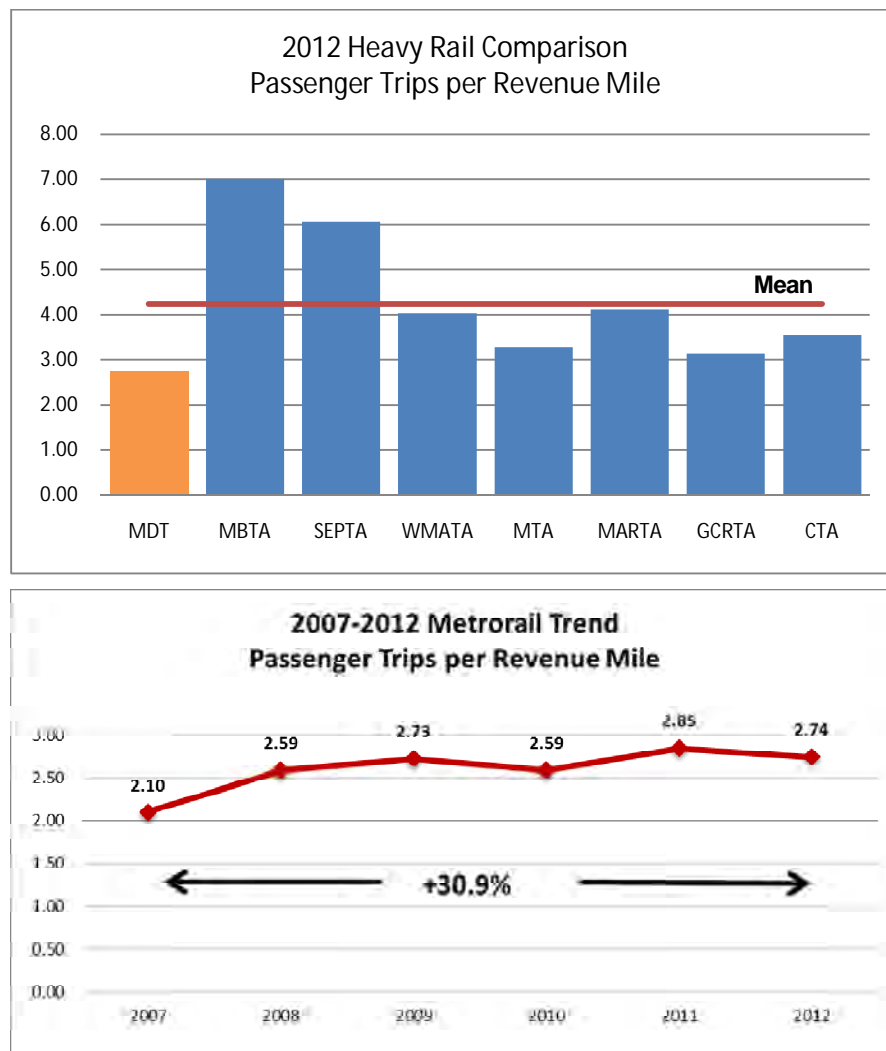
**Figure 4-24: Heavy Rail Passenger Trips per Revenue Hour**



Data Source: NTD (2007 – 2012)

As Figure 4-25 shows, in terms of heavy rail passenger trips per revenue mile, MDT is the lowest of the peer agencies. As shown Figure 4-26, MDT's ratio of 65 passenger trips per revenue hour is second to last, only higher than GCRTA in Cleveland.

**Figure 4-25: Heavy Rail Passenger Trips per Revenue Mile**

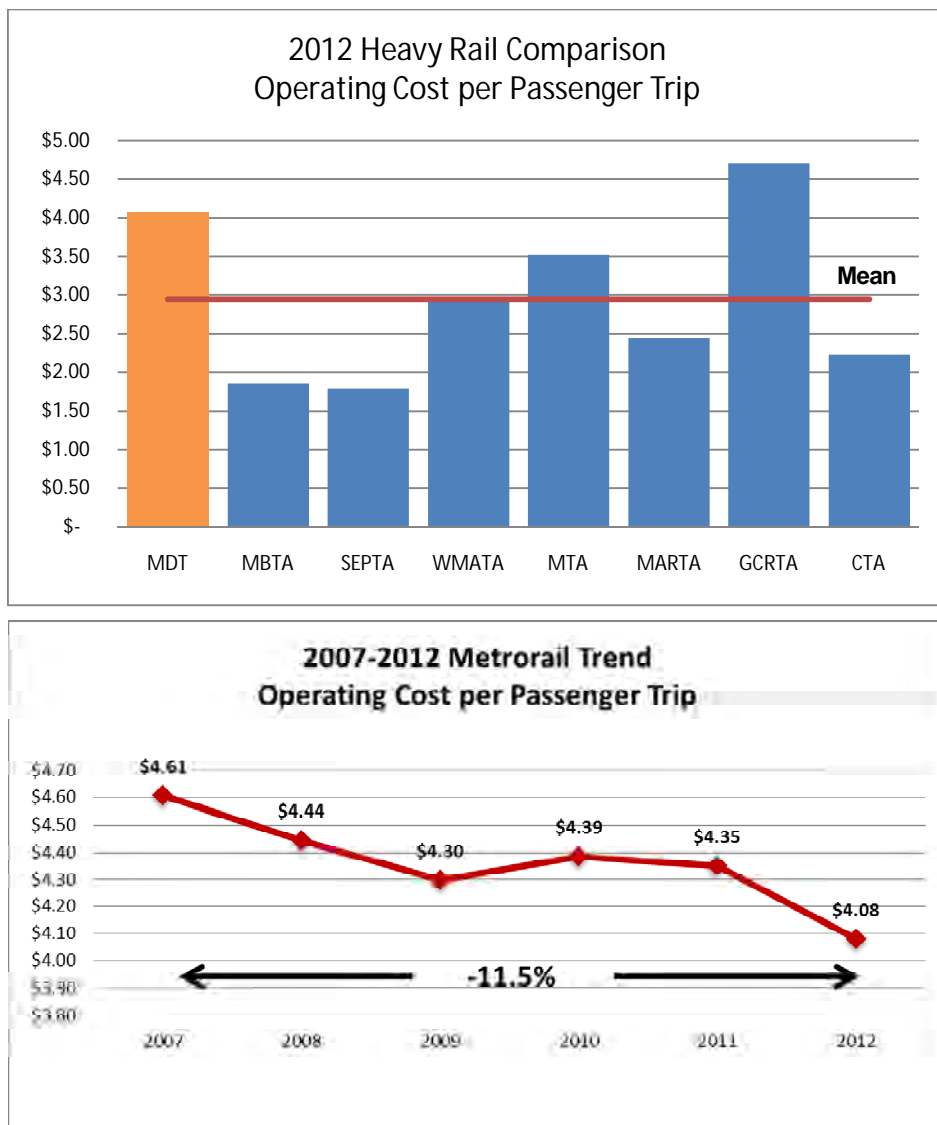


Data Source: NTD (2007 – 2012)

#### 4.5.7 Operating Cost per Passenger Trip and Revenue Hour

Figure 4-26 shows operating cost per passenger trip for MDT and the selected peers. MDT has a relatively higher operating cost per passenger trip than all the peers, except GCRTA. This is due to relatively lower ridership on MDT's system compared to the volume of service it operates. Overall, Metrorail operating cost per passenger trip decreased by 11.5 percent from 2007 to 2012.

**Figure 4-26: Heavy Rail Operating Cost per Passenger Trip**



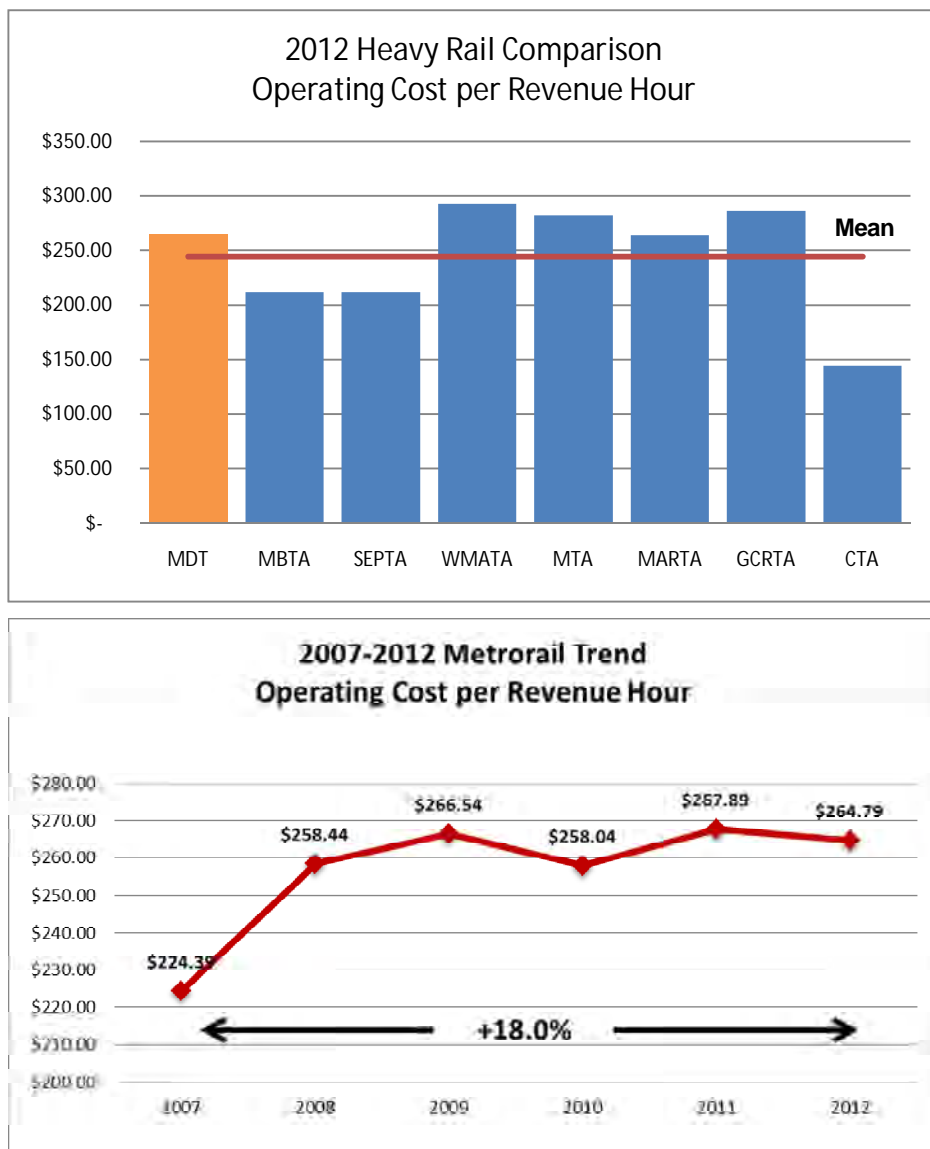
Data Source: NTD (2007 – 2012)



When looking at operating costs per revenue hour, MDT is slightly higher than the peer mean, but lower than WMATA, MTA, MARTA and GCRTA as seen in Figure 4-27.

Metrorail operating cost per revenue hour, a measure of efficiency, increased significantly from 2007 to 2008 then oscillated from 2008 to 2012. Overall, the operating cost per revenue hour increased 18.0 percent from 2007 to 2012.

**Figure 4-27: Heavy Rail Operating Cost per Revenue Hour**

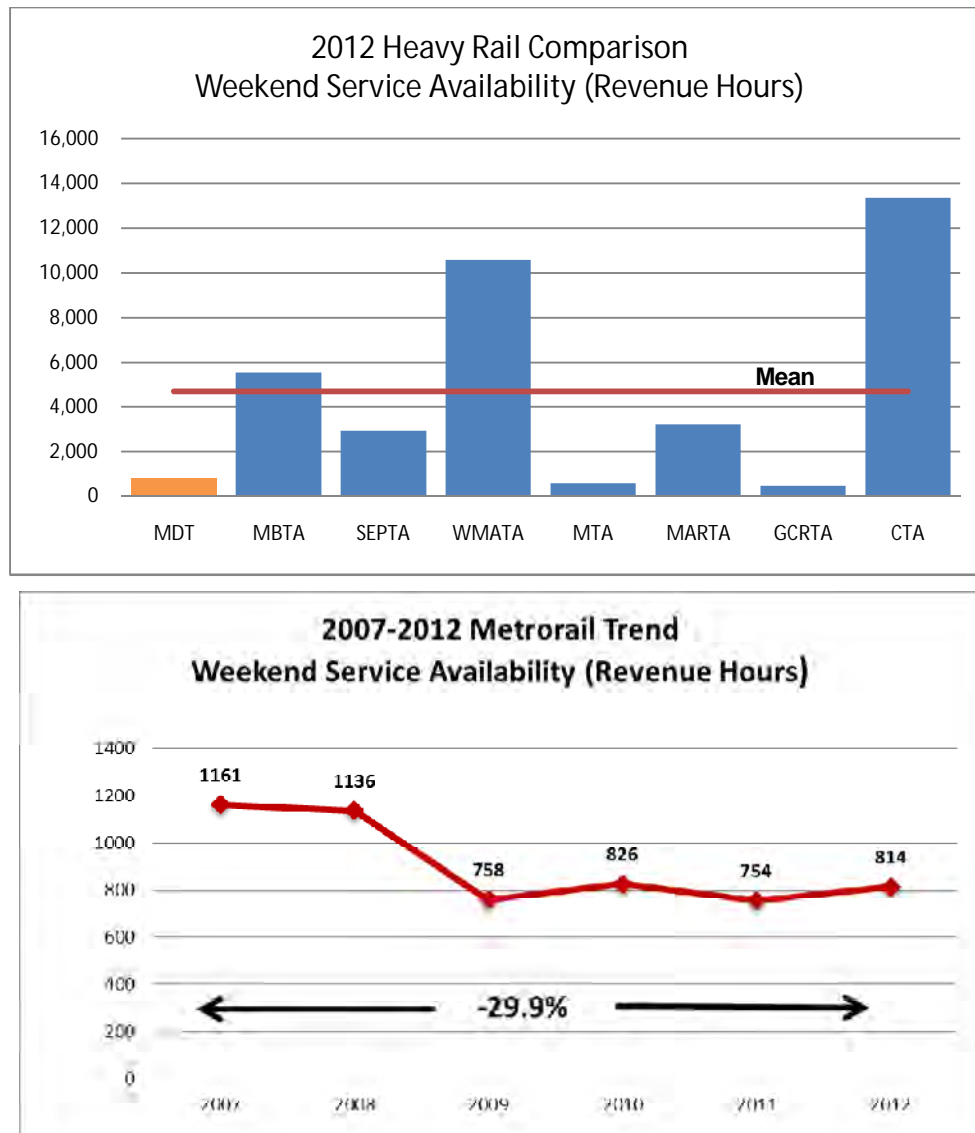


Data Source: NTD (2007 – 2012)

#### 4.5.8 Weekend Service Availability (Revenue Hours)

Figure 4-28 shows heavy rail revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. As the graphic shows, MDT only provides more weekend service than MTA and GCRTA. Between 2008 and 2009, Metrorail weekend service revenue hours decreased significantly and have remained relatively steady for the last three years.

**Figure 4-28: Heavy Rail Weekend Service Availability (Revenue Hours)**

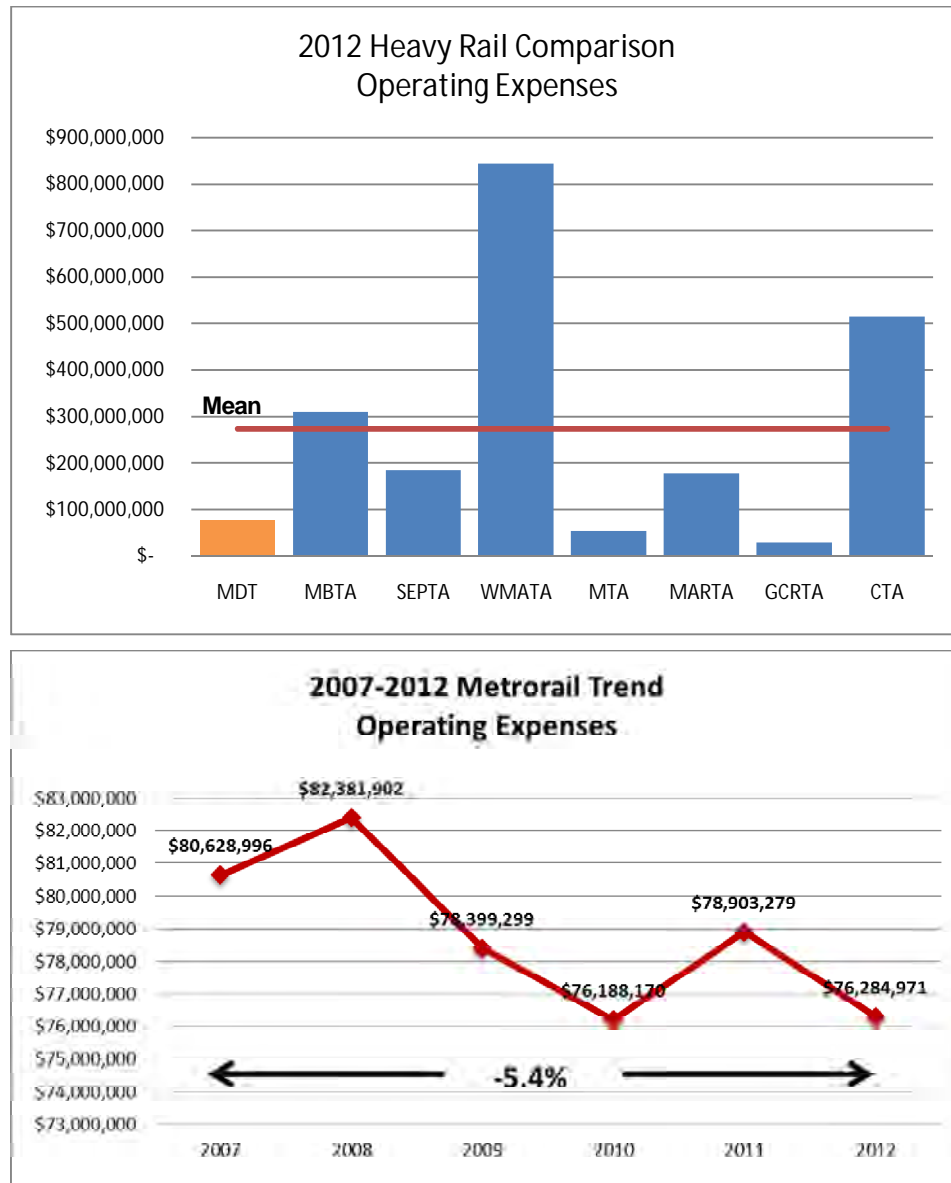


Data Source: NTD (2007 – 2012)

#### 4.5.9 Operating Expenses

Figure 4-29 shows operating expenses for heavy rail for MDT and its selected peers. MDT's total operating expenses for Metrorail in 2012 was close to \$76.3 million and is lower than most of its selected peers, except MTA and GCRTA. Metrorail operating expenses have decreased by 5.4 percent since 2007.

**Figure 4-29: Heavy Rail Operating Expenses**

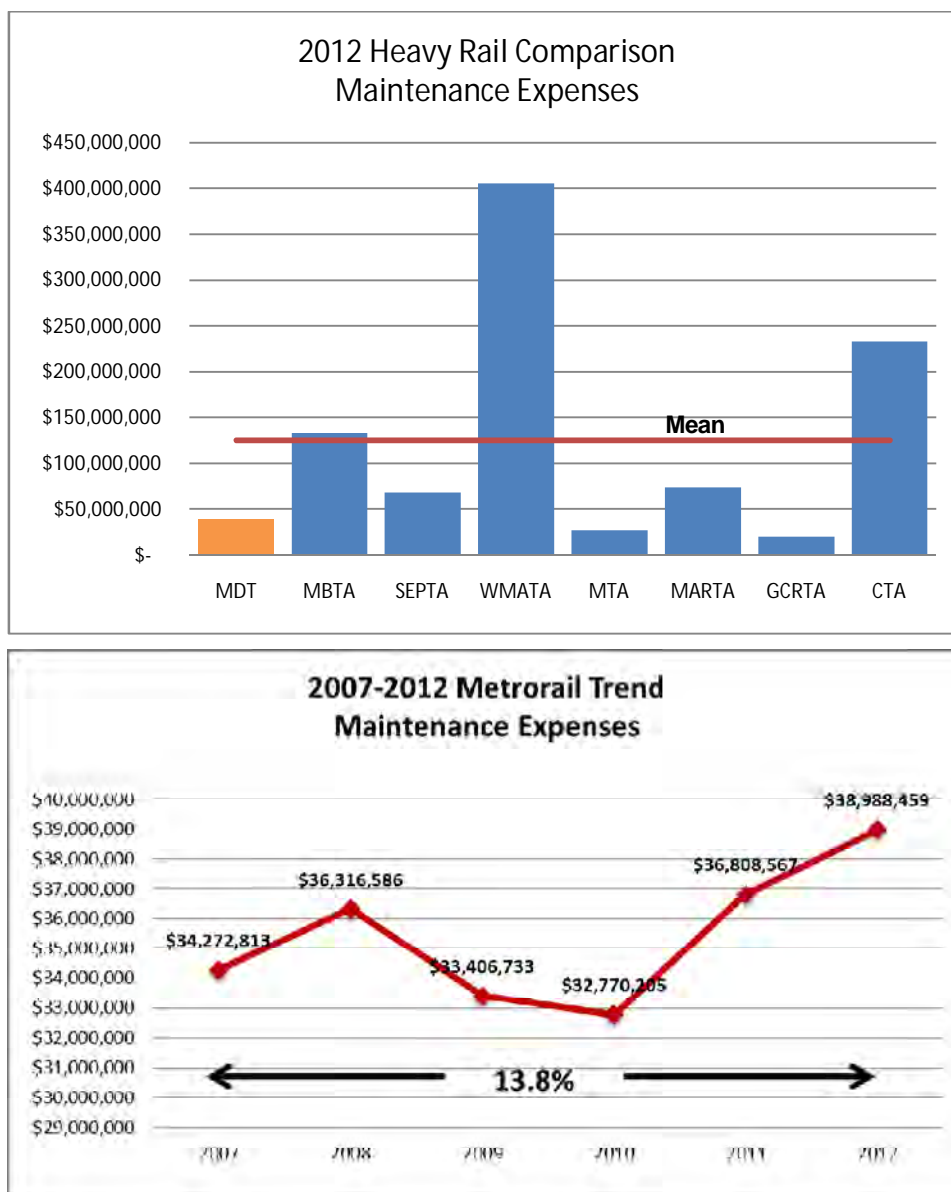


Data Source: NTD (2007 – 2012)

#### 4.5.10 Maintenance Expense

Figure 4-30 shows maintenance expenses for MDT and its selected peers. MDT's maintenance expenses are ranked sixth among its selected peers. Over the last five years maintenance expenses have increased by 13.8 percent.

**Figure 4-30: Heavy Rail Maintenance Expenses**

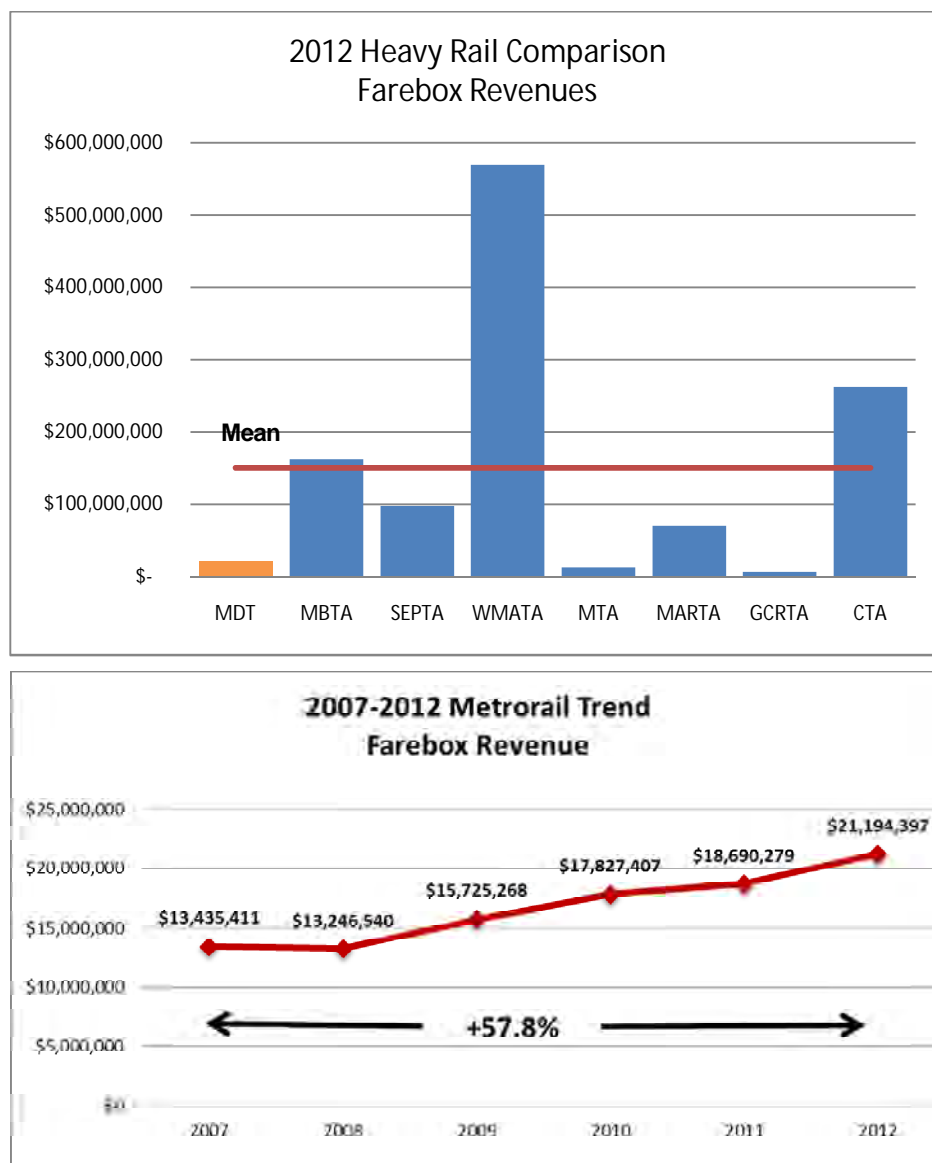


Data Source: NTD (2007 – 2012)

#### 4.5.11 Farebox Revenues

As shown in Figure 4-31, MDT's farebox revenue of \$21.2 million ranks fifth among the selected peers. Since 2007, Metrorail's fare revenue has been increasing which has resulted in a total increase of 57.8 percent over the last five years.

**Figure 4-31: Heavy Rail Farebox Revenues**



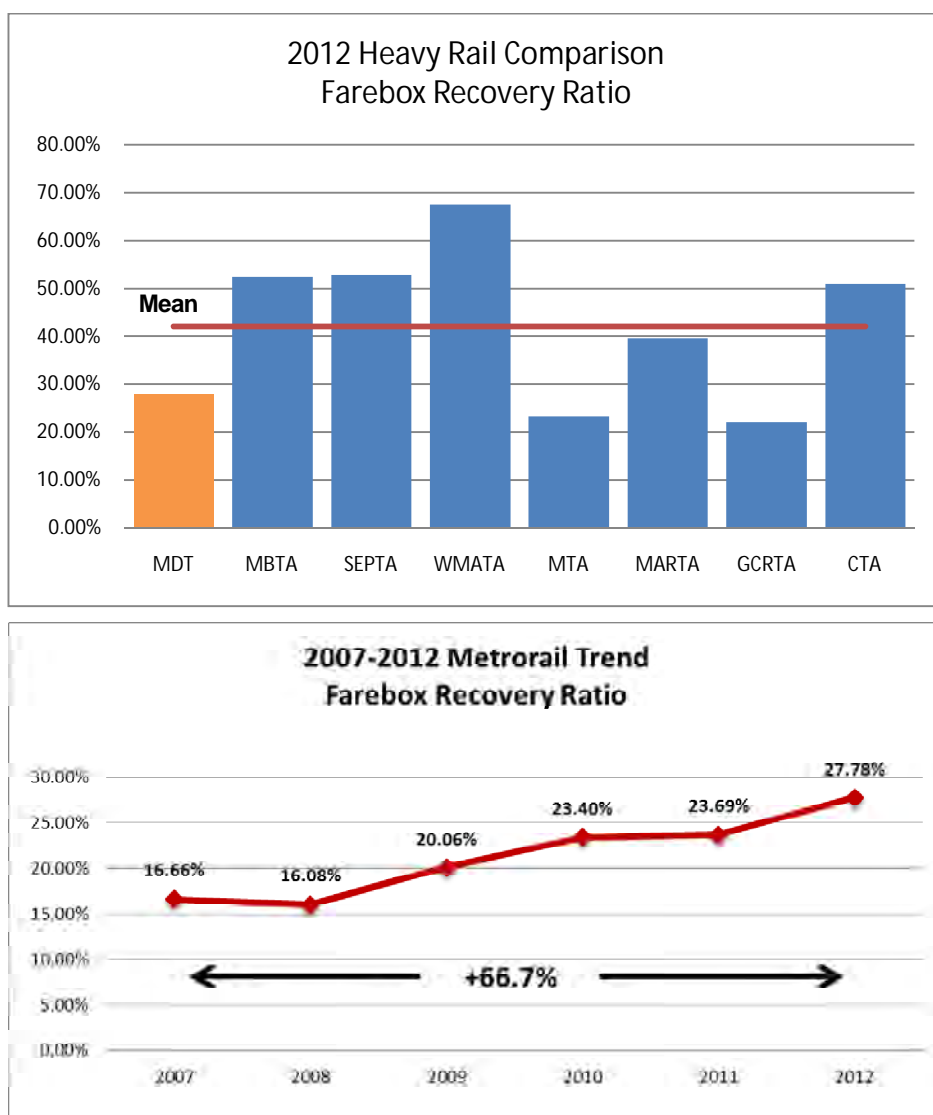
Data Source: NTD (2007 – 2012)



#### 4.5.12 Farebox Recovery Ratio

Figure 4-32 shows the farebox recovery ratio for MDT and its peer agencies. MDT's twenty-eight percent farebox recovery ratio is below the peer mean of forty-two percent, but higher than MTA's and GCRTA's farebox recovery ratios. As mentioned previously, MDT has two programs offering free passes to seniors and eligible veterans; this lowers the farebox recovery ratio. Metrorail experienced a slight decrease in farebox recovery from 2007 to 2008, but has been increasing since 2008 partially due to the implementation of EASY Cards in 2009. Overall, the farebox recovery increased by 66.7 percent from 2007 to 2012.

**Figure 4-32: Heavy Rail Farebox Recovery Ratio**



Data Source: NTD (2007 – 2012)

#### 4.6 Automated Guideway Peer Comparison and Trend

Table 4-6 compares statistics for the peer agencies for automated guideway service, or people mover service. There are few agencies in the United States that operate automated guideway systems. As a result, there are only two (2) peers for this comparison, Jacksonville Transportation Authority (JTA) and Detroit Transportation Corporation (DTC). Each of these systems differs from one another and from MDT's Metromover in terms of operation, fare collection, and the areas and cities they serve. Metromover is the oldest of the people mover systems, serves the largest and strongest downtown area of the peer cities, and 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. 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 4-7 provides an overview of the Metromover as compared to its peers in terms of operating trends.

**Table 4-6: Automated Guideway Peer Comparison (2012)**

Agency	MDT	JTA	DTC	Peer Mean
City	Miami, FL	Jacksonville, FL	Detroit, MI	
Route Miles	9.40	5.40	2.90	5.90
Unlinked Passenger Trips	9,102,431	817,153	2,388,280	4,102,621
Average Age (yrs.) of Automated Guideway Fleet	8.84	13.60	26.00	16.15
Passenger Miles Traveled	9,738,748	374,940	3,589,212	4,567,633
Average Passenger Trip Length	1.07	0.46	1.50	1.01
Vehicle Revenue Hours	105,429	15,436	47,100	55,988
Vehicle Revenue Miles	1,075,378	178,399	548,814	600,864
Passenger Trips per Revenue Hour	86.34	52.94	50.71	63.33
Passenger Trips per Revenue Mile	8.46	4.58	4.35	5.80
Operating Cost per Passenger Trip	\$2.59	\$7.61	\$4.38	\$4.86
Operating Cost per Revenue Hour	\$224.02	\$403.07	\$222.01	\$283.03
Weekend Service Availability (Revenue Hrs)	492	0	212	234.67
Operating Expenses	\$23,618,673	\$6,221,789	\$10,456,643	\$13,432,368
Maintenance Expenses	\$12,768,298	\$3,685,825	\$4,231,890	\$6,895,338
Farebox Revenues	\$0	\$67,996	\$1,160,574	\$409,523
Farebox Recovery Ratio	0.00%	46.32%	77.85%	41.39%

Data Source: 2012 NTD

**Table 4-7: MDT Metromover 2007-2012 Trend**

Performance Measures	2007	2008	2009	2010	2011	2012
Route Miles	9.4	9.4	9.4	9.4	9.4	9.4
Unlinked Passenger Trips	8,622,729	8,839,156	8,100,144	8,013,220	9,167,109	9,102,431
Average Age (yrs.) of Automated Guideway Fleet	16.4	16.3	9.4	Not Reported	9.8	8.8
Passenger Miles Traveled	8,840,136	8,593,648	8,408,218	8,732,726	10,039,936	9,738,748
Average Passenger Trip Length	1.03	0.97	1.04	1.09	1.10	1.07
Vehicle Revenue Hours	91,657	110,228	105,517	103,447	105,245	105,429
Vehicle Revenue Miles	934,906	1,120,647	1,073,135	1,055,673	1,073,494	1,075,378
Passenger Trips Per Revenue Hour	94.08	80.19	76.77	77.46	87.10	86.34
Passenger Trips Per Revenue Mile	9.22	7.89	7.55	7.59	8.54	8.46
Operating Cost Per Passenger Trip	\$2.44	\$2.58	\$2.87	\$2.61	\$2.56	\$2.59
Operating Cost Per Revenue Hour	\$229.12	\$207.23	\$220.49	\$202.00	\$222.85	\$224.02
Weekend Service Availability (Rev. Hrs)	488	516	494	488	494	492
Operating Expenses	\$21,000,653	\$22,842,866	\$23,265,217	\$20,896,673	\$23,454,100	\$23,618,673
Maintenance Expenses	\$11,439,965	\$11,711,857	\$11,991,513	\$9,752,065	\$12,481,898	\$12,768,298
Farebox Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Farebox Recovery Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Data Source: NTD (2007 – 2012)

#### 4.6.1 Route Miles

As Figure 4-33 illustrates, MDT's automated guideway system (Metromover) operates more route miles than the selected peer agencies. Metromover route miles have remained unchanged since 2007.

**Figure 4-33: Automated Guideway Route Miles**



Data Source: NTD (2007 – 2012)

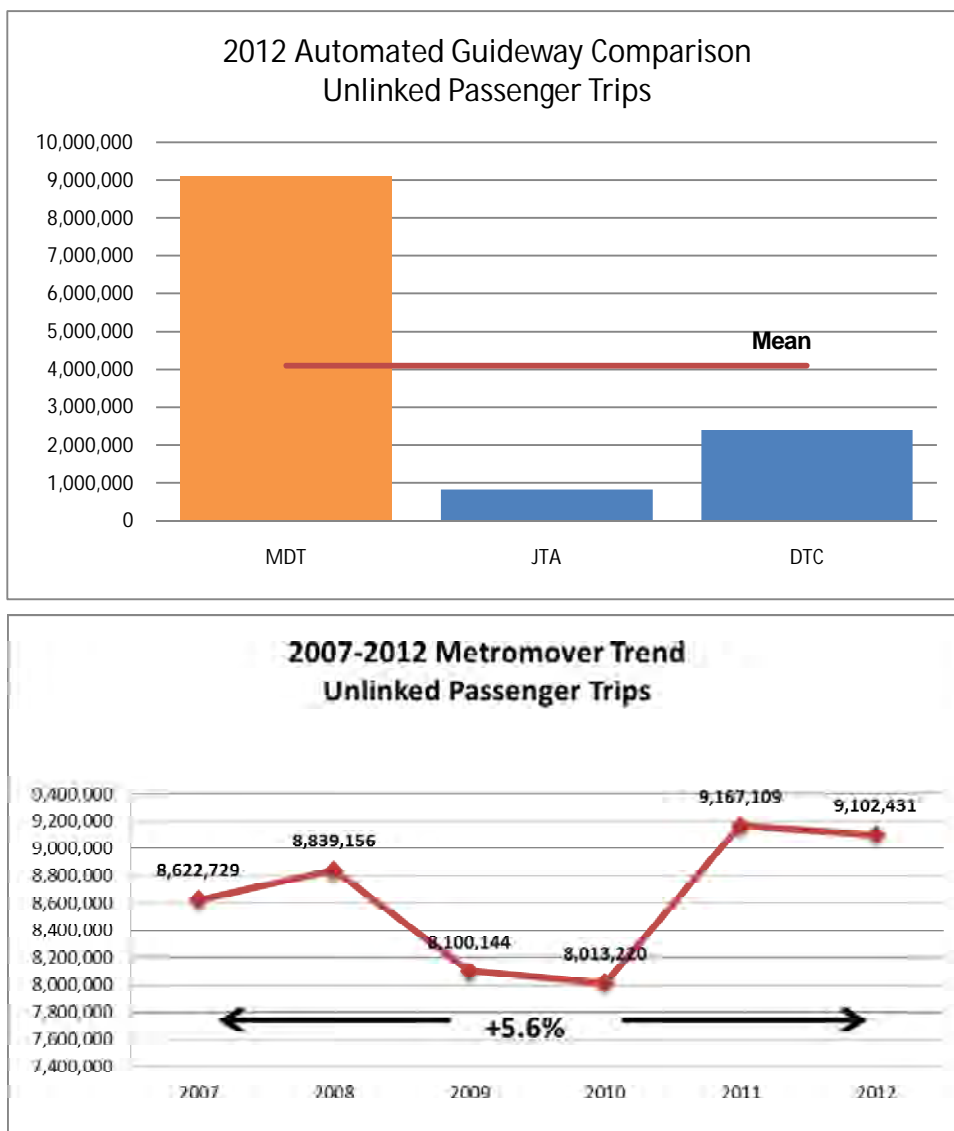


#### 4.6.2 Unlinked Passenger Trips

Figure 4-34 shows the number of unlinked passenger trips for MDT and its selected peers. In 2012, MDT's Metromover system handled more than nine (9) million unlinked passenger trips, highest among its peers.

Metromover unlinked passenger trips decreased significantly from 2008 to 2010 then increased from 2010 to 2011. Overall, passenger trips increased 5.6 percent from 2007 to 2012.

**Figure 4-34: Automated Guideway Unlinked Passenger Trips**

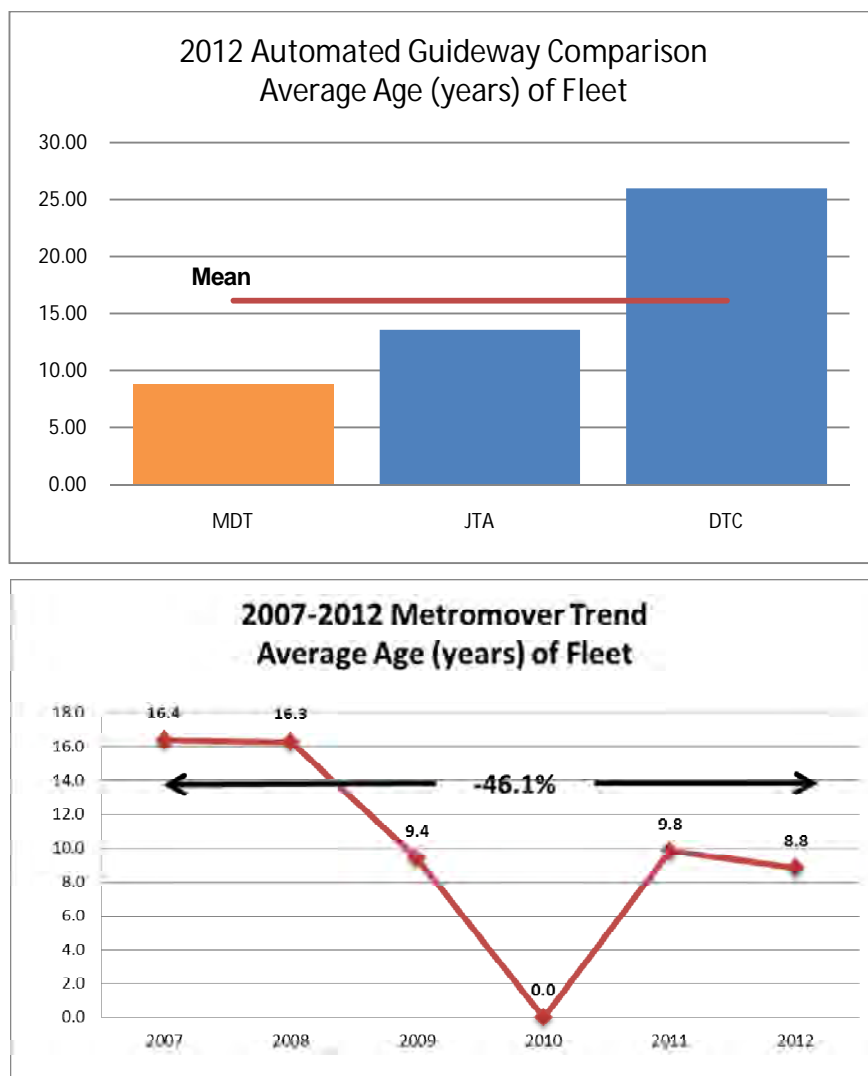


Data Source: NTD (2007 – 2012)

#### 4.6.3 Average Age (years) of Automated Guideway Fleet

As seen in Figure 4-35, the average age<sup>4</sup> of MDT's Metromover fleet is younger than its selected peers; this is due to MDT's recent upgrade of its Metromover fleet. The average age of the Metromover fleet has significantly declined as a result of MDT's procurement of new Metromover vehicles to replace the original 12 Metromover cars as well as the purchase an additional 29 new vehicles.

**Figure 4-35: Average Age (years) of Automated Guideway Fleet**



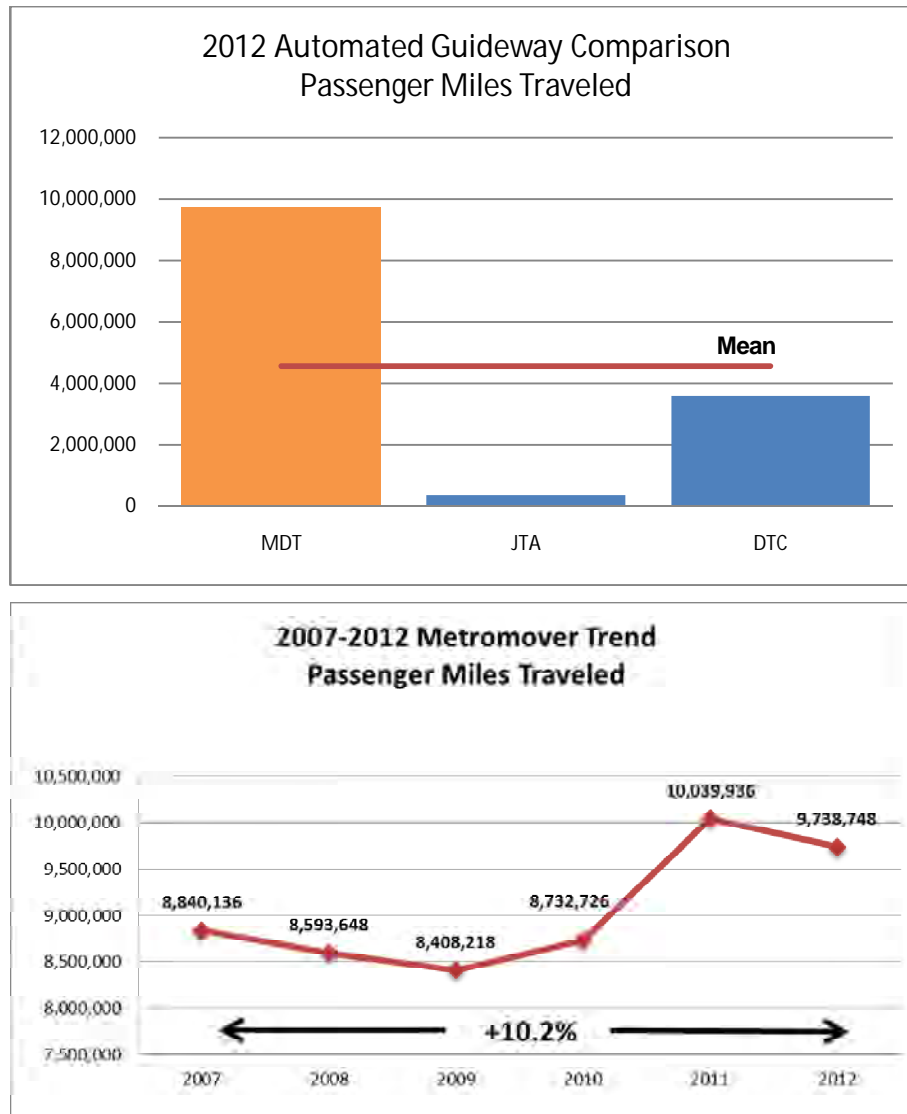
Data Source: NTD (2007 – 2012)

<sup>4</sup> 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.

#### 4.6.4 Passenger Miles Traveled and Average Passenger Trip Length

As seen in Figure 4-36, MDT has the highest number of passenger miles when compared to the rest of the peer group. Metromover passenger miles traveled decreased slightly from 2007 to 2009 then increased from 2009 to 2011. Overall, passenger trips increased 10.2 percent from 2007 to 2012.

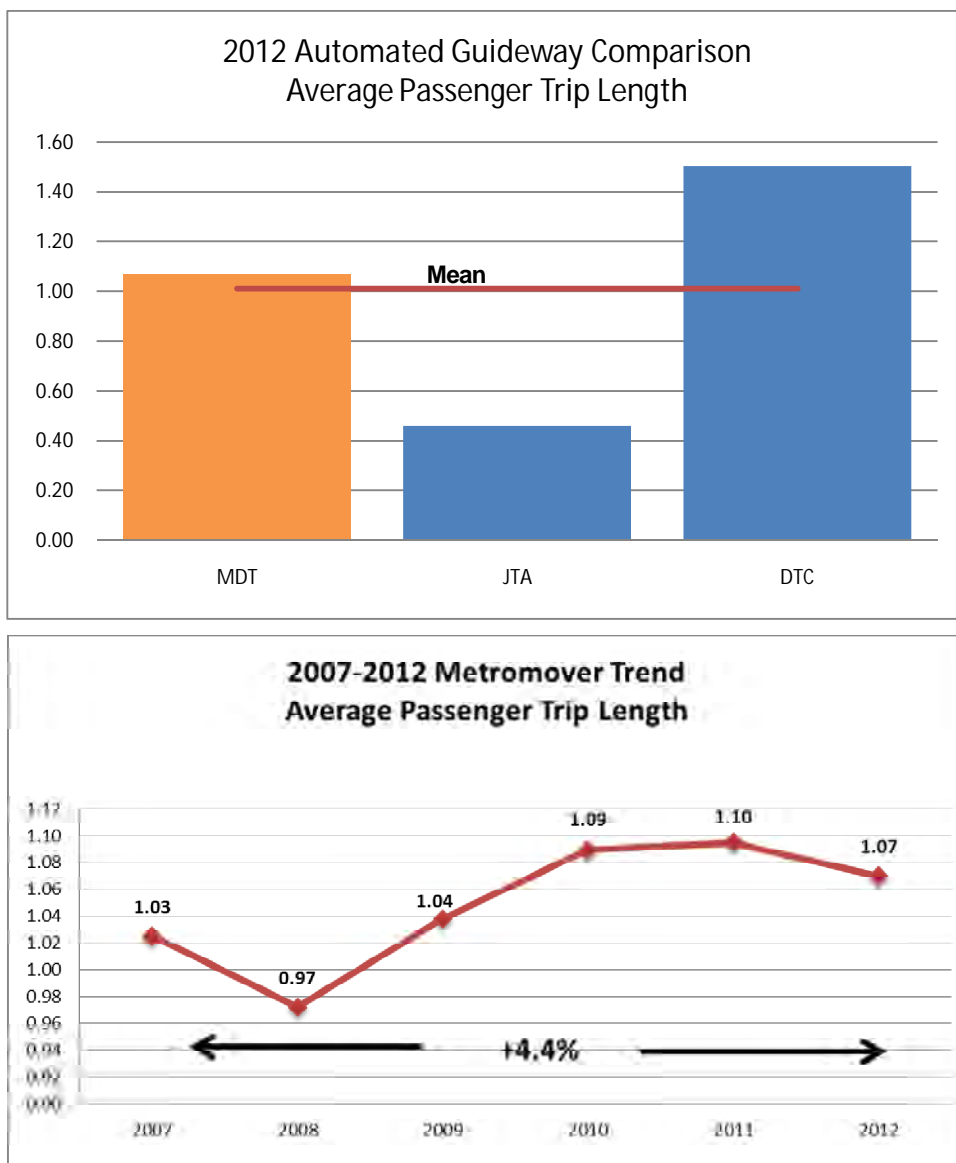
**Figure 4-36: Automated Guideway Passenger Miles Traveled**



Data Source: NTD (2007 – 2012)

Figure 4-37 shows the average trip length for MDT's Metromover system and the selected peers. MDT's trip length is around the average of one mile. The average passenger trip length on Metromover has slightly increased over the last six years by 4.4 percent.

**Figure 4-37: Automated Guideway Average Passenger Trip Length**

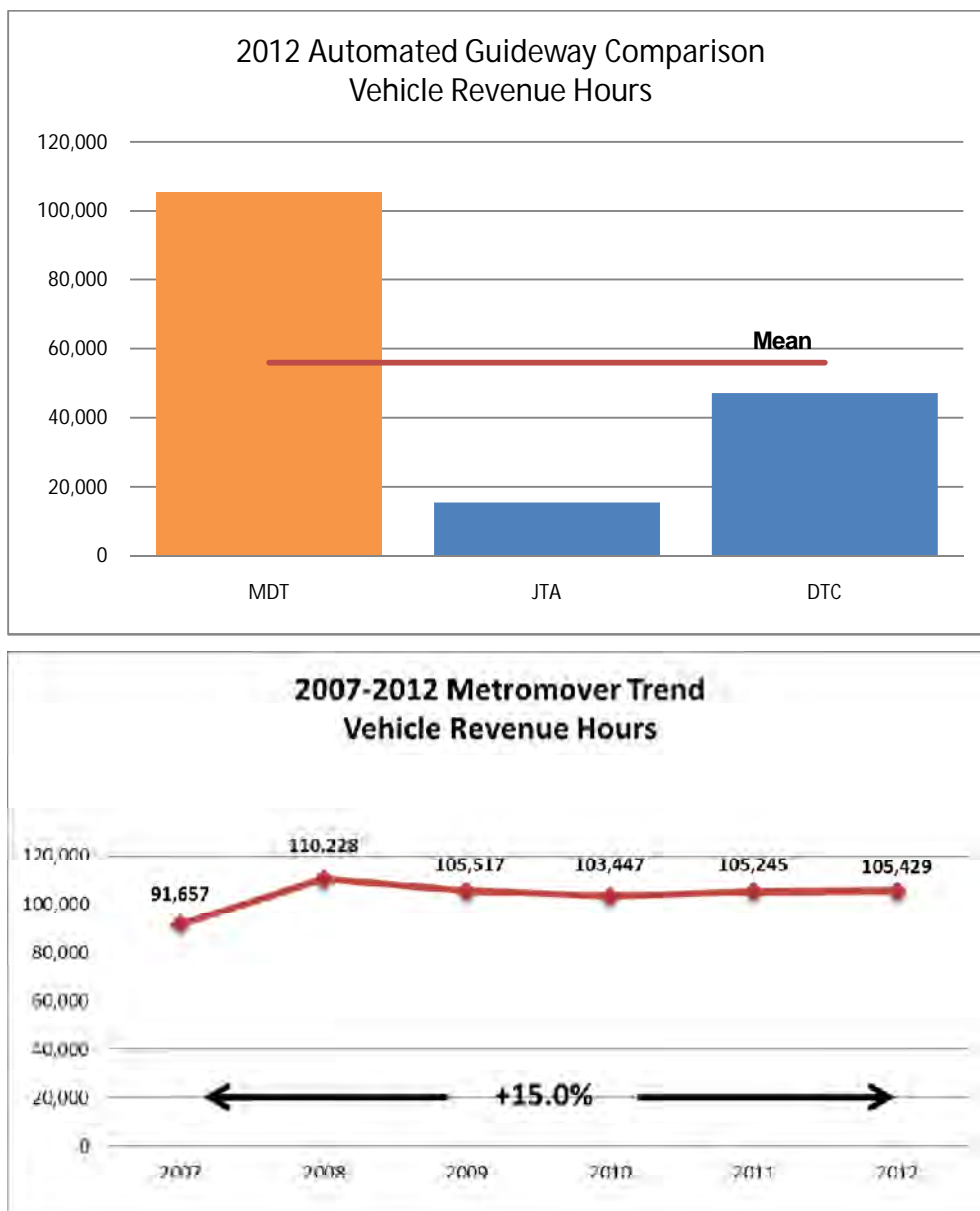


Data Source: NTD (2007 – 2012)

#### 4.6.5 Vehicle Revenue Hours and Vehicle Revenue Miles

Figure 4-38 and Figure 4-39 display vehicle revenue hours and vehicle revenue miles for MDT and its peers. As of 2012, MDT operates more automated guideway revenue hours and revenue miles than both its peers. Metromover vehicle revenue hours and miles increased from 2007 to 2008 then decreased slightly and stayed relatively level from 2009 to 2012. Overall, both vehicle revenue hours and revenue miles increased 15.0 percent from 2007 to 2012.

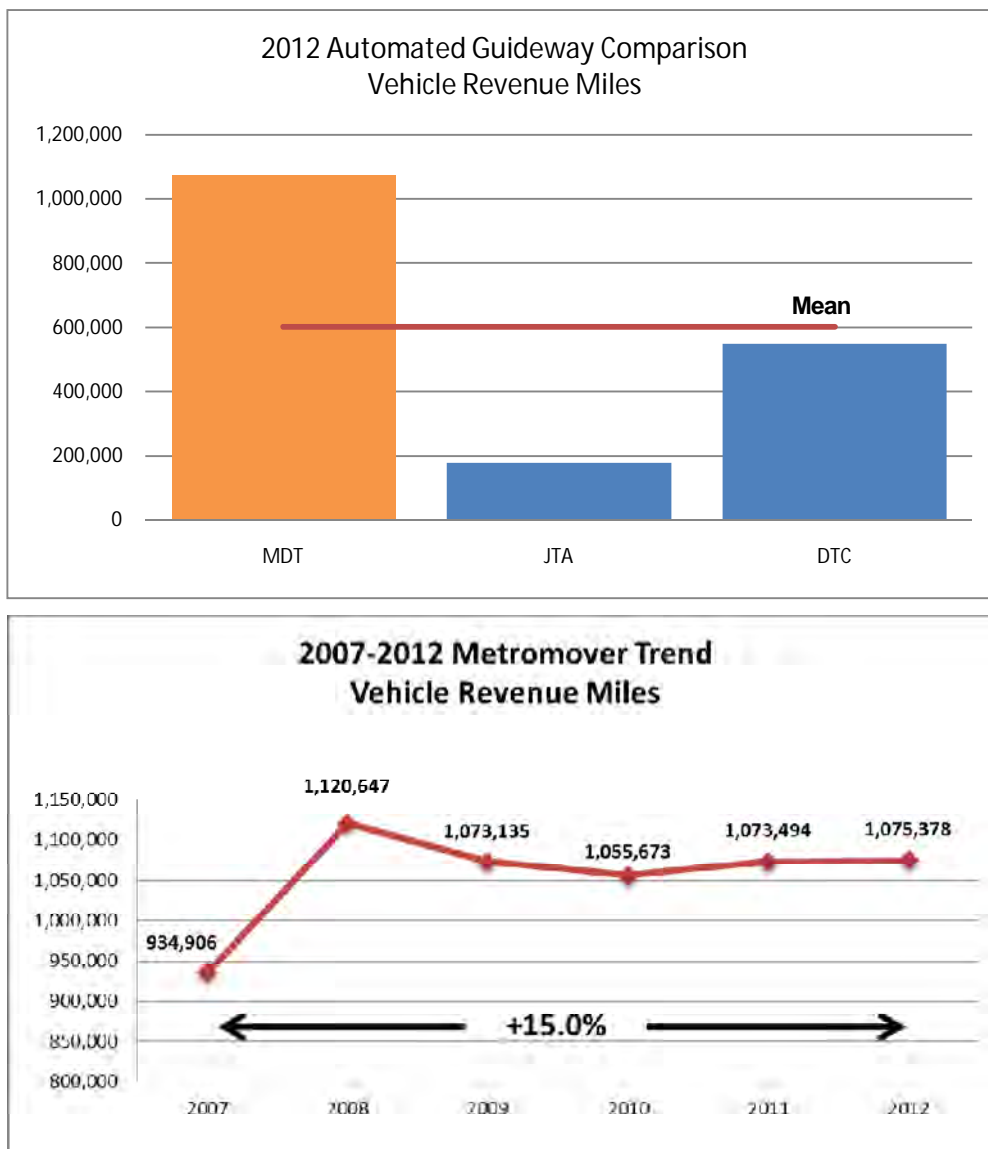
**Figure 4-38: Automated Guideway Vehicle Revenue Hours**



Data Source: NTD (2007 – 2012)



**Figure 4-39: Automated Guideway Vehicle Revenue Miles**

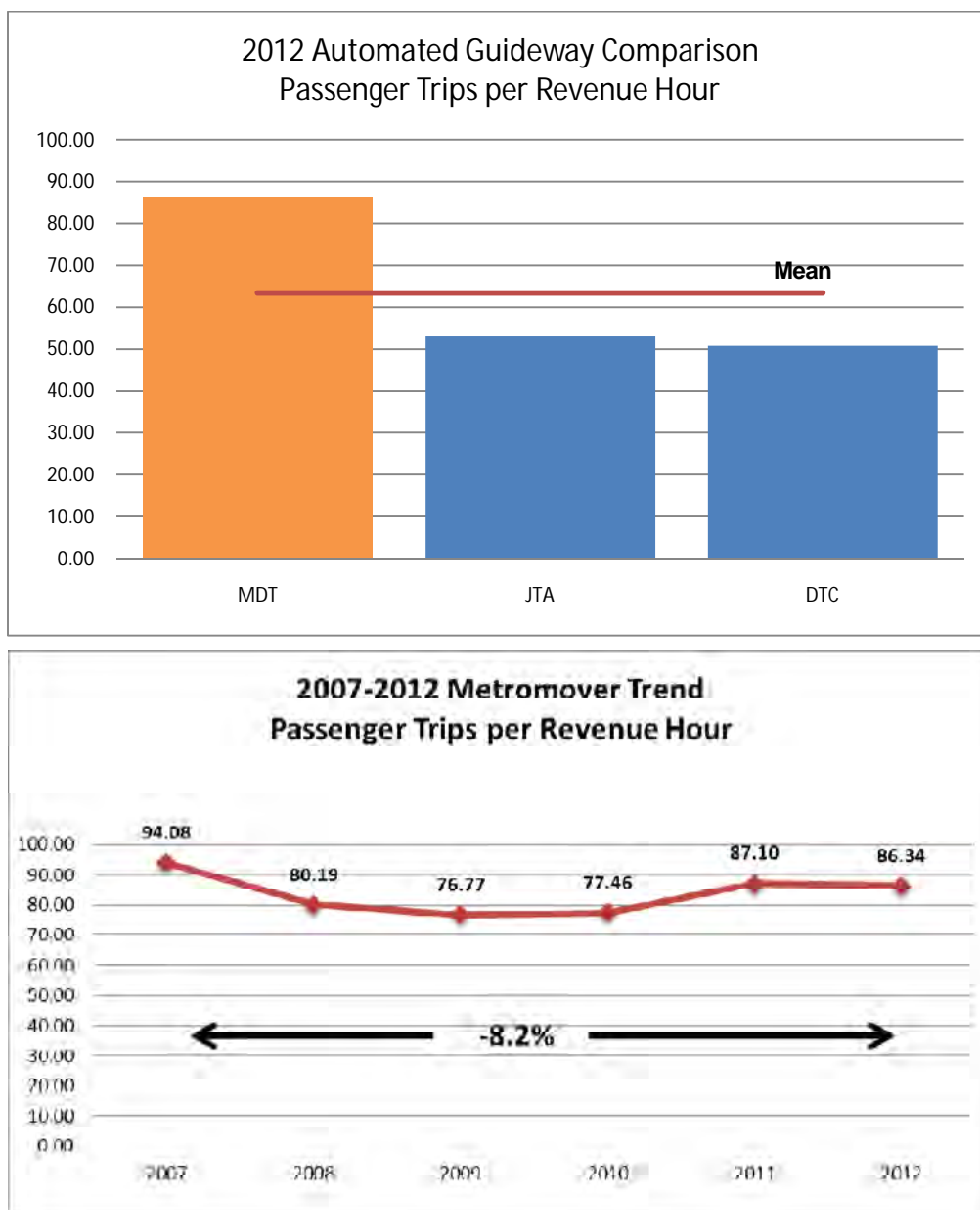


Data Source: NTD (2007 – 2012)

#### 4.6.6 Passenger Trips per Revenue Hour and Revenue Mile

Passenger trips per revenue hour and passenger trips per revenue mile are shown in Figure 4-40 and Figure 4-41, respectively. MDT ranks first in both measures, with JTA and DTC reporting similar ratios to each other for both measures.

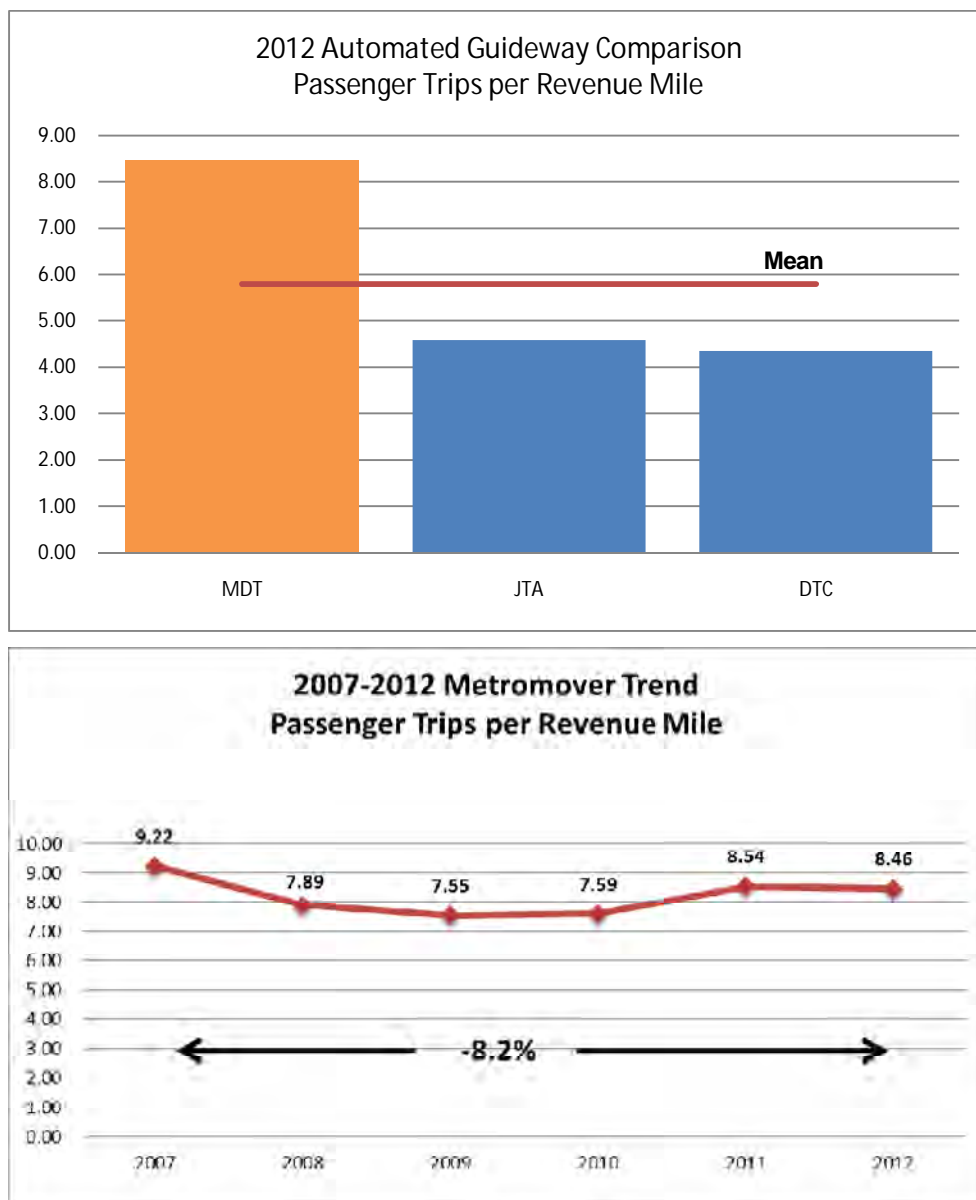
**Figure 4-40: Automated Guideway Passenger Trips per Revenue Hour**



Data Source: NTD (2007 – 2012)

For the 2007–2012 trend, both measures reflect the same pattern. Metromover passenger trips per revenue hour and per revenue mile both decreased slightly from 2007 to 2008, stayed relatively level from 2008 to 2010, and then increased slightly from 2010 to 2012. Overall, passenger trips per revenue hour and per revenue mile have decreased by 8.2 percent each.

**Figure 4-41: Automated Guideway Passenger Trips per Revenue Mile**



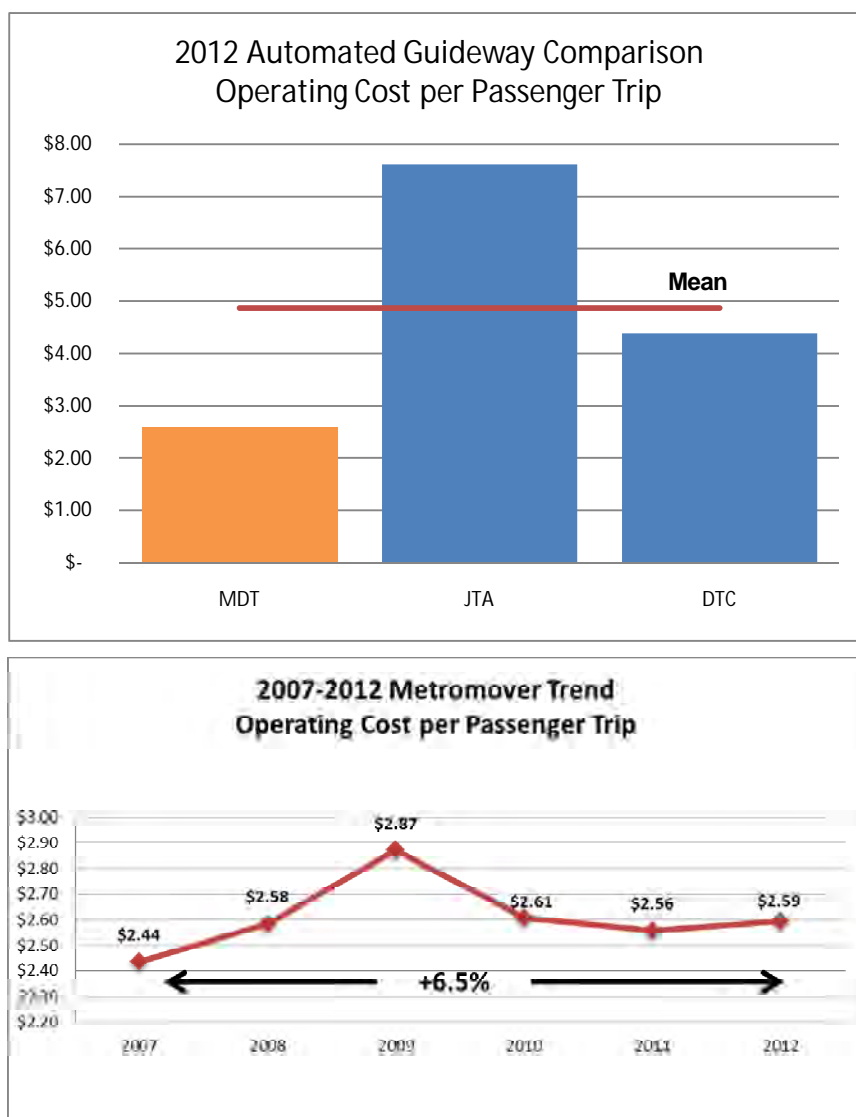
Data Source: NTD (2007 – 2012)

#### 4.6.7 Operating Cost per Passenger Trip and Revenue Hour

Figure 4-42 and Figure 4-43 illustrate efficiency as measured by operating cost per passenger trip and operating cost per revenue hour, for MDT and selected peers. MDT ranks lowest for operating cost per passenger trip, but ranks second for operating cost per revenue hour with DTC having lower cost per revenue hour.

Metromover operating cost per passenger trip increased significantly from 2007 to 2009, but has since decreased and remained stable. Overall, there was a 6.5 percent increase from 2007 to 2012.

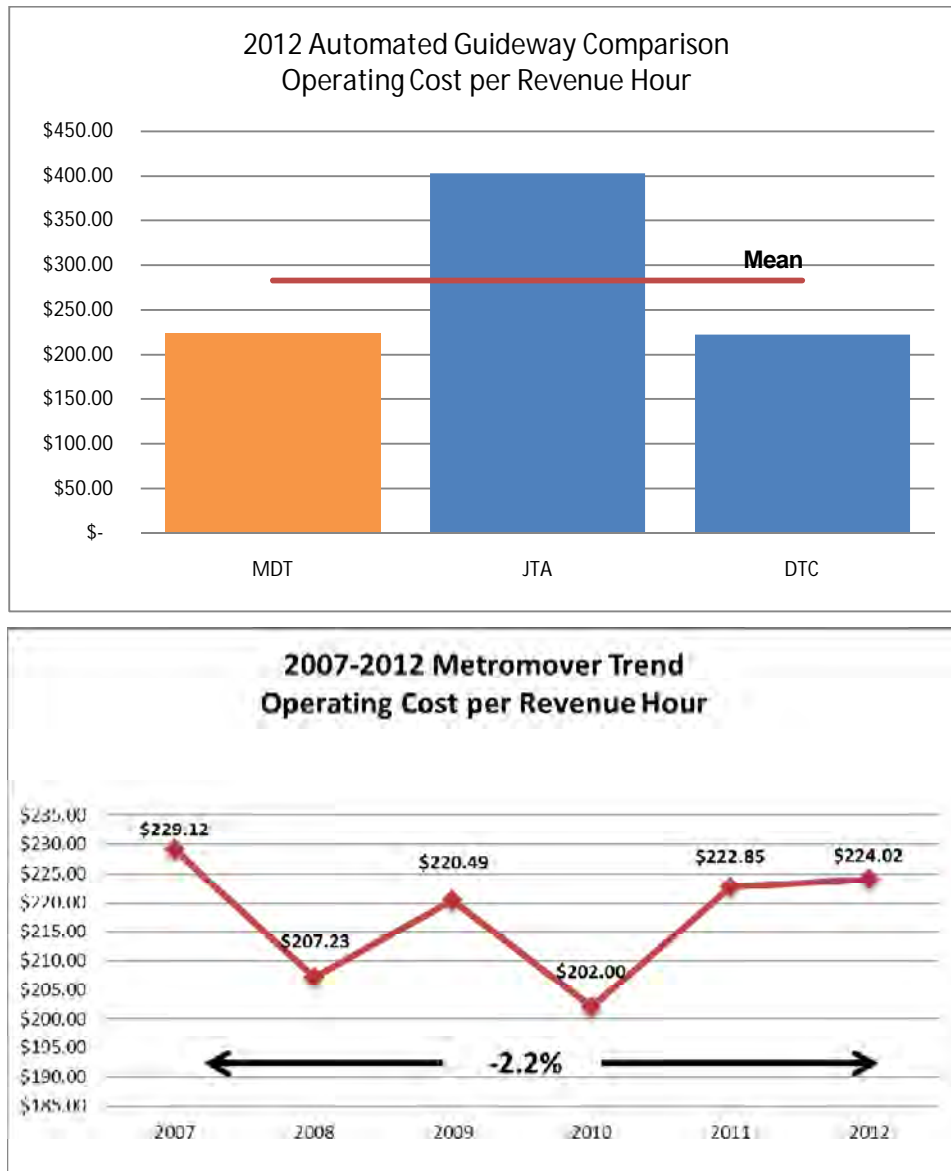
**Figure 4-42: Automated Guideway Operating Cost per Passenger Trip**



Data Source: NTD (2007 – 2012)

Metromover operating cost per revenue hour oscillated from 2007 to 2012 with an overall decrease of 2.2 percent. Overall, the operating cost per revenue hour decreased over the last six years, which is an indicator of good performance.

**Figure 4-43: Automated Guideway Operating Cost per Revenue Hour**



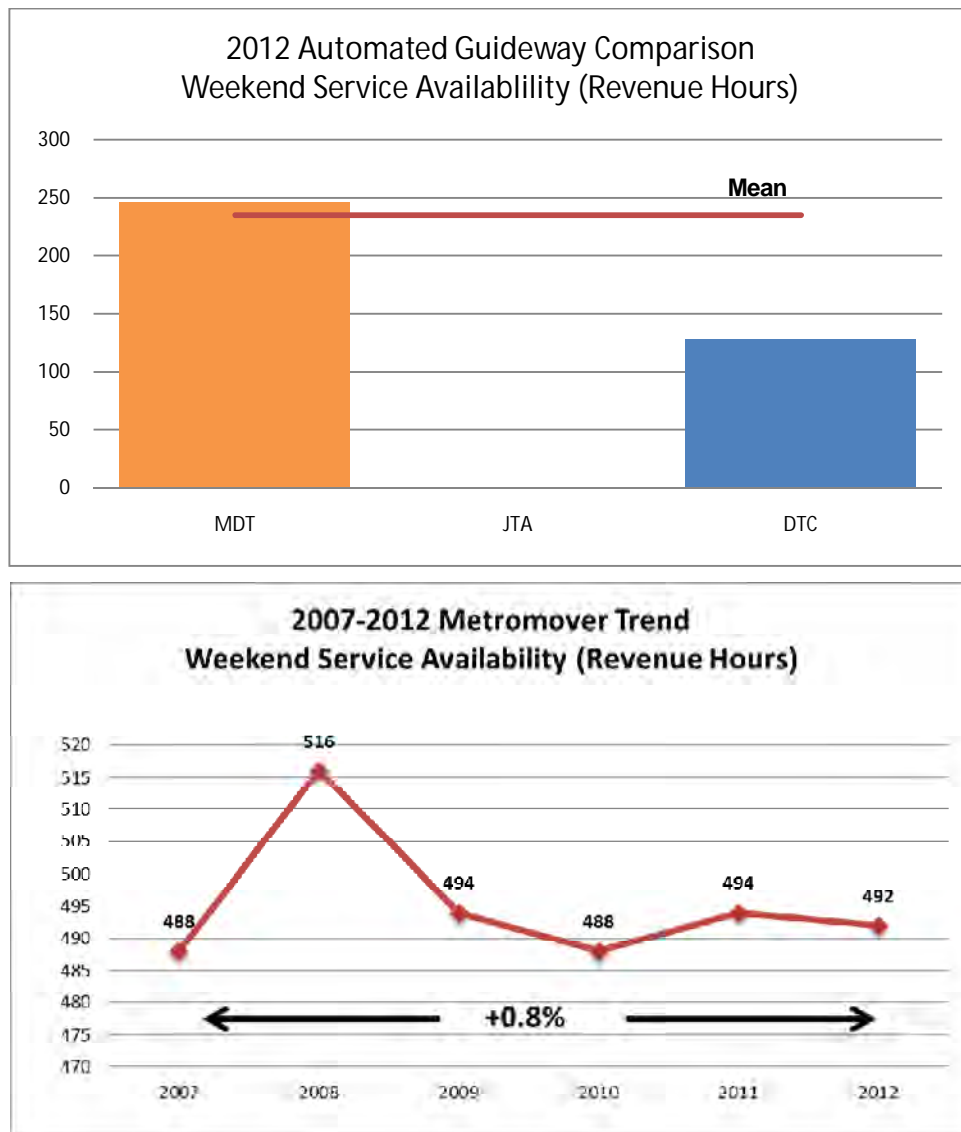
Data Source: NTD (2007 – 2012)



#### 4.6.8 Weekend Service Availability (Revenue Hours)

Figure 4-44 shows revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. As the graphic shows, MDT provides more weekend service than both its peers. Weekend service revenue hours have remained constant except for a slight increase in 2008.

**Figure 4-44: Automated Guideway Weekend Service Availability (Revenue Hours)**

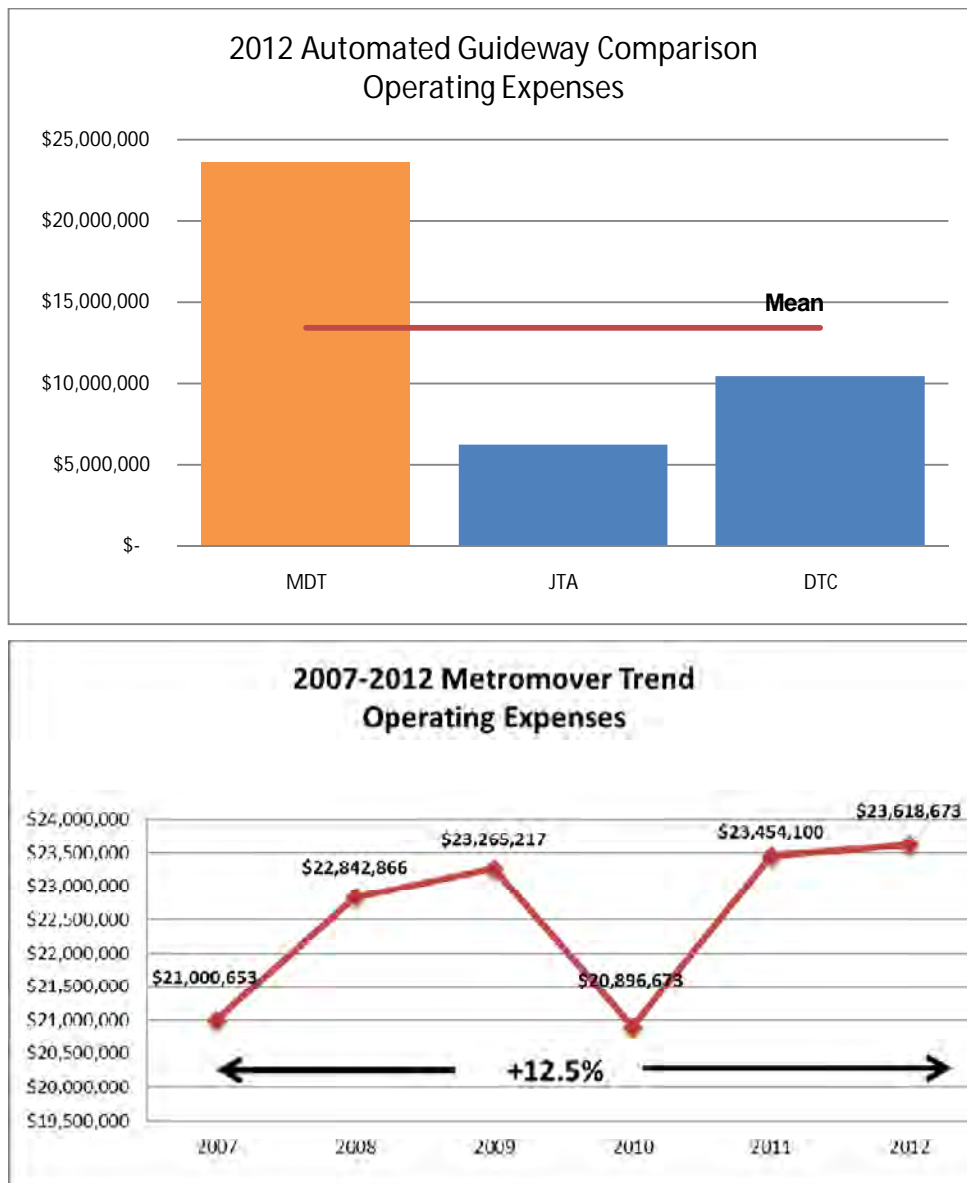


Data Source: NTD (2007 – 2012)

#### 4.6.9 Operating Expenses

Figure 4-45 shows operating expenses for automated guideway for MDT and its selected peers. In 2012, MDT's operating expenses for its Metromover system was close to \$23.6 million. With the exception of a decline in expenses between 2009 and 2010, operating expenses have increased 12.5 percent over the six year period.

**Figure 4-45: Automated Guideway Operating Expenses**

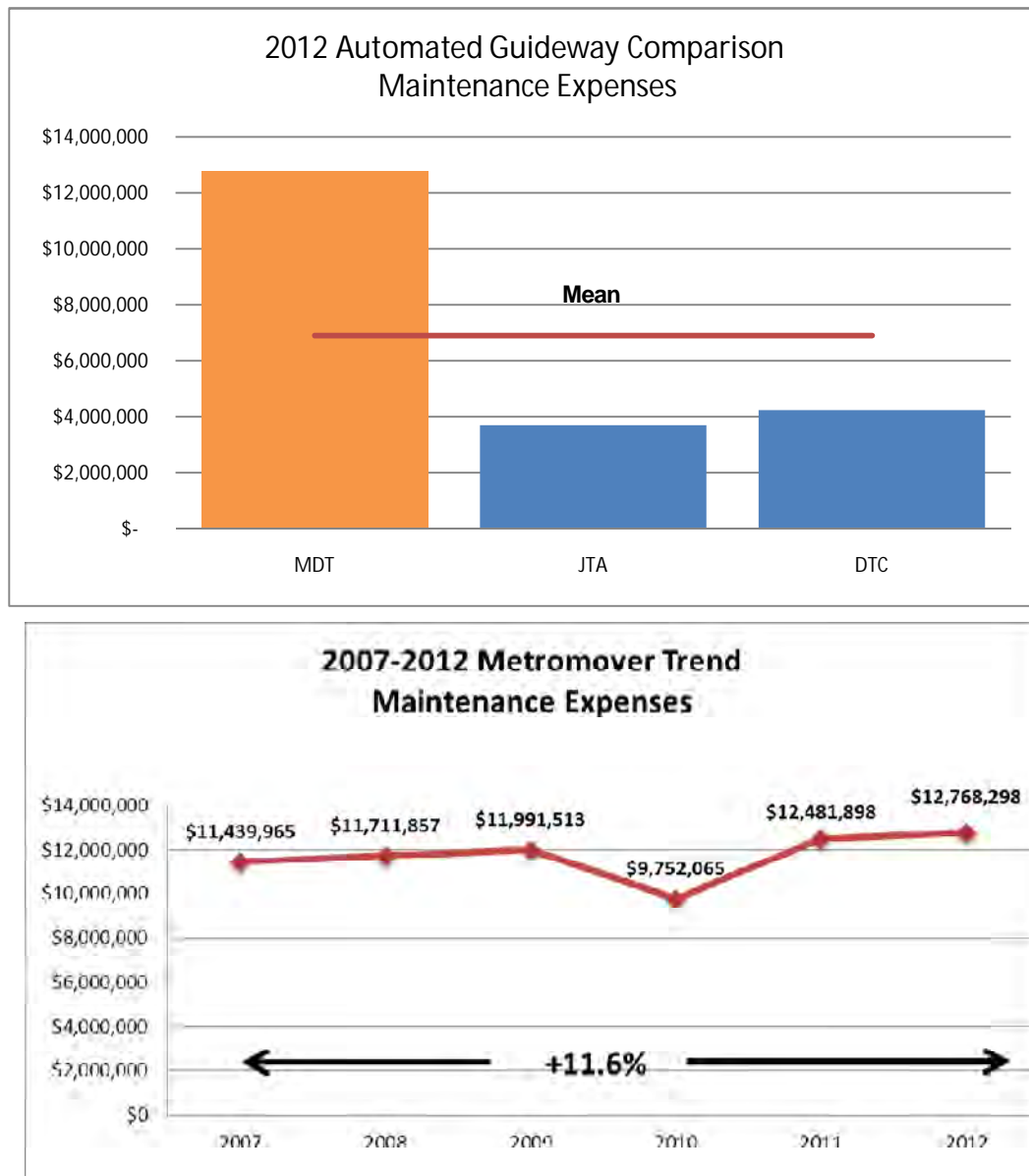


Data Source: NTD (2007 – 2012)

#### 4.6.10 Maintenance Expenses

Figure 4-46 shows maintenance expenses<sup>5</sup> for automated guideway for MDT and its selected peers. In 2012, MDT's maintenance expenses were more than twice than its selected peers. Over the last five years, Metromover maintenance expenses have increased by 11.6 percent.

**Figure 4-46: Automated Guideway Maintenance Expenses**



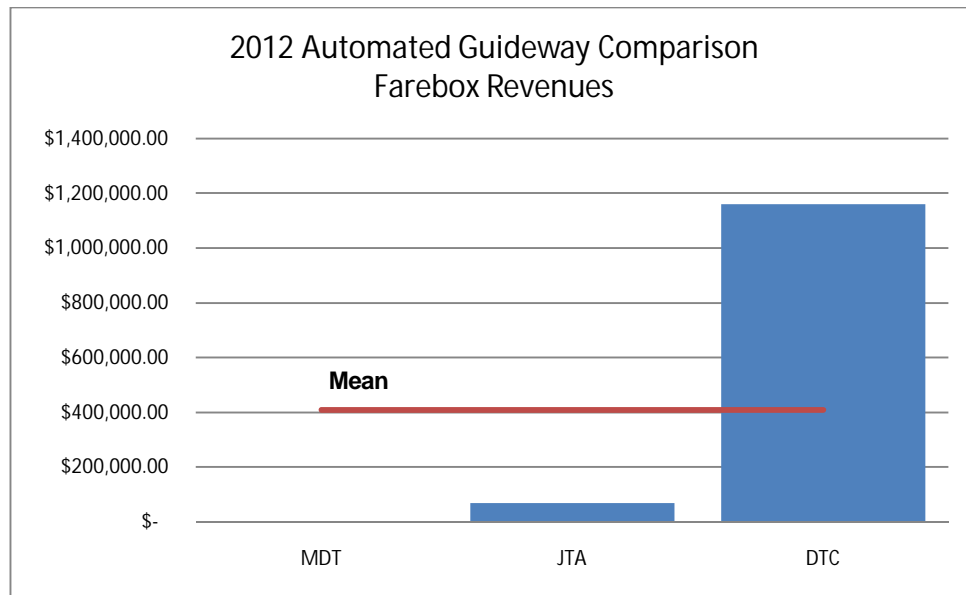
Data Source: NTD (2007 – 2012)

<sup>5</sup> Maintenance expenses are a subset of total operating expenses in the data provided by NTD.

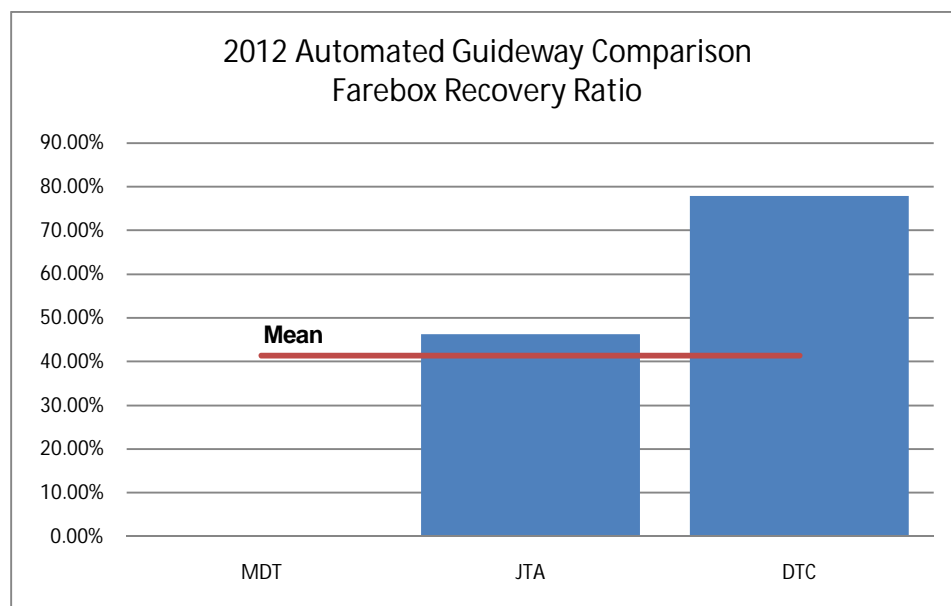
#### 4.6.11 Farebox Revenues and Farebox Recovery Ratio

After the passage of Miami-Dade County's People's Transportation Plan, MDT's Metromover system became a free fare service in 2004. As a result, the farebox revenue and farebox recovery ratio is zero. Since MDT charges no fare for the Metromover system no trend analysis was prepared. The other two systems do collect some fares as shown in Figure 4-47.

**Figure 4-47: Automated Guideway Farebox Revenues**



**Figure 4-48: Automated Guideway Farebox Recovery Ratio**



Data Source: 2012 NTD

#### 4.7 Demand Response Peer Comparison and Trend

Table 4-8 compares statistics for MDT's Special Transportation Service (STS) to similar peer agencies that operate demand response services. Demand response service in Miami is impacted by the relatively larger percentage of elderly people in MDT's service area, many of whom are eligible to use demand response service.

The members of the peer group for demand response service include a number of cities that have relatively high percentages of older population, including Duval (JTA) and Broward (BCT) counties.

Table 4-9 presents the 2007-2012 trends in operating and service statistics for the six most recent years of MDT's demand response service.





**Table 4-8: Demand Response Peer Comparison (2012)**

Agency	MDT	BCT	JTA	GCRTA	MTA	SEPTA	MTA - Harris County	Peer Mean
City	Miami, FL	Plantation, FL	Jacksonville, FL	Cleveland, OH	Baltimore, MD	Philadelphia, PA	Houston, TX	
Unlinked Passenger Trips	1,672,361	716,393	388,283	650,060	1,538,155	1,755,592	1,486,893	1,172,534
Average Age (yrs.) of Demand Response Fleet	4.63	4.19	4.11	3.78	4.80	3.61	2.66	3.97
Passenger Miles Traveled	21,469,157	7,343,794	4,931,003	4,572,942	13,977,166	11,417,480	17,543,859	11,607,914
Average Passenger Trip Length	12.84	10.25	12.70	7.03	9.09	6.50	11.80	10.03
Vehicle Revenue Hours	993,257	392,807	209,713	322,827	1,029,312	996,466	878,875	689,037
Vehicle Revenue Miles	13,585,622	6,510,257	4,216,775	4,821,868	12,188,135	9,953,901	14,809,663	9,440,889
Passenger Trips per Revenue Hour	1.68	1.82	1.85	2.01	1.49	1.76	1.69	1.76
Passenger Trips per Revenue Mile	0.12	0.11	0.09	0.13	0.13	0.18	0.10	0.12
Operating Cost per Passenger Trip	\$30.99	\$24.84	\$36.15	\$47.08	\$42.30	\$28.08	\$25.33	\$33.54
Operating Cost per Revenue Hour	\$52.19	\$45.30	\$66.94	\$94.79	\$63.21	\$49.47	\$42.85	\$59.25
Weekend Service Availability (Revenue Hrs)	2,784	813	558	1,117	2,784	2,272	2,636	1,852
Operating Expenses	\$51,834,558	\$17,795,177	\$14,037,399	\$30,601,678	\$65,067,779	\$49,300,038	\$37,663,281	\$38,042,844
Maintenance Expenses	\$7,150,165	\$1,796,804	\$3,330,440	\$6,102,409	\$7,396,420	\$10,118,006	\$3,028,075	\$5,560,331
Farebox Revenue	\$4,278,474	\$1,314,569	\$628,760	\$678,121	\$2,344,629	\$6,045,191	\$1,265,876	\$2,365,089
Farebox Recovery Ratio	8.25%	7.39%	4.48%	2.22%	3.60%	12.26%	3.36%	5.94%

Data Source: 2012 NTD

**Table 4-9: MDT Special Transportation Service 2007-2012 Trend**

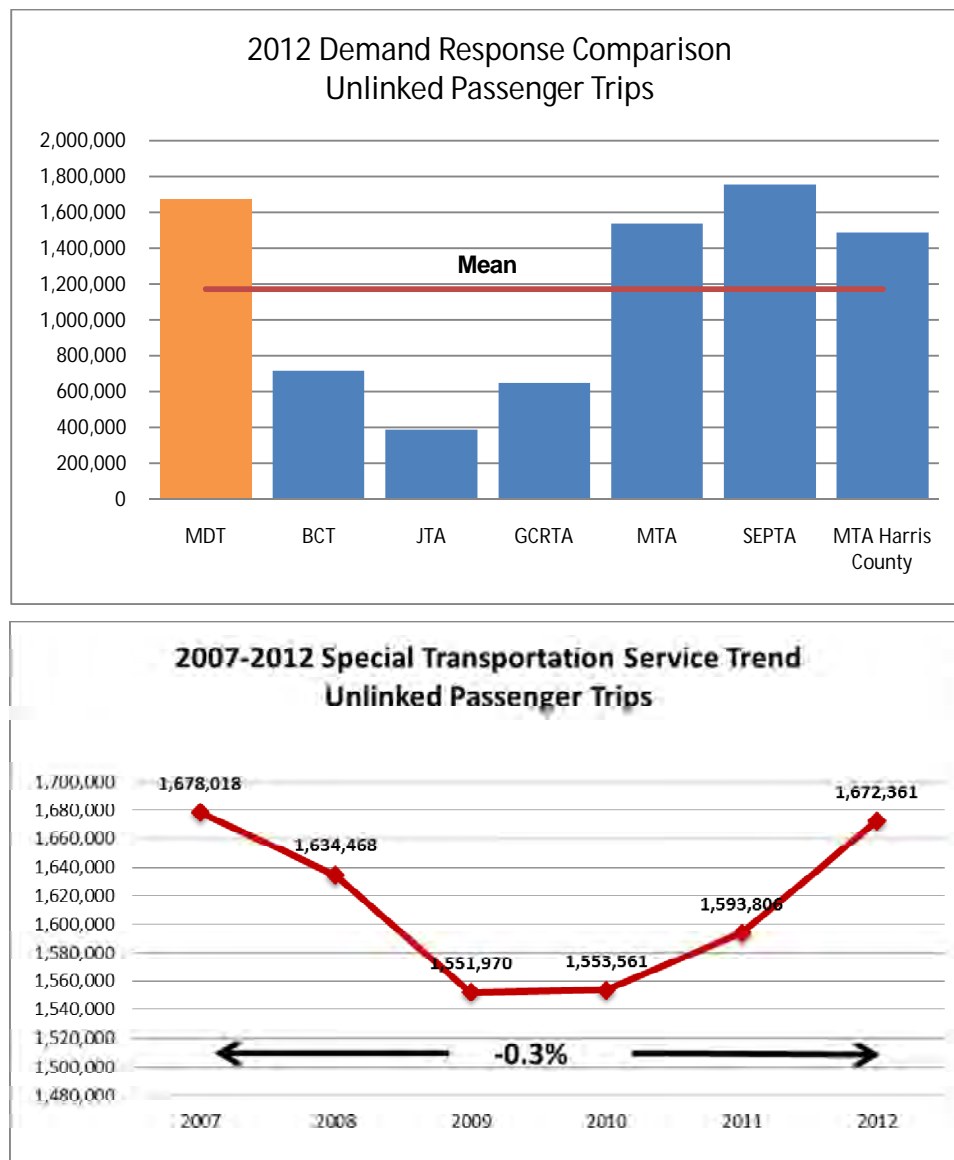
Performance Measures	2007	2008	2009	2010	2011	2012
Unlinked Passenger Trips	1,678,018	1,634,468	1,551,970	1,553,561	1,593,806	1,672,361
Average Age (yrs.) of Demand Response Fleet	2.4	2.8	3.3	3.7	4.2	4.6
Passenger Miles Traveled	24,268,233	22,224,772	16,778,379	21,144,648	20,326,328	21,469,157
Average Passenger Trip Length	14.46	13.60	10.81	13.61	12.75	12.84
Vehicle Revenue Hours	950,790	944,519	949,173	973,028	978,336	993,257
Vehicle Revenue Miles	13,948,718	13,605,381	13,084,419	13,260,276	13,232,539	13,585,622
Passenger Trips Per Revenue Hour	1.76	1.73	1.64	1.60	1.63	1.68
Passenger Trips Per Revenue Mile	0.1203	0.1201	0.1186	0.1172	0.1204	0.1231
Operating Cost Per Passenger Trip	\$25.15	\$27.43	\$28.69	\$28.97	\$29.45	\$30.99
Operating Cost Per Revenue Hour	\$44.38	\$47.46	\$46.91	\$46.25	\$47.98	\$52.19
Weekend Service Availability (Rev. Hrs)	2,505	2,474	2,618	2,566	2,653	2,784
Operating Expenses	\$42,198,872	\$44,829,765	\$44,522,040	\$45,000,089	\$46,939,524	51,834,558
Maintenance Expenses	\$6,024,556	\$6,334,171	\$6,250,499	\$5,617,528	\$5,646,231	7,150,165
Farebox Revenue	\$4,238,800	\$4,303,798	\$4,004,568	\$3,990,359	\$4,075,348	4,278,474
Farebox Recovery Ratio	10.04%	9.60%	8.99%	8.87%	8.68%	8.25%

Data Source: NTD (2007 – 2012)

#### 4.7.1 Unlinked Passenger Trips

Figure 4-49 compares unlinked passenger trips for MDT and its demand response peers. In 2012, MDT's demand response service handled more than 1.6 million passenger trips, more than all of the peer agencies, except SEPTA. Demand response services unlinked passenger trips decreased significantly from 2007 to 2009 then increased from 2010 to 2012. Overall, the number of passenger trips decreased by 0.3 percent from 2007 to 2012.

**Figure 4-49: Demand Response Unlinked Passenger Trips**

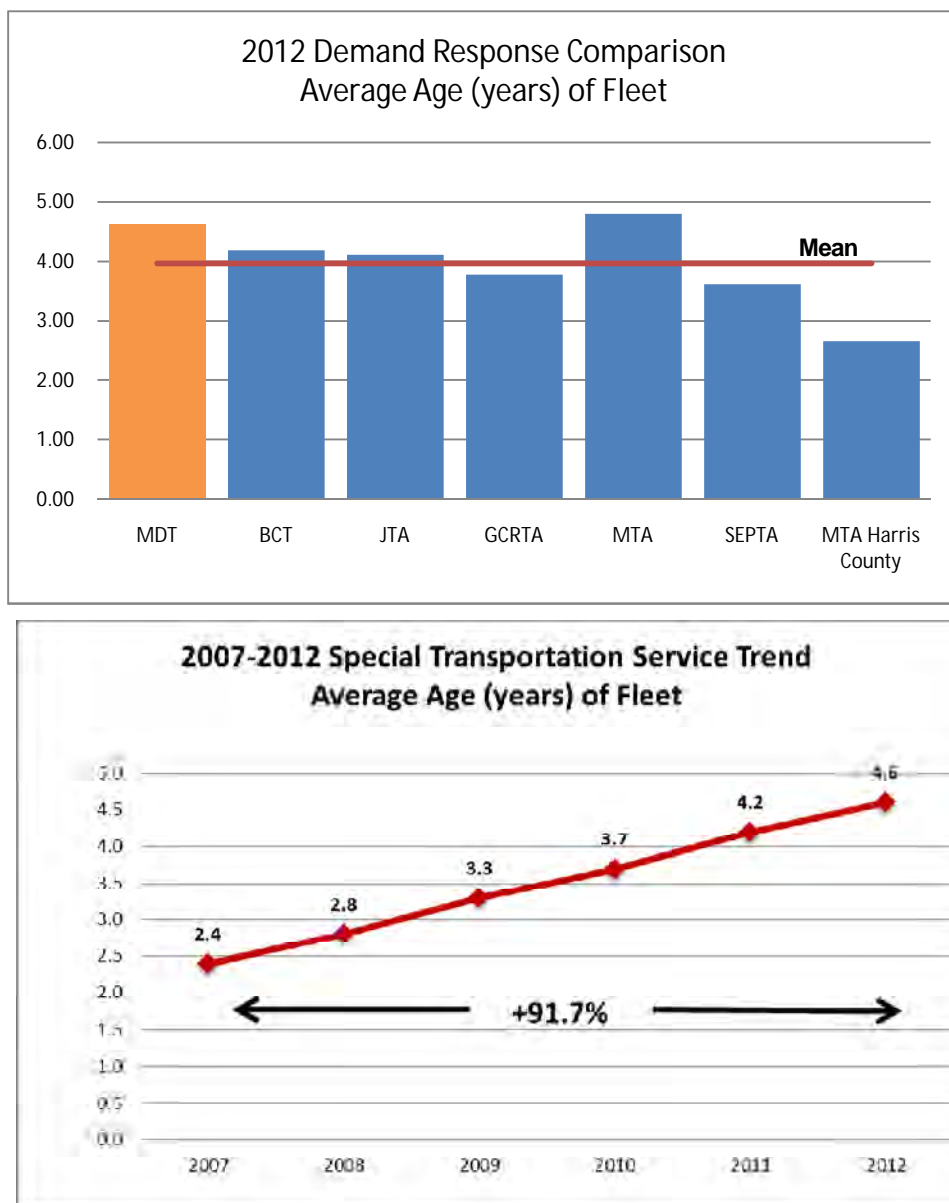


Data Source: NTD (2007 – 2012)

#### 4.7.2 Average Age (years) of Demand Response Fleet

Figure 4-50 shows the average age of the peer agencies' demand response fleet. MDT's fleet is older than most of its peers, with the exception of MTA. The average age of MDT's demand service response fleet has been increasing since 2007 with a 2012 average age of nearly five years.

**Figure 4-50: Average Age (years) of Demand Response Fleet**

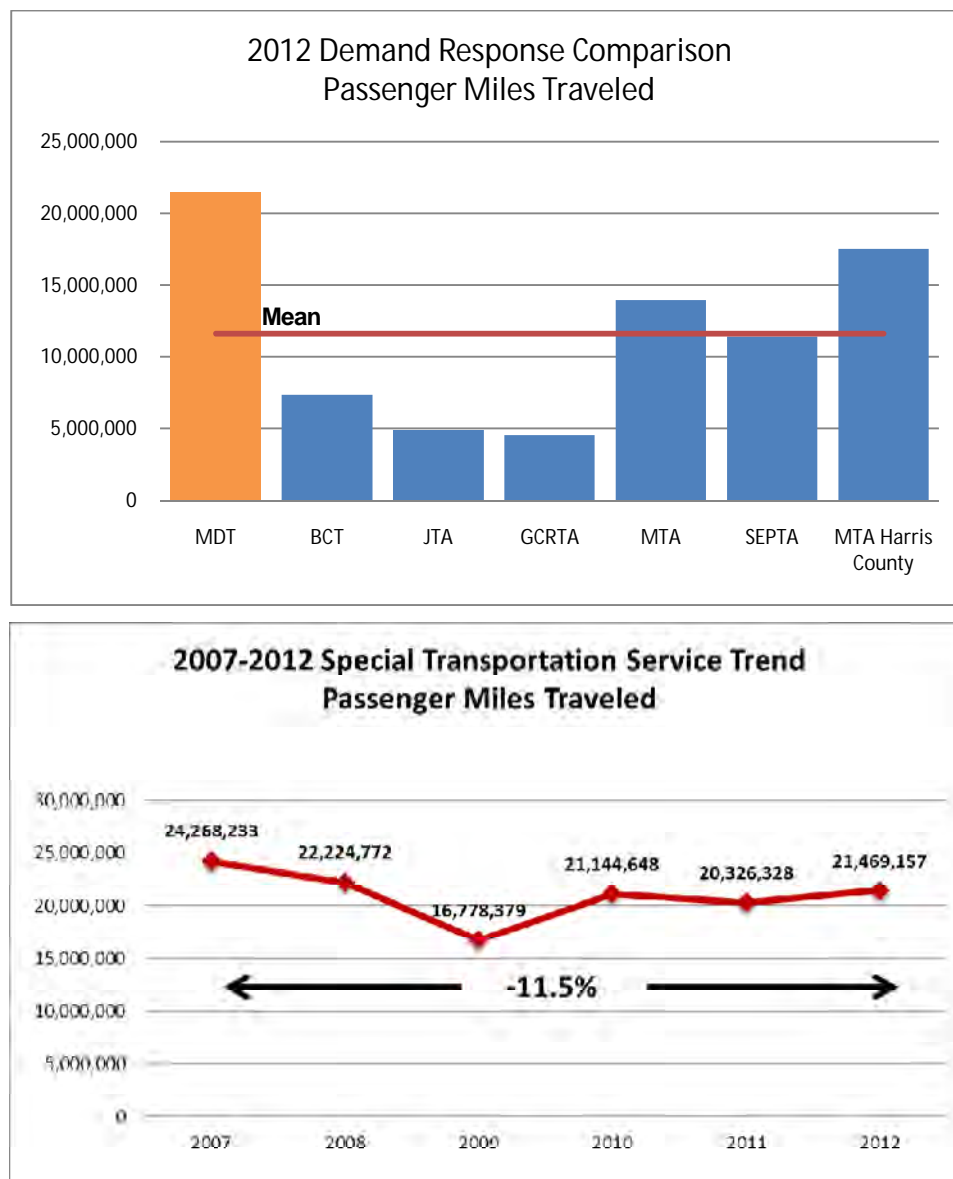


Data Source: NTD (2007 – 2012)

### 4.7.3 Passenger Miles Traveled and Average Passenger Trip Length

Figure 4-51 shows passenger miles traveled for MDT and the peer agencies, with MDT's 21.4 million passenger miles traveled being well above its peers. Demand response services passenger miles traveled experienced a large decrease from 2007 to 2009, increased from 2009 to 2010, and then stayed relatively level from 2010 to 2012. Overall, there was an 11.5 percent decrease in passenger miles traveled from 2007 to 2012.

**Figure 4-51: Demand Response Passenger Miles Traveled**



Data Source: NTD (2007 – 2012)



As seen in Figure 4-52, MDT's high demand response average trip length is similar to JTA's and MTA – Harris County's. MDT's average trip length has been approximately 13 miles for four of the six years.

**Figure 4-52: Demand Response Average Passenger Trip Length**

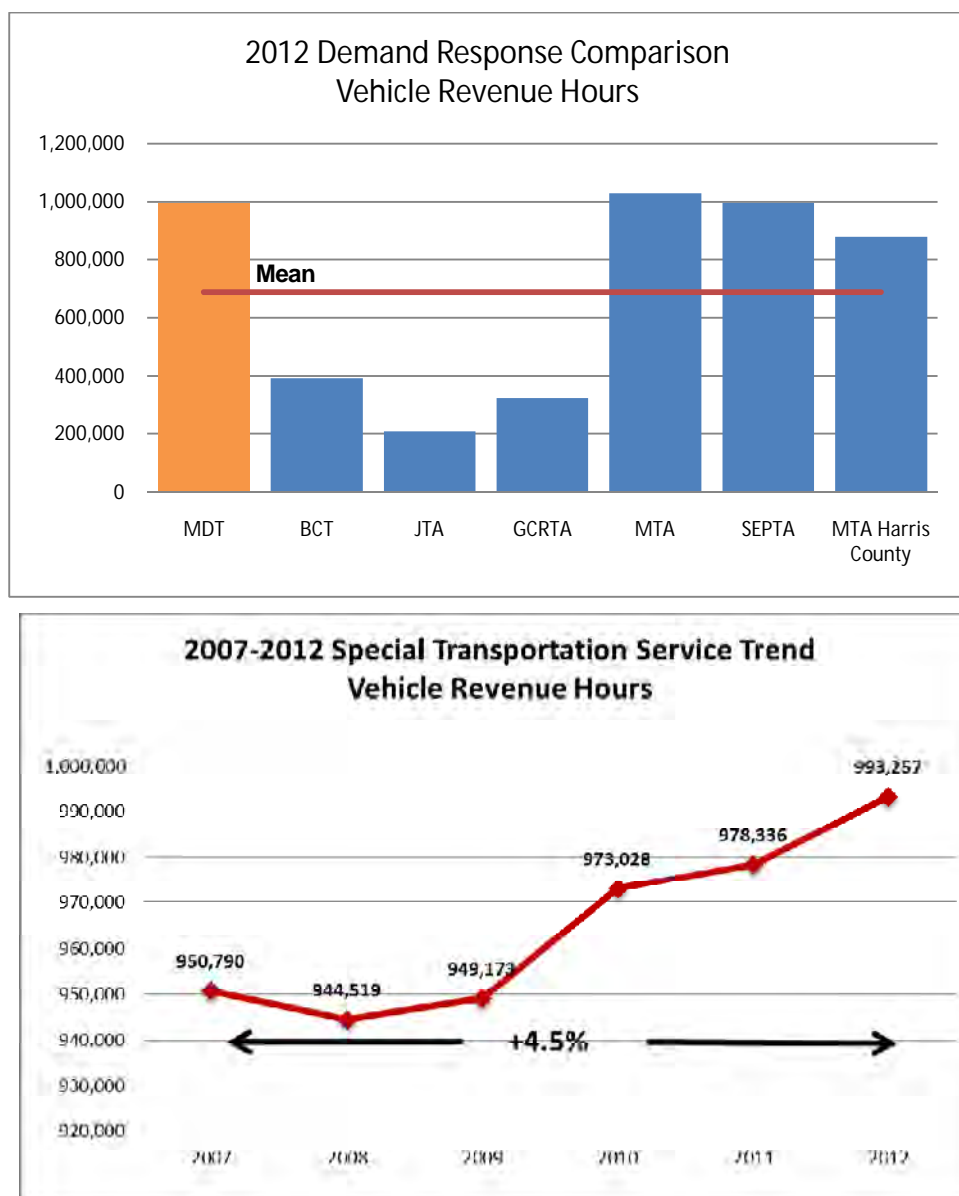


Data Source: NTD (2007 – 2012)

#### 4.7.4 Vehicle Revenue Hours and Vehicle Revenue Miles

Figure 4-53 and Figure 4-54 show demand response revenue hours and demand response revenue miles, respectively. MDT operates demand response revenue hours and revenue miles well above the peer mean, only behind MTA and SEPTA for revenue hours and MTA Harris County for revenue miles. Demand response services vehicle revenue hours decreased slightly from 2007 to 2008, and increased from 2008 to 2012. Overall, they increased 4.5 percent from 2007 to 2012.

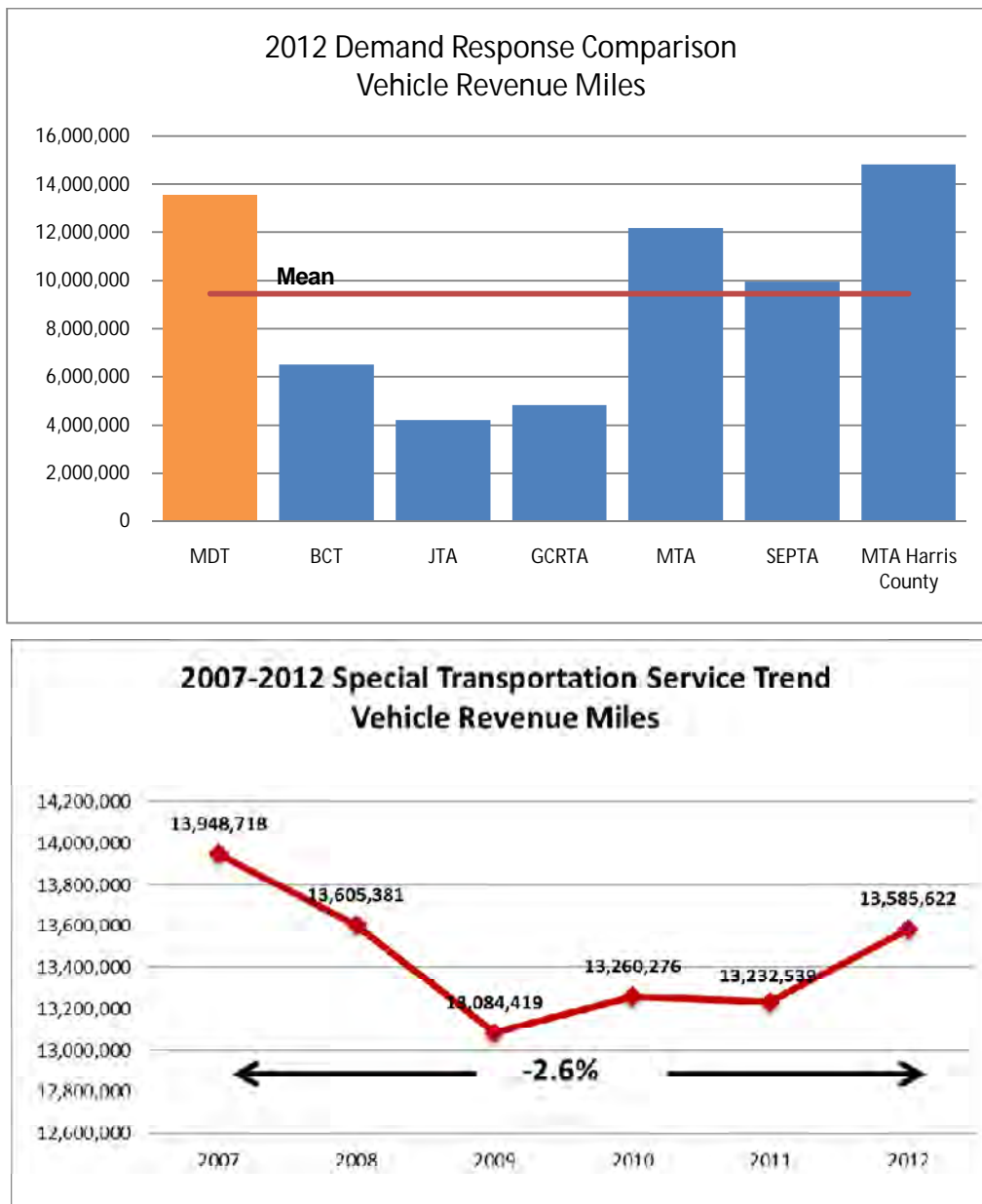
**Figure 4-53: Demand Response Vehicle Revenue Hours**



Data Source: NTD (2007 – 2012)

Vehicle revenue miles decreased from 2007 to 2009 and increased from 2009 to 2012. Overall, vehicle revenue miles decreased 2.6 percent from 2007 to 2012.

**Figure 4-54: Demand Response Vehicle Revenue Miles**

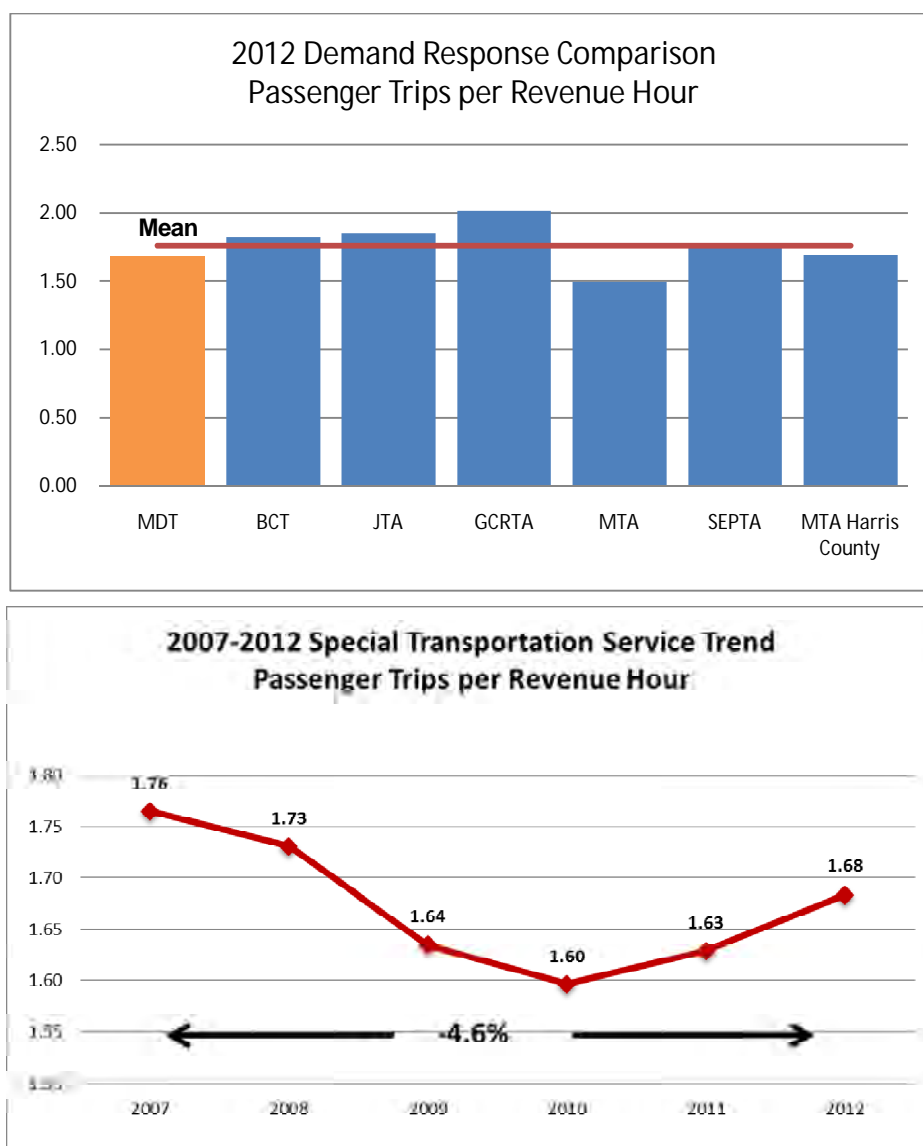


Data Source: NTD (2007 – 2012)

#### 4.7.5 Passenger Trips per Revenue Hour and Revenue Mile

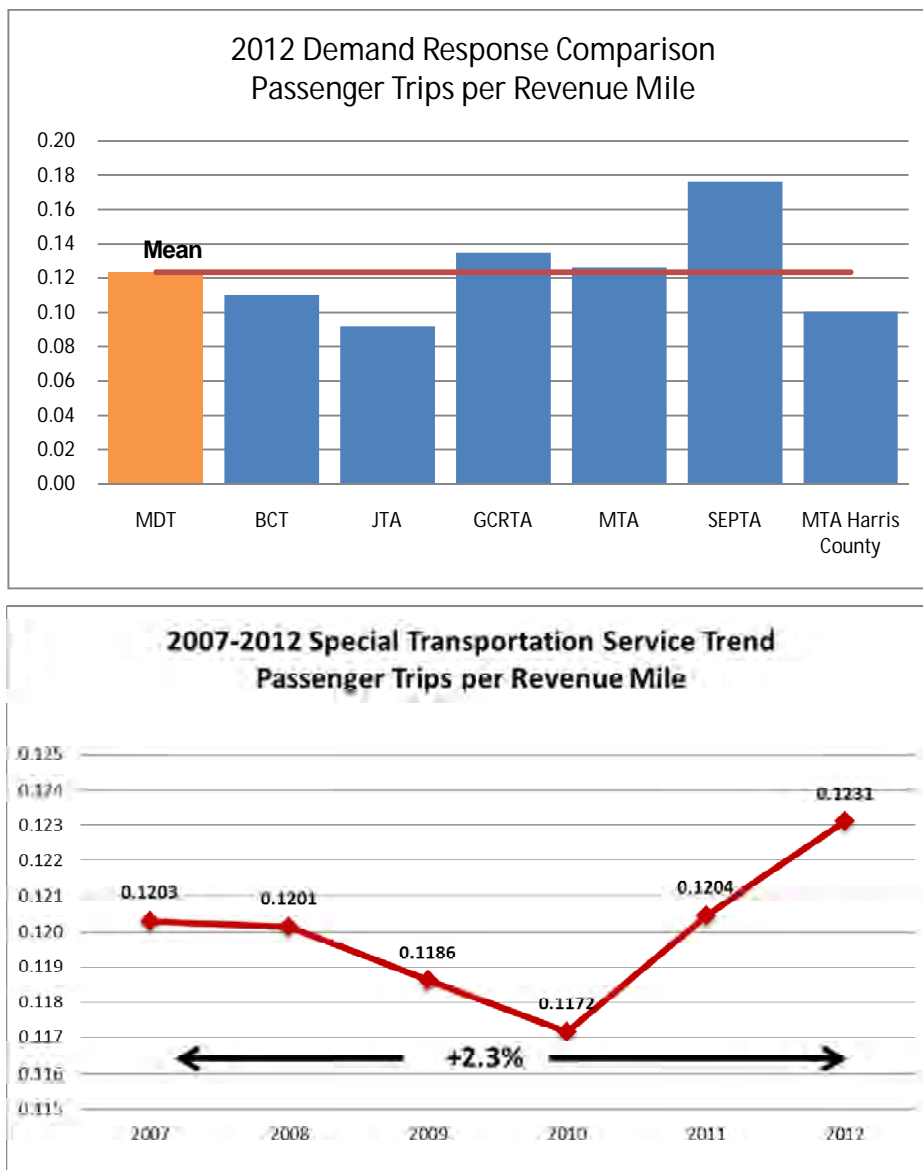
MDT's demand response service is around the peer mean in terms of productivity measured by passenger trips per revenue hour and passenger trips per revenue mile, as seen in Figure 4-55 and Figure 4-56. Demand response services passenger trips per revenue hour and per revenue mile both decreased from 2007 to 2010 and increased from 2010 to 2012. Overall, passenger trips per revenue hour decreased 4.6 percent from 2007 to 2012 and passenger trips per revenue mile increased by 2.3 percent from 2007 to 2012.

**Figure 4-55: Demand Response Passenger Trips per Revenue Hour**



Data Source: NTD (2007 – 2012)

**Figure 4-56: Demand Response Passenger Trips per Revenue Mile**



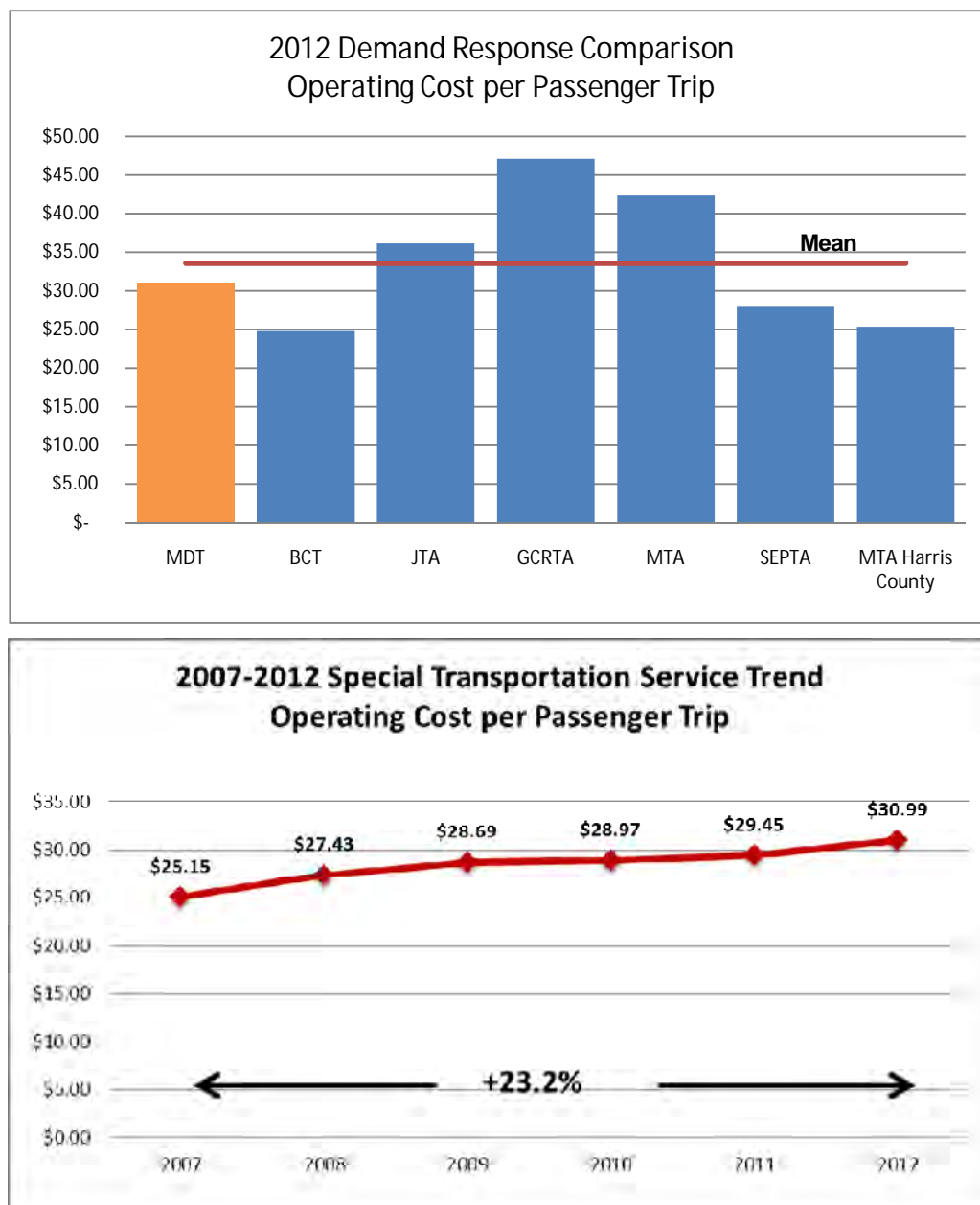
Data Source: NTD (2007 – 2012)



#### 4.7.6 Operating Cost per Passenger Trip and Revenue Hour

Figure 4-57 and Figure 4-58 show demand response operating cost per passenger trip and operating cost per revenue hour, respectively. The figures indicate that MDT's demand response service is operated just below the peer mean for both measures. Demand response services operating cost per passenger trip increased steadily from 2007 to 2012 at an overall rate of 23.2 percent.

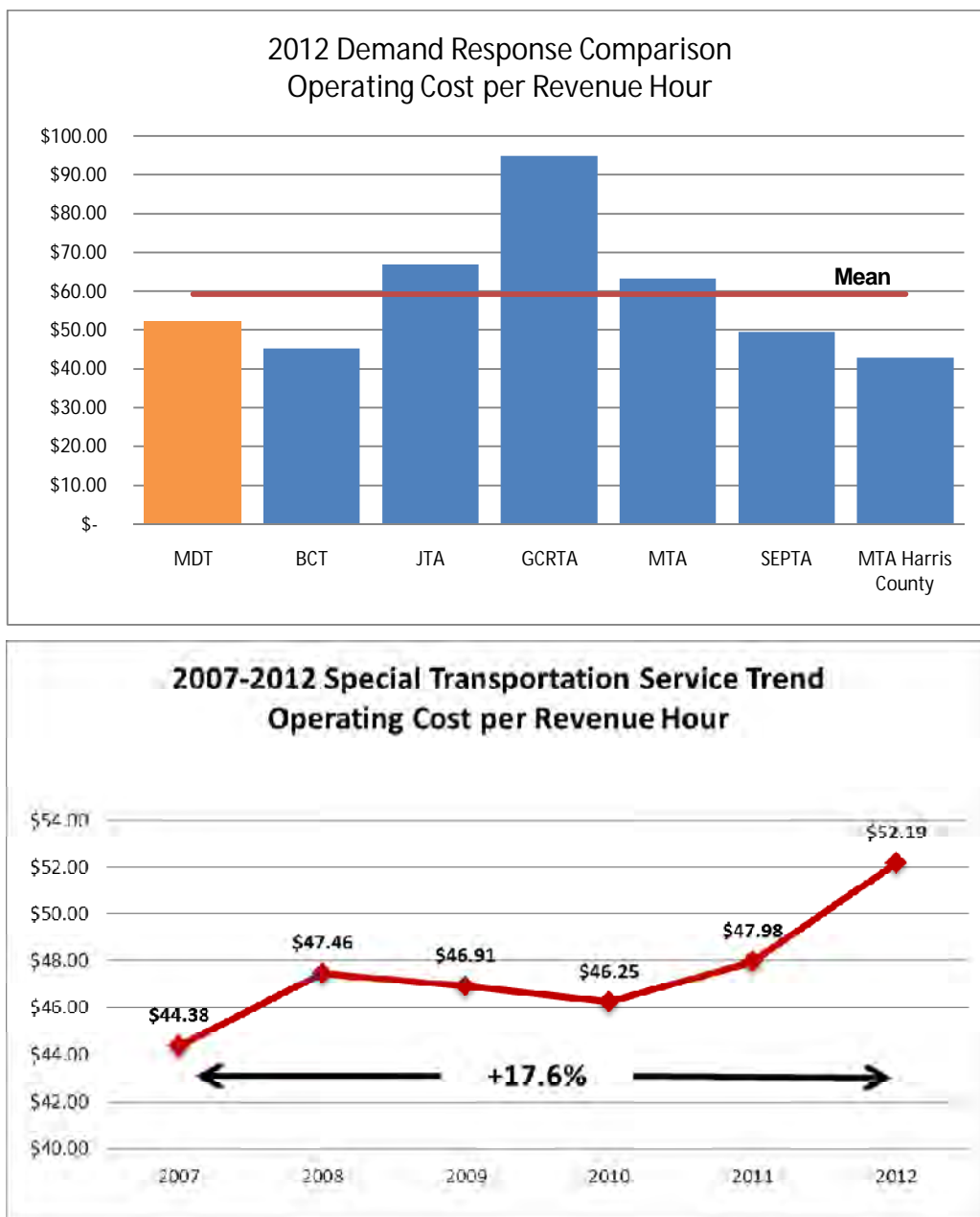
**Figure 4-57: Demand Response Operating Cost per Passenger Trip**



Data Source: NTD (2007 – 2012)

Demand response services operating cost per revenue hour increased significantly from 2007 to 2008, decreased slightly from 2008 to 2010, and then increased from 2010 to 2012. Overall, the operating cost per revenue hour increased 17.6 percent from 2007 to 2012.

**Figure 4-58: Demand Response Operating Cost per Revenue Hour**

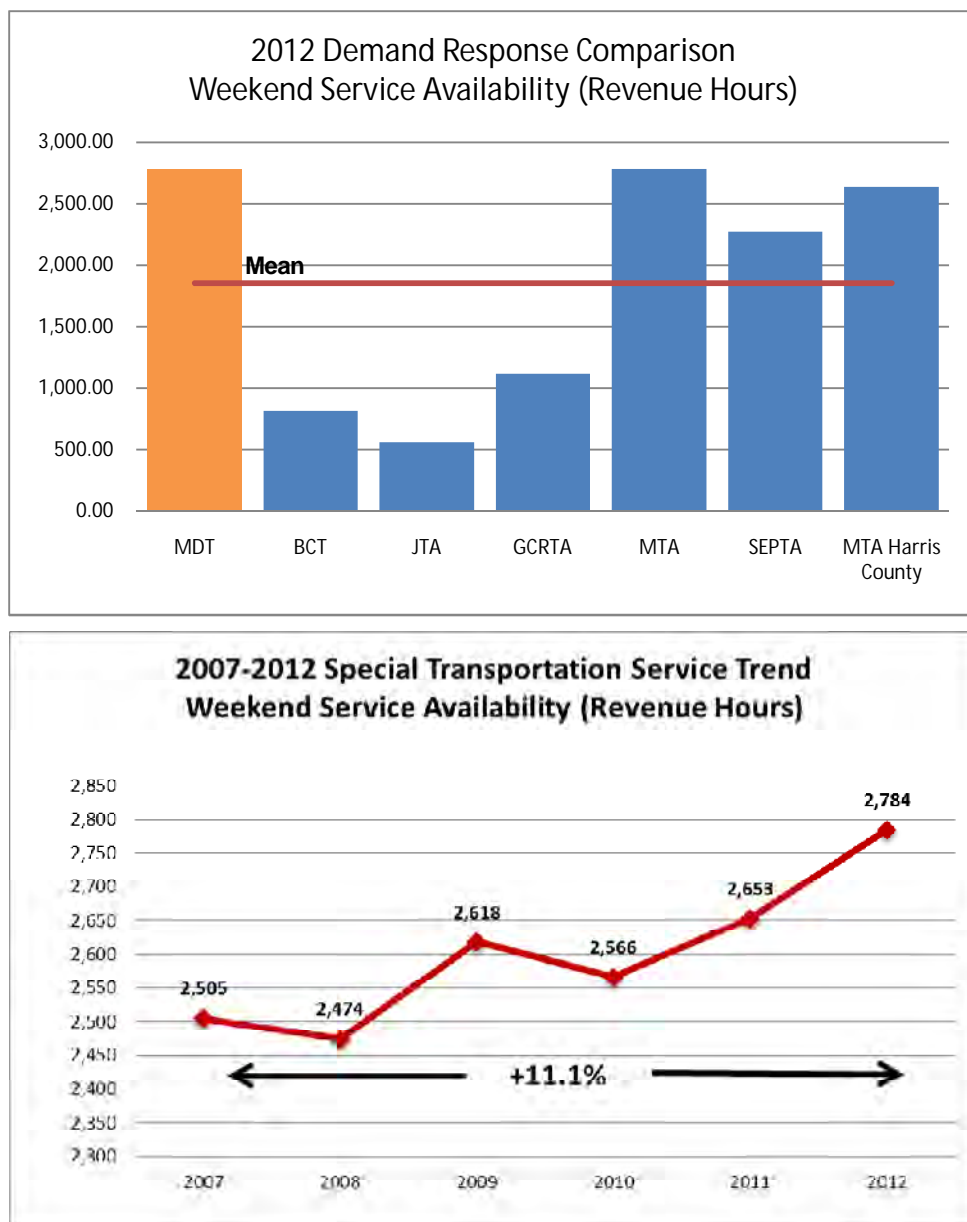


Data Source: NTD (2007 – 2012)

#### 4.7.7 Weekend Service Availability (Revenue Hours)

Figure 4-59 shows revenue hours during a typical weekend (Saturday and Sunday) as a measure of weekend service availability. As the graphic shows, in 2012 MDT provided more weekend service than most of its peers, except MTA. Weekend service availability for MDT's demand response services has increased by 11.1 percent during the trend period with steady increases within the last two years.

**Figure 4-59: Demand Response Weekend Service Availability (Revenue Hours)**

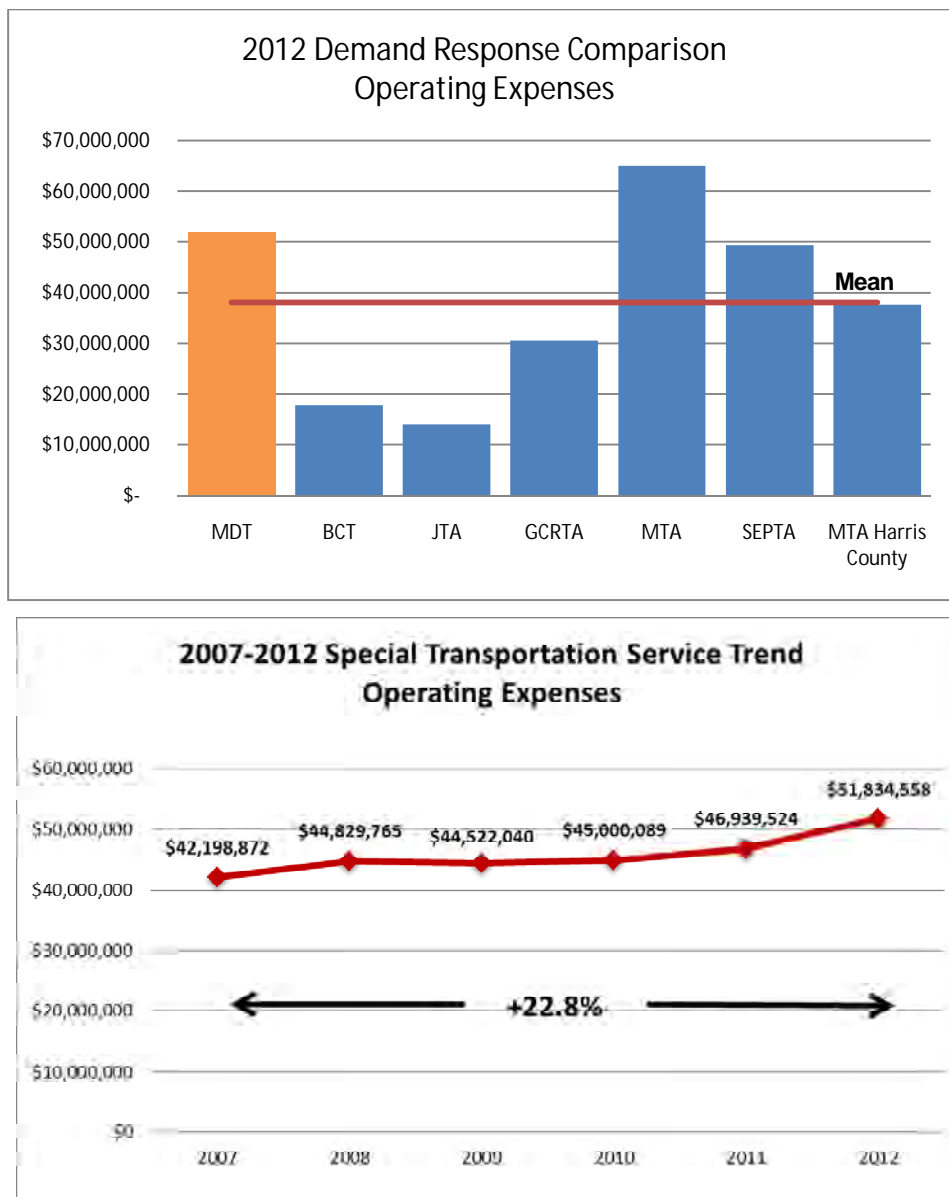


Data Source: 2012 NTD

#### 4.7.8 Operating Expenses

As seen in Figure 4-60, MDT's operating expenses are higher than the peer mean, with only MTA operating the service at a higher cost. MDT's operating expenses for demand response have been increasing since 2007.

**Figure 4-60: Demand Response Operating Expenses**

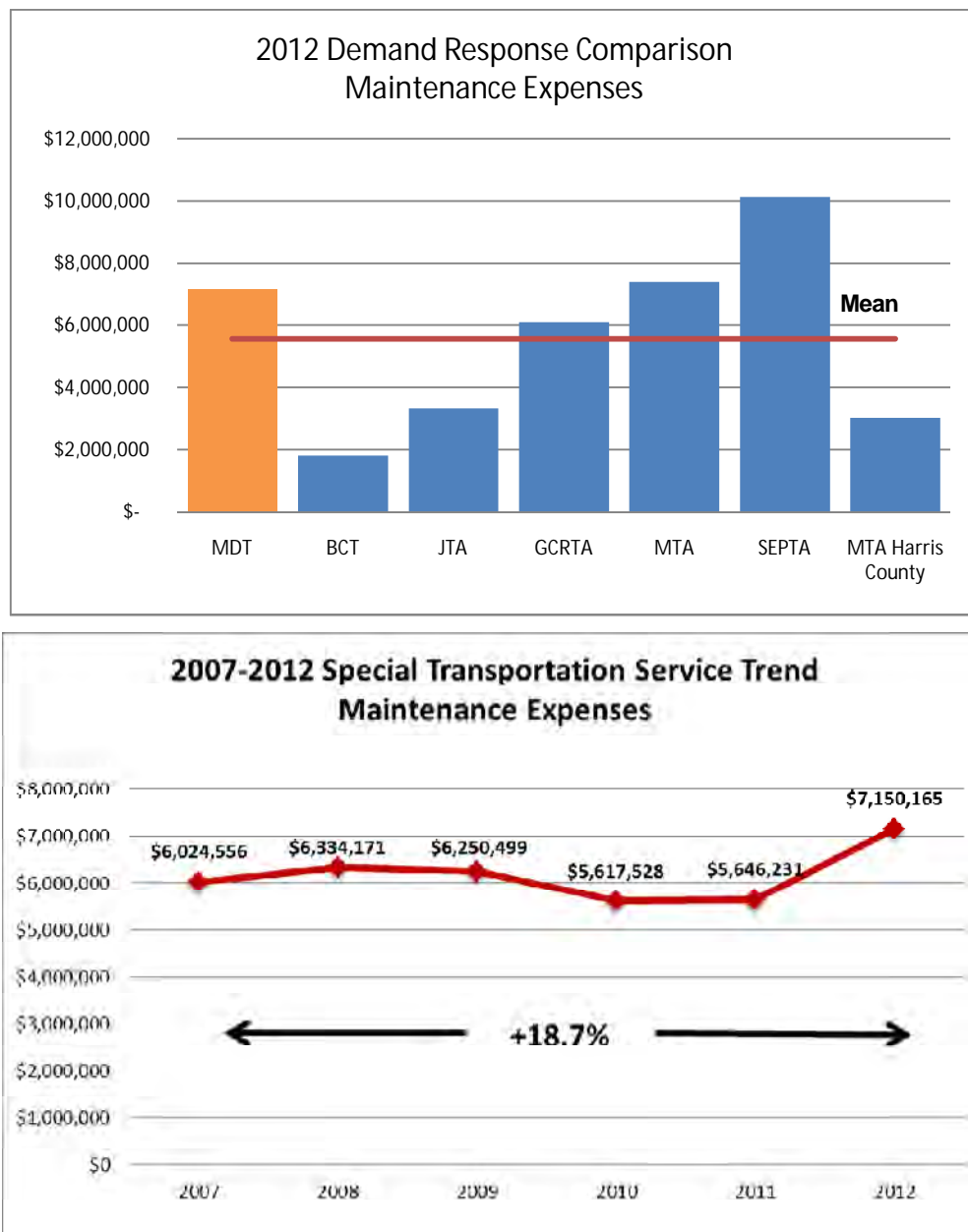


Data Source: NTD (2007 – 2012)

#### 4.7.9 Maintenance Expenses

Figure 4-61 shows maintenance expenses<sup>6</sup> rank third among its peers. Between 2007 and 2010 STS maintenance expenses declined slightly but have increase since 2011 which may be attributed to the aging vehicle fleet.

**Figure 4-61: Demand Response Maintenance Expenses**



Data Source: NTD (2007 – 2012)

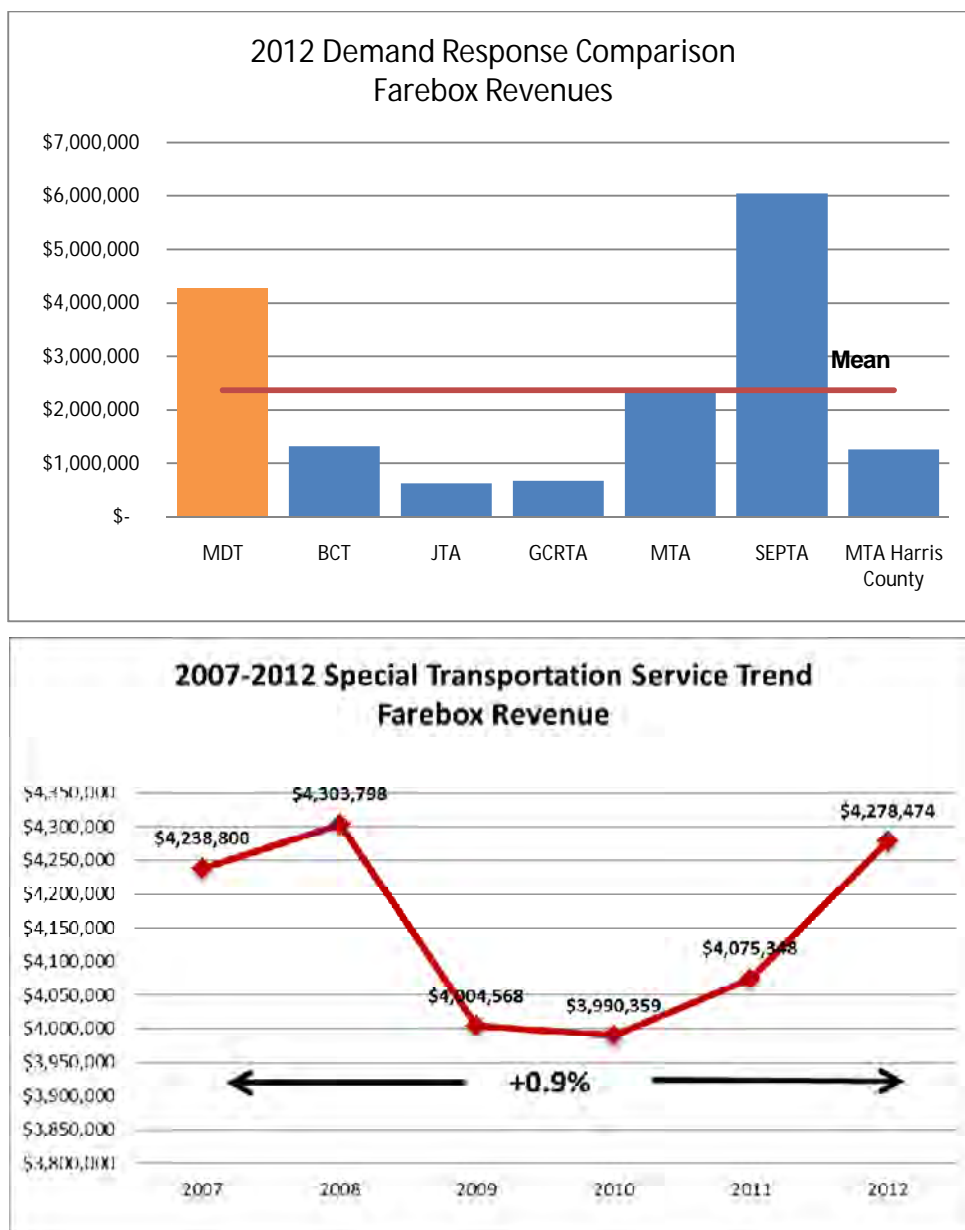
<sup>6</sup> Maintenance expenses are a subset of total operating expenses in the data provided by NTD.



#### 4.7.10 Farebox Revenues

Figure 4-62 compares farebox revenue for MDT of about \$4.3 million ranks second among the selected peers. Since 2007, farebox revenues have increased by about 0.9 percent.

**Figure 4-62: Demand Response Farebox Revenues**

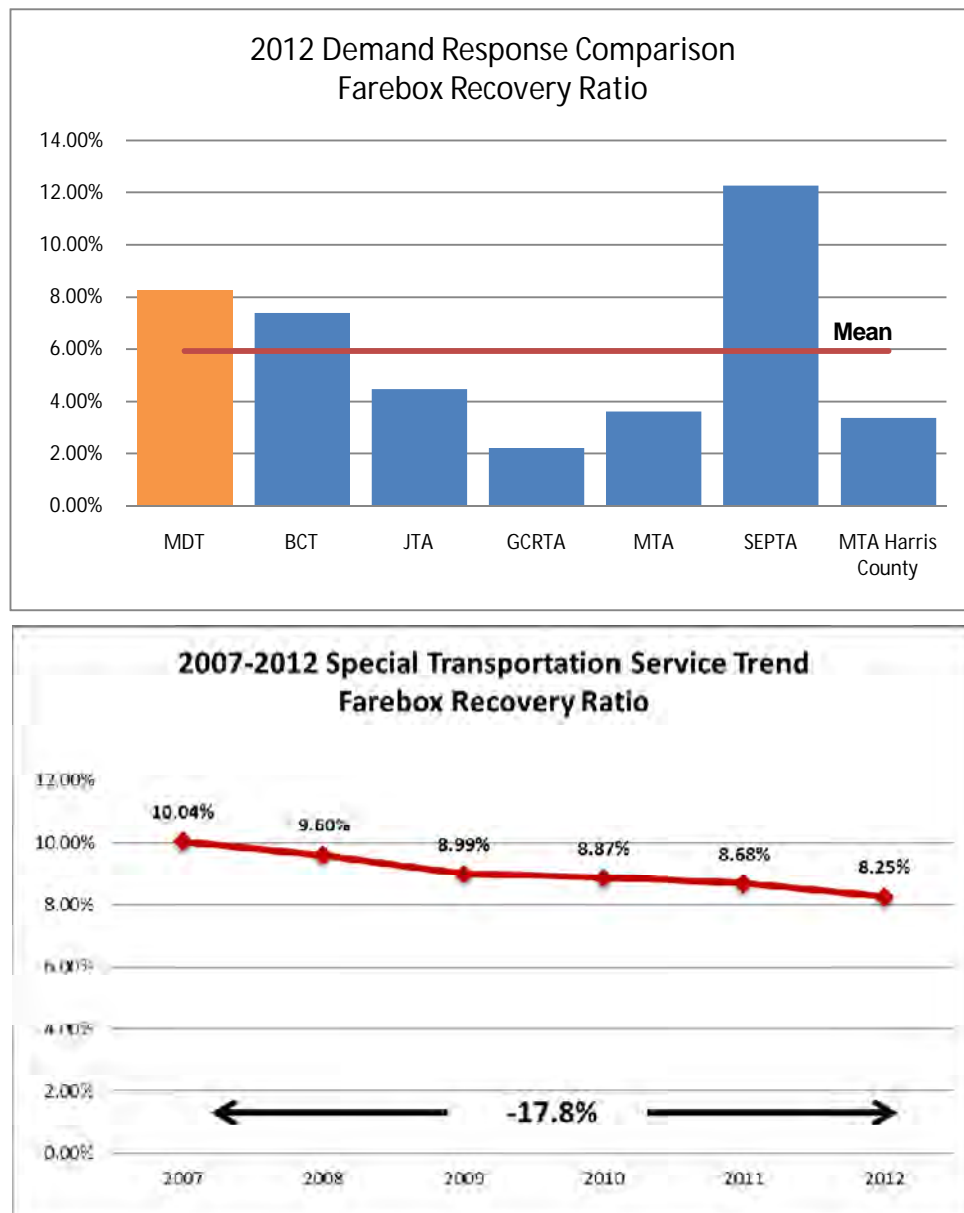


Data Source: NTD (2007 – 2012)

#### 4.7.11 Farebox Recovery Ratio

Figure 4-63 compares the farebox recovery ratio for MDT and its selected peers. MDT's service performs higher than the peer mean at just over eight percent, behind only SEPTA's twelve percent. Demand response services experienced a steady decrease in farebox recovery from 2007 to 2012 at an overall rate of 17.8 percent.

**Figure 4-63: Demand Response Farebox Recovery Ratio**



Data Source: NTD (2007 – 2012)

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## 5.0 PUBLIC INVOLVEMENT

### 5.1 Introduction

MDT developed a robust outreach program which it documented at the beginning of the project in an FDOT-approved Public Involvement Plan (PIP). The PIP laid out the public outreach activities to be undertaken as well as goals for the public involvement process. The PIP can be found in Appendix A.4.

This chapter of the TDP provides a detailed description of all the public outreach activities undertaken throughout the TDP process as well as how MDT fared on meeting its goals.

### 5.2 Branding

Early in the process, MDT's Marketing Division developed a name and logo for the project: MDT10Ahead. The branded name assisted 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 was used on all TDP materials.



### 5.3 Project Steering Committee

The role of the Project Steering Committee (PSC) is to provide 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 PSC reviews and provides comment on all major deliverables.

The Committee is composed of representatives from major stakeholder groups, including the CareerSource South Florida, FDOT, and Metropolitan Planning Organization as required by Florida statute. The committee met four times: June 24, July 8, July 24, and August 22. Participants provided input on the public involvement activities during the first meeting, on the program of improvements during the second meeting, on the financial plan during the third meeting, and on the goals and objectives during the fourth meeting.

A list of PSC members as well as meeting sign-in sheets can be found in Appendix A.5.

### 5.4 Focus Groups

Two focus group meetings were held to seek input for the TDP. The first group met on June 17, 2014, and was composed of municipal representatives. This group explored how MDT can work better with local municipalities to provide service as well as support municipal services.

The second group also met on June 17, 2014, and represented the commission districts. Each Board of County Commissioner was asked to provide a representative for these meetings. The participants provided input on how MDT could better provide service. A

list of individuals invited to participate in the focus groups as well as meeting sign-in sheets can be found in Appendix A.6.

## 5.5 On-Going MDT Outreach

Through coordinated county-wide efforts, MDT continues its efforts to educate and provide early and ongoing public involvement opportunities to the residents of Miami-Dade County. MDT maintains an outreach program *for engaging the public and other stakeholders through various activities and meeting forums*. These include the MDT website and social media outlets, mobile telephone applications (“apps”), posters and signs on buses, television screens and posters at stations, etc. Through its Corporate Discount Program (CDP), MDT also reaches a wide variety of potential patrons. Table 5-1 gives an overview of the outreach under the CDP undertaken in 2013.

**Table 5-1: Corporate Discount Program Outreach, 2013**

Type of Event	Number
New County Employee Orientation	24
Outreach Events	140
Client Meetings	46
Cold Calls	18
New Accounts	19
Total	247

MDT used these mechanisms, when feasible, to promote participation in the TDP development process. Examples include directing passengers to complete an online survey regarding MDT or advertising an upcoming public meeting.

MDT regularly meets with the community at various locations:

- High schools, colleges, and universities
- Public libraries and parks
- Neighborhood associations and community-based organizations such as community centers and recreation centers
- Shopping malls
- Healthcare facilities
- MDT Metrobus transfer points, Metromover stations, and Metrorail stations.

MDT participated in 36 outreach activities throughout the course of the TDP where MDT promoted the TDP and requested input via comment cards from attendees. Maps of these outreach activities by Commission District can be found in Appendix A.7. A listing of these events can be found in Appendix A.8. From these 36 events, MDT staff collected 459 comment cards. The data from the comment cards are analyzed and presented in Section 5.7.



## 5.6 Electronic Communication

MDT promoted TDP outreach activities and encouraged input through its electronic communication outlets. Notices were posted on the MDT, MPO, and Miami-Dade County websites. MDT posted information on its Facebook page ([www.facebook.com/MiamiDadeTransit](http://www.facebook.com/MiamiDadeTransit)) and through its Twitter account ([www.twitter.com/iridemdt](http://www.twitter.com/iridemdt)). MDT also used its mobile app to reach passengers.

MDT established a TDP-specific email address ([MDT10Ahead@miamidade.gov](mailto:MDT10Ahead@miamidade.gov)) where commenter's could direct any TDP-related comments. MDT staff received 110 emails through this address.

MDT used the Community Information and Outreach Center's (CIAO) electronic ([www.miamidade.gov](http://www.miamidade.gov) or [311@miamidade.gov](mailto:311@miamidade.gov)) and telephone (3-1-1, 305-468-5900, 888-311-DADE (3233), or TTY 305-468-5402) portals to gather information. If a commenter indicated that the comment was related to the TDP, the information was forwarded by CIAO staff to MDT staff. Commenter's could also call MDT's customer service line (305-891-3131 or TTY 305-499-8971) to provide a comment.

## 5.7 Surveys

MDT successfully used a survey instrument to gather input from the public to be used for the TDP. Electronic surveys were posted on MDT's website and distributed through e-mail blasts. The surveys were available in English, Spanish and Creole.

A shorter version of the electronic survey was developed and printed in a brochure. The brochures were distributed around the county as well as passed out at various events. Over 115 locations around the county were used as distribution sites. A list of locations where comment cards were distributed is provided in Appendix A.8. These facilities included libraries, medical facilities, and community centers, among other types of facilities. Participants could take the survey and return via postage-paid mail. Printed surveys were in English, Spanish and Creole.

The number of completed surveys is displayed in Table 5-2. Approximately 10 percent were taken in a language other than English.

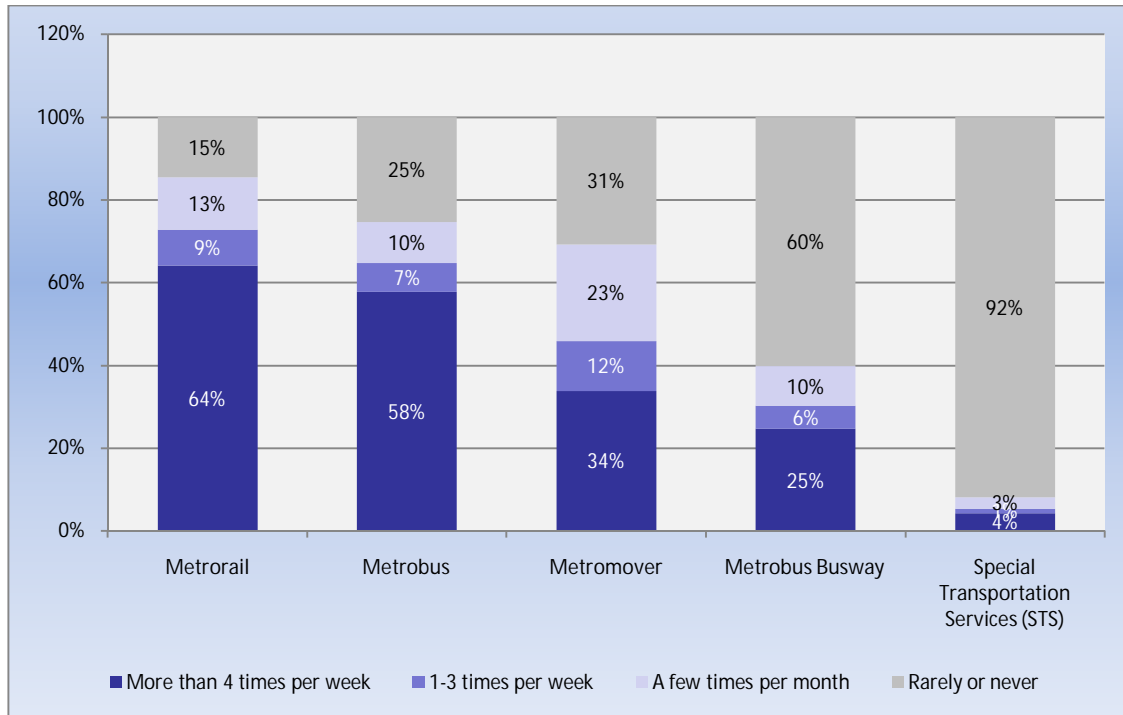
**Table 5-2: Survey Responses by Survey Type**

Survey Version	Number of Participants
English	3,525
Spanish	349
Creole	43
Total	3,917

A summary of all survey results is provided in Appendix A.9. The following pages present a few of the survey question responses.

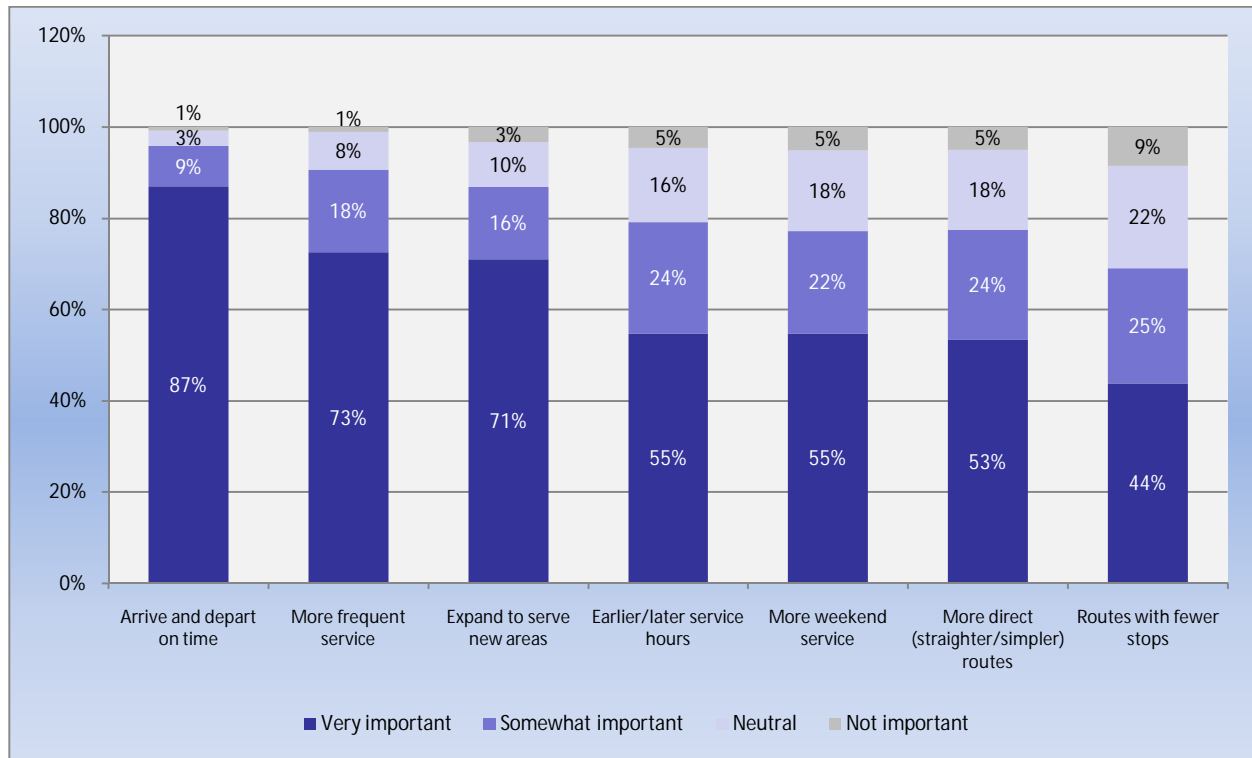
Figure 5-1 examines what type of rider the respondents are. Over half of the respondents are regular users of Metrorail and/or Metrobus. A third use Metromover regularly and a quarter use the Metrobus Busway regularly.

**Figure 5-1: How often do you use Miami-Dade Transit services?**



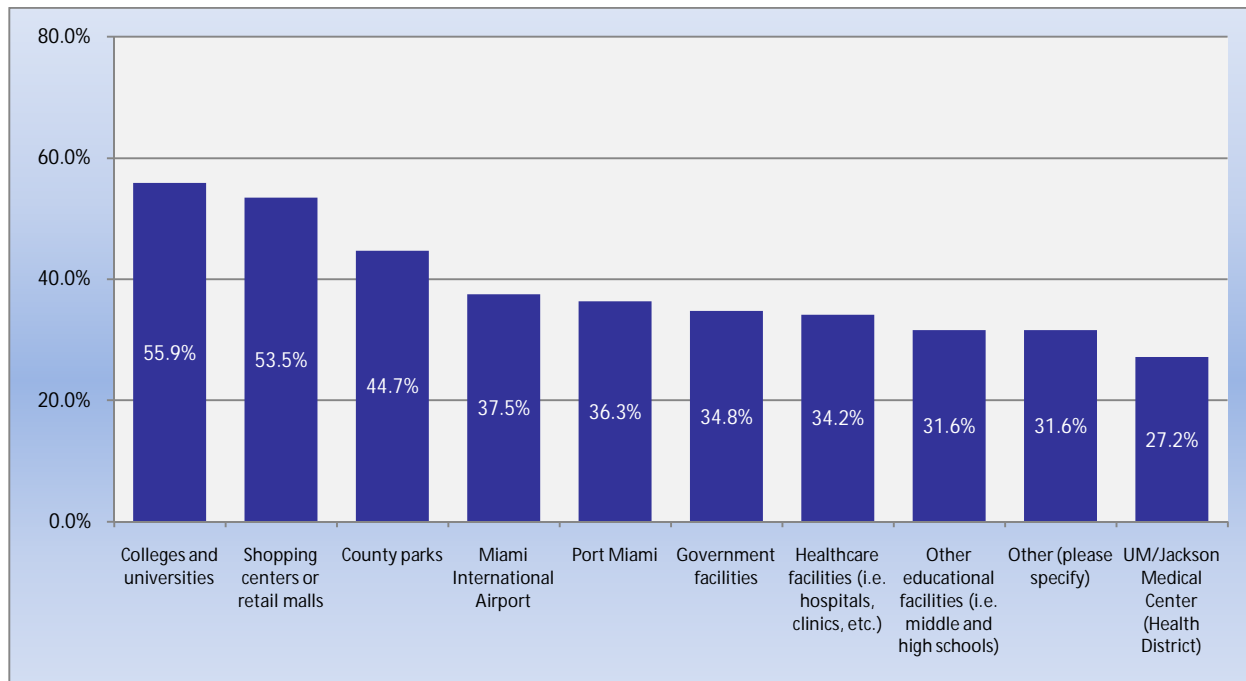
When asked about prioritization of service needs, the most important improvement noted is on-time performance as shown in Figure 5-2. On-time performance is followed by increased frequency of service and expanding to new service areas. When broken down by mode, the results are similar (see Appendix A.9).

**Figure 5-2: Given its limited resources, what should Miami-Dade Transit's priorities be for the next ten years?**



When asked about what destinations MDT could serve better, respondents indicated that colleges and universities followed closely by shopping centers could be served better. Figure 5-3 displays the full results from this question. For those who indicated "Other" as a response, the most popular response by far was the beach although areas all over the county were mentioned.

**Figure 5-3: Which of the following destinations could Miami-Dade Transit serve better?**



Full results from the survey can be found in Appendix A.9.

## 5.8 Presentations

MDT presented to the following groups during the TDP development process.

### 5.8.1 Citizens Transportation Advisory Committee (CTAC)

MDT presented to the CTAC on June 25, 2014. The 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 MPO Governing Board members.

### 5.8.2 Transportation Planning Technical Advisory Committee (TPTAC)

MDT presented to the TPTAC on June 4, 2014. The MPO TPTAC provides technical support, via a review process, to the Transportation Planning Council. TPTAC discussions are focused on technical aspects related to the projects.

### 5.8.3 Transportation and Aviation Committee (TAC)

MDT presented to the TAC on November 12, 2014. The TAC provides an oversight of transportation systems from a local perspective and the capital and infrastructure program. The TAC will review and provide input on the TDP as well as take formal action in recommending its approval to the BCC based upon a formal presentation.

#### 5.8.4 Citizens' Independent Transportation Trust (CITT)

MDT is presented to the Project and the Financial Review Committee (PFRC) of the Citizens' Independent Transportation Trust (CITT) on November 13, 2014. The Citizens' Independent Transportation Trust (CITT) is the 15-member body created to oversee the People's Transportation Plan funded with the half-percent sales surtax.

#### 5.9 Public Hearing

The TDP will be reviewed by and presented to the Transportation and Aviation Committee (TAC), a subcommittee of the BCC, 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 the FDOT for review and approval. The public hearing process will also allow members of the public to comment on the TDP.

MDT is scheduled to present the TDP to the BCC on December 8, 2014. The Miami-Dade County BCC is the administrative body for county government which 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.

#### 5.10 Public Involvement Summary

Civic engagement is an integral component of the TDP development process. MDT developed a robust Public Involvement Plan (PIP) which was approved by FDOT. A name and logo for the project, *MDT10Ahead*, was developed in order to assist stakeholders and the public in recognizing project materials; allowing for more efficient communication between the project team, the public, and stakeholders. The branded name was used on all materials including, but not limited to, the project website, informational cards, and the survey instrument.

A survey instrument was developed to gather input from the general public, both transit and non-transit users. In addition, in order to reach a wider audience, electronic surveys were posted on MDT's website and distributed through e-mail blasts. Both electronic and hard copy surveys were available in English, Spanish, and Creole. MDT staff also participated in various events where the public was afforded the opportunity to provide feedback regarding MDT services as well as offer comment regarding future priorities of the department. In total, 3,917 surveys were completed and collected.

Survey results (Figure 5-2) indicated that on-time performance was the most important service priority, followed by more frequent service and service expansion to new areas. Another common theme derived from the survey results indicated a need for "Real-Time" transit vehicle arrival/departure information. Additional feedback received included the overall maintenance (i.e., working condition, cleanliness) of transit vehicles.

Throughout the *MDT10Ahead* development process, MDT sought input from key stakeholders by establishing two focus groups, composed of municipal and commission district representatives, as well as a Project Steering Committee, composed of



representatives from the workforce development board, FDOT and the Metropolitan Planning Organization (MPO), to name a few.

Some of the lessons learned during the preparation of this TDP Major Update for MDT which could be applied to improve the public involvement process for the next TDP major update include the following:

- 1) The stakeholders that participated on the project steering committee and during the focus groups were highly informed on the issue of public transit as opposed to the general public. Therefore, presentation materials can be presented at a higher level of information particularly if the interaction will continue with well-informed participants.
- 2) Provide detailed information well in advance of scheduled meetings. Even though information was distributed prior to meetings, it may have been more beneficial to distribute meeting materials well in advance of the meeting date.
- 3) Assure that MDT representatives from various departments are present at every meeting to answer questions since stakeholders often presented advanced questions that required MDT knowledge of a specific topic or issue.
- 4) Engage stakeholders as early as possible in the TDP process to gather more meaningful input.
- 5) Limit the size of the Project Steering Committee. Because they are so well-informed, they each want to talk (and have good input to provide) but in those big groups your opportunities are limited. More targeted groups would be easier for them to provide input.

#### 5.11 CareerSource South Florida (Regional Workforce Board)

CareerSource South Florida serves Miami-Dade County to provide youth, employment, and business enterprise development services. Coordination was initiated with CareerSource South Florida through an invitation to participate on the Transit Development Plan project steering committee. The CareerSource South Florida was also provided a hard copy of the Draft TDP Major Update on August 28, 2014 for their review and comment.

Additional coordination efforts with the Career Source South Florida are ongoing through the Welfare-to-Work Program, which includes the provision of transit service to areas not usually served by MDT. Through this program, MDT receives input on specific transit needs for consideration of adjustment and/or implementation of existing transit services in response to these needs.

#### 5.12 Evaluation Measures

The performance measures presented in Table 5-3 were used to measure the effectiveness of MDT public outreach efforts with regard to the TDP.

Table 5-3: Evaluation of Public Involvement

Public Involvement Goal	Strategy	Objectives	Measures	Targets	Accomplishment
<b>Goal 1: Early and Consistent Involvement</b>  Involve riders, the public, and stakeholders early and regularly in the project.	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Number of participants who actively participate</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 1,000 interactions</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 3,900 respondents completed the MDT10Ahead survey</li> </ul>
	<ul style="list-style-type: none"> <li>Provide opportunities for passive participation in the project. Passive participation is defined as one-way communication from the TDP Team to the participant. Examples include posting material on a website, sending an email, posting a notice on all buses, etc</li> </ul>	<ul style="list-style-type: none"> <li>Catalog the amount of passive participation throughout the project.</li> </ul>	<ul style="list-style-type: none"> <li>Number of participants who passively participate (e.g., number of people who received the email, number of people viewing the website, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 5,000 opportunities provided to participate</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 10,000 recipients of the MDT eblast</li> </ul>

Table 5-3: Evaluation of Public Involvement (Continued)

Public Involvement Goal	Strategy	Objectives	Measures	Targets	Accomplishments
<b>Goal 2: Opportunity</b> Provide all MDT 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"> <li>Provide multiple opportunities for input so that if a person cannot attend an event, he/she can still provide input via the website</li> </ul>	<ul style="list-style-type: none"> <li>Establish project-specific email address so participants can submit comments and questions any time.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of a project-specific email address</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance of a project-specific email address throughout the duration of the project. Review comments and questions received</li> </ul>	<ul style="list-style-type: none"> <li>Created MDT10Ahead@miamidade.gov and monitored input; Received 110 emails</li> </ul>
	<ul style="list-style-type: none"> <li>Ensure participation from people who live in all parts of the county</li> </ul>	<ul style="list-style-type: none"> <li>Request ZIP code information from all public involvement participants</li> </ul>	<ul style="list-style-type: none"> <li>Map ZIP code data to ensure input is from individuals geographically distributed throughout the county</li> </ul>	<ul style="list-style-type: none"> <li>Participation from at least 75% of all ZIP codes</li> </ul>	<ul style="list-style-type: none"> <li>Data was not available to ascertain if this goal was met or not</li> </ul>
	<ul style="list-style-type: none"> <li>Provide opportunity for traditionally under-represented groups to participate</li> </ul>	<ul style="list-style-type: none"> <li>Identify under-represented groups early in the process and include representatives on the PSC</li> </ul>	<ul style="list-style-type: none"> <li>Number of PSC members that fall into an under-represented group</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 10% of PSC members are members of an under-represented group</li> </ul>	<ul style="list-style-type: none"> <li>Four of 37 (11%) invited members of the PSC were from an under-represented group</li> </ul>
	<ul style="list-style-type: none"> <li>Provide opportunity for non-English speaking individuals to participate</li> </ul>	<ul style="list-style-type: none"> <li>Provide printed survey materials in English, Spanish and Creole</li> </ul>	<ul style="list-style-type: none"> <li>Percent of completed alternative language surveys</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 20% of returned surveys are alternative language surveys (based on percentage of residents who speak Spanish at home.)</li> </ul>	<ul style="list-style-type: none"> <li>10% of surveys were returned in an alternative language</li> </ul>
	<ul style="list-style-type: none"> <li>Provide opportunity for persons with disabilities to participate</li> </ul>	<ul style="list-style-type: none"> <li>Ensure in-person events are held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>Percent of events held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>100% of all events are held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>All events were held at accessible locations</li> </ul>

Table 5-3: Evaluation of Public Involvement (Continued)

Public Involvement Goal	Strategy	Objectives	Measures	Targets	Accomplishments
<b>Goal 3: Information and Communication</b>  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"> <li>Provide information in accessible format</li> </ul>	<ul style="list-style-type: none"> <li>Provide printed copies of materials when requested by those who do not have access to the internet.</li> </ul>	<ul style="list-style-type: none"> <li>Number of individuals not provided printed copies when requested</li> </ul>	<ul style="list-style-type: none"> <li>Zero individuals not provided printed copies when requested</li> </ul>	<ul style="list-style-type: none"> <li>All requests were honored</li> </ul>
	<ul style="list-style-type: none"> <li>Provide regular updates on the TDP's progress</li> </ul>	<ul style="list-style-type: none"> <li>Update the TDP website on a regular basis</li> </ul>	<ul style="list-style-type: none"> <li>Frequency of updates to the TDP website</li> </ul>	<ul style="list-style-type: none"> <li>Update the TDP website more than once per month</li> </ul>	<ul style="list-style-type: none"> <li>MDT website was updated on a regular basis</li> </ul>
	<ul style="list-style-type: none"> <li>Provide opportunities for the public to ask questions</li> </ul>	<ul style="list-style-type: none"> <li>Establish means for the public to submit questions via email and in person</li> </ul>	<ul style="list-style-type: none"> <li>Percent of questions responded to within two business days</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 90% of questions responded to within two business days</li> </ul>	<ul style="list-style-type: none"> <li>All questions were responded to within two business days</li> </ul>
<b>Goal 4: Range of Techniques</b>  Use a broad-spectrum of techniques to gather input from a diverse population within the project area	<ul style="list-style-type: none"> <li>Provide opportunity for the public to critique public involvement opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Provide comment forms that participants can submit in writing or via U.S. mail during the TDP process</li> </ul>	<ul style="list-style-type: none"> <li>Percent of public outreach opportunities where comment cards are provided</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 75% of public outreach opportunities have comment cards available</li> </ul>	<ul style="list-style-type: none"> <li>100% of public outreach opportunities had comment cards available</li> </ul>
	<ul style="list-style-type: none"> <li>Employ the techniques identified in this PIP to provide a broad range of opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Assess whether or not the goals of this PIP have been met</li> </ul>	<ul style="list-style-type: none"> <li>Percent of goals met by the conclusion of the TDP process</li> </ul>	<ul style="list-style-type: none"> <li>Greater than 75% of goals met by the conclusion of the TDP process</li> </ul>	<ul style="list-style-type: none"> <li>Ten of 12 (83%) goals were met</li> </ul>

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## 6.0 Transit Development Plan Goals and Objectives

The identification of goals and objectives for a transit agency is a fundamental and critical step in the preparation of a TDP. It is necessary for establishing the framework within which the agency will pursue its established TDP-inspired vision over time. The FY 2015 - 2024 TDP Major Update presents an opportunity for Miami-Dade Transit (MDT) to develop specific goals, objectives and measures consistent with the Agency's Mission and Vision. The goals and objectives will facilitate assessment of various projects and initiatives that are proposed, planned and implemented throughout the Miami-Dade transit system. These goals and objectives will also be applied to evaluate proposed projects and policy changes recommended by the TDP Major Update and for subsequent minor TDP updates as required by FDOT.

MDT worked closely with the Project Steering Committee to develop the goals and objectives for this TDP. In addition, MDT staff from all divisions assisted in the development and refinement of the TDP goals and objectives. As such, the TDP presents the updated goals and objectives that have been developed and are proposed for MDT.

It is important to note that a key input to the development of these goals and objectives is the range of comments and policy issues that have been identified during the TDP's public outreach process. As documented in the TDP's Public Involvement Plan, many discussions have been held with community leaders, key stakeholders, the Project Steering Committee, MDT staff, and the general public, among other organizations and individuals. The issues highlighted during these discussions help form the basis for the proposed MDT goals. In developing original goals and objectives, or even modifying existing ones, it is beneficial to consider the definitions of these items to ensure that they are prepared in an appropriate manner. As such, the following are general definitions of the terms to consider when developing "goals" and "objectives":

- 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.
- Target – A defined performance indicator
- Strategy – A prescribed step for achieving a given goal.

### 6.1 Miami-Dade Transit's Mission

The foundation of these goals and objectives serve to meet the Agency's overall vision and mission for the administration, management and provision of transit services: Miami-Dade Transit's defined functioning purpose is to ***"provide public transportation services."*** Miami-Dade Transit's purpose is rooted in accordance with the Agency's vision ***"To be the #1 Transportation Choice in Miami-Dade County,"***

#### Miami-Dade Transit Mission Statement

*To meet the needs of the public for the highest quality of transit service:  
safe, reliable, efficient and courteous.*

Table 6-1: TDP Major Update Goals, Objectives and Measures

Goal 1: Improve Convenience, Reliability and Customer Service of Transit Services				
OBJECTIVE		MEASURE	TARGET	STRATEGY
1.1	Improve accessibility to major employment, recreation, educational, healthcare, retail centers, and cultural attractions.	<ul style="list-style-type: none"> <li>Percent coverage of the urbanized area.</li> <li>Amount of transit service route miles within ¼ mile of major health facilities, recreation, education, employment, cultural and social service facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Provide a minimum of 60% transit coverage of the urbanized area.</li> <li>Provide a minimum of :Healthcare: 50 route miles, Tourist Attractions and Special attractors: 300 route miles, Educational: 100 route miles, Major Employment Areas and Employers: 40 route miles, Retail Centers: 90 route miles within a ¼ mile of the corresponding destination.</li> </ul>	Evaluate achievement of service coverage and route design standards to improve transit access to major destinations in these categories.
1.2	Improve service for transit dependent population.	<ul style="list-style-type: none"> <li>Service coverage of transit supportive areas include zero car household, low income households, population age 18 years old and under, population age 65 years old and over, minorities and population density.</li> </ul>	<ul style="list-style-type: none"> <li>Transit service coverage in route miles within those supportive areas.</li> </ul>	Evaluate achievement of service coverage and route design standards to improve transit access to major destinations in these categories that is concurrent with the Mass Transit sub-element of the Comprehensive Development Master Plan (CDMP).
1.3	Improve transit service reliability.	<ul style="list-style-type: none"> <li>On-time performance of transit vehicles per mode</li> <li>Percentage of missed pullouts</li> <li>Achievement of mean distance between service failures</li> </ul>	<ul style="list-style-type: none"> <li>Metrorail – 95%</li> <li>Metrobus – 78%</li> <li>STS – 80%</li> <li>Agency target – 0%</li> <li>Metrorail – 39,000 miles</li> <li>Metrobus – 4,000 miles</li> <li>Mover – 6,000 miles</li> </ul>	Evaluate achievement of transit reliability target levels.
1.4	Match transit service coverage with passenger demand.	<ul style="list-style-type: none"> <li>Number of average daily boardings per mode</li> <li>Hours of transit service/service population</li> </ul>	<ul style="list-style-type: none"> <li>Metrorail - 67,000</li> <li>Metrobus – 241,000</li> <li>Mover – 30,000</li> <li>Provide a minimum of 1.5 hours of transit service/service population</li> </ul>	Evaluate achievement of passenger demand measures.

**Table 6-1: TDP Major Update Goals, Objectives and Measures (continued)**

OBJECTIVE		MEASURE	TARGET	STRATEGY
1.5	Improve transportation facilities' and services' regional connectivity	<ul style="list-style-type: none"> <li>Number of transit service route miles in corridors of regional significance.</li> <li>Percent coverage of Strategic Intermodal System (SIS) roadway facilities with transit service.</li> <li>Percent of SIS facilities (airport/port/etc.) served by transit.</li> <li>Percent of Miami-Dade County Tri-Rail stations served by MDT</li> </ul>	<ul style="list-style-type: none"> <li>Provide a minimum of 90% bus route miles in corridors of regional significance</li> <li>Introduce four (4) new express bus routes along SIS roadway facilities by 2024</li> <li>100% of Miami-Dade County SIS facilities served by transit</li> <li>100% of Tri-Rail Stations serviced by transit</li> </ul>	Utilize service planning process and apply service standards related to transit route performance and design, to increase route miles of service in corridors of regional significance and to improve bus stop spacing to appropriate level and improve passenger comfort and safety.
1.6	Improve service accessibility for non-motorized modes (e.g., bicycle, pedestrian connections).	<ul style="list-style-type: none"> <li>Identification of non-motorized access deficiencies at transit hubs.</li> <li>Enhancement of non-motorized trails within transit facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Complete prioritized list of non-motorized access deficiencies at transit hubs by 2016.</li> <li>Coordination with the Underline Project.</li> </ul>	Utilize planning process to encourage the integration of non-motorized transportation modes in concurrence with the CDMP, MDC Urban Design Manuals Volumes I, II and the Underline Master Plan.
1.7	Improve customer satisfaction.	<ul style="list-style-type: none"> <li>Number of customer complaints per 100,000 boardings by mode</li> <li>Number of formal complaints as a percent of total trips per month.</li> </ul>	<ul style="list-style-type: none"> <li>Metrorail – 1.5 complaints</li> <li>Metrobus -15 complaints</li> <li>Metromover - 0.5 complaints</li> <li>STS – 0.5% complaints</li> </ul>	Evaluate achievement according to annual performance measure.
1.8	Implement the best available technologies and innovations to improve the reliability and efficiency of the transportation system.	<ul style="list-style-type: none"> <li>Number of transportation improvements projects that result in the deployment and operation of new technologies (i.e., GPS)</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of CAD/AVL project by 2015</li> <li>Installation of real-time signs at high ridership locations by 2015</li> </ul>	MDT continues to undertake the implementation of ITS projects such as smart card fare collection technology as part of the MDT IT/ITS Architecture/Strategic Plan. This plan encourages the active pursuit of a comprehensive, inter-operative and fully integrated “system of ITS technologies.”
1.9	Increase bicycle parking/storage at MDT facilities and vehicles.	<ul style="list-style-type: none"> <li>Number and type (including covered) of bicycle parking spaces at MDT facilities.</li> <li>Number of three-position bicycle racks on MDT buses.</li> </ul>	<ul style="list-style-type: none"> <li>Increase bicycle parking by one percent (1%) per year.</li> <li>Install three-position bicycle racks on 200 MDT buses by 2015.</li> </ul>	Monitor installation of bicycle parking/storage at MDT facilities and vehicles.

**Table 6-1: TDP Major Update Goals, Objectives and Measures (continued)**

<b>Goal 2: Improve Operational Safety and Security</b>				
<b>OBJECTIVE</b>		<b>MEASURE</b>	<b>TARGET</b>	<b>STRATEGY</b>
2.1	Reduce accidents on transit vehicles.	<ul style="list-style-type: none"> <li>Bus accident rate per 100,000 miles</li> <li>Bus preventable accident rate per 100,000 miles.</li> </ul>	<ul style="list-style-type: none"> <li>3.77 per 100,000 miles</li> <li>1.50 accidents per 100,000 miles</li> </ul>	Annual reporting of number of accidents per 100,000 miles and work to reduce number of accidents.
2.2	Make transit vehicles and facilities a secure environment for customers.	<ul style="list-style-type: none"> <li>Total number of functioning video camera surveillance systemwide: <ul style="list-style-type: none"> <li>Number of transit facilities with camera surveillance</li> <li>Number of transit vehicles with camera surveillance</li> </ul> </li> <li>Number of security post inspections</li> <li>Number of systemwide NTD Reportable Part One (1) Crimes (Serious) per 100,000 riders (monthly moving average)</li> <li>Number of systemwide NTD Reportable Part Two (2) Crimes (Petty) per 100,000 riders (monthly moving average).</li> </ul>	<ul style="list-style-type: none"> <li>Installation and maintenance of a total of 13,153 video cameras systemwide by 2019: <ul style="list-style-type: none"> <li>54 transit facilities with camera surveillance</li> <li>1,025 transit vehicles with camera surveillance</li> </ul> </li> <li>Provide a minimum of 750 post inspections.</li> <li>Part 1 Crimes (Serious) - 0.30 per 100,000 riders</li> <li>Part 2 Crimes (Petty) - 1.62 per 100,000 riders</li> </ul>	Maintain visible level of systemwide security presence and surveillance coverage.

Table 6-1: TDP Major Update Goals, Objectives and Measures (continued)

Goal 3: Improve Coordination and Outreach				
OBJECTIVE		MEASURE	TARGET	STRATEGY
3.1	Enhance outreach opportunities to educate the community on transportation issues and highlight transit service benefits such as service reliability, passenger cost savings, and environmental benefits.	<ul style="list-style-type: none"> <li>Number of community/stakeholder outreach events per measure.</li> <li>Number of social media endorsements</li> <li>Number of transit dependent outreach events per year.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct a minimum of two (2) public outreach events for community/stakeholder per month.</li> <li>Monitor number of social media endorsements.</li> <li>Conduct a minimum of six (6) public outreach events for transit dependent population per year.</li> </ul>	Maintain coordination with county and municipal planning staff as well as continue marketing outreach efforts with civic organizations, employers and other community stakeholders.
3.2	Increase coordination between regional and local transportation providers to provide better multimodal connections.	<ul style="list-style-type: none"> <li>Number of coordination events with municipal providers.</li> <li>Number of coordination events with regional service providers (BCT, Tri-Rail, PalmTran).</li> </ul>	<ul style="list-style-type: none"> <li>Conduct semi-annual coordination meetings with local transit service providers</li> <li>90% attendance rate by MDT at regional transportation service providers coordination meetings.</li> </ul>	Maximize coordination with municipal and regional planning entities to include collaborative planning, design and operation efforts for new and existing transportation services.
3.3	Coordinate municipal transit service options that complement each other to avoid duplication of services.	<ul style="list-style-type: none"> <li>Execution and monitoring of the number of current Interlocal Agreements as required by Code.</li> </ul>	<ul style="list-style-type: none"> <li>100% of executed Interlocal Agreements required.</li> </ul>	Monitor and maintain coordination with all municipalities required to enter into an Interlocal Agreement as required by Code.



Table 6-1: TDP Major Update Goals, Objectives and Measures (continued)

Goal 4: Enhance the Integration of Transit Services to Support the Economy and Preserve the Environment				
OBJECTIVE		MEASURE	TARGET	STRATEGY
4.1	Apply transportation and land use planning techniques, such as transit-oriented development (TOD), best practices in architecture and landscape architecture that support intermodal connections and coordination and promote placemaking strategies.	<ul style="list-style-type: none"> <li>Identify TOD opportunities at Metrorail Stations.</li> <li>Identify TOD opportunities at South Miami-Dade Busway Stations.</li> <li>Encourage opportunities for access to healthy food options near transit stations including farmers markets.</li> </ul>	<ul style="list-style-type: none"> <li>Complete study of TOD feasibility at Metrorail Stations by 2017.</li> <li>Complete study of TOD feasibility at South Miami-Dade Busway Stations by 2019.</li> <li>Number of farmers markets events held at transit facilities</li> </ul>	Conduct a study to identify TOD opportunities at Metrorail Stations and South Miami-Dade Busway Stations.
4.2	Promote transit service projects that support urban infill and densification	<ul style="list-style-type: none"> <li>Number of transit service route miles within the Urban Infill Area (UIA)</li> </ul>	<ul style="list-style-type: none"> <li>Provide a minimum of 1,400 transit service route miles within the UIA</li> </ul>	Utilize service planning process and evaluate achievement of route and schedule design standards to increase transit service to the UIA.
4.3	Reduce fossil fuels consumption through the consideration of alternative fuel vehicle technology.	<ul style="list-style-type: none"> <li>Number of hybrid technology buses in MDT fleet.</li> <li>Increase number of alternative fuel vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Procure an additional 39 diesel/electric hybrid articulated buses by 2019</li> <li>Advertise a Request for Proposals (RFP) for alternative fuel vehicles by 2015.</li> </ul>	MDT is planning to procure alternative fuel transit vehicles to replace diesel buses.
4.4	Facilitate connections between transportation modes.	<ul style="list-style-type: none"> <li>Number of multimodal transit hubs</li> <li>Include Broward County Transit (BCT) and Palm Beach County Transit (PalmTran) in the regional smart card program.</li> </ul>	<ul style="list-style-type: none"> <li>Complete construction of a minimum of 3 multimodal transit hubs by 2019</li> <li>Integration of the BCT and PalmTran in the regional smart card program by 2015.</li> </ul>	Coordinate with regional transit service providers to implement a regional smart card for fare payment.
4.5	Continue to examine the provision and utilization of special-use lanes (Express lanes) on the existing system for transit use	<ul style="list-style-type: none"> <li>Increase number of routes operating on express lanes.</li> </ul>	<ul style="list-style-type: none"> <li>Introduction of three (3) new express bus routes on express lanes by 2019.</li> </ul>	Develop additional lane-miles of express bus services on express lanes.

Table 6-1: TDP Major Update Goals, Objectives and Measures (continued)

Goal 5: Maximize Use of All Funding Sources				
OBJECTIVE		MEASURE	TARGET	STRATEGY
5.1	Achieve a sustainable transit financial plan that maximizes existing and pursues innovative and new funding sources.	<ul style="list-style-type: none"> <li>Implement a sustainable transit financial path.</li> </ul>	<ul style="list-style-type: none"> <li>Complete two (2) additional corridor financing studies by 2019.</li> </ul>	Conducting studies that lead to implementing new/increased sources for capital and operations funding, as projects are developed.
5.2	Optimize operations and maintenance expenses.	<ul style="list-style-type: none"> <li>Decrease systemwide cost per revenue mile</li> <li>Decrease systemwide cost per revenue hour</li> </ul>	<ul style="list-style-type: none"> <li>Maximum cost per revenue mile not to exceed \$9.00</li> <li>Maximum cost per revenue hour not to exceed \$120.00</li> </ul>	MDT continues to implement bus service efficiency measures to optimize the delivery of services.
5.3	Identify alternative project delivery methods.	<ul style="list-style-type: none"> <li>The number of projects that are built through alternative delivery methods (i.e., Public-Private Partnerships (PPP), Transportation Infrastructure Finance and Innovation Act (TIFIA), State Infrastructure Bank Loans, Design, Build, Operate and Maintain, and Concession agreements etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Completion of two (2) PPP development projects by 2024.</li> </ul>	Monitor progress of development of public-private partnerships.
5.4	Increase passenger fare revenue.	<ul style="list-style-type: none"> <li>Annual Farebox recovery ratio for Metrorail, Metrobus and STS</li> </ul>	<ul style="list-style-type: none"> <li>Maintain a systemwide minimum farebox recovery ratio of 25%.</li> </ul>	Evaluate passenger fare revenues for Metrorail and Metrobus.
Goal 6: Maximize and Expand Transit Services				
OBJECTIVE		MEASURE	TARGET	STRATEGY
6.1	Upgrade and maintain existing transit infrastructure and facilities in a state of good repair.	<ul style="list-style-type: none"> <li>Increase capital expenditure on Infrastructure Renewal Program (IRP).</li> </ul>	<ul style="list-style-type: none"> <li>10% of deferred maintenance of funded IRP projects/unfunded IRP projects.</li> </ul>	Continue annual IRP prioritization process to determine capital expenditures on infrastructure to maintain the transit system in a state of good repair.
6.2	Implement new expanded transit service in areas that exhibit growing passenger demand and land use densities.	<ul style="list-style-type: none"> <li>Proposed plans for transit service expansion.</li> </ul>	<ul style="list-style-type: none"> <li>Implement six (6) new transit service expansion routes by 2024.</li> </ul>	Report on status of project funding and implementation schedule.

Table 6-1: TDP Major Update Goals, Objectives and Measures (continued)

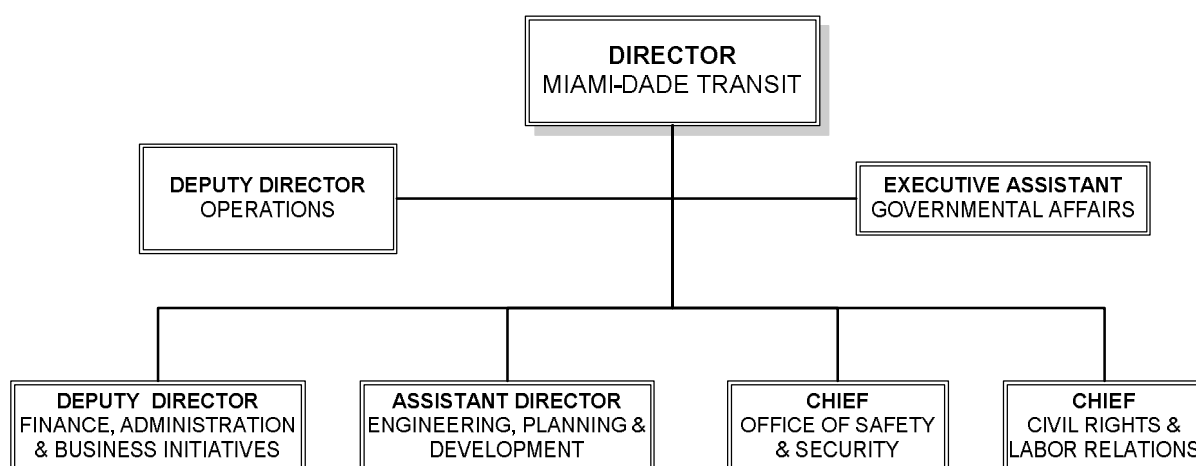
Goal 7: Transit system shall fully meet requirements of the Americans with Disabilities Act (ADA).				
OBJECTIVE		MEASURE	TARGET	STRATEGY
7.1	Maintain a transit fleet that is 100% wheelchair-accessible with working lifts and/or level boarding and working securement devices.	<ul style="list-style-type: none"> <li>Complete daily pre-trip inspections (including wheelchair/ramp/tie down inspection).</li> <li>Adherence to preventative maintenance program (including wheelchair/ramp/tie down inspection).</li> </ul>	<ul style="list-style-type: none"> <li>100% adherence</li> <li>90% adherence</li> </ul>	Inspections to identify any operational issues with wheelchair lifts or securement devices.
7.2	Upgrade areas within quarter (¼) mile of the South Miami Dade Busway (from Dadeland South Station to SW 200 <sup>th</sup> Street) to ensure that these areas are 100% wheelchair-accessible.	<ul style="list-style-type: none"> <li>Completion of ADA Pedestrian Improvement project by target date.</li> </ul>	<ul style="list-style-type: none"> <li>Completion of project by 2016</li> </ul>	Construction of sidewalks, ramps and crosswalks to improve ADA accessibility within a ¼ mile radius of Busway bus stations.
7.3	Implement travel training program to teach passengers with disabilities how to use fixed route service.	<ul style="list-style-type: none"> <li>Get contractor in place to provide training program</li> </ul>	<ul style="list-style-type: none"> <li>Implement travel training program by 2019</li> </ul>	Utilize planning process to transition to fixed route service.
7.4	Future design of Enhanced Bus Service (EBS) projects will include pedestrian access within ¼ mile of proposed transit stations.	<ul style="list-style-type: none"> <li>Percent of EBS projects entering final design starting in 2015.</li> </ul>	<ul style="list-style-type: none"> <li>100% of all projects</li> </ul>	Utilize planning process to facilitate pedestrian access to EBS routes to increase ridership.
7.5	Future design of Park-and-Ride projects will include pedestrian access within ¼ mile of the site.	<ul style="list-style-type: none"> <li>Percent of Park-and-Ride projects entering final design starting in 2015.</li> </ul>	<ul style="list-style-type: none"> <li>100% of all projects</li> </ul>	Utilize planning process to facilitate pedestrian access to Park-and-Ride sites to increase ridership.

## 7.0 SITUATION APPRAISAL

The situation appraisal section provides an appraisal of factors within and outside the provider that affect the provision of transit service. This section includes an evaluation of organizational issues, the effects of land use regulations, support or hindrance of transit service, state and local transportation plans, other governmental actions and policies, socioeconomic trends, and technology on transit. It also includes an estimation of transit demand from the Southeast Florida Regional Planning Model (SERPM 6.5.4) model.

### 7.1 Miami-Dade Transit Organizational Structure

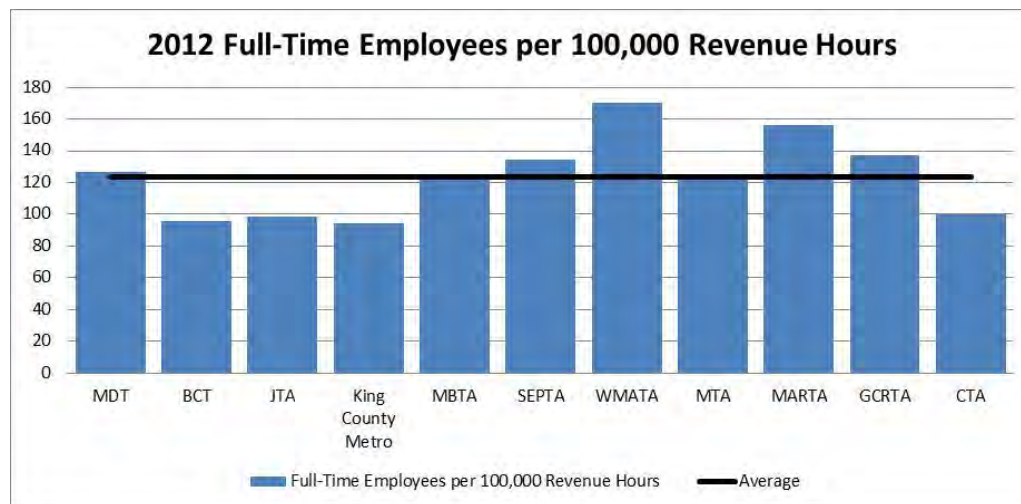
Miami-Dade Transit (MDT) is a department under Miami-Dade County government. Leadership of the department is comprised of a Director, Deputy Director of Operations, Deputy Director of Finance, Administration and Business and five additional direct reports responsible for leading distinct functional areas related to governmental affairs, planning and development, engineering, safety and security as well as civil rights and labor relations.



There a total of 3,235 full-time positions and 349 part-time positions budgeted for fiscal year 2014-2015. A table of organization for MDT is presented in Appendix A1.

A review of MDT staffing levels as compared to its peers using National Transit Data (NTD) data revealed that MDT operates with fewer staff than its peers. Comparing the number of full-time employees reported to NTD in 2012, MDT has about the average staff per 100,000 revenue hours. This difference indicates that MDT has economized its staffing levels to save money.

Figure 7-1: MDT Employee Peer Comparison



Source: National Transit Database.

In addition to having a lean staffing plan, MDT works to improve efficiency internally. Miami-Dade Transit FY 2014-2015 Business Plan presents key organizational issues that apply throughout MDT in fulfilling the Agency's mission: **“to meet the needs of the public for the highest-quality transit service: Safe, Reliable, Efficient and Courteous.”** Miami-Dade Transit applies a systematic, widely-deployed approach to share skills and best practices across agency work units, jobs, and locations, by including the effective use of available data and organizational learning. Specifically, MDT remains focused on the attainment of a results-oriented government to improve operating efficiency by:

- 1.) Optimizing resources;
- 2.) Continual measurement and tracking of progress through performance indicators;
- 3.) Enhancement of employee recognition and communication; and,
- 4.) Encouragement of employees to share ideas and suggestions for the improvement of operational efficiency.

## 7.2 Intergovernmental and Stakeholder Coordination

As Miami-Dade County's transit operator, MDT's coordination extends throughout county government. This includes the Mayor's office, the Board of County Commissioners, the Miami-Dade Metropolitan Planning Organization (MPO), Miami-Dade County Department of Regulatory and Economic Resources (RER) and other county departments whose efforts and responsibilities integrate with the operation of mass transit services. Miami-Dade Transit also collaborates with the Florida Department of Transportation (FDOT), the South Florida Regional Transportation Authority (SFRTA), Broward County Transit (BCT), and the local municipalities located throughout its transit service area.



This level of coordination was exemplified in 2013 when MDT's AirportLink Project, the 2.4-mile Metrorail extension (Orange Line) and the Miami International Airport (MIA) Metrorail station was awarded the Local and State Collaboration Award by the Florida Association of County Engineers and Road Superintendents (FACERS). This statewide honor is bestowed upon construction projects completed in high professional regard that have made significant contributions to their communities. The Airport Link Project was completed on-time and on-budget, and provides a vital alternative method of transportation that provides a direct connection to MIA - the community's central economic engine.

### 7.2.1 Regional Coordination

Miami-Dade Transit works in cooperation with FDOT Districts 4 and 6, SFRTA, (operator of the Tri-Rail commuter rail system), and BCT on various transportation issues, conceptual plans and policies, and the implementation of projects of local and regional significance. Several projects where MDT serves in a participating and coordinating role include the development of the 2040 Regional Transit Plan, the Tri-Rail Coastal Link Plan, Regional Express Bus service planning (I-95, I-75, SR 826, I-595) and the integration of Intelligent Transportation System (ITS) projects into the regional information technology architecture.

The Florida Department of Transportation has placed new emphasis in the region on the use of express buses on newly implemented managed lanes on I-95 and I-595. MDT 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 4 and 6, SFRTA, MDT, and BCT staffs together to discuss the implementation of express buses on managed lanes. At present, Phase I on I-95 is operational while Phase II is being constructed and expected to be operational in 2015. Phase II stretches from Miami Gardens Drive to Davie Boulevard. As part of the coordination process, MDT will contribute to FDOT's express bus service policy, including express bus service standards, being developed by FDOT.

### 7.2.2 Metropolitan Planning Organization

Miami-Dade Transit coordinates extensively with the Miami-Dade MPO for the development of the FY 2014/15 – 2018/19 Transportation Improvement Program (TIP) and the 2040 Long Range Transportation Plan (LRTP) through the participation on the TIP development committee and LRTP steering committee. Ongoing collaboration between MDT and the MPO occurs for countywide transportation planning initiatives and studies through participation on the Transportation Planning Council.

Recent studies include the preparation of corridor plans for transit improvement projects to include the implementation of enhanced bus service in the form of MDT's new rapid bus on Biscayne Boulevard, NW 27<sup>th</sup> Avenue, Flagler Street and SR 836. The Beach Corridor Transit Connection Study is also underway and seeks to identify a transit alignment and modal technology to connect the City of Miami with the City of Miami Beach. MDT and MPO have also collaborated on origin and destination survey studies

for purposes of in-depth tracking of transit usage, ridership patterns as well as customer satisfaction with existing services.

### 7.2.3 Miami-Dade County Department of Regulatory and Economic Resources

Miami-Dade Transit coordinates with the Miami-Dade County RER by providing input on various transit impacts of the Comprehensive Development Master Plan (CDMP) Bi-annual Amendments, as well as, with area-wide issues tailored to the various Commission Districts and Community Councils. 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).

Specifically, MDT has been charged with the responsibility of reviewing and approving 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. Based on the latest socio-economic information provided by Miami-Dade County RER and a review of the June 2013 service area for Metrobus and Metrorail it was determined that MDT meets or exceeds the level-of-service standards for mass transit as established according to Policy MT-1 of the CDMP of Miami-Dade County.

### 7.2.4 Community Stakeholders

Miami-Dade Transit continuously undertakes extensive outreach efforts to engage local stakeholders and the public for purposes of providing educational information and to collect feedback and input on MDT's daily transit operations and future service plans. Throughout MDT, outreach efforts are viewed as an ongoing effort to improve the perception of public transportation as well as educating the public on service expansion and necessary service adjustments. This is consistent and follows one of MDT's tenets of providing easy access to transportation information. Specific strategic objectives related to MDT's outreach efforts include: meeting residents' expectations for delivery of the Peoples Transportation Plan (PTP); promoting awareness of transit progress and challenges; and providing information related to scheduling adjustments.

Miami-Dade Transit staff work with individual County Commissioners to organize transit town hall meetings in their districts to provide their constituents with updates on the PTP and distribute brochures, maps and other materials. These meetings enable staff to tailor messages to specific audiences by highlighting local PTP projects. Miami-Dade Transit also maintains an extensive list of community civic and other organizations that are contacted periodically in order to schedule appearances by a rotating list of informed staff members by MDT department based on the topics in which an organization expresses interest. This approach helps to build community support for transit at the grassroots level.

MDT staff members also speak at meetings of homeowners associations, business and civic organizations to provide information and answer questions on transit programs.

These meetings help MDT maintain good relations with community leaders while enlisting their organizations' support for transit-related programs and incentives.

Public stakeholders can also utilize the 3-1-1 Answer Center which provides a fast, simple and convenient way for residents to get information on local government services. Call Specialists can initiate service requests related to transit services. By dialing 3-1-1 residents get one-on-one personal customer service in English, Spanish or Creole by dialing one easy-to-remember number.

### 7.3 Local and Regional Transportation Plans

A review of several local and regional planning documents was performed to assess the level of impact that proposed and programmed project initiatives would have on MDT services. Furthermore, these documents were reviewed to ensure that the FY 2015 – 2024 TDP Major Update is consistent with corresponding transit capital and operational improvement projects for the Miami-Dade Transit service area.

#### 7.3.1 MPO 2035 LRTP

The MPO 2035 LRTP was adopted in November 2009 to include a cost feasible plan for the implementation of transit projects as grouped by priority (Priority 1 through 4). The projects listed as Priority 2 and Priority 3 occur within the planning horizon of the FY 2015-2024 TDP Major Update. Priority 2 and Priority 3 projects were included as funded projects between 2015 – 2020 and 2021 – 2025 respectively. The following premium transit projects are listed in the 2035 LRTP by priority to include:

- Golden Glades Multi-Modal Terminal (Priority 2)
- Miami Beach Intermodal Center (Priority 2)
- South Beach Bus Transfer Station (Priority 2)
- US-1 Busway additional park-and-ride facilities (Priority 4)
- US-1 Busway signal priority (Priority 2)

#### 7.3.2 MPO 2040 LRTP

The Miami-Dade County MPO is currently updating the 2035 LRTP to the year 2040. The previous LRTP was adopted in November of 2009. An update of the latest LRTP needs to occur every five years to meet federal and state requirements. The 2040 LRTP is anticipated to be approved by the MPO Governing Board in the fall of 2014.

The emphasis of the 2040 LRTP is to determine the priority of the People's Transportation Plan (PTP) projects that remain unfunded. In addition, the 2040 LRTP will focus on improving the efficiency of the current transportation infrastructure while identifying innovative ways to enhance mobility. At the time of this writing, the proposed transportation improvements and prioritization of transit projects were not available. Miami-Dade Transit is represented on the LRTP Steering Committee to assure that the development of the 2040 LRTP is aligned with MDT's policy and project initiatives.

### 7.3.3 Regional 2040 LRTP

A 2040 Regional LRTP is being prepared which provides an update to the 2035 Regional LRTP. A primary component of this update, is the identification of a regional transit network to enhance regional mobility between employment, residential educational and recreational locations. At the time of this writing, the proposed transportation improvements and prioritization of transit projects were not available. Miami-Dade Transit is represented on the Regional Transportation Technical Advisory Committee to assure that the development of the 2040 Regional LRTP is aligned with MDT's policy and project initiatives.

### 7.3.4 SFRTA Strategic Regional Transit Plan

The SFRTA developed the Strategic Regional Transit Plan (SRTP) for the promotion of regional transit to ensure mobility, economic viability and quality of life in the south Florida region. The Strategic Plan serves as a long range plan to identify transportation service needs for the South Florida region. The SRTP defined three potential transit networks:

- 1.) Connective Network: Serves future land use and activity centers maximizing infrastructure investments.
- 2.) Productive Network: Places transit options in most heavily used corridors.
- 3.) Value Network: Presents transit options that result in high ridership through a provision of good transit service at a reasonable price.

The transit alternatives proposed in the SRTP and serve either one or more of the three listed networks include:

- Miami Beach Light Rail Transit
- Tri-Rail branch to downtown Miami
- Kendall Drive Bus Rapid Transit
- Metrorail East-West Extension
- 137<sup>th</sup> Avenue Rapid Bus

The projected capital and operating costs for the implementation of these projects is significant. Each project has the potential for eligibility under the FTA 5309 New Starts program where up to 75 percent of capital funds could be secured through the federal (50%) and state (25%) government participation. However, the associated operating cost of a project would need to be funded locally over the life of the project. Therefore, operating funding in addition to existing sources being applied to fund current transit operations will need to be identified.

## 7.4 Information Technology

Miami-Dade Transit is committed to the deployment of a comprehensive, inter-operative and fully integrated system of Intelligent Transportation Systems (ITS) technologies. MDT is continuously working to ensure seamless technology integration with county and regional technology initiatives, and incorporating technology in the implementation of

transit business processes. Miami-Dade Transit adheres to a locally approved regional ITS architecture and has developed its own ITS architecture that integrates existing systems with future ITS initiatives. MDT participates with FDOT and other local agencies to incorporate and integrate all ITS projects to the overall regional architecture.

MDT's strategic business plan is aligned with the following objectives and key performance targets:

- 1.) Provide easy access to transportation information;
- 2.) Ensure excellent customer service for passengers;
- 3.) County processes improved through information technology

The information technologies deployed serve to provide enhanced methods of communicating information to transit passengers and better align MDT's business objectives for the proficient administration, operation, and maintenance of transit services. The following lists several key projects that demonstrate MDT's commitment to implementing technology enhancements to better serve the community:

**Kiosk Transit Information:** Electronic Transit information centers provide transit information relating to bus routes, schedules, service interruptions, service modifications, station and emergency information to our MDT patrons.

**Rider Alerts:** Public notification of delays, detours, or service disruptions affecting any transit route on the MDT system. The public has the ability to sign up on the MDT web site to receive alerts via text messages, emails and/or electronic pagers.

**Train Tracker Information Application:** Informs Metrorail passengers of the time of arrival for the next train approaching a station. This information has significantly reduced the waiting time of MDT's passengers.

**Electronic Asset Management System (EAMS):** An integrated and automated Materials Management, Maintenance and Inventory system that provides information on detailed work performed, hours necessary to perform the task, and automatic preventive maintenance generation of work orders resulting in a more efficient delivery of services.

**Electronic Document Management System (EDMS):** An electronic filing system that enables MDT departments to obtain fast, accurate and reliable access to MDT's project files. This has enhanced the assurance of document integrity and records management work flows.

MDT is concentrating heavily in the infrastructure area for future ITS deployment. The following is a list of several key projects that are in various phases of development and implementation to further enhance passenger information as well as promote the efficient operation of MDT services systemwide.

MDT's assessment of new technology available for development coupled with the implementation of ITS project improvements are aligned with the TDP Major Update goals and objectives.



#### 7.4.1 Electronic Signage Information System (ESIS)

Miami-Dade Transit upgraded the ESIS, which is designed to provide an excellent riding environment by informing transit passengers of “Next Train” arrival time displays at station platforms. MDT replaced the existing analog clock units with state of the art liquid crystal display (LCD) screens at Metrorail station platforms. These LCD displays, face both the north and southbound tracks, provide passengers with train arrival and departure times for the next three trains and show which trains serve the Green Line (from Palmetto to Dadeland South stations) and which serve the Orange Line (which takes passengers from Dadeland South to Miami International Airport stations).

The system also provides wireless access at Metrorail station platforms for patrons wishing to use their electronic devices while waiting for the train. Wi-Fi is also available within Metrorail cars and on all Metrobuses. With the implementation of this system, it will be possible to provide real-time arrival times, emergency information, elevator/escalator status and other events that may potentially affect service. In an effort to comply with local ADA rules and regulations, MDT will also provide audible information. A summary of the new system information that will be communicated to passengers includes:

- Real Time Targeted information;
- Next Train arrival times;
- Emergency information;
- Text to Speech – ADA compliant;
- Elevator/escalator operational status;
- Rider alerts;
- Free Wi-Fi connectivity for patrons at all platforms;
- Law Enforcement display of real-time Amber and Silver Alerts or any other.

#### 7.4.2 Transit Operational System Replacement

The implementation of the Transit Operation System (TOS) Replacement project will replace the current TOS to support an improved operator workforce management system, as well, as to provide seamless integration with the fleet management system to improve transit operations, service monitoring and reporting. The new system will provide:

- Improved rail and bus operator assignments;
- Increased operational efficiency;
- Improved data to assist with operational decision making;
- An advanced automated bidding functions for different work shifts;
- A robust daily dispatch functions, advanced vehicle assignment functions;

- Vehicle availability, workforce management;
- Performance and discipline management;
- Absences tracking;
- Employees incentives;
- Complaints and commendations;
- Service incidents;
- Timekeeping;
- Property specific reports;

#### 7.4.3 Real Time Bus Tracker/Computer Aided Dispatch/Automatic Vehicle Locator System/Traffic Signal Priority

Miami-Dade Transit is preparing a “state of the art” county owned infrastructure that supports “real time” predictive arrivals. Included in this implementation is a replacement of the MDT’s Computer Aided Dispatch/Automatic Vehicle Locator (CAD/AVL) system, “The System”. To communicate and transfer vehicle location data in real time using the county infrastructure, a replacement of the existing CAD/AVL System and infrastructure is required. This system will enhance the monitoring of fixed-route services for Metrobus, Metrorail, Metromover, and select supervisory/administrative vehicles. This upgrade will facilitate added security, functionality and interoperability within the existing MDT system.

The system will be accessible via the Internet, cell phone, mobile devices and electronic signs at select Bus Stops. This project will not only enable the delivery of real time predictive arrivals but it will upgrade hardware and software to current technology for improved bus operational efficiencies.

Furthermore, this project will enable Traffic Signal Priority (TSP) on board all MDT bus vehicles allowing communication with traffic signal controllers along major corridors. MDT is leveraging and collaborating with the County’s Advanced Traffic Management System (ATMS) project team to prioritize and coordinate the installation of TSP enabled equipment within the signal controller intersections that correspond to the defined priority corridors. The efficiencies that will be realized through the implementation of the CAD/AVL replacement project providing the integrated Bus Tracker System include:

- A dedicated real-time vehicle location system using GPS with no recurring cellular cost to provide bus tracker information via the Internet, mobile devices and electronic signs;
- Replaces obsolete on-board, and back office hardware and software;
- Ability for traffic controllers to remotely provide in-vehicle audio transmissions for customer safety or route information to individual buses, all buses on a route or the entire fleet;

- Drivers to instantly and silently alert traffic controllers to emergency conditions;
- Real time configurable maps, status, events and incident grids;
- Bus bunching/service and vehicle on-time performance alerts;
- Remote on-board PA announcements from central control;
- Real time vehicle diagnosis and alerts to maintenance personnel and control center;
- Customer access to arrivals via automated telephone system;
- Centralized incident management system;
- Customer on demand or subscription based alerts to route information or predictive arrival information;
- 75 solar powered bus stop electronic signs;
- Modernized bus traffic control center;
- Dash boards to assist in management decisions regarding fleet size, vehicle deployment, staffing levels, and equipment failure levels.

#### 7.4.4 Traffic Signalization Prioritization (TSP)

Miami-Dade Transit is working to implement on all buses the necessary hardware and software to enable Traffic Signal Priority with automated Vehicle integration with the County's ATMS to automatically communicate with the local traffic controllers at the intersections along transit corridors. Six corridors have been identified pursuant to Resolution No. R-891-13, to be initially integrated as part of this project:

- 1) Kendall Cruiser
- 2) NW 27<sup>th</sup> Avenue Enhanced Bus
- 3) SR 836 Express Bus
- 4) Flagler Enhanced Bus
- 5) Biscayne Enhanced Bus
- 6) Douglas Enhanced Bus

#### 7.4.5 Pilot Project Using Cellular Infrastructure

**Miami-Dade Transit** is conducting a pilot project to explore the alternative application of cellular infrastructure to provide transit information and Wi-Fi service for passengers. The following are being implemented as part of this project:

- Real-time bus tracker information using cellular communication via mobile devices and the Internet;

- Free public Wi-Fi on seven bus routes;
- Real time predictive bus arrivals on electronic signs on selected bus shelters aligned to seven routes.

#### 7.4.6 Metrorail Central Control Upgrade

This project will provide a new complete rail transit central control system for MDT at the Stephen P. Clark Center. This upgrade will provide a new modernized efficient and reliable transit control center including but not limited to a new interior design, new electrical system, new communication and mechanical equipment.

#### 7.4.7 Replacement and Upgrade of Existing Radio Infrastructure System

Miami-Dade Transit will leverage the Federal Communication Commission (FCC) radio re-banding County-wide initiative to replace the 800 MHz EDACS Radio System. The countywide re-banding project utilizes P25 and OpenSky Technology which applies voice-over-IP (VoIP) transport to radio communications architecture. Re-banding causes all frequencies to change; which will require all radios to be programmed or changed out (due to antiquated technology).

#### 7.4.8 Special Transportation Services

Miami-Dade Transit is seeking to implement Smart Card/RFID, mobile data terminal and GPS Technology on-board special transportation vehicles. This will provide geographically displayed real time status of each vehicle, historical locations, vehicle arrival and departure time for each stop. Furthermore, through an integration of the automated smart card using RFID technology the identification of customers certified to use the system will be improved.

### 7.5 Plan Review

In preparing this TDP Update, a review of applicable federal, state, regional, and local plans, programs, and studies that influence MDT operations, infrastructure, policy, or funding were reviewed. Findings of this review have been summarized and are incorporated into the development of the TDP through the situation appraisal. A situation appraisal, which is required during a major TDP update under the TDP Rule, is an evaluation of the environment in which the transit agency operates. One of the key components of the situation appraisal is this review of relevant plans, programs, and studies, in which factors and influences that will help MDT better understand its environment are identified.

#### 7.5.1 Transportation Program and Plans Review

Coordination with other local, regional, and state agencies will also help to solidify interagency planning efforts and goal development to support a more unified transportation system in the South Florida region. A review of local, regional, state, and federal programs and plans was performed for purposes of the TDP Major Update.

Table 7-1 provides a summary of the key findings and considerations from the plans, programs, and studies reviewed as part of this effort.

### 7.5.2 Comprehensive Land Use Plans Review

Under the Florida Growth Management Act, a local government is required to adopt a comprehensive plan that includes both a transportation and land use element. The transportation element identifies the goals, objectives, and policies that will serve to guide transportation-related policy decisions for the local government over a specified period of time. The land use element serves the same purpose by identifying the goals, objectives, and policies that will serve to guide land use-related decisions.

A review of the transportation and land use elements of the Comprehensive Development Master Plan (CDMP) and the 12 most populous municipalities in Miami-Dade County was conducted in preparation of the MDT10Ahead. Table 7-2 provides an overview of the transit supportiveness of various land use plans affecting MDT's operations. Essentially, this table provides the pertinent "take-aways" from each to be considered during the situation appraisal.



**Table 7-1: Program and Plans Review**

Plan/Program/Study Reviewed	Geographic Applicability	Most Recent Update/Timeframe	Responsible/Partner Agencies	Overview	Key Considerations for the Situation Appraisal
<b>Moving Ahead for Progress in the 21st Century Act (MAP 21)</b>	Federal	Implemented July 6, 2012	Federal Transit Administration (FTA), FDOT	<ul style="list-style-type: none"> <li>MAP-21 extends federal highway and transit funding through federal fiscal year 2014.</li> </ul>	<ul style="list-style-type: none"> <li>MAP-21 consolidates or eliminates a number of existing funds and provides several new funds for transit capital and operating programs, in which MDT may be a recipient.</li> <li>New Freedom funds are combined with Section 5310 program funds, while the Job Access and Reverse Commute (JARC) program is eliminated; however, many JARC projects are now eligible for funding under 5307 and 5311 funds.</li> </ul>
<b>Clean Air Act of 1990</b>	Federal	Revisions to National Ambient Air Quality (NAAQS) proposed in 2010; not yet implemented	U.S. Environmental Protection Agency (EPA)	<ul style="list-style-type: none"> <li>The Clean Air Act of 1990 and subsequent amendments determine the NAAQS for six pollutants, including carbon monoxide and ozone.</li> </ul>	<ul style="list-style-type: none"> <li>Miami-Dade County is currently classified as an attainment area.</li> <li>Enhanced transit options reduce travel by single-occupant vehicle, helping Miami-Dade County to remain classified as an attainment area.</li> </ul>
<b>Title VI and Environmental Justice (EJ) Circulators</b>	Federal	EJ Circular, effective August 15, 2012  Title VI Circular, effective October 1, 2012	U.S. DOT, FTA	<ul style="list-style-type: none"> <li>The new EJ Circular issued by FTA provides recipients of FTA financial assistance with guidance for incorporating EJ principles into FTA-funded plans, projects, and activities.</li> <li>The revised Title VI Circular includes the removal of several references to EJ, which are now incorporated into the separate EJ Circular, to better understand the distinctions between Title VI and EJ.</li> </ul>	<ul style="list-style-type: none"> <li>MDT is required to submit Title VI programs every three years as a transit provider operating 50 or more fixed route vehicles in peak service and located in an urbanized area of more than 200,000 persons. MDT also is required to evaluate service and fare equity changes or monitor transit service for Title VI impacts.</li> <li>MDT's public involvement plan should incorporate outreach designed to encourage meaningful participation from members of the EJ population.</li> </ul>
<b>DOT Livability Initiative and Federal Sustainable Communities Program</b>	Federal	Partnership for Sustainable Communities formed in 2009	U.S. DOT, FTA, U.S. Department of Housing and Urban Development (HUD), and EPA	<ul style="list-style-type: none"> <li>The goal of this joint-initiative is to improve access to affordable housing, better transportation choices, and lower transportation costs while protecting the environment – essentially making communities throughout the United States more livable.</li> </ul>	<ul style="list-style-type: none"> <li>The US DOT and FTA support a number of 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.</li> </ul>
<b>Florida Transportation Plan: Horizon 2060 (FTP)</b>	State	2010	FDOT	<ul style="list-style-type: none"> <li>The Florida Transportation Plan (FTP) looks at a 50-year transportation planning horizon and calls for a fundamental change in how and where Florida invests in transportation.</li> </ul>	<ul style="list-style-type: none"> <li>The FTP supports the development of state, regional, and local transit services through a series of related goals and objectives, emphasizing new and innovative approaches by all modes to meet the needs today and in the future.</li> </ul>
<b>State of Florida Transportation Disadvantaged Five-Year/Twenty-Year Plan</b>	State	2005	Florida Commission for the Transportation Disadvantaged	<ul style="list-style-type: none"> <li>The plan, required under the Florida Statutes, includes the following elements: <ul style="list-style-type: none"> <li>Explanation of the Florida Coordinated Transportation System</li> <li>Five-Year Report Card</li> <li>Florida Office of Program Policy Analysis and Government Accountability Review</li> <li>Strategic Vision and Goals, Objectives, and Measures</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Short-term strategic vision includes developing and field-testing a model community transportation system for persons who are Transportation Disadvantaged.</li> <li>Long-range strategic vision includes developing a universal cost-effective transportation system with a uniform funding system and services that are designed and implemented regionally throughout the state.</li> </ul>

**Table 7-1: Program and Plans Review (Continued)**

Plan/Program/Study Reviewed	Geographic Applicability	Most Recent Update/Timeframe	Responsible/Partner Agencies	Overview	Key Considerations for the Situation Appraisal
<b>FDOT FY 2015-2019 Work Program</b>	State (specific project list developed for FDOT District Six and Miami-Dade County)	In Progress	FDOT	<ul style="list-style-type: none"> <li>The Five-Year Work Program is developed annually by FDOT and is a project-specific list of transportation activities and improvements developed in cooperation with the Broward MPO and local transportation agencies.</li> <li>The Work Program must be consistent, to the maximum extent feasible, with the capital improvement elements of local government comprehensive plans.</li> </ul>	<ul style="list-style-type: none"> <li>A summary of transit projects by type of work found in the adopted FY 2013-2017 Work Plan was compiled for consideration in the TDP update.</li> <li>Types of transit projects included in the FY 2013-2017 Work Program include MDT route realignments, operational improvements, fixed-route capital, transit studies, park-and-ride lot improvements, etc.</li> </ul>
<b>State Growth Management Legislation (House Bill 7207)</b>	State	June 2, 2011	Florida Legislature and local governments	<ul style="list-style-type: none"> <li>HB 7207 repeals most of the State-mandated growth management planning laws that have governed development activities within Florida since the original Growth Management Act of 1975, including transportation concurrency.</li> </ul>	<ul style="list-style-type: none"> <li>The repeal of state-mandated transportation concurrency provides local governments with the opportunity to develop a more localized concurrency program that aligns with the development and mobility goals of the community.</li> <li>HB 7207 strengthens legislative language that supports multi-modal approaches to transportation by stating that Comprehensive Plan Transportation Elements “shall provide for a safe, convenient multi-modal transportation system.”</li> </ul>
<b>SFRTA: Moving our Region Forward (SFRTA Forward for short) is SFRTA’s 10 Year Transit Development Plan (2014-2023)</b>	SFRTA Service Area (Miami-Dade, Broward, and Palm Beach counties)	South Florida Regional Transportation Authority	August 2013	<ul style="list-style-type: none"> <li>SFRTA Forward documents the investments that SFRTA is committed to making over the next five years, as well as the agency’s vision for additional priorities and improvements through FY 2023.</li> </ul>	<ul style="list-style-type: none"> <li>Immediate improvements identified in SFRTA Forward include the modernization and expansion of the Tri-Rail fleet, the shift of rail corridor dispatch and maintenance duties to SFRTA, and the opening of the new Miami Airport Tri-Rail Station at the Miami Intermodal Center (MIC)</li> </ul>
<b>BCT Connect is BCT’s 10 Year Transit Development Plan (2014-2023)</b>	Broward County	Broward County Transit	October 2013	<ul style="list-style-type: none"> <li>BCT Connect provides both a “Status Quo Plan” and “Vision Plan” to guide the future of public transportation services in Broward County during this 10-year planning horizon. While the Status Quo Plan seeks to maintain existing service levels over the next 10 years, the goal of the Vision Plan is to improve the transit system beyond its current capabilities, level of service, and current funding levels.</li> </ul>	<ul style="list-style-type: none"> <li>The Status Quo Plan includes identified reliability/capacity adjustments to address on-time performance issues, implementation of the new WAVE Streetcar, ITS and infrastructure improvements, and completion of various plans and programs. In addition to improvements contained in the Status Quo Plan, the Vision Plan identifies frequency and service improvements, route realignments, enhanced bus service, new fixed route and express bus service, various facility improvements, and other administrative programs and improvements.</li> </ul>
<b>Tri-Rail Coastal Link Study (TRCL)</b>	Regional	In Progress	FTA, Southeast Florida Transportation Council, FDOT, SFRTA, Broward MPO, BCT, Palm Tran, Palm Beach MPO, Miami-Dade MPO, Miami-Dade Transit (MDT)	<ul style="list-style-type: none"> <li>The TRCL Study proposes reintroducing passenger service along an 85-mile stretch of the Florida East Coast (FEC) Railway corridor between downtown Miami and Jupiter.</li> </ul>	<ul style="list-style-type: none"> <li>This regional corridor connects to the existing bus systems, including MDT, BCT, and Palm Tran and rail transit systems including both Tri-Rail and Metrorail. It will also integrate with the various transit systems including the new Miami Trolley.</li> <li>The System Master Plan is currently being refined to identify and evaluate initial phases for implementation, start-up infrastructure, stations, and preliminary costs. Next Steps include recommending a preferred alternative</li> <li>MDT is a Project Partner on this study and sits on the TRCL Steering Committee.</li> </ul>

**Table 7-1: Program and Plans Review (Continued)**

Plan/Program/Study Reviewed	Geographic Applicability	Most Recent Update/Timeframe	Responsible/Partner Agencies	Overview	Key Considerations for the Situation Appraisal
<b>All Aboard Florida</b>	Regional	In Progress	Private Initiative led by Florida East Coast Industries	<ul style="list-style-type: none"> <li>All Aboard Florida is looking at the feasibility of implementing a privately owned, operated, and maintained intercity passenger rail service along a 240-mile section of the existing FEC between Miami and the Space Coast and the creation of new tracks into Orlando.</li> </ul>	<ul style="list-style-type: none"> <li>Study requires coordination between with FEC and local transit/transportation agencies (including MDT) regarding connecting service at proposed stations (including a proposed station in Downtown Miami).</li> </ul>
<b>95 Express Managed Lanes (Phase 2)</b>	Regional	In Progress	FDOT	<ul style="list-style-type: none"> <li>95 Express Phase 2 will extend the existing express lanes north from Golden Glades interchange in Miami-Dade County to Broward Boulevard in Broward County.</li> </ul>	<ul style="list-style-type: none"> <li>The 95 Express provides Express Bus service between Broward County and Downtown Miami within existing express lanes. The extension of the 95 Express lanes from the Miami-Dade County line to Broward Boulevard will allow this Express route to continue traveling at higher average travel speeds via uninterrupted express lanes.</li> </ul>
<b>Regional Transit System Master Plan (RTSMP)</b>	Regional	In Progress	South Florida Transportation Council (SEFTC)	<ul style="list-style-type: none"> <li>A key component of the SEFTC-led 2040 Southeast Florida Regional Transportation Plan (2040 RTP). Project will identify the most significant regional investment needed to meet travel demands throughout the Southeast Florida region.</li> </ul>	<ul style="list-style-type: none"> <li>The RTSMP, when completed in 2014, will provide a thorough analysis of unmet transit travel demands and other regional transit opportunities in the three-county region. It is expected that this analysis will be particularly helpful for the development of future regional express bus service.</li> </ul>
<b>Regional Transit Interoperability/Universal Fare Technology Study</b>	Regional	In Progress	FDOT, BCT, SFRTA, MDT, and Palm Tran	<ul style="list-style-type: none"> <li>Purpose of this study is to evaluate and implement a regional fare card using smart card technologies for MDT, SFRTA, BCT, and Palm Tran, along with evaluating the business case and total cost drivers associated with realizing the technical integration solution.</li> <li>SFRTA and MDT utilizing the Easy Card system.</li> <li>Regional travel is complex where separate fare media, different fares and transfer policies make travel difficult for existing riders and daunting for new customers</li> </ul>	<p>The next steps for implementing a regional fare system include:</p> <ul style="list-style-type: none"> <li>Decision-makers from transit stakeholders to draft a fare policy for multi-modal regional trips</li> <li>Define limitations to accessing Easy Card encryption key</li> <li>Launch pilot program to evaluate use and administrative functions</li> <li>Focus to develop robust system that is extensible to emerging technologies</li> </ul>
<b>Regional Climate Change Action Plan</b>	Regional	2012	Southeast Florida Regional Climate Change Compact (Compact),	<ul style="list-style-type: none"> <li>Compact is a collaborative effort among Palm Beach, Broward, Miami-Dade, Monroe Counties, their municipalities and partners to develop a regional action plan for Southeast Florida to reduce greenhouse gas emissions and adapt to regional and local impacts of a changing climate.</li> </ul>	<ul style="list-style-type: none"> <li>The Regional Climate Change Action Plan establishes seven goals to categorize the 110 action items identified by the Plan. One of the goals is to “reduce greenhouse gas emissions by planning, designing, and prioritizing walkable, affordable communities supported by sustainable multimodal transportation options.” There are 16 action items associated with this goal that address both land use policy and multimodal infrastructure investment strategies.</li> </ul> <p>The Regional Climate Change Action Plan recognizes that there are more than 100 entities in the four-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 MDT.</p>

Table 7-1: Program and Plans Review (Continued)

Plan/Program/Study Reviewed	Geographic Applicability	Most Recent Update/Timeframe	Responsible/Partner Agencies	Overview	Key Considerations for the Situation Appraisal
Seven50 Regional Plan	Broward County	In Progress	South Florida Regional Planning Council – Treasure Coast Regional Planning Council	<ul style="list-style-type: none"> <li>Led by the South Florida and Treasure Coast Regional Planning Councils and the Southeast Florida Regional Partnership(SFRP). The SFRP is a voluntary, broad-based and growing collaboration of more than 200 public, private, and civic stakeholders from the Southeast Florida region.</li> <li>The plan is being devised through a series of public summits, workshops, online outreach, and high-impact studies and will identify a blueprint for growing the Southeast Florida region into a prosperous and desirable place for the next 50 years and beyond.</li> </ul>	<ul style="list-style-type: none"> <li>Concept is based on the “six pillars” designed to serve as an organizing force for strategic planning at local, regional, and state levels. The six pillars include: Talent Supply and Education, Innovation and Economic Development, Infrastructure and Growth Leadership, Business Climate and Competitiveness, Civic and Governance Systems, and Quality of Life and Quality Places.</li> <li>Identifies a need to develop and maintain multimodal, interconnected trade and transportation systems to support a globally competitive economy and focus on improvement.</li> <li>The Comprehensive Economic Development Strategies (CEDS) completed by the South Florida and Treasure Coast Regional Planning Councils, addressing the six pillars, will be integrated into the Seven50 Plan to form a comprehensive 2060 vision plan for the entire seven- county Southeast Florida Region.</li> </ul>



**Table 7-2: Comprehensive Plans Review – Transit Supportive Assessment**

Comprehensive Plan	Element	Plan Format	Geographic Applicability	Most Recent Update	Level of Transit Supportiveness	Key Elements of Transit Supportiveness
<b>Miami-Dade County Comprehensive Development Master Plan (CDMP)</b>	Transportation Element	Goals, Objectives, and Policies	Miami-Dade County	October 2013	High	<ul style="list-style-type: none"> <li>Coordinating objectives and policies between different elements of the Comprehensive Development Master Plan, including the Transportation and Land use Elements, to encourage and promote the use of public transportation.</li> <li>Multi-modal objectives and policies that positively impact transit services, transit infrastructure, and transit ridership, including LOS standards that consider the transit services provided along the corridors.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to jointly improve and develop transportation and transit facilities that are identified across agency plans.</li> <li>A mass transit specific section within the Transportation Element that identifies objectives and policies that encourage and promote the use of public transit by providing interconnectivity between the transportation modes, as well as setting policies to provide a sound funding base for mass transit in the County.</li> </ul>
<b>Miami-Dade County Comprehensive Development Master Plan (CDMP)</b>	Land Use Element	Goals, Objectives, and Policies	Miami-Dade County	October 2013	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage and facilitate transit-oriented, mixed-use, and other development strategies that support the use of the existing and future transit system in specific areas of the County by providing certain incentives, as well as improve the existing infrastructure around major activity nodes.</li> <li>Coordinating objectives and policies between different elements of the Comprehensive Development Master Plan, including the Transportation and Land use Elements, to encourage and promote multi-modal development design.</li> </ul>
<b>Miami Comprehensive Neighborhood Plan</b>	Transportation Element	Goals, Objectives, and Policies	City of Miami	January 2013	High	<ul style="list-style-type: none"> <li>Review of appropriate land use, zoning, urban design, and transportation connectivity within areas surrounding existing and future rail/premium transit stations to determine if changes are needed to foster development and/or infrastructure improvements that support multi-modal travel, including transit use.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve and increase the use of the existing mass transit network within the city and the region.</li> <li>Alternative ways to measure roadway and/or transit facility level-of-service (LOS), including person-trip metrics.</li> </ul>
<b>Miami Comprehensive Neighborhood Plan</b>	Land Use Element	Goals, Objectives, and Policies	City of Miami	January 2013	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that promote and facilitate mixed-use and infill developments within neighborhoods and areas of the city that have easy access to a variety of existing transportation modes, including mass transit.</li> <li>Identifying multiple areas of the city, including the Central Business District (CBD) and Regional Activity Centers (RACs), where new developments must include and/or encourage the use of mass transit and reduce the need for automobile travel.</li> </ul>



Table 7-2: Comprehensive Plans Review – Transit Supportive Assessment (Continued)

Comprehensive Plan	Element	Plan Format	Geographic Applicability	Most Recent Update	Level of Transit Supportiveness	Key Elements of Transit Supportiveness
City of Hialeah Comprehensive Plan 2003-2015	Transportation Element	Goals, Objectives, and Policies	City of Hialeah	2003	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve and increase the use of the transit.</li> <li>Strategies to facilitate the dissemination of transit service information, including coordinating with Hialeah employers and distributing information at City-owned and operated facilities.</li> <li>Multi-modal objectives and policies that positively impact transit services, transit infrastructure, and transit ridership, including LOS standards that consider the transit services provided along the corridors.</li> <li>Protecting and preserving current and future right-of-way for mass transit projects, including within proposed developments.</li> </ul>
City of Hialeah Comprehensive Plan 2003-2015	Land Use Element	Data and Inventory, with Goals, Objectives, and Policies	City of Hialeah	2003	Medium	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage downtown mixed-use, compact urban design, and infill development, and accompanying strategies that support the use of the existing and future transit system in certain areas of the city.</li> <li>Coordinating objectives and policies between the Transportation and Land Use Elements of the Comprehensive Plan to ensure consistency between land use policies and the city's transportation infrastructure.</li> </ul>
City of Miami Gardens Comprehensive Development Master Plan	Transportation Element	Goals, Objectives, and Policies	City of Miami Gardens	December 2006	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve and maximize transit mobility within the city, as well as coordination to achieve consistency between plans and programs at the regional and state levels.</li> <li>Coordinating objectives and policies between different elements of the Comprehensive Development Master Plan, including the Transportation and Land use Elements, to encourage and promote the use of public transportation.</li> <li>Multi-modal goals, objectives, and policies that positively impact transit services and transit ridership, including improvements to pedestrian infrastructure around existing transit stops.</li> </ul>
City of Miami Gardens Comprehensive Development Master Plan	Land Use Element	Goals, Objectives, and Policies	City of Miami Gardens	December 2006	High	<ul style="list-style-type: none"> <li>Coordinating objectives and policies between different elements of the Comprehensive Development Master Plan, including the Transportation and Land Use Elements, to identify transit-focused corridors and other areas within the city.</li> <li>Goals, objectives, and policies that encourage mixed-use, infill, compact urban design, and transit-oriented development strategies that support the use of the existing and future transit system in specific areas of the city.</li> </ul>

Table 7-2: Comprehensive Plans Review – Transit Supportive Assessment (Continued)

Comprehensive Plan	Element	Plan Format	Geographic Applicability	Most Recent Update	Level of Transit Supportiveness	Key Elements of Transit Supportiveness
City of Miami Beach Year 2025 Comprehensive Plan	Transportation Element	Goals, Objectives, and Policies	City of Miami Beach	April 2011	High	<ul style="list-style-type: none"> <li>Dedicating a section of the Transportation Element to identify mass transit-specific objectives and policies that encourage and promote the use of public transit, including setting minimum transit service and infrastructure standards and strategies for interagency/intergovernmental coordination to ensure the implementation of the objectives and policies.</li> <li>Sections of the Transportation Element that identify multi-modal and bicycle and pedestrian circulation specific objectives, and policies that positively impact transit services, transit infrastructure, and transit ridership, including pedestrian and bicycle safety, complete streets, and Transportation Demand Management (TDM) strategies,</li> <li>Strategies to increase the non-single occupancy vehicle (non-SOV) modal split, including mass transit, as well as strategies to continuously review the effectiveness of these strategies.</li> <li>Coordinating objectives and policies between different elements of the Comprehensive Plan, including the Transportation and Land Use elements, to maximize leverage of the existing infrastructure and transportation system.</li> </ul>
City of Miami Beach Year 2025 Comprehensive Plan	Land Use Element	Goals, Objectives, and Policies	City of Miami Beach	April 2011	Medium	<ul style="list-style-type: none"> <li>Mixed-use and transit-oriented development objectives, policies, and zones within the city to support the use of existing and future mass transit system.</li> </ul>
City of Homestead Comprehensive Plan	Transportation Element	EAR-Based Amendments to Goals, Objectives, Measures, and Policies	City of Homestead	June 2011	High	<ul style="list-style-type: none"> <li>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.</li> <li>Multi-modal-specific goals, objectives, and policies throughout the Transportation Element that positively impact transit services, including TDM strategies.</li> <li>Identifying performance measures to monitor progress in achieving the objectives and policies of the plan.</li> </ul>
City of Homestead Comprehensive Plan	Land Use Element	EAR-Based Amendments to Goals, Objectives, Measures, and Policies	City of Homestead	June 2011	Medium	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage downtown mixed-use, compact urban design, and infill development, and accompanying strategies that support the use of the existing and future transit system in certain areas of the city.</li> </ul>

Table 7-2: Comprehensive Plans Review – Transit Supportive Assessment (Continued)

Comprehensive Plan	Element	Plan Format	Geographic Applicability	Most Recent Update	Level of Transit Supportiveness	Key Elements of Transit Supportiveness
City of North Miami Comprehensive Plan	Transportation Element	EAR-Based Amendments to Goals, Objectives, and Policies	City of North Miami	December 2007	High	<ul style="list-style-type: none"> <li>Multi-modal goals, objectives, and policies that positively impact transit services and transit ridership, including LOS standards that consider the transit services provided along the corridors, TDM strategies, and increasing transit modal split within the city.</li> <li>Procedures that identify funding mechanisms for public transportation improvements in the city.</li> <li>Coordinating objectives and policies between different elements of the Comprehensive Plan, including the Transportation and Land Use elements, to establish appropriate transit supportive uses, densities, and designs as well as to ensure connectivity of the multi-modal transportation system.</li> <li>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.</li> </ul>
City of North Miami Comprehensive Plan	Land Use Element	EAR-Based Amendments to Goals, Objectives, and Policies	City of North Miami	December 2007	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage and facilitate mixed-use, infill, and transit-oriented development and accompanying strategies that support the use of the existing and future transit system in specific areas of the city.</li> <li>Transit-oriented and urban design sections within the plan provide detailed guidelines and insight into goals and policies that promote the use of public transportation.</li> </ul>
City of Coral Gables Comprehensive Plan	Mobility Element	Goals, Objectives, and Policies	City of Coral Gables	January 2010	High	<ul style="list-style-type: none"> <li>Identifying objectives and policies that impact different elements of the comprehensive development plan, including the mobility and land use elements.</li> <li>Multi-modal goals, objectives, and policies that positively impact transit services, and transit ridership, including LOS standards that consider the transit services provided along the corridor and TDM strategies.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve consistency between local and regional plans.</li> </ul>
City of Coral Gables Comprehensive Plan	Land Use Element	Goals, Objectives, and Policies	City of Coral Gables	January 2010	Medium	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage mixed-use development downtown and along corridors, as well as infill development strategies that support the use of the existing and future transit system in specific areas of the city.</li> </ul>
City of Doral Comprehensive Plan	Transportation Element	Goals, Objectives, Measures, and Policies	City of Doral	August 2013	High	<ul style="list-style-type: none"> <li>Multi-modal goals, objectives, and policies that positively impact transit services, and transit ridership, including LOS standards that consider the transit services provided along the corridor and TDM strategies.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit access to major trip generators for city residents.</li> <li>Strategies and measures to increase the non-single occupancy vehicle (non-SOV) modal split, including increasing transit modal split.</li> </ul>

Table 7-2: Comprehensive Plans Review – Transit Supportive Assessment (Continued)

Comprehensive Plan	Element	Plan Format	Geographic Applicability	Most Recent Update	Level of Transit Supportiveness	Key Elements of Transit Supportiveness
City of Doral Comprehensive Plan	Land Use Element	Goals, Objectives, and Policies	City of Doral	August 2013	Medium	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage mixed-use development downtown and along corridors, as well as redevelopment strategies that support the use of the existing and future transit system in specific areas of the city.</li> </ul>
City of North Miami Beach Comprehensive Plan	Transportation Element	Goals, Objectives, and Policies	City of North Miami Beach	April 2011	High	<ul style="list-style-type: none"> <li>Multi-modal objectives and policies that positively impact transit services, transit infrastructure, and transit ridership, including LOS standards that consider the transit services provided along the corridors, and TDM strategies.</li> <li>Identifying objectives and policies that impact multiple elements of the comprehensive development plan, including the transportation and land use elements, to ensure compatibility of said objectives and policies.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit services and identify potential long-term transit enhancements.</li> <li>On-going evaluation and monitoring of goals, objectives, and policies of the Comprehensive Plan and existing transit services to identify any potential improvements and enhancements that positively impact transit usage.</li> </ul>
City of North Miami Beach Comprehensive Plan	Land Use Element	Goals, Objectives, and Policies	City of North Miami Beach	November 2013	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage mixed-use and redevelopment strategies in specific areas of the city and that support the use of the existing and future transit system while reducing the need for automobile travel.</li> <li>Strategies to support and fund improvements to multi-modal street infrastructure, including transit stops, through impact fees for mixed-use developments.</li> </ul>
Town of Cutler Bay Growth Management Plan	Transportation Element	Goals, Objectives, Measures, and Policies	Town of Cutler Bay	April 2008	High	<ul style="list-style-type: none"> <li>Multi-modal goals, objectives, and policies that positively impact transit, including LOS standards that consider the transit services provided along the corridors and TDM strategies.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit services and transit infrastructure, and to ensure consistency between local, regional, and state plans.</li> <li>Coordinating objectives and policies between different elements of the Growth Management Plan, including the Transportation and Land Use Elements, to establish appropriate transit supportive uses, densities, and designs and to ensure connectivity of the transportation system.</li> <li>Strategies to seek alternative funding mechanisms for mobility improvements, including transit stops, through impact fees.</li> </ul>



**Table 7-2: Comprehensive Plans Review – Transit Supportive Assessment (Continued)**

Comprehensive Plan	Element	Plan Format	Geographic Applicability	Most Recent Update	Level of Transit Supportiveness	Key Elements of Transit Supportiveness
<b>Town of Cutler Bay Growth Management Plan</b>	Land Use Element	Goals, Objectives, Measures, and Policies	Town of Cutler Bay	April 2008	High	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage mixed-use and transit-oriented development and redevelopment within specific areas of the city and that support the use of the existing and future transit system.</li> <li>Multi-modal objectives and policies within the Land Use Element of the Growth Management Plan that positively impacts transit services, including the use of incentive programs to encourage transit-oriented developments.</li> </ul>
<b>The City of Aventura Comprehensive Plan</b>	Transportation Element	Goals, Objectives, Measures, and Policies	City of Aventura	December 1998	High	<ul style="list-style-type: none"> <li>Multi-modal goals, objectives, and policies that positively impact transit, including setting transit LOS standards and TDM strategies.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to ensure consistency between local, regional, and state plans, and further develop the multi-modal transportation system.</li> <li>Utilizing performance measures to monitor progress in achieving the objectives and policies of the plan, such as transit service measures to measure mobility within the city.</li> <li>Identifying areas and locations within the city where appropriate pedestrian and transit infrastructure should be provided.</li> </ul>
<b>The City of Aventura Comprehensive Plan</b>	Land Use Element	Goals, Objectives, Measures, and Policies	City of Aventura	December 1998	Medium	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage mixed-use and redevelopment strategies in specific areas of the city and that support the use of the existing and future transit system.</li> </ul>
<b>Town of Miami Lakes Adopted Comprehensive Plan</b>	Transportation Element	Goals, Objectives, Measures, and Policies	Town of Miami Lakes	December 2003	High	<ul style="list-style-type: none"> <li>Multi-modal goals, objectives, and policies that positively impact transit, including LOS standards that consider the transit services provided along the corridors, as well as completion of the pedestrian infrastructure network within the city.</li> <li>Goals, objectives, and policies that promote and encourage interagency and intergovernmental coordination to improve transit services within the city.</li> <li>Utilizing performance measures to monitor progress in achieving the objectives and policies of the plan, such as intergovernmental coordination and development application review measures.</li> <li>Conducting a detailed review of all development proposals to ensure appropriate multi-modal facilities are provided.</li> </ul>
<b>Town of Miami Lakes Adopted Comprehensive Plan</b>	Land Use Element	Goals, Objectives, Measures, and Policies	Town of Miami Lakes	December 2003	Medium	<ul style="list-style-type: none"> <li>Goals, objectives, and policies that encourage mixed-use and redevelopment strategies in specific areas of the city and that support the use of the existing and future transit system.</li> </ul>



## 7.6 Land Use

The pattern of land use and urban growth promoted in the original Comprehensive Development Master Plan (CDMP) continues to occur throughout Miami-Dade County. The location and configuration of Miami-Dade County's urban growth shall emphasize concentration and intensification of development around centers of activity, development of well-designed communities containing a variety of uses, housing types and public services, renewal and rehabilitation of blighted areas, and contiguous urban expansion when warranted, rather than sprawl.

Miami-Dade County shall require all new development and redevelopment in existing and planned transit corridors and urban centers to be planned and designed to promote transit-oriented development (TOD), and transit use, which mixes residential, retail, office, open space and public uses in a pedestrian-friendly environment that promotes the use of transit. This set of actions will produce short trips, minimize transfers, attract transit ridership, and promote travel patterns using transit routes that are balanced directionally and temporally to promote transit operational and financial efficiencies.

When the existing land use map is compared to the adopted 2020 and 2030 Land Use Plan (LUP) it is noticeable that areas along the South Miami-Dade Busway are designated for future land use categories that will facilitate a gradual transition from undeveloped land to low or medium residential density (refer to the segment between Florida City and SW 216<sup>th</sup> Street).

The County will give special emphasis to providing a high level of public mass transit service to all planned urban centers. Urban Centers are identified on the LUP map by circular symbols noting three scales of planned centers (regional, metropolitan and community urban centers). In addition to the Urban Center locations depicted on the LUP map, all future rapid transit station sites and their surroundings shall at a minimum, be developed in accordance with the community urban center policies as set forth in the CDMP.

## 7.7 Transit Propensity

A transit propensity analysis was performed for the TDP Major Update based upon the latest available Census data for 2010 (CTPP 2006-2010 data is used for Zero Car household propensity analysis since Census 2010 did not report this information). The transit propensity analysis takes into account various demographic characteristics of geographic areas of Miami-Dade County and uses this information to identify those areas that have the strongest propensity for transit use. The transit propensity analysis prepared for the MDT TDP Major Update took into account six demographic characteristics:

- Percentage of Population Age 65 or Over (Age 65+/Total Population)
- Percentage of Population Age 18 and Under (Age 18 and Under/Total Population)
- Percentage of Low Income Households (HH income <=\$25,000)

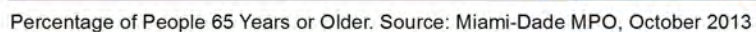
- Percentage of Zero Car Households (Zero Car HH/Total HH)
- Percentage Minority (Percentage of total population that are not “White, non-Hispanic)
- Population Density (Persons/Square mile of Land)

All of these household characteristics are considered an important transit market, so places with a high concentration of these six characteristics can be considered to be locations where improvements to transit service are likely to yield the greatest return in terms of transit ridership.

The maps in Figure 7-2, Figure 7-3, Figure 7-4, Figure 7-5, Figure 7-6 and Figure 7-7 on the following pages show concentrations of elderly persons, younger population, low income households, zero car households, minority and population density that traditionally lack access to a private vehicle.

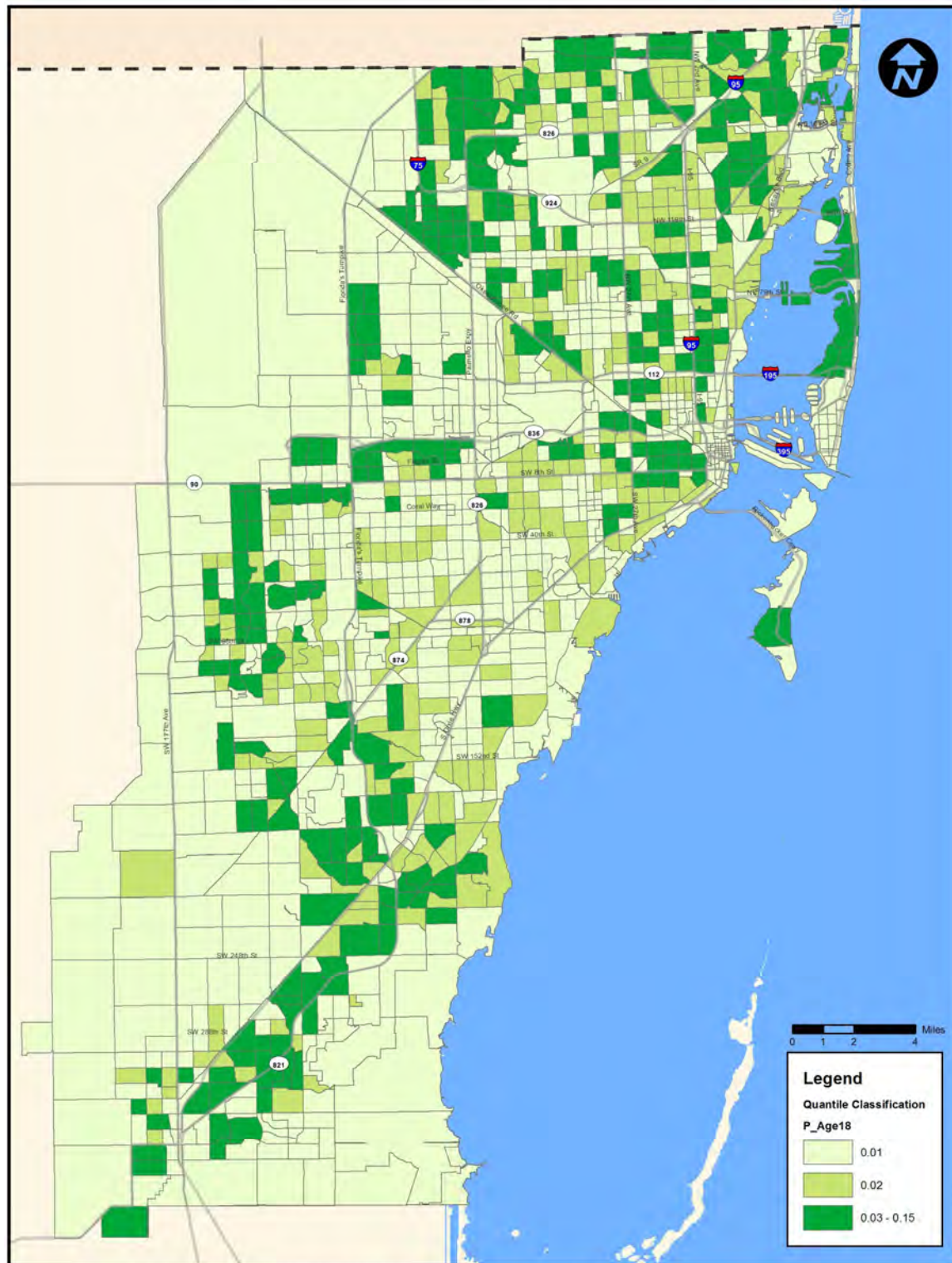
As seen on the map showing percentage of population age 65 and over, the greatest concentration of elderly residents is located in the central and northern areas and along the coast. Concentrations of the percentage of population age 18 and under are located in the northern and southern portion of the County, with other pockets scattered throughout the County. Concentration of low income households are found mainly west and north of downtown and in some municipalities located to the south, with other pockets scattered throughout the County. Zero car household distribution is similar to location of low income households, with the zero car households mostly located west and north of downtown, with some scattered pockets throughout the County. Minority populations are mostly concentrated to the west and north of downtown. Areas of high population density are located mainly in the downtown area and along the coast, with other pockets scattered throughout the county.

Figure 7-8 shows the combined concentration of each of these demographic characteristics plotted on the same map, allowing identification of the areas in which they overlap. The areas with high concentration of all six demographic characteristics discussed above are shown on the map in Figure 7-9.





**Figure 7-3: Percentage of People 18 Years and Under**



Percentage of People 18 Years or Under. Source: Miami-Dade MPO, October 2013

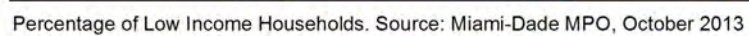
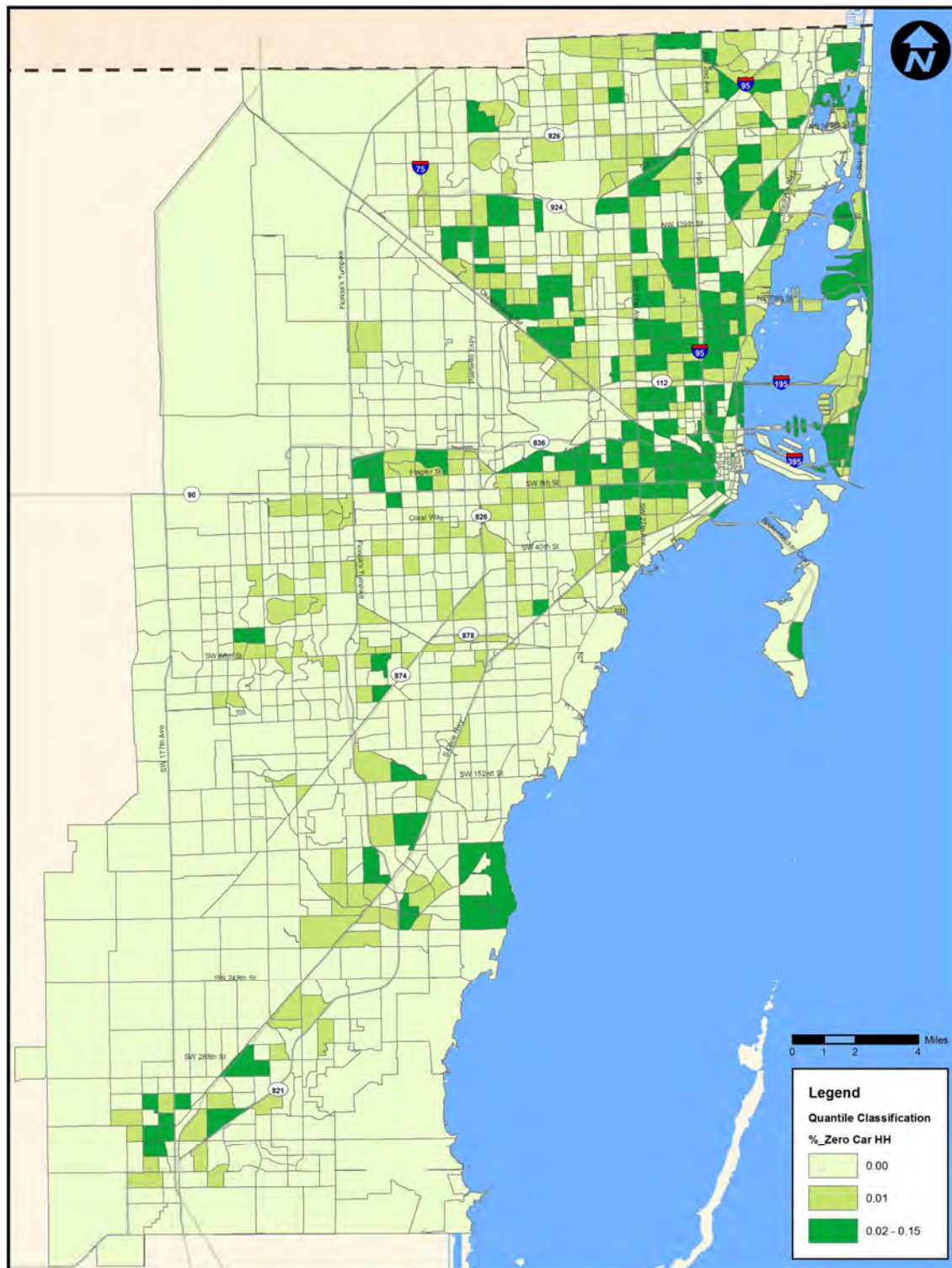


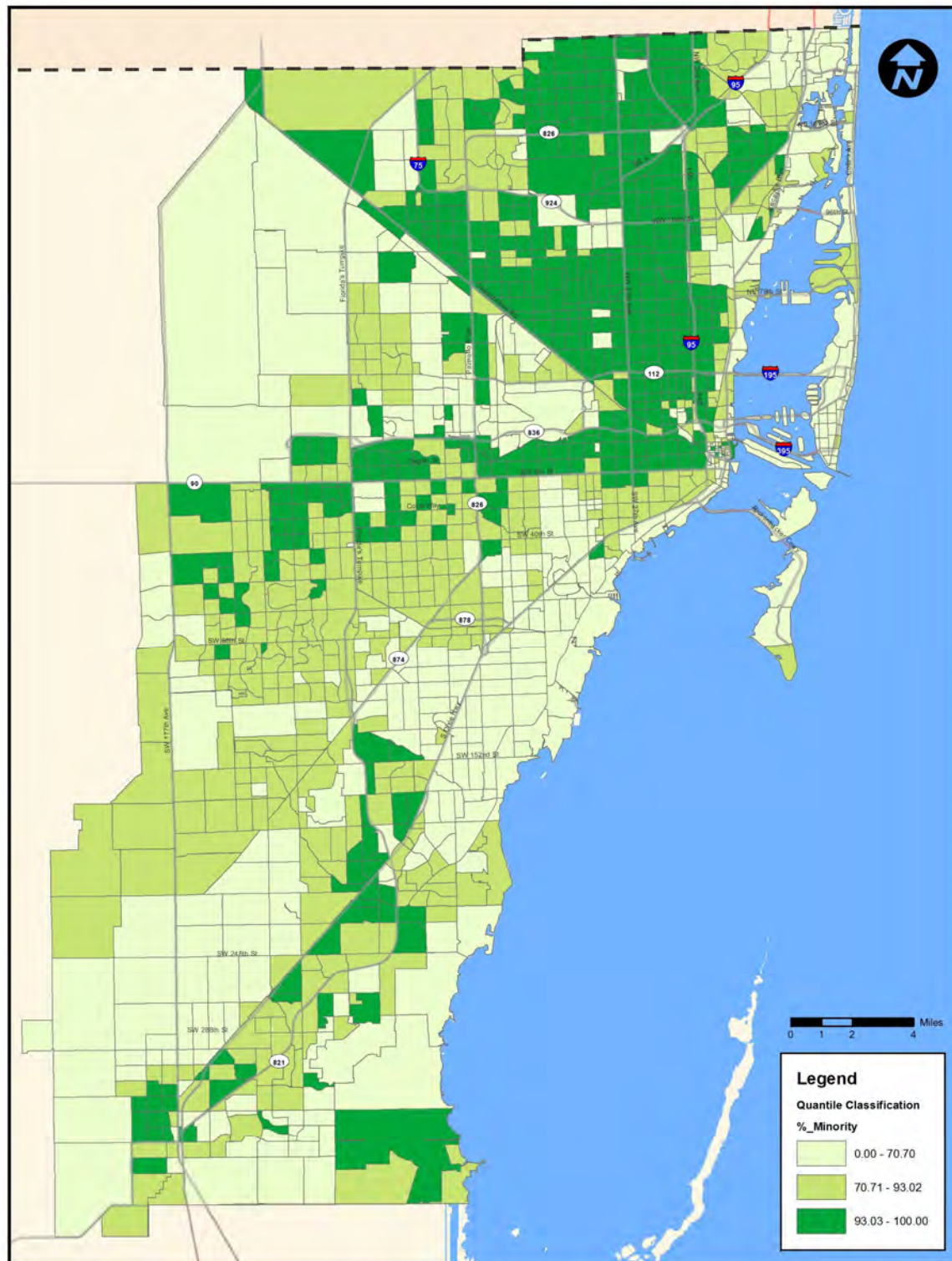


Figure 7-5: Percentage of Zero Car Households



Percentage Zero Car Households. Source: CTPP 2006 - 2010, Miami Dade MPO October 2013.

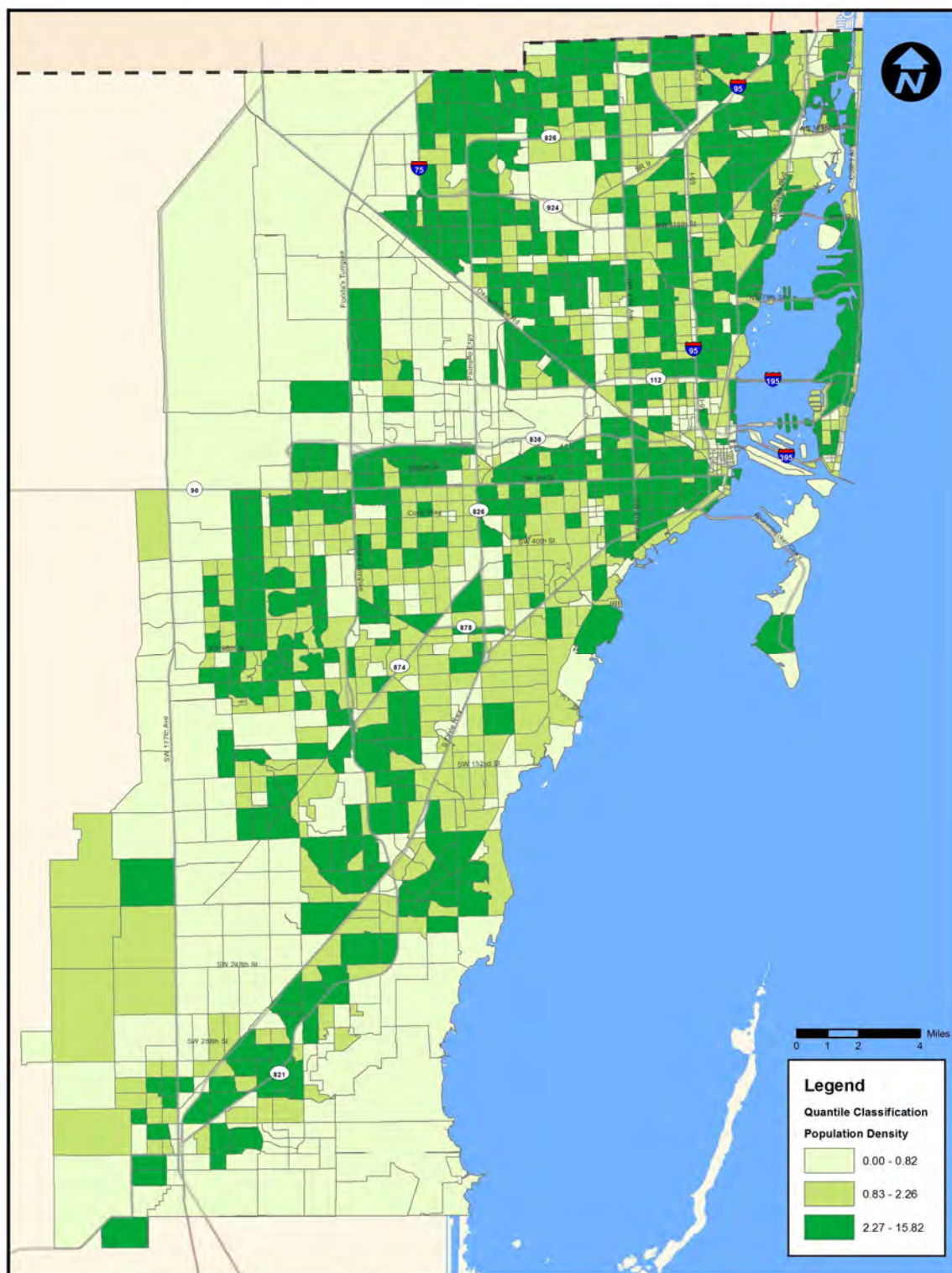
Figure 7-6: Percentage Minority



Percentage Minority. Source: Miami-Dade MPO, October 2013

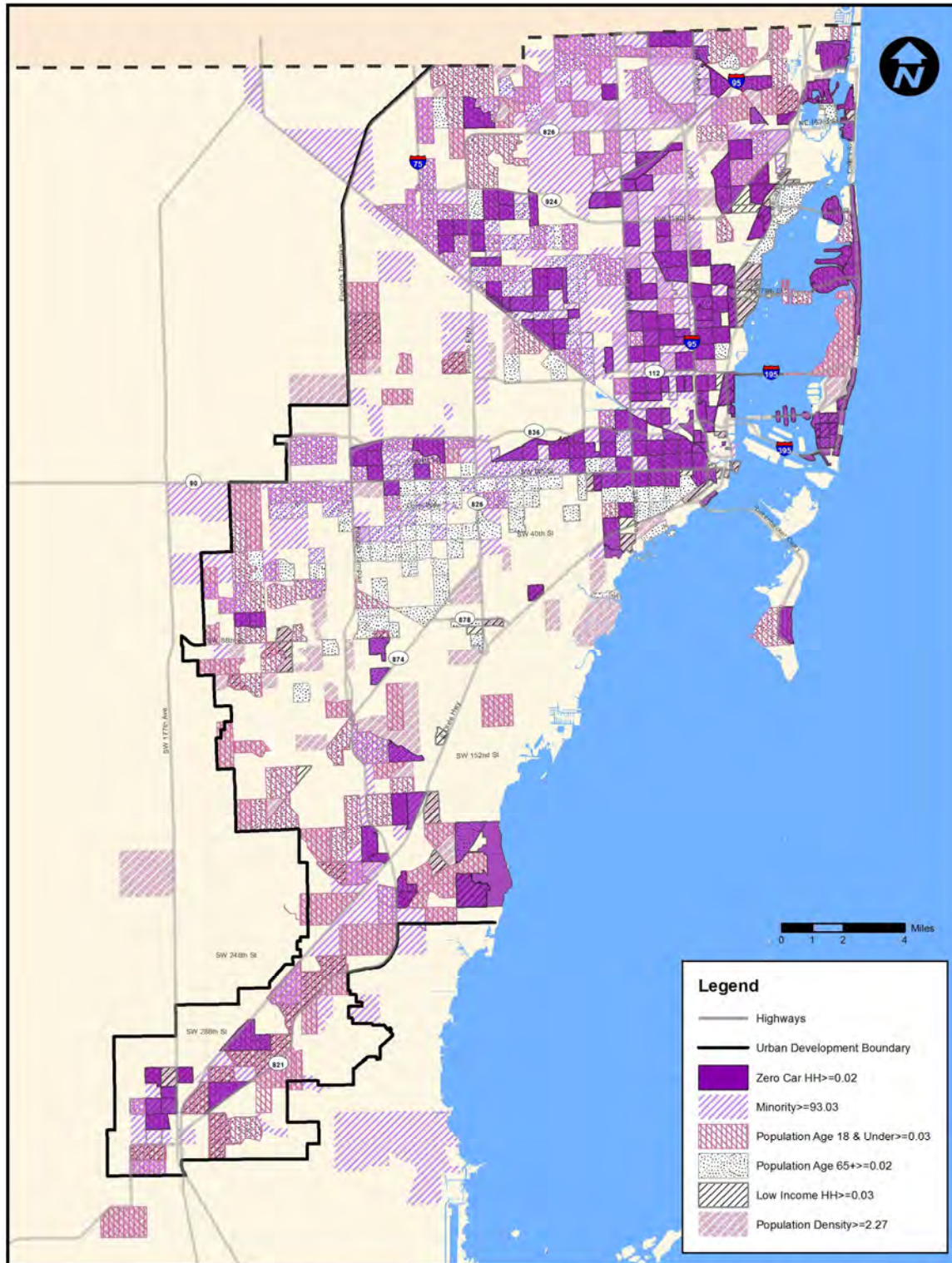


**Figure 7-7: Population Density**



Population Density. Source: Miami-Dade MPO, October 2013

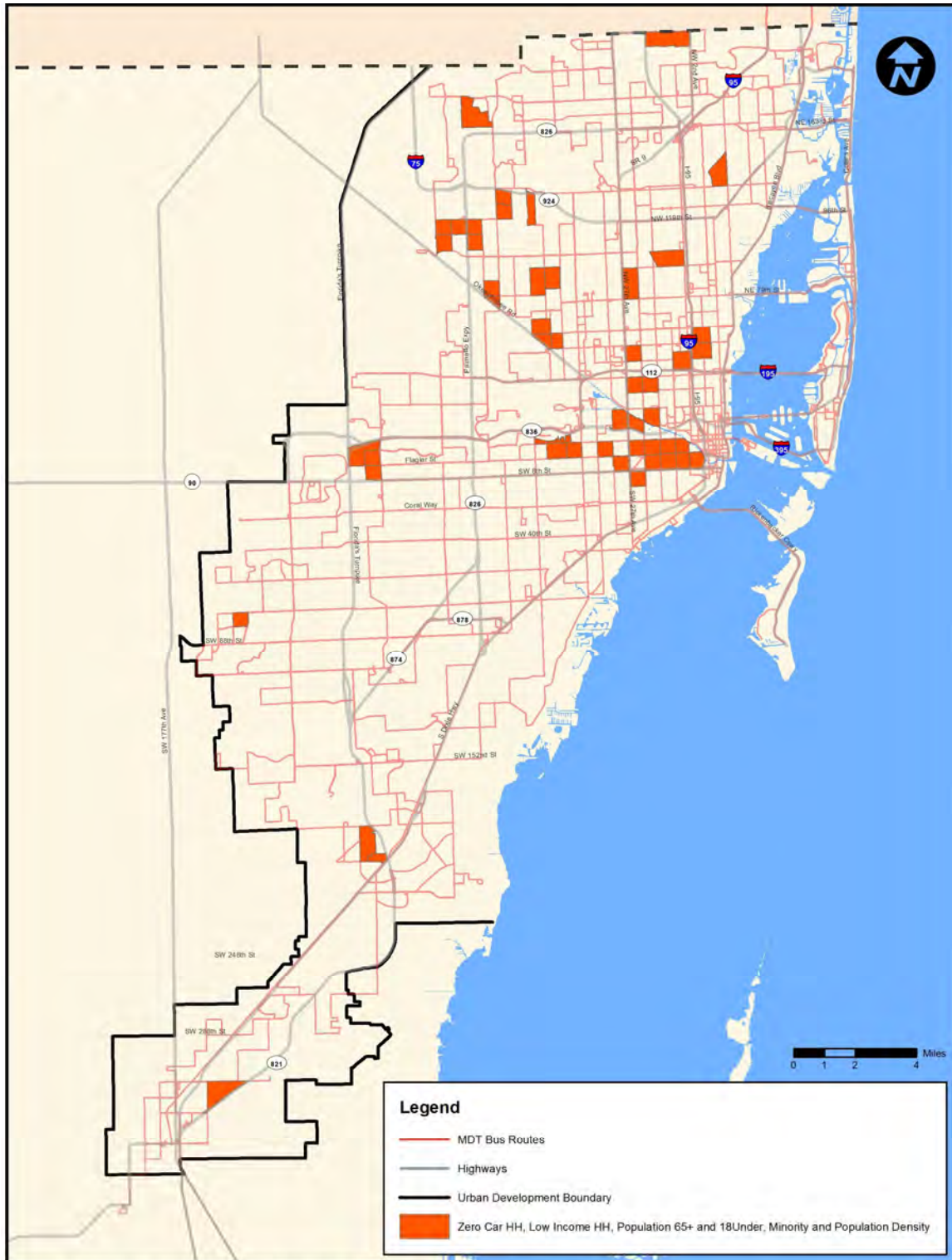
Figure 7-8: Highest Concentration of Transit Dependent Population



Highest Concentration of Transit Dependent Population. Source: CTPP 2006 - 2010, Miami-Dade MPO October 2013



**Figure 7-9: Transit Propensity Map**



Transit Propensity. Source: CTPP 2006 - 2010, Miami-Dade MPO October 2013



The transit propensity map shows a strong concentration of high transit ridership potential areas located to the west and north of downtown, with some pockets located at the outer edges of the county. These areas generally correspond to those areas where MDT is providing higher level transit service or has plans to expand its service offerings;

- The Hialeah area and higher-propensity pockets north and south of downtown are served by the existing Metrorail and Busway services.
- Many of the high propensity areas in the northern areas of Miami-Dade County are served by premium transit service along the NW 27<sup>th</sup> Avenue corridor.
- Areas along West Flagler Street, SW 8<sup>th</sup> Street, NW 7<sup>th</sup> Street and nearby parallel streets are served by high frequency bus service such as the Routes 11 and Flagler MAX, Route 8 and Route 7/7A respectively.

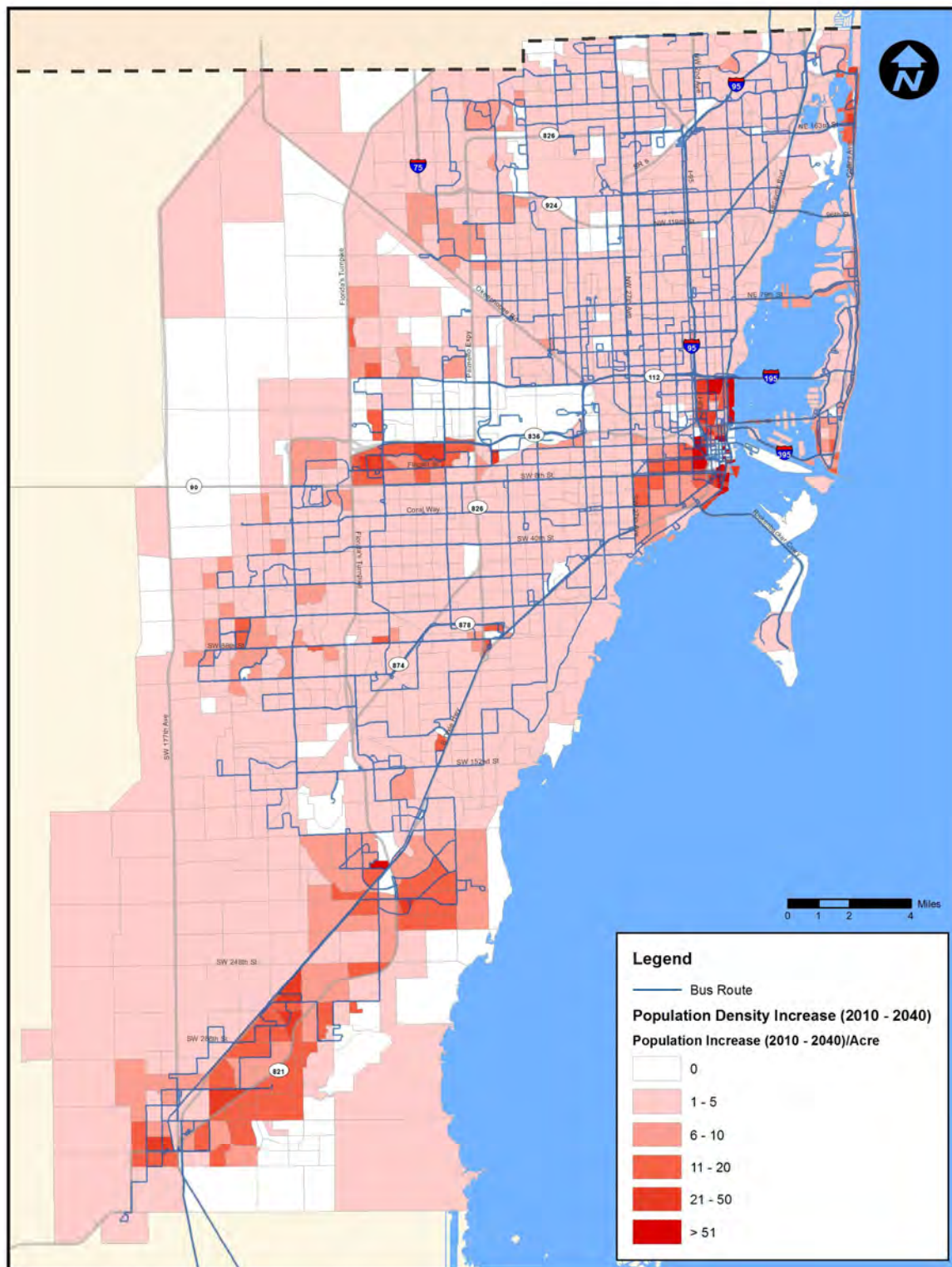
#### 7.7.1 Population and Employment Density

Analysis of population and employment was based on 2010 and estimated 2040 figures based on SERPM model projections of 2040 socio-economic data. Figures 7-10 and 7-11 present areas of concentrated population and employment density increases, expressed as persons and employees per acre within a TAZ. The analysis of population and employment for Miami-Dade County illustrate that no areas will decline in terms of population and employment density between 2010 and 2040. Those areas of concentrated population growth include Downtown Miami and Brickell, Doral, Cutler Bay and along the Miami-Dade Busway into Homestead. Similarly, for employment these areas include Doral, areas adjacent to the Miami International Airport, Dadeland, Downtown Miami, and Miami Beach.

An overlay of the current transit service shows that MDT is currently serving all of the areas of the county where significant growth is anticipated. Most of the areas that are showing higher growth are already served by Metrorail or by high frequency bus service on multiple bus routes.

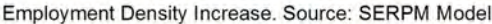
Other corridors targeted for bus improvements in this report, include NW 27<sup>th</sup> Avenue, SR 836, Flagler Street, Biscayne, SW 137<sup>th</sup> Avenue and Kendall Drive where pockets of significant growth is anticipated between 2010 and 2040.

**Figure 7-10: Population Density Increase (2010 - 2040)**



Population Density Increase. Source: SERPM Model

**Figure 7-11: Employment Density Increase (2010 - 2040)**





### 7.7.2 Origin-Destination Survey Summary for MDT Local Bus Service

The Miami-Dade County Metropolitan Planning Organization (MPO) conducted a series of transit on-board surveys within Miami-Dade County to support the regional transit modeling efforts by providing ridership characteristics and origin-destination patterns for riders of Miami-Dade-Transit (MDT) local bus routes. Survey questions covered topics such as travel patterns, trip purpose, mode of travel, fare payment method, and demographic/socio-economic characteristics. The first nine survey questions were specifically asked to gather origin and destination data and information related to travel patterns of MDT local bus riders, and asked information about the following topics:

- Trip origin
- Trip purpose
- Trip sequence
- Mode of access/egress
- Parking location
- Bus Boarding and alighting location
- Trip destination

The on-board surveys were systematically conducted by trained surveyors for local MDT bus routes served by the Northeast Division Garage and Central Division Garage. The Miami-Dade MPO is currently surveying routes out of the Coral Way Division Garage.

The key findings related to the travel behavior and demand for MDT local bus service resulting from these two survey efforts is summarized below. This information will be incorporated into the situation appraisal prepared for MDT10Ahead to identify gaps in services or areas for further improvements.

It should be noted that there was general consistency in responses by riders collected during both survey efforts. As a general statement, a higher percentage of riders surveyed on routes originating from the Northeast Division Garage had better access to vehicles, higher education levels, and higher annual incomes. The origin and destination data were also generally consistent among the two survey efforts. Origin and destination data collected during these survey efforts were geocoded and mapped to illustrate origins and destinations by bus route. Both survey efforts indicated high concentrations of origin and destination locations at key activity and employment centers, including:

- Downtown Miami
- Miami Beach (notably at the I-195 and I-385 termini)
- Jackson Memorial Hospital
- Miami-Dade College
- Aventura Mall
- Omni Station
- Coconut Grove
- Miami International Airport
- Key Biscayne
- Various shopping areas and employment centers

## Summary of On-Board Survey Results for Routes Served by the MDT Northeast Division Garage

On-board surveys were conducted for 22 local bus routes served by the MDT Northeast Division Garage over a three-week period in April 2012. Of the 9,975 riders interviewed, 4,700 elected to participate in the survey and complete the minimum nine origin and destination questions. This resulted in a 48 percent response rate overall for the 22 routes.

- Trip origins tend to be more home-based trips, as more than half of the riders surveyed (53%) began their trip from home, while only 18 percent originated from work locations.
- Nearly two-thirds (62%) of riders will end their trip either at home (36%) or at work (26%), indicating that a high percentage of riders use the bus for work-based trips.
- More than half of riders (56%) did not make any transfers.
- The significant majority of riders accessed both the first transit stop (93%) and their final destination (96%) by walking. In both instances, 63 percent of these riders walked 1/4-mile or less to reach either the first transit stop or their final destination.
- Most riders (42%) made their trip five days per week; however, there was a fairly even distribution of riders who either made their trip less than one day per week or made their trip one, two, three, four, six, or seven days per week (with responses ranging from 6% to 9%). This response is again indicative of a higher percentage of employees/commuters riding the bus to/from work during a traditional five-day/40-hour work week. This is also supported by 32 percent of riders indicating that they work full time.
- More than one-third (37%) of riders indicated that their one-way trip takes somewhere between 10 and 40 minutes by bus and another 33 percent indicated that their one-way trip takes between 40 and 70 minutes. In total, 70 percent of riders require somewhere between 10 and 70 minutes to complete their one-way trip, while only three percent of riders indicated that their one-way trip takes less than 10 minutes.
- Several survey questions sought to identify socio-economic or demographic variables that may indicate whether riders are more likely to depend on public transportation for their travel needs. Survey data collected that would support a higher propensity of transit-dependent riders includes:
  - 43 percent of riders do not have a valid driver's license.
  - 65 percent of riders indicated that there are zero motorized vehicles in their households.
  - 45 percent of riders who responded do not have access to a vehicle.



- 50 percent of riders possess a high-school education level or below.
- Although only half of the riders participating elected to provide their total annual income, of those that responded, 35 percent of riders reported an annual income of less than \$28,000.

#### Summary of On-Board Survey Results for Routes Served by the MDT Central Division Garage

On-board surveys were conducted for 22 local bus routes served by the MDT Central Division Garage over a three-week period in April 2013. Of the 6,045 riders interviewed, 2,475 elected to participate in the survey and complete the minimum nine origin and destination questions. This resulted in a 41 percent response rate overall for the 22 routes. Key findings from this survey effort related to the travel behavior and demand include:

- Trip origins tend to be more home-based trips, as more than half of the riders surveyed (51%) began their trip from home, while only 19 percent originated from work locations.
- Nearly two-thirds (62%) of riders will end their trip either at home (34%) or at work (28%), indicating that a high percentage of riders use the bus for work-based trips.
- Just over half of riders (51%) did not make any transfers.
- The significant majority of riders accessed both the first transit stop (95%) and their final destination (97%) by walking. In both instances, 68 percent of these riders walked 1/4-mile or less to reach either the first transit stop or their final destination.
- Most riders (39%) made their trip five days per week; however, there was a fairly even distribution of riders who either made their trip less than one day per week or made their trip one, two, three, four, six, or seven days per week (with responses ranging from 7% to 11%). This is again indicative of a higher percentage of employees/commuters riding the bus to/from work during a traditional five-day/40-hour work week. This is also supported by 49 percent of riders indicating that they work full time.
- The majority of riders (54%) indicated that their one-way trip takes somewhere between 10 and 40 minutes by bus and another 25 percent of riders indicated that their one-way trip takes between 40 and 70 minutes. In total, more than three-quarters (79%) of riders require somewhere between 10 and 70 minutes to complete their one-way trip, while only less than 1 percent of riders indicated that their one-way trip takes less than 10 minutes.
- Several survey questions sought to identify socio-economic or demographic variables that may indicate whether riders are more likely to depend on public transportation for their travel needs. Survey data collected that would support a higher propensity of transit-dependent riders includes:
  - 54 percent of riders do not have a valid driver's license.

- 58 percent of riders indicated that there are zero motorized vehicles in their households.
- 78 percent of riders do not have access to a vehicle.
- 61 percent of riders possess a high-school education level or below.
- Although one-third of riders declined to provide their total annual income, of those that responded, 60 percent of riders reported an annual income of less than \$28,000.

### Summary of Key Findings from Trip Origin and Destination Locational Data

In general, the trip origin and destination data provided by MDT riders illustrates a high correlation between route alignments and rider trip origin and destination locations. This is confirmed by the significant majority of MDT riders surveyed who indicated that they walk less than ¼-mile from their origin to reach their initial bus stop or from the bus stop to reach their final destination. Based on a review of the origin and destination locations mapped in relation to the 44 MDT local bus routes on which riders were surveyed, the following highlight key observations made concerning those routes with a more significant presence of trip origins or destinations located outside the immediate service area of the route.

- For Route 3, a north-south route along US 1, there are a number of origins and destinations within a two-mile range to the west of the route line. While these origins and destinations are not clustered in any high concentration, they are consistently present along most of the length of the route.
- For Route 9, a north-south route serving Aventura, North Miami Beach, Miami Shores, and downtown Miami, there is a presence of trip origins and destinations from the Golden Glades area that are located within approximately one mile to the west of the route line.
- For Route 10, a north-south route serving North Miami Beach, Miami Shores, and downtown Miami, there are trip origins located up to four miles east of the route line south of where this north-south route crosses NW 95th Street. There are also clusters of trip origins along the Metromover line as well as from Little Havana and surrounding areas.
- Route 16 is a north-south route serving North Miami, Miami Shores, and downtown Miami. While the highest concentration of trip origins is in North Miami, there is a presence of trips originating from the southwest portion of the county; this indicates riders must travel up to five miles to take this route.
- For Route 19, there are concentrations of trip origins from the Little Havana area for this route that serves North Miami and North Miami Beach. This indicates that riders are travelling north for this route, and likely traveling by the Metromover given the location of the origin data.

- For Route 22, a north-south route along 22nd Avenue, serving North Miami, Biscayne Park, and Miami-Dade College there are a number of origin and destination clusters within two miles to the east of the route line, including Biscayne Park, Miami Shores, El Portal, and downtown Miami.
- For Route 27, a north-south route along 27th Avenue from Miami Dade Gardens to S. Dixie Highway, there is a significant cluster of trip origins, along NW 22nd Avenue. between Miami Gardens and North Miami Beach. There is also a significant cluster of trip origins between the route line and US 1 to the east, between NW 79th Street and SW 8th Street. This indicates a number of riders must travel some distance to board this route.
- For Route 29, serving the central-east portion of Miami-Dade County, there are small concentrations of trip origins and destinations scattered throughout Miami in relation to this route that serves a separate area of the county, including Miami Springs, Hialeah, and Miami Lakes. There are also several small concentrations or trip origins from North Miami Beach for this route. The origin and destination data indicates likely connection to this route via the Metromover.
- For Route 32, a primarily north-south route that serves west Miami Gardens, Opa-locka, and Miami there are trips originating in Miami Gardens and into North Miami approximately two miles east of the route line, as well as a cluster of trip origins north of downtown Miami.
- For Route 36, an east-west route serving Doral, Miami International Airport (MIA) and mid-town Miami, there is incidence of trips originating in locations within one mile to the north of the route. There are also a cluster of trip origins to the south of the route line at the southern point of downtown Miami, indicating likely use of Metromover.
- For Route 36, there is also a concentration of trip destinations in downtown Miami, south of the route service area. This indicates that riders likely transferred to the Metromover after alighting this route to reach their final destination.
- For Route 37, a north-south route through central Miami-Dade County serving Hialeah, Miami Springs, and Coral Gables, there are scattered trip origins to both the east and west of the route line. In addition, there is a cluster of trip origins in southern downtown Miami, indicating that riders likely use Metromover to connect to this MDT route.
- Additionally, for Route 37, the highest concentration of trip destinations is at SW 37th Avenue and W. Flagler Street, a shopping and commercial area surrounded by residential neighborhoods. From this intersection, there are several trip destinations that are located within 1-2 miles to the east and west of the route line in the residential areas. There is also a cluster of trip destinations located in southern downtown Miami, indicating likely connection to the Metromover.

- For Route 42, a north-south route serving Opa-locka to Coral Gables, there is a cluster of trip origins from the neighborhoods (or juvenile detention center) located to the east of the route line, from where riders must travel up to two miles to reach the route. There are also several trip origins well to the east (up to five miles) of the route line along the central portion of the north-south route.
- Route 54 serves the north-west portion of the county, south to Hialeah, Medley, and Miami Springs, then east into Miami along NW 54th Street. For this route, there is a presence of trip origins approximately four miles south of the route line from southern downtown Miami and west into Little Havana
- For Route 62, there is a concentration of trip origins south of the route line extending north-south for approximately four miles throughout downtown Miami (between I-95 and Biscayne Boulevard) into southern downtown where Metromover is located. There are also several trips originating in Little Havana.
- Additionally, for Route 62, while the highest concentration of trip destinations is along NW 62nd Street between NW 12th Avenue and NW 7th Avenue, there are several destinations to the south of the route line in the Allapattah area, where Miami-Dade College Medical Center, Jackson Memorial Hospital, University of Miami hospital, and the Miami VA Healthcare System are located. There are also trip destinations in southern downtown Miami, indicating connections to Metromover.
- For Routes 75 and 99, which are both east-west routes that serve the north county (North Miami Beach and Miami Gardens) there are several concentrations of trips originating from locations in south Miami-Dade County, along the Flagler Street corridor and concentrated around the Metromover station in downtown Miami and Brickell. These riders likely take the Metromover with connection to Tri-Rail to board this route.
- For Route 102(b), which provides service between downtown Miami and Key Biscayne, the second highest concentration of trip destinations outside of Key Biscayne is at the Brickell Metromover station. However, there are other trip destinations radiating from the route termini at SW 7th Street, which indicates that riders must travel up to four miles after alighting from their route to reach their final destination.

### 7.7.3 Origin-Destination Survey Summary for Express Bus Service

The information below summarizes the onboard survey data presented in a report dated March 12, 2014 of 95 Express passengers. The original report provided responses to 22 of the 26 survey questions. The four questions whose responses were not included are qualitative, follow-up answers to other questions already accounted for. The information summarized herein is grouped in three sections: trip characteristics, fare information, and demographic information.

### Trip Characteristics

Ten of the survey questions referenced trip characteristics. About half of the “one-way” trips (48%) originated at home; similarly about half (48%) originated at work. The remaining four percent of the trips originated at either school or other. The “one-way” trips terminated as follows: forty-five percent work, forty-four percent - home, seven percent - other, three percent - school/college/university, and one percent - recreation.

Ninety percent of responders said their trip is part of a round trip they will be making that day. Six percent said it is not (4% missing). Of those who responded that their trip is part of a “round trip,” seventy-three percent either use or intend to use the express bus for the return trip. Seven percent – express bus plus another mode, four percent – a mix of modes, three percent – local bus, and three percent – Metrorail/Metromover. Nine percent – missing.

Forty-four percent of the responders got to the bus stop by riding in a car (35% drove alone and parked, 9% got dropped off); passengers who walked to the bus stop accounted for thirty-seven percent of the responders; five percent transferred from another bus; while ten percent transferred from either Tri-Rail, Metrorail or Metromover. Three percent listed other or rode with someone who parked at the stop. Only one percent biked.

Regarding distance between point of origin and express bus stop, forty-nine percent traveled under two miles; twenty-two percent traveled two to five miles; fourteen percent traveled five to seven miles; and thirteen percent traveled over seven miles. The remainder is missing. To get from the express bus stop to their final destination, thirty-six percent responded walk; thirty-six percent responded drive alone in car; fifteen percent responded transfer to other transit [Metrorail, Metromover or bus (5% each)]; and nine percent responded pick up by car. Only one percent responded they ride with someone who is parked, and less than one percent responded bike.

Regarding total (door-to-door) travel time, the average rider stated that they spend 69 minutes each way (standard deviation is 62 minutes). The median travel time is 53 minutes, with more than half of the responders spending more than 50 minutes traveling.

A large majority of the passengers are choice riders. Seventy-eight percent had a motor vehicle available for their trip; twenty-one percent did not. One percent is missing.

A large majority (77%) use the express bus 5 days per week. Eight percent use it four days; four percent use it three days; and two percent use it either seven or 2 days per week. Nine percent missing or invalid.

### Fare Information

Two survey questions were related to express bus fare. A majority of passengers (61%) used monthly passes. Nine percent used 10-Ride passes, and four percent used day passes. Cash is used by nineteen percent of riders, and reduced fare permits, Golden/Patriot Passports and Tri-Rail transfers combined account for four percent of passage. Three percent were either missing or had multiple responses. Most



passengers (64%) responded that they do not receive fare assistance from their employers. Thirty-five percent do. One percent of the responses were not accounted for.

#### Demographic Information

Ten survey questions centered on responders' demographic make-up. The responses revealed that sixty-five percent are female, and thirty-two percent are male (3% missing). Nine out of ten (91%) are between the ages of 25 and 64. Four percent are aged 16-24; three percent are 65 and over; and one percent is under 16 years of age. One percent is missing.

Forty-two percent of responders describe themselves as black/African-American, twenty-five percent – Spanish/Hispanic/Latin, and twenty-one percent – white. American Indian, Asian and other account for ten percent. Two percent is missing.

Regarding approximate annual household income, thirty-two percent of responders stated more than \$75,000; twenty-nine percent stated \$45,000-\$75,000; twenty-one percent stated \$28,000-\$45,000; and ten percent stated less than \$28,000. Eight percent missing.

Sixty-three percent of the responders live in two to four member households; thirteen percent – one member; and twelve percent live in five to eight member households. Twelve percent missing.

Ninety-four percent of responders have at least one vehicle in their household (57% have at least two vehicles). Six percent have none. Seventy-eight percent of responders have a valid driver's license, six percent do not. Sixteen percent missing.

Less than two percent describe themselves as disabled.

Almost three-quarters of the responders (74%) hold college degrees. Nearly sixteen percent have high or grade school education; two percent – middle school. One percent missing.

Regarding employment, ninety-one percent of responders are employed full time. Eight percent are either working part-time, students, retired or unemployed.

#### 7.7.4 2009 Metrorail Transit Survey

The information below summarizes the survey data presented in a report dated July 2009 of Metrorail passengers. The report included origin-destination, daily ridership and daily ridership directional information on a station-by-station basis. A total of 30,112 surveys were distributed at the 22 Metrorail passenger stations and on the trains. A total of 17,862 (including 1,324 "no responses") were retrieved.

##### Origin-Destination

The surveys revealed that the Metrorail stations used most frequently for trip origination are Dadeland South (2,591), Government Center (1,978), Dadeland North (1,572), Civic Center (1,133), and Douglas Road (917). The stations used the least for trip origin are Santa Clara (224), Vizcaya (251), Brownsville (303), Culmer (311), and University (375).

The stations used most frequently as destinations are Government Center (4,007), Civic Center (2,542), Dadeland South (1,386), Dadeland North (1,232), and Brickell (950). The stations used least frequently as destinations are Santa Clara (134), Brownsville (171), Earlington Heights (256), Vizcaya (272), and both Dr. MLK Jr. and Okeechobee have 305 arriving passengers.

The five highest origin-destination pairs are Dadeland South and Government Center (883), Dadeland North and Government Center (622), Dadeland South & Civic Center (595), Government Center and Dadeland North (367), and Government Center & Dadeland South (354). Of the 441 possible origin-destination pairs, 184 (approximately 42%) have 10 or fewer passenger trips.

#### Daily Ridership by Directions

According to the survey, 52.6% (3,376) of all daily passenger trips are southbound, and 47.4% (3,042) of all daily passenger trips are northbound. One hundred percent (60) of the daily trips originating at the Palmetto Station are southbound; and one hundred percent (383) of the daily trips originating at the Dadeland South Station are northbound.

On a percentage basis, trips originating at Palmetto and Dadeland South Stations have an almost perfectly inversed relationship, directionally, from-station-to-station. Both stations are on opposite ends of the system.

The Metrorail stations with the highest northbound daily ridership are Government Center (590), Dadeland North (437), Dadeland South (383), South Miami (305), and University (227). The stations with the lowest northbound daily ridership are Palmetto (0), Okeechobee (1), Hialeah (9), Tri-Rail (25), and both Santa Clara and Allapattah (27 each).

The Metrorail stations with the highest southbound daily ridership are Government Center (646), Civic Center (468), Tri-Rail (252), Northside (210), and Brickell (179). The Metrorail stations with the lowest southbound daily ridership are Dadeland South (0), Dadeland North (33), University (33), Culmer (62), and South Miami (72).

### 7.7.5 U.S. 1 Survey Report Summary – Express Lanes PD&E Study

The information below summarizes the survey data presented in a report dated June 2012 of US-1 busway users and motorists to better understand transportation conditions affecting the corridor.

#### Trip Purpose

Of the 6,210 responders during the peak periods, 60% were making home-based work trips; 30% were making home-based other trips; and 9% of the trips were not home based. During off-peak periods, 6,347 responders revealed that 48% of their trips were home-based work trips; 2,702 trips were home-based other trips; and 10% were not home-based.

### Auto Ownership

Of the 6,210 responders during the peak periods, 66% own at least one car (one car - 36%, two or more cars - 30%). During off-peak periods, of the 6,347 responders, 59% own at least one car (one car 37%, two or more cars - 22%). During peak and off-peak periods, 34% and 41% did not own a car, respectively.

### Auto Ownership vs. Trip Purpose

Approximately 66% of the peak period responders own one or more cars. Ninety-two percent of those trips were home-based work or home-based other. During off-peak periods, 59% of responders own one or more cars, and 89% of those trips were either home-based work or home-based other.

### Access Mode

For both peak and off-peak, walking accounted for the largest access modes. Fifty-eight and sixty-four percent, respectively. During the peak period, park and ride and transfers each accounted for nineteen percent; while kiss and ride, bike, and other combined equaled five percent. During off-peak periods, transfers represented twenty-one percent of responders' mode access. Park and riders represented nine percent. Bikers and kiss and riders combined for six percent. No one responded other during off-peak.

### Trip Purpose vs. Access Mode

During peak periods, of the responders who bike to access their mode of transportation, seventy-eight percent are home-based trips. Each of the other modes included in the survey showed eighty-eight percent or higher were home-based trips. During off-peak, eighty-five percent or more responders trips to their respective access modes were home-based.

### Egress Mode

The peak period egress modes are made up primarily of transfers (50%) and walking (44%). Park and ride represents three percent while bike, kiss and ride and other combined equal three percent. During off-peak periods, walking increased to sixty percent, transfers decreased to thirty-five percent, while park and ride and bike made up the remaining five percent.

### Trip Length Distribution

The average peak period trip length is 8.7 miles. The longest trips were over twenty-one miles (2%); the shortest are under one mile (1%); five to six miles is most common (13%). Regarding off-peak period trips, the average length is 7.9 miles. The longest trips are over twenty-one miles (1%); the shortest are under one mile (6%). Four to five miles was the most common (15%) trip length.

### Station to Station

The five highest peak period station to station pairs were Dadeland South/SW 152<sup>nd</sup> St – Coral Reef Drive (298), Dadeland South/SW 168<sup>th</sup> Street – Richmond Dr (266), SW 168<sup>th</sup> St – Richmond Drive/ Dadeland South (229), SW 200<sup>th</sup> Street – Caribbean Blvd/ Dadeland South (185), and Dadeland South/SW 312<sup>th</sup> Street – Campbell Dr – NE 8<sup>th</sup> Street (180). The five highest off-peak station to station pairs were Dadeland South/SW

152<sup>nd</sup> Street – Coral Reef Drive (303), SW 200 St – Caribbean Blvd/ Dadeland South (219), Dadeland South/SW 168<sup>th</sup> Street – Richmond Dr (193), Dadeland South/SW 344<sup>th</sup> Street – Palm Drive, Florida City (172), SW 312<sup>th</sup> Street – Campbell Dr – NE 8<sup>th</sup> Street (155). There was a large number of station to station pairs with no passenger trips for both peak and off-peak periods.

## 7.8 Systemwide Travel Demand Model Estimates

Ridership Forecasts were prepared for this FY 2015-2024 TDP update using the Florida Department of Transportation's (FDOT) current approved travel forecasting tool, the Southeast Regional Planning Model (SERPM), version 6.5.4. SERPM 6.5.4 is a comprehensive transportation demand modeling tool that is capable of estimating stop level transit boarding data for individual routes. The use of the SERPM model was approved by FDOT District 6 in response to a request submitted December 2013.

### 7.8.1 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 SERPM 6.5.4 model was developed to be a solid technical tool for multi-modal planning analysis and long-range transit planning. This model was calibrated upon the most comprehensive survey data of any previous model in South Florida. This model, which includes Miami-Dade, Broward, and Palm Beach counties, describes travel demand for both mobility dependant local trips, as well as for the regional commuter market.

The primary input to the SERPM 6.5.4 model, as with any other travel demand model, is the socio-economic data. This data, which is developed by each individual County's Metropolitan Planning Organization (MPO), 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.

### 7.8.2 Scenarios

As part of this TDP Major Update, two scenarios were modeled: one for existing conditions using 2014 MDT transit route network and another scenario for the year 2024, which implements a series of transit improvements across Miami-Dade County. The 2014 Base scenario is based on the 2010 SERPM 6.5.4 model's socio-economic data and transit network. In this scenario, the transit network route data was updated to current 2014 conditions.

For the future year 2024 scenario, socio-economic data was developed by interpolating between the 2010 and 2040 data sets. Transit routes for this scenario were based on the 2014 network with a series of new enhanced bus service routes added to the network.

### 7.8.3 Results

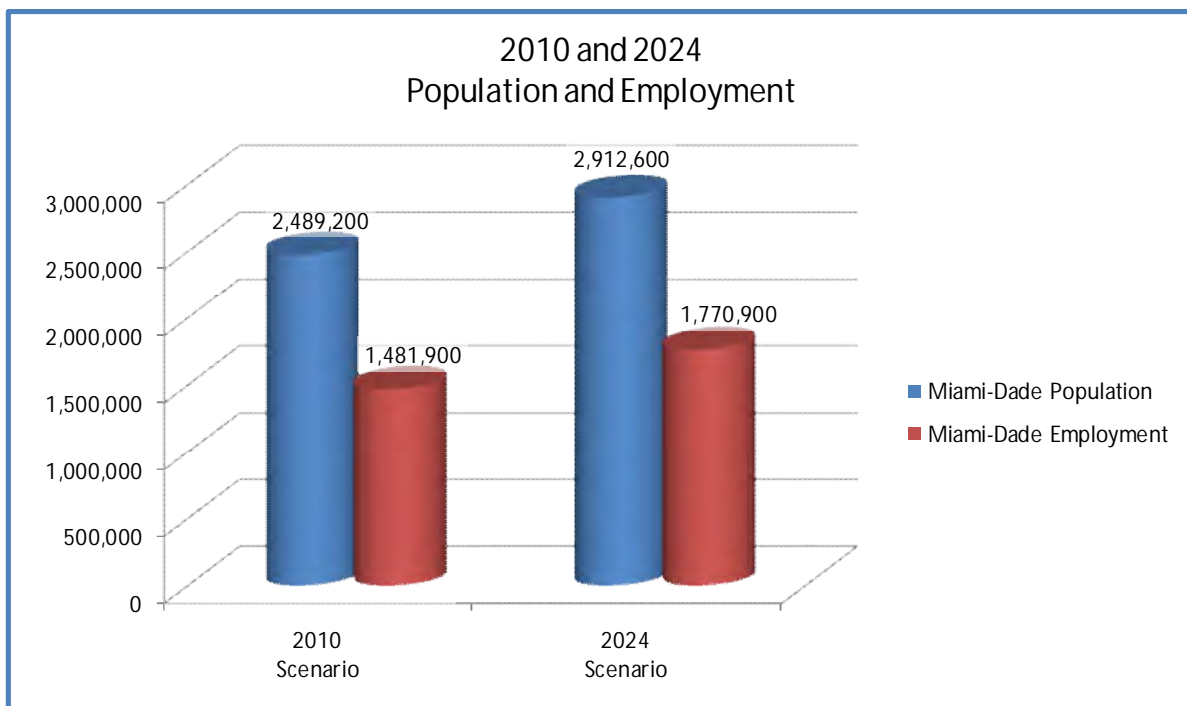
Based on the previously discussed inputs and assumptions, the SERPM 6.5.4 model was run for the two scenarios. The results of these runs are provided in the following sections. As shown in Table 7-3, population, employment, and person trips experienced an annual growth rate of approximately one percent. Similarly, total transit trips and daily boardings also increased annually by one percent respectively.

**Table 7-3: Regionwide Statistics**

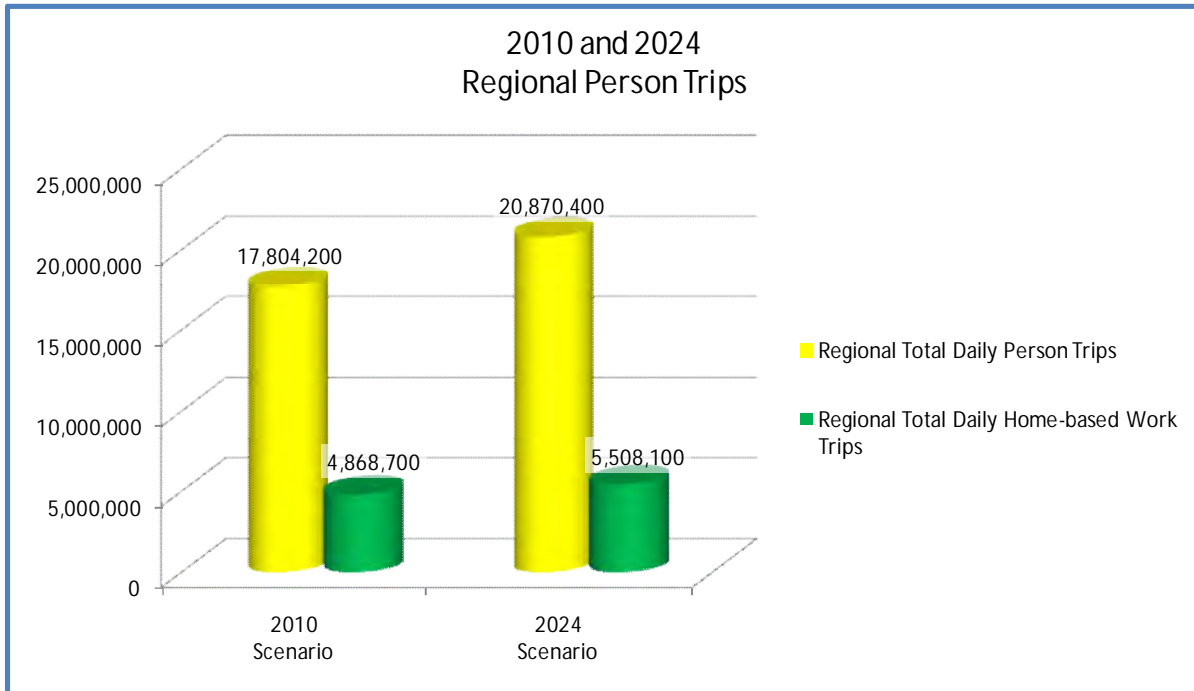
	2010 Scenario	2024 Scenario	Annual Growth Rate
Miami-Dade Population	2,489,200	2,912,600	1.2%
Miami-Dade Employment	1,481,900	1,770,900	1.4%
Regional Total Daily Person Trips	17,804,200	20,870,400	1.2%
Regional Total Daily Home-based Work Trips	4,868,700	5,508,100	1.0%

The following figures illustrate the growth of population and employment, and person trips between 2010 and 2024.

**Figure 7-12: Population and Employment Growth**





**Figure 7-13: Person Trip Growth**


#### 7.8.4 Transit Ridership Growth

Based on the socio-economic growth and the existing MDT transit system the total daily ridership for the various transit modes grew by three percent (3%) per year. The estimated daily ridership for each of these modes is provided in Table 7-4.

**Table 7-4: 2010 to 2024 Ridership Growth by MDT Mode**

Mode	2010 Estimated Average Daily Ridership	2024 Estimated Average Daily Ridership	Annual Growth Rate
Metrobus	239,300	355,200	3%
Metrorail	66,300	97,000	3%
Metromover	9,100	22,700	7%
Total Boardings	314,700	474,900	3%

### 7.8.5 Proposed 2024 System Enhancements

For the 2024 ridership forecast scenario specific transit improvements were considered based upon several factors. These factors include corridors where existing passenger demand is high as determined by transit ridership, areas that exhibit a high concentration of transit propensity as well as those areas with high existing and forecasted population and employment densities. Specifically, the 2024 scenario examined transit improvements to include enhanced and express type bus service within the following corridors:

- 195-BC – Broward Boulevard to Civic Center
- 195-SC – Sheridan Street Boulevard to Civic Center
- Palmetto Express Bus (Palmetto Corridor)
- 295 Express Bus
- NW 27<sup>th</sup> Avenue Enhanced Bus Service (North Corridor)
- SR 836 Express Bus (East-West Corridor)
- Flagler Enhanced Bus Service (East-West Corridor)
- Biscayne Enhanced Bus Service (Northeast Corridor)
- Kendall Enhanced Bus Service (Kendall Corridor)
- SW 137<sup>th</sup> Avenue Enhanced Bus Service
- Route 97

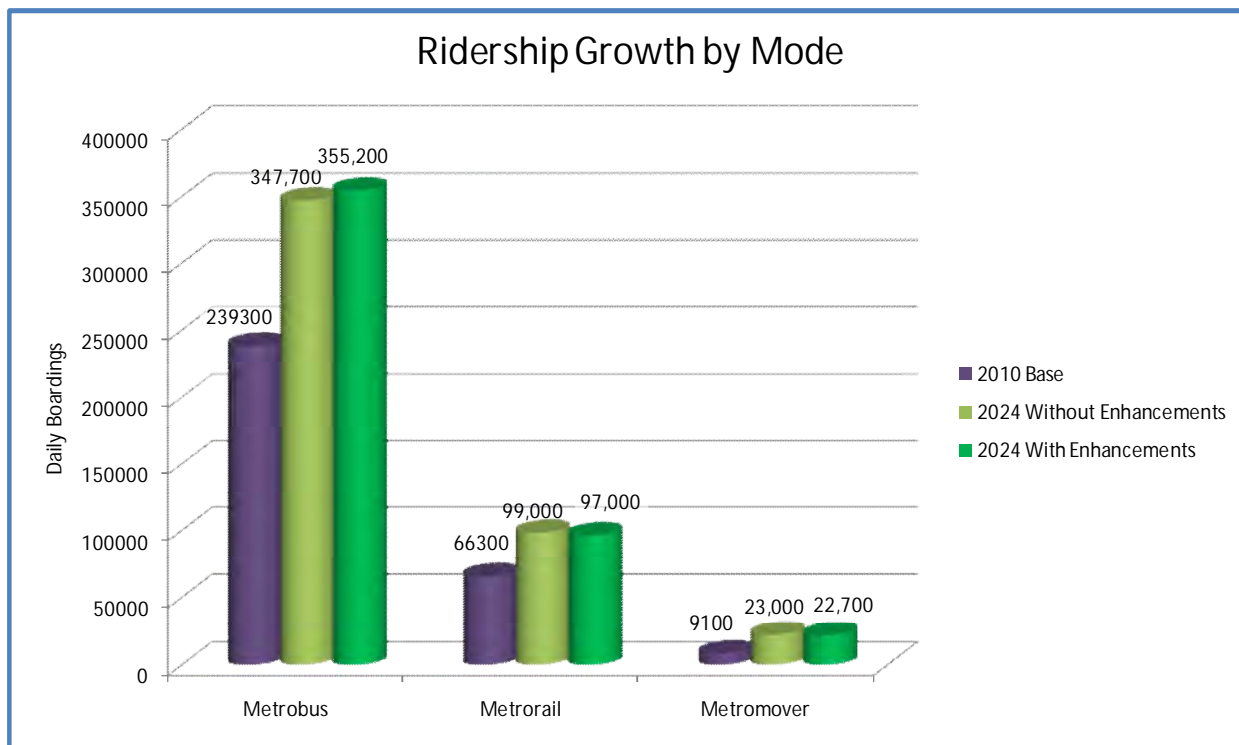
Based on the socio-economic growth, the existing MDT transit system and the various transit corridor enhancements for the corridors listed above the daily ridership for the various transit modes grew by one percent (1%) per year. The estimated daily ridership for each of these modes is provided in Table 7-5.

**Table 7-5: 2024 Ridership Growth Comparison**

Mode	2024 Estimated Average Daily Ridership		Percent Difference
	Without Enhancements	With Enhancements	
Metrobus	347,700	355,200	2%
Metrorail	99,000	97,000	-2%
Metromover	23,000	22,700	-1%
Total Boardings	469,700	474,900	1%

Figure 7-14 illustrates a comparison of total daily transit ridership growth by mode according to the specific scenario evaluated.

**Figure 7-14: Transit Ridership Growth by Mode**



## 7.9 Monitoring Program to Track Annual Performance of MDT Services

The 2009 TDP Major Update established eight (8) major goals, each with various objectives and corresponding measures that have been monitored each subsequent year. The monitoring of previous results against current measures will validate MDT's attainment of these goals. This TDP Major Update provides MDT an opportunity to report results for each major goal according to the objectives and corresponding evaluation measures for 2013 which data is available. For subsequent TDP updates the goals and objectives established for this Major Update which are presented in Chapter 6 will be evaluated.

These measures are the Key Performance Indicators (KPI) that will be evaluated, using the most recent twelve-month period for which data is available. The evaluation compares the current values of productivity standards versus those from the previous year. A few examples include:

- Performance measures such as On-Time Performance (OTP) and Mean Distance between Failures (MDBF) reflecting transit reliability are monitored monthly on the Active Strategy Enterprise (ASE) Scorecard.
- Review transit routes to ensure service is provided within a ¼ mile of major trip generators.
- Automated Fare Collection data to monitor ridership by route.
- Alignment of capital projects to goals.
- Public involvement events to disseminate transit information and promote transit usage.

### 7.9.1 Goal 1: Improve the Quality of Transit Services

**Objective: Improve the accessibility to major health care, recreation, education, employment cultural and social services facilities:** Transit service miles providing connections to major medical, educational, and recreational facilities were evaluated. Approximately 50 transit service route miles operate within a ¼ mile of major medical facilities, which is an 18% decrease from last year's TDP Annual Update and 280 transit service miles operate within ½ mile of all colleges and universities within Miami-Dade County which is a 52% increase since last year's TDP Annual Update.

**Objective: Improve transit level of service on major roadway corridors and between major origins and destinations:** This objective is measured according to the MDT Service Standards which describe the process utilized by MDT to evaluate level of service route performance to achieve the goal of improving transit level of services on key alignments and between key origin and destination pairs.

**Objective: Maximize service reliability and efficiency:** The on-time performance for the various MDT transit modes are provided in Table 7-6. Metrorail has excellent on-time performance of about 97 percent (97%) and continues to exceed the Agency goal of 95 percent (95%). Metrobus operates at 79 percent (79%) on-time performance, which is a good result given the congested traffic conditions under which most of the routes operate, in many corridors throughout the day, as well as the high load factors on many of the routes. On-time performance for Metrobus also exceeds the agency goal of 75 percent (75%).

**Table 7-6: MDT Annual On-Time Performance**

	On-Time Performance	
	Metrorail	Metrobus
FY 2012-2013	96.8%	79.0%
FY 2011-2012	97.2%	79.5%
Goal	95%	75%

Source: Miami-Dade Transit, December 2013 (Also includes first quarter of FY2013-2014).

**Objective: Maximize multimodal travel options and provide travel choices:** Miami-Dade Transit continues to implement an initiative to operate more efficient bus service through a grid operational network of service routes. The resulting bus adjustments that occurred in 2012 and 2013 attribute to a decrease in Metrobus route miles as presented in Table 7-7.

**Table 7-7: Number of Transit Route Miles by Transit Mode**

Transit Mode	Route Miles	
	2012	2013
Metrorail	24.8	24.8
Metrobus	2,582	2,301
Metromover	4.4	4.4

Source: National Transit Database, Miami Dade Transit, 2013

**Objective: Fill transit service coverage gaps:** Transit-supportive areas include population 65+, population 18 and under, low income households, zero car households, minority and population density propensity areas.

The number of miles of MDT bus routes within the transit-supportive service areas (Figure 7-9) is approximately 110 miles.

**Objective: Promote transit reliability:** One method to measure transit reliability is through annual systemwide ridership. MDT will be able to further improve upon existing ridership through the provision of efficient transit service that improves transit travel time and on-time performance. During the past fiscal year MDT, in total, as shown in Table 7-8 experienced an increase in ridership of approximately three percent (3%).



**Table 7-8: MDT Systemwide Boardings**

Transit Mode	Annual Boardings (000's)	
	FY2011-2012	FY2012-2013
Metrorail	18,706	21,199
Metrobus	77,828	78,893
Metromover	9,102	9,644

Source: National Transit Database, Miami Dade Transit, 2013.

MDT's system offers stations along the Metrorail and Metromover system, and bus stops, shelters and benches along Metrobus routes. Table 7-9 shows bus stops and station spacing. MDT's standard calls for an average of five (5) stops per mile for local bus. This would indicate a slightly more frequent spacing of stops, on average, than five (5) stops per mile (about one stop every 1,000 feet).

More detailed analysis is being conducted by MDT to adjust stop spacing depending on the type of service being provided, thus increasing the efficiency of each bus route.

**Table 7-9: Number of Station Stops Per Route Mile**

Mode	Number of Stations/Stops	Total Route Miles	Stations/Stops per Route Mile
Metrorail	23	24.8	0.93
Metromover	21	4.4	4.77
Metrobus	8,860	2,785	3.18

Source: National Transit Database, Miami Dade Transit, 2013.

**Objective: Improve transportation facilities' and services' regional connectivity:** Table 7-10 shows the number of transit route miles (including miles of overlapping bus service) in corridors of regional significance. These corridors of regional significance are identified as urban principal arterials according to the Functional Classification file from the Florida Department of Transportation Statistics Office.

As the table indicates, MDT provides high concentrations of service on South Dixie Highway (the Busway), Interstate-95, A1A, Biscayne Boulevard, and NW 27<sup>th</sup> Avenue.

**Table 7-10: Transit Route Miles in Corridors of Regional Significance**

Corridors of Regional Significance	Transit Service Route Miles in Corridor
South Dixie Highway / US-1 (SR 5)	186
Interstate-95 (SR 9A)*	162
Collins Avenue (SR A1A)	128
Biscayne Boulevard / US-1 (SR 5)	119
NW 27th Avenue (SR 9 & SR 817)	124
Le Jeune Road / NW 42nd Avenue / SR 953	74
Kendall Drive / SW 88th Street (SR 94)	68
Airport Expressway (SR 112)*	65
Homestead Ext. of Florida's Turnpike (HEFT) (SR 821)*	66
Palmetto Expressway (SR 826)*	62
NE 163rd Street / Sunny Isles Blvd	55
McArthur Causeway / Interstate-395	55
Tamiami Trail / SW 8th Street (SR 90)	53
NW 41st Street / NW 36th Street (SR 948)	51
Julia Tuttle Causeway / Interstate-195 / (SR 112)*	46
Kennedy Causeway / NE 79th Street Causeway / (SR 934)	37
Dolphin Expressway (SR 836)*	48
W 49th Street / NW 103rd Street (SR 932)	30
Bird Road / SW 40th Street (SR 976)	27
Okeechobee Road (SR 25)	25
Don Shula Expressway (SR 874)*	22
Snapper Creek Expressway (SR 878)*	21
SW 152nd Street / Coral Reef Drive (SR 992)	21
NW 119th Street / Gratigny Pkwy (SR 924)	21
Krome Avenue / SW 177th Avenue (SR 997)	20
Rickenbacker Causeway (SR 913)	17
SW 137th Avenue (SR 825)	17
W 4th Avenue / NW 57th Avenue / Red Road (SR 823)	15
William Lehman Causeway / NE 192nd Street (SR 856)	15
Interstate-75 (SR 93)	1
NW 2nd Avenue / US 441 (SR 7)	74

Source: Miami-Dade County GIS files, 2013.

\* Non-stop Metrobus service miles along limited access highways.

**Objective: Include provisions for non-motorized modes in new projects and in reconstructions:** Provisions that support non-motorized modes of transportation are included in the land use and transportation elements of the Miami-Dade County CDMP. Future capital improvements shall also seek to integrate non-motorized infrastructure upon the implementation of new transit services.

**Metrorail Bike Path Improvements (M-PATH) – SW 67<sup>th</sup> Avenue to the Miami River:**

MDT is moving forward with infrastructure repairs and improvements to enhance the safety and performance for the M-Path users. The rehabilitation project consists of repairs to the asphalt and concrete surfaces, installation of traffic and way finding signs, installation of crosswalk pavement markings, pedestrian signals and other safety improvements in accordance with the M-Path Master Plan. The completion date is scheduled for March 2015.

**Objective: Improve transit services that provide access to educational facilities:**

The number of transit service route miles within a ½ mile of colleges and universities throughout Miami-Dade County is approximately 280 miles which is a 52% increase since last year's TDP Annual Update. All of the major colleges and universities located within Miami-Dade County are served by transit service within a ¼ mile of their campuses and this remained unchanged since last year's TDP Annual Update

**7.9.2 Goal 2: Improve Customer Convenience, Comfort and Safety on Transit Service and within Facilities**

**Objective: Improve safety on vehicle service operations:** MDT regularly assesses operational safety for workers and passengers according to level of investment and compliance of regularly updated safety plan. As part of MDT's Infrastructure Renewal Program, safety projects are evaluated and prioritized for implementation on an annual basis.

**Objective: Reduce roadway and multi-modal crashes:** The goal that MDT has set forth for the reduction of the number of accidents is 3.77 per 100,000 miles. In FY 2013, MDT reported that the number of accidents was 3.07 accidents per 100,000 miles of transit service. This represents a 19 percent (19%) improvement over the set goal.

**Objective: Enhance outreach opportunities to educate the community on transportation issues and highlight transit service benefits such as service reliability, passenger cost savings, and environmental benefits:** MDT continually seeks to inform the public as well as provide opportunities for public input through various public outreach strategies. MDT is active in attending civic and community events and meetings to continually inform the public about MDT services. In addition, MDT uses various forms of media (e.g., internet, radio and televised advertisements, news paper ads, social media, etc.) for public outreach.

**Objective: Maintain convenient, clean, safe transit passenger facilities and vehicles:** The MDT fleet was involved in 1.28 preventable accidents per 100,000 miles for FY 2013, which is 15 percent (15%) below the MDT goal of 1.50 accidents per 100,000 miles.

**7.9.3 Goal 3: Increase the Security of Transit Vehicles and Facilities**

**Objective: Ensure transit vehicles and facilities provide a secure environment for customers:** The total number of active video cameras systemwide is 756. Upon completion of future projects the MDT video surveillance system will consist of 1,247

active cameras (Rail, PYD, Mover, Bus Revenue locations, and Warehouses as well as the DRD and UNV Overpasses).

**Objective: Increase security at transit stops and intermodal stations and connections:** For 2013, the number of criminal incidents on-board transit has increased from the previous year by 16 percent (16%).

#### 7.9.4 Goal 4: Support Economic Vitality

**Objective: Provide transit access to urban centers at a minimum of 30-minutes during the peak:** Table 7-11 lists urban centers as identified in the CDMP Land Use Element that were evaluated to determine the amount of transit service within ¼ mile. Downtown Miami has the highest concentration of transit service as evident from the operation of Metrorail, Metromover and Metrobus providing service coverage throughout the entire downtown area.

This includes 56 route miles with a ¼ mile of the Downtown area. Dadeland has a more focused center of activity with direct connections from Metrorail and the South Miami-Dade Busway which results in thirty route miles within a ¼ mile. The regional activity center at NW 107<sup>th</sup> Avenue and NW 12<sup>th</sup> Street has approximately eleven transit route miles within a ¼ mile.

**Table 7-11: Transit Route Miles within ¼ mile of Urban Centers**

Regional Activity Centers	Transit Service Route Miles within 1/4 mile
Downtown Miami CBD	56.0
Dadeland	30.2
Southland Mall	23.5
Aventura Mall	20.4
NW 107th Avenue and NW 12th Street	11.0
Westland Mall	4.2

Source: Miami-Dade GIS, 2013.

**Objective: Enhance major tourist travel and access opportunities within the Urban Development Boundary:** Table 7-12 shows transit services that operate within close proximity to various tourist attractions in Miami-Dade County. As the table indicates, most of the attractions have transit service. However, a number of locations have relatively little service, including such diverse attractions as the Venetian Pool and the Miami Seaquarium.

In many cases, the locations of these attractions in outlying areas of the County or within residential neighborhoods do not lend themselves to extensive transit connections, and most are located along one or two routes that operate on an adjacent arterial street, rather than being in the center of a hub of transit service (such as in downtown Miami or Miami Beach). Analysis measuring the adequacy of transit services continues to be conducted to identify major trip generators and major attractors in Miami-Dade County.

Table 7-12 through Table 7-17 presents the transit services provided for each identified major trip generator in terms of number of routes and accessibility of these facilities. Furthermore, maps that illustrate the locations of these attractors are provided according to the type of major trip generator presented in each of the following tables.

**Table 7-12: MDT Major Trip Generators: Special Attractors, December 2013**

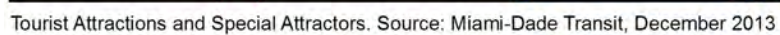
	MAJOR GENERATORS	ROUTES					COMMENTS
ID	Special Attractors						
1	Adrienne Arsht Center	A 6 93	C 9 95	M 10 120	S 16 Mover	3 32	Service on local roadways
2	American Airlines Arena	C 95	S 120	3	9	93	Service on local roadways
		7	8	211	243		Service on adjacent roadways
3	The Cloisters of the Ancient Spanish Monastery	E	H	3	75	93	Service on local roadways
4	Bank United Center	48	56	500	Rail		Service on adjacent roadways and within walking distance of University station
5	Barnacle Historic State Park	48	249				Service on local roadways
6	Bass Museum of Art	103 150	112	113	119	123	Service on adjacent roadways
		115	117				Service on local roadways
7	Calder Race Course/Casino	99	27	297			Service on adjacent roadways
8	Coconut Grove	6	22	27	48	249	Service on local roadways



Table 7-12: MDT Major Trip Generators: Special Attractors, December 2013 (continued)

	MAJOR GENERATORS	ROUTES					COMMENTS		
ID	Special Attractors								
9	Coral Castle	34	38	70	Service on local roadway and the Busway				
10	Coral Gables Merrick House	24	Service on adjacent roadway						
11	Downtown Miami	C	S	2	3	6	Service on local roadways and within walking distance of Government Center and Historic Overtown/Lyric Theatre stations and various Metromover stations		
		7	8	9	11	21			
		24	51	77	93	95			
		120	195	207	208	211			
		243	246	277	500				
		Mover	Rail						
12	Flagler Kennel Club-Magic City Casino	6	7	37	238	Service on adjacent roadways			
13	Haulover Beach	H	S	120	Service on adjacent roadway				
14	Hialeah Race Track	L	29	37	54	135	Service on local roadways		
		Rail							
15	Fillmore Miami Beach at the Jackie Gleason Theater	A	C	L	M	S	Service on local roadways		
		115	117	120	123	150			
16	Joseph Caleb Community Center	22	46	54	246	254	Service on local roadways		
17	Jungle Island/Miami Children's Museum	C	M	S	120	Service on local roadways			
18	Key Biscayne	B	Service on adjacent roadways						
19	Marlins Park	7	12	17	Service on adjacent roadways				
		6	7	11	51	208	Service on local roadways		
20	Perez Art Museum Miami	C	S	2	3	6	Service on local roadways and within walking distance of routes C, S, 3, 93, 95, 103, 119 and various Metromover stations		
		7	8	9	11	21			
		24	51	77	93	95			
		120	195	207	208	211			
		246	277	500					
		Mover							
21	Miami Beach Convention Center	C	120	150	S		115	Service on local roadways	
		A	L	M			S	115	Service on adjacent roadways
		117	123						
22	Miami-Dade County Auditorium	11	51				Service on adjacent roadway		
		27	Service on local roadway						
23	Miami International Airport	J	7	37	42	57	Routes restructured to serve MIC; from MIC use MIA Mover to access Airport		
		150	238	297	Shuttle to Tri-Rail Station serves Airport directly				
		133							
24	Miami Jai-Alai	J	36	37	Service on adjacent roadway				
25	Miami Seaquarium	B	Service on adjacent roadway						
26	Museum of Science	12	48	Service on adjacent roadway					
		17	24	Service on local roadway					
		Rail	Located within walking distance from Vizcaya station						
27	Port of Miami	243	On-site service via local roadways						
28	South Beach	A	C	L	M	S	Service on local roadways		
		120	123	150					
29	South Miami-Dade Cultural Arts Center	1	31	35	38	52	Service on adjacent roadways		
		70	137	200					
30	Sunlife Stadium	27	99	297	Service on adjacent roadways				
31	Venetian Pool	24	Service on local roadway						
32	Vizcaya	12	17	24	48	Service on adjacent roadway			
		Rail	Located within walking distance from Vizcaya station						
33	The Wolfsonian - FIU Museum	C	M	120	Service on adjacent roadway				
34	Zoo Miami	252	On-site service to entrance						

Source: Miami-Dade Transit, 2013  
Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.



**Table 7-13: MDT Major Trip Generators: Healthcare Facilities, December 2013**

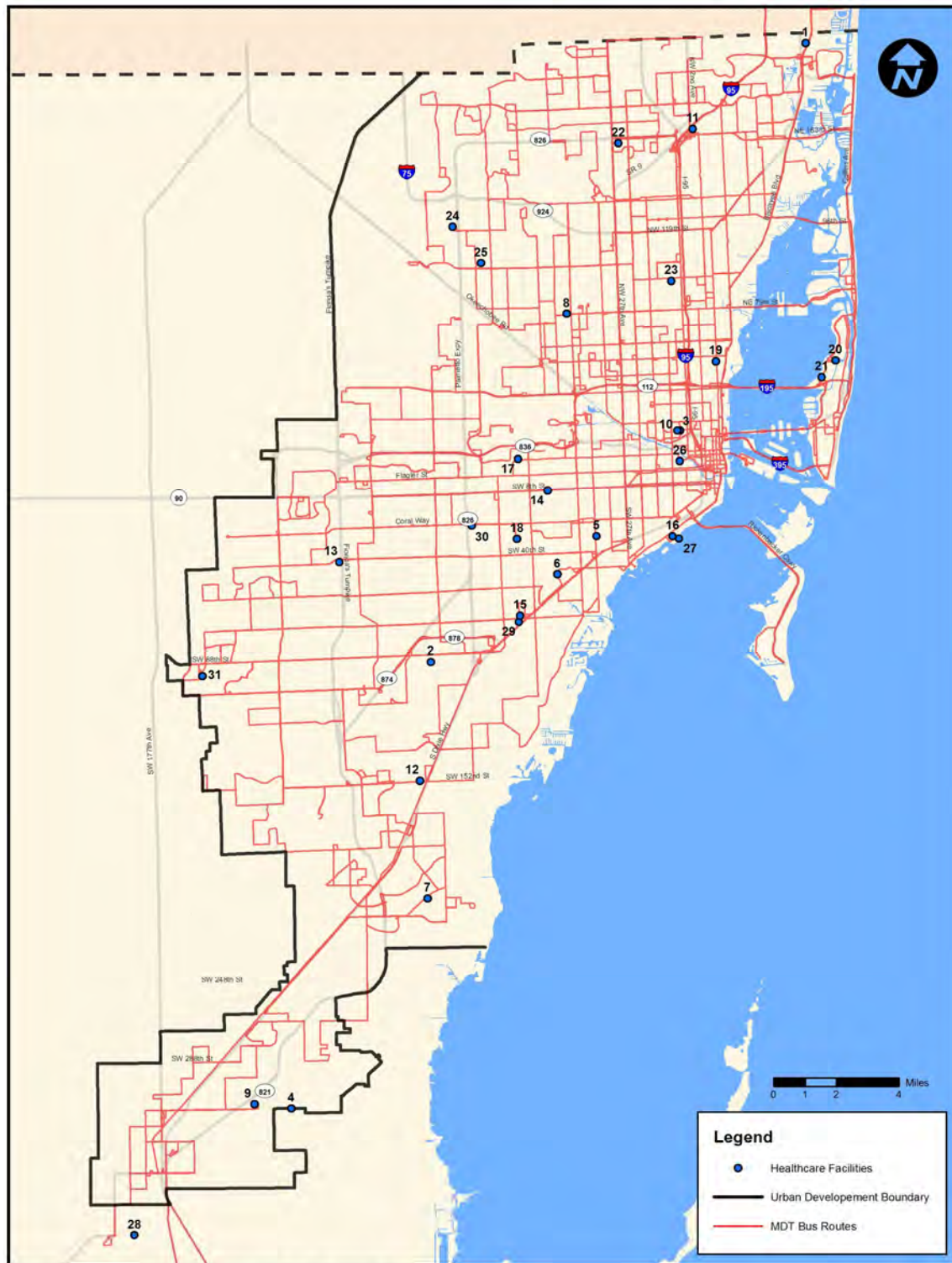
MAJOR GENERATORS		ROUTES					COMMENTS
ID	Health Care Facilities						
1	Aventura Hospital	E					Service on adjacent roadway
2	Baptist Hospital	88	104				Service on adjacent roadways
3	Bascom Palmer Eye Institute/Ann Bates Leach Eye Hospital	M	21	Rail			Service on adjacent roadways and within walking distance from Civic Center station
		12	32	77	95	246	Service on local roadways
		277					
4	Community Health Center of South Dade	35	52	70	287		On-site service and service on adjacent roadways
5	Coral Gables Hospital	37					Service on adjacent roadways
6	Doctors' Hospital	56					Service on adjacent roadway
7	HealthSouth Rehabilitation Hospital	70	200				Service on adjacent roadway
8	Hialeah Hospital	L	42	135	Rail		Service on adjacent roadways
9	Homestead Hospital (Baptist)	35					Service on adjacent roadway
10	Jackson Memorial / U.M. / V.A. Hospital	M	12	21			Service on adjacent roadways and within walking distance from Civic Center station
		32	95	246	Rail		
11	Jackson North Medical Center	E	2	22	77	246	Service on adjacent roadways
12	Jackson South Community Hospital	31	34	38	52	57	Service on adjacent roadway
		252	287				
13	Kendall Regional Medical Center	40					Service on adjacent roadway
14	Kindred Hospital South Florida - Coral Gables	8					Service on adjacent roadway
15	Larkin Community Hospital	37	72				Service on adjacent roadway
		57	Rail				Service on local roadways
16	Mercy Hospital	12	48				On-site service with shelters
17	Metropolitan Hospital of Miami	7					Service on adjacent roadway
		238					Service on local roadway
18	Miami Children's Hospital	56					On-site service with shelters
19	Miami Jewish Home & Hospital for the Aged	2	9	10	202		Service on adjacent roadway
		54					Service on local roadway
20	Miami Heart Institute	115	117				Service on adjacent roadway
21	Mount Sinai Medical Center	C	M	115	117		On-site service
		62	J	150			Service on adjacent roadway
22	North Dade Health Center	G					On-site service
		17	22	27	246		Service on local roadways
23	North Shore Medical Center	33	77	277			Service on adjacent roadways
24	Palmetto General Hospital	29					On-site service with shelters
25	Palm Springs General Hospital	33	54				On-site service with shelters
		29	73				Service on adjacent roadways
26	Selected Speciality Hospital	7					Service on adjacent roadway
		12	211				Service on local roadway
27	Sister Emmanuel Hospital	12	48				On-site service with shelters
28	South Florida Evaluation & Treatment Center	77	277				Service on adjacent roadway
29	South Miami Hospital	37	57	72	500	Rail	Service on adjacent roadways and within walking distance from South Miami station
30	Westchester General Hospital	24					Service on adjacent roadway
31	West Kendall Baptist Hospital	72	88	104	204	272	Service on adjacent roadway
		288					

Source: Miami-Dade Transit, 2013.

Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.



**Figure 7-16: MDT Major Trip Generators: Healthcare Facilities, December 2013**



Healthcare Facilities. Source: Miami-Dade Transit, December 2013

**Table 7-14: MDT Major Trip Generators: Retail Centers, December 2013**

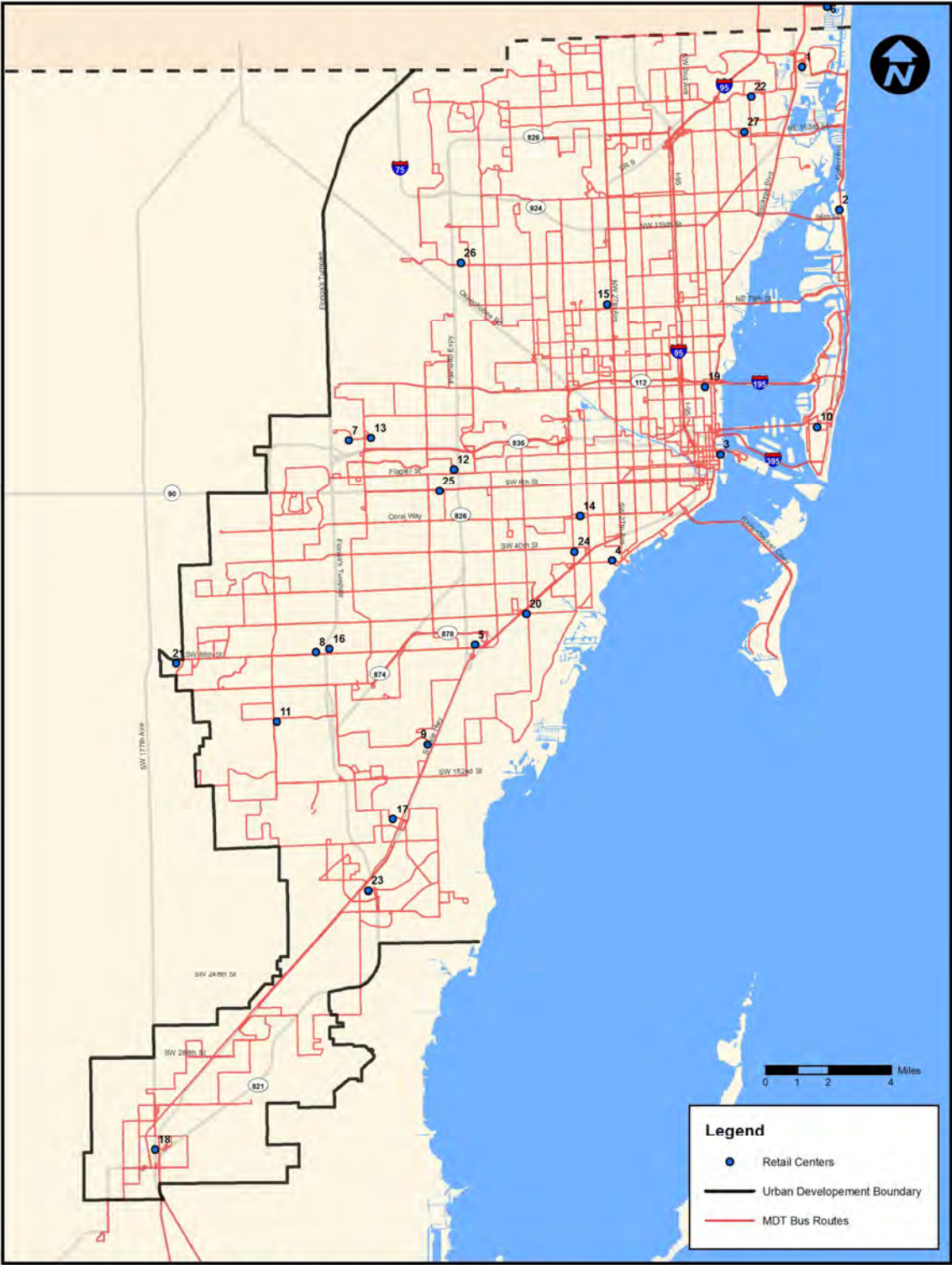
MAJOR GENERATORS		ROUTES					COMMENTS
ID	Retail Centers						
1	Aventura Mall	E 99	S 120	3 183	9	93	On-site service
2	Bal Harbour Shops	G	H	S	120		Service on adjacent roadways
3	Bayside Market Place	C 243	S Mover	3	93	95	Service on adjacent roadways and the Mover
4	Coco Walk/ Mayfair in the Grove	37	48	249			Service on adjacent roadways
5	Dadeland Mall	52 204	73 272	87 288	88 500	104 Rail	Service on adjacent roadways. Pedestrian walkway to Dadeland North station
6	Diplomat Mall	E					Service on adjacent roadway
7	Dolphin Mall	7	36	71	137	238	On-site terminal with shelters
8	Kendall Village	88	288				Service on adjacent roadway
9	(The) Falls	31 252	34 287	38	52	136	Service on adjacent roadway and at Busway Station at SW 136 Street
10	Lincoln Road Mall	A 115	C 117	L 120	M 123	S 150	Service on adjacent roadways
11	London Square	136	137				Service on adjacent roadways
12	Mall of the Americas	7	11	51	87		On-site service with shelters
13	Miami International Mall	7	36	71	137	238	Service on adjacent roadways
14	Miracle Mile	24	37	42	56		Service on adjacent roadways
15	Northside Shopping Plaza	L 79	12 97	21 Rail	27	32	On-site and adjacent roadway service
16	Palms at Town and Country	88	288				Service on adjacent roadways
17	Perrine Plaza	1	52				Service on adjacent roadways
		31	34	38	Busway		Located within walking distance of the Busway (park & ride lot at SW 168 St.)
18	Florida Keys Outlet Center	70	344				Adjacent roadway service
19	Shops at Midtown Miami	9	10				Service on local roadways
		J	36				Adjacent roadway service
20	Shops at Sunset Place	37	57	72	500	Rail	On-site and adjacent roadway service
21	Shops at Paradise Lake	104 (Wknd)	204				Service on adjacent roadways
22	Skylake Mall	H	9	10	95	183	Service on adjacent roadways
23	Southland Mall	1 52	31 70	35 137	38 200		Service on adjacent roadways
24	Village at Merrick Park	37 249	40 500	42 Rail	48	136	Service on adjacent roadways and within walking distance of Douglas Road station
25	Westchester Shopping Center	8	24	87			Service on adjacent roadways
26	Westland Mall	29	33	54			Service on adjacent roadways
27	163rd Street Mall	E	H	2	3	9	Service on adjacent roadways and off-site terminal
		10	16	19	22	75	
		246					

Source: Miami-Dade Transit, 2013.

Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.



Figure 7-17: MDT Major Trip Generators: Retail Centers, December 2013



Retail Centers. Source: Miami-Dade Transit, December 2013

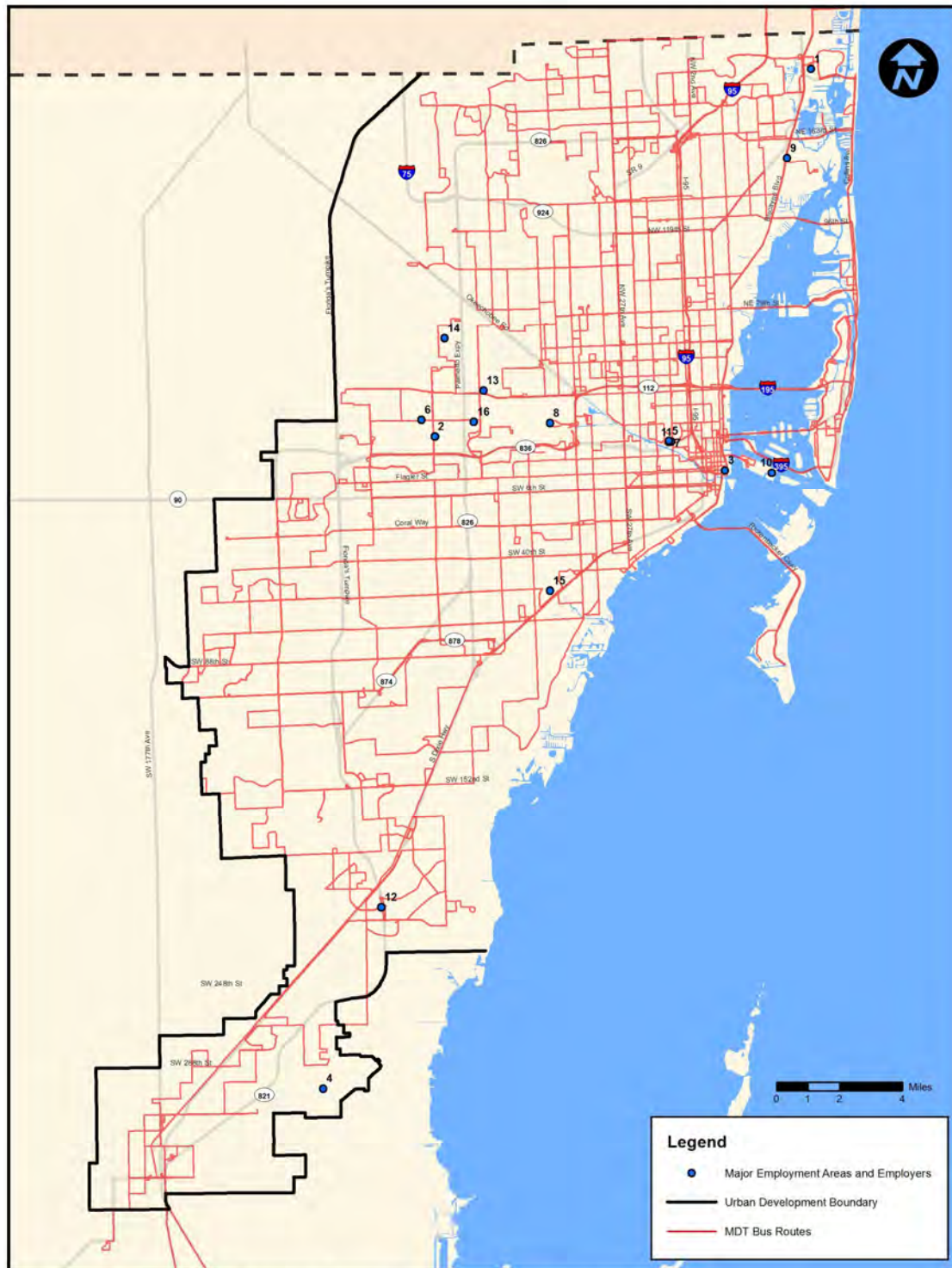
**Table 7-15: MDT Major Trip Generators: Major Employment Areas and Employers, December 2013**

	MAJOR GENERATORS	ROUTES					COMMENTS
ID	Major Employment Areas and Employers						
1	Aventura Mall	E 99	S 120	3 183	9	93	On-site service
2	Doral - Warehouse Area	36	87	95	132		Service on adjacent roadways
3	Downtown Miami	C 7 24 120 246	S 8 51 207 277	2 9 77 208 500	3 11 93 211 Mover	6 21 95 243 Rail	Service on local roadways and within walking distance of Government Center and Historic Overtown/Lyric Theatre stations and various Metromover stations
4	Homestead Air Reserve Base	70					Service on adjacent roadway
5	Miami-Dade Pre-Trial Detention Center	M 246	12 Rail	21	32	95	Service on local roadways and located within walking distance of Civic Center station
6	Miami-Dade Police Department	87	95	238			Service on adjacent roadway
7	Miami Dade State Attorney's Office	M 246	12 Rail	21	32	95	Service on local roadways and located within walking distance of Civic Center station
8	Miami International Airport	J 150	7 238	37 297	42	57	Routes restructured to serve MIC; from MIC use MIA Mover to access Airport
		133					Shuttle to Tri-Rail Sation serves Airport directly
9	North Dade Justice Center	3	75	93	135		Service on adjacent roadways
10	Port of Miami	243					On-site service via local roadways
11	Richard E. Gerstein Justice Building	M 246	12 Rail	21	32	95	Service on local roadways and located within walking distance of Civic Center station
12	South Miami-Dade Government Center	1 70	31 137	35 200	52		Service on adjacent roadway
		38					Service on local roadway
13	Turner-Guilford Knight Correctional Center	36	73	95	132		Service on adjacent roadways
14	Unincorporated Miami-Dade County Area bounded by NW 74 St. to the North, NW 58 St. to the South between SR-826 and NW 87 Ave.	87					Service on adjacent roadway
15	University of Miami	48	56	500	Rail		Service on adjacent roadways and within walking distance of University station
16	U.S. Post Office- General Mail Facility	73	238				Service on adjacent roadways

Source: Miami-Dade Transit, 2013.

Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

**Figure 7-18: MDT Major Generators: Major Employment Areas and Employers, December 2013**



Major Employment Areas and Employers. Source: Miami-Dade Transit, December 2013

Table 7-16: MDT Major Trip Generators: Educational Centers, December 2013

MAJOR GENERATORS		ROUTES					COMMENTS
ID	Educational Centers						
1	Barry University - Main Campus	2	9	10	19		Service on adjacent roadways
2	Barry University - Kendall Campus	104					Service on adjacent roadway
		88	288				Service on local roadway
3	Brown Mackie College	S	3	9	10	16	Service on adjacent roadways
		32	93	95			
		A	C	M	6	120	Service on local roadways
		Mover					Within walking distance of Adrienne Arsht Center Station
4	Carlos Albizu University	95	238				Service on local roadway
5	City College	38	52	73	88	104	
		31	34	87	136	287	
		Rail					Within walking distance of Dadeland South Station and route 252.
6	College of Business and Technology - Cutler Bay	31	34	35	38		Service on adjacent roadway
7	College of Business and Technology - Flagler	11	51	87			Service on adjacent roadway
		7					Servcie on local roadway
8	College of Business and Technology - Kendall	71	88	288			Service on adjacent roadways
9	FIU - Center for Engineering & Applied Sciences	11	51	137	212		Service on adjacent roadways
10	FIU - Modesto A. Maidique Campus	8	11	24	71		On-site terminal with shelters
11	FIU - Biscayne Bay	75	135				On-site service
12	FIU - The Metropolitan Center	3	11	24	77		Service on adjacent roadways
		93	95				
		C	L	2	6	8	
		9	21	51	120	207	Service on local roadways
		208	277				
	Mover						Within walking distance of Knight Center Station
13	FIU - The Wolfsonian	C	M	120			Service on adjacent roadway
14	Florida Atlantic University	8					Service on adjacent roadway
		87					Service on local roadway
15	Florida Career College	8	11	71			Service on adjacent roadway
16	Florida Memorial College	32					Service on adjacent roadway
17	Florida National College	24	40	51			Service on adjacent roadways
18	International Fine Arts College	S	3	9	10	16	Service on adjacent roadways
		32	93	95			
		A	C	M	6	120	Service on local roadways
		Mover					Within walking distance of Adrienne Arsht Center Station
19	Johnson & Wales University	16					Service on adjacent roadway
		3	93				Servcie on local roadway
20	Jones College	88	288				Service on adjacent roadway
21	Keiser Career College	75	286				Service on local roadways
22	Keller Graduate School of Management	11	51	87			Service on adjacent roadways
23	Lindsey Hopkins Technical Education Center	M	21	77	277		Service on adjacent roadways
24	MDC - Hialeah	33	54				Service on adjacent roadway
25	MDC - Homestead	34	35	344			Service on adjacent roadways
		38	70				Service on local roadways
26	MDC - Interamerican	8	27	207	208		Service on adjacent roadways
27	MDC - Kendall	35	71	104	204		On-site service with shelters
28	MDC - Medical Center	M	12	21	32	Rail	Service on adjacent roadways



**Table 7-16: MDT Major Trip Generators: Educational Centers, December 2013  
(continued)**

MAJOR GENERATORS		ROUTES					COMMENTS
ID	Educational Centers						
29	MDC - North	19	27	32	297		On-site terminal with shelters
30	MDC - West	36					Service on adjacent roadway
31	MDC - Wolfson Campus	2	3	6	7	8	Service on adjacent roadways
		9	93	95	120		
		C	S	11	21	77	
		207	208	211	243	246	Service on local roadways
		277					Within walking distance of College/Bayside and College North Stations
	Mover						
32	Miami Lakes Education Center	29	75				Service on adjacent roadway
33	New World School of the Arts	2	6	7	8	9	Service on adjacent roadways
		120					
		C	S	3	11	51	
		77	93	95	207	208	Service on local roadways
		211	246	277			Within walking distance of College/Bayside Station
	Mover						
34	Nova Southeastern University - Dental	H					Service on local roadway
35	Nova Southeastern University - Kendall Campus	88	288				Service on local roadway
36	Polytechnic University of Puerto Rico	36	95	132			Service on adjacent roadway
37	Robert Morgan Educational Center	52					Service on adjacent roadways
		137					Service on local roadway
38	St. Thomas University	32					Service on adjacent roadway
39	University of Miami	48	56	500	Rail		Service on adjacent roadways and within walking distance of University station
40	University of Miami - Marine Campus	B					Service on adjacent roadway
41	University of Miami - South Campus	252					Service on adjacent roadway

Source: Miami-Dade Transit, 2013.

Note: Rail stands for Metrorail. Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.



This map displays the geographical distribution of educational centers within Miami-Dade County, Florida. The county's urban development boundary is delineated by a thick black line. Major transportation corridors, including Interstates 15, 5, 95, and State Routes 112, 191, 113, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 9

Educational Centers. Source: Miami-Dade Transit, December 2013

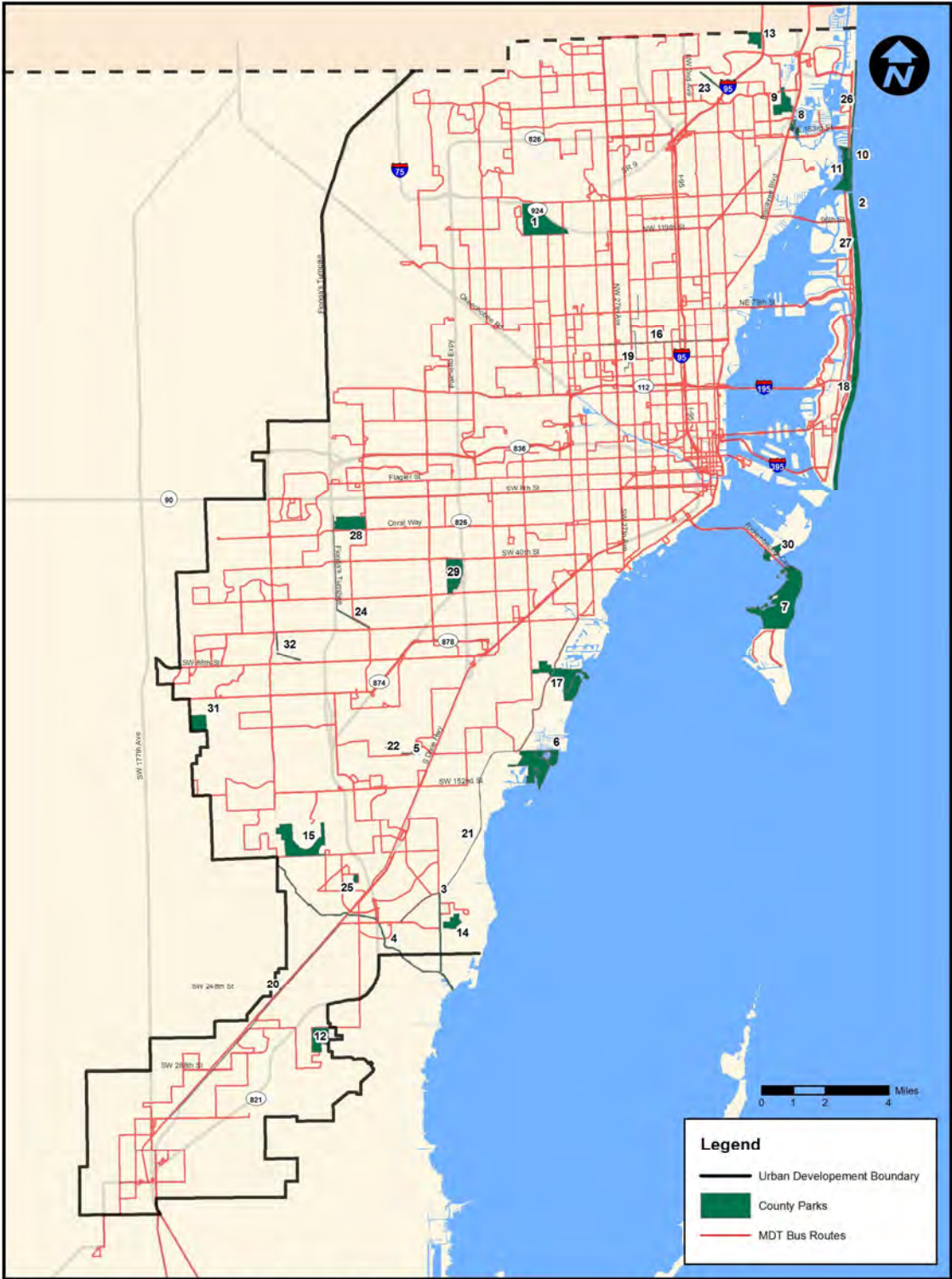
**Table 7-17: MDT Major Trip Generators, County Parks, December 2013**

MAJOR GENERATORS		ROUTES					COMMENTS
ID	County Parks						
1	Amelia Earhart Park	37	135				Service on adjacent roadway
		42					Service on local roadway
2	Bal Harbour Beach	H	S	120			Service on adjacent roadway
		G					Service on local roadway
3	Biscayne Trail (East Side of Canal)	200	287				Service on adjacent roadway
4	Black Creek Trail (Along C1 Canal)	137					Service on local roadway
5	Briar Bay Linear Park	136					Service on adjacent roadway
6	Chapman Field Park	136					Service on local roadway
7	Crandon Park	B					Service on local roadway
8	East Greynolds Park	3	93	183			Service on adjacent roadway
9	Greynolds Park	3	93	183			Service on adjacent roadway
10	Haulover Beach	H	S	120			Service on adjacent roadway
11	Haulover Park	H	S	120			Service on adjacent roadway
12	Homestead Air Reserve Park	70					Service on adjacent roadway
13	Ives Estates Park	99					Service on local roadway
14	Lakes by the Bay Park	200	287				Service on local roadway
		137					Service on adjacent roadway
15	Larry & Penny Thompson Park	52					Service on local roadway
16	Martin Luther King Blvd (NW 62 ST)	32	62				Service on adjacent roadway
17	Matheson Hammock Park	136					Service on local roadway
18	Miami Beach (from South Beach to NW 86 ST)	A	C	H	J	L	Service on adjacent roadway
		M	S	SB Local	62	79	
		115	117	120	150		
		L	12	21	22	46	Service on adjacent roadway
19	Model Cities Trail	54	62	79	246		
		17					Service on local roadway
20	North South Trail	34	35	38	70		Service on adjacent roadway
		70	344				Service on local roadways
21	Old Cutler Bike Path	136					Service on adjacent roadway
22	Pinewoods Park	136					Service on local roadway
23	Snake Creek Trail	75	77				Service on local roadways
24	Snapper Creek Trail	17	75	77	99		Service on local roadways
25	Southridge Park	1					Service on adjacent roadway
		52					Service on local roadway
26	Sunny Isles Beach	E	H	S	120		Service on adjacent roadway
27	Surfside Beach	H	S	115	117	120	Service on adjacent roadway
28	Tamiami Park	8	24	71			Service on adjacent roadway
29	Tropical Park	40	56				Service on adjacent roadway
30	Virginia Key	B					Service on local roadway
31	West Kendall District Park						None
32	Winston Linear Park	88					Service on adjacent roadway
		288					Service on local roadway

Source: Miami-Dade Transit, 2013.

Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Figure 7-20: MDT Major Trip Generators, County Parks, December 2013

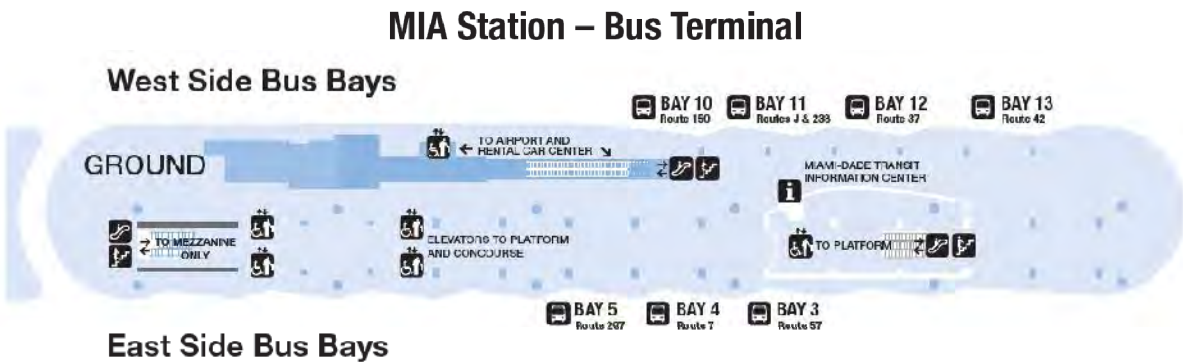


County Parks. Source: Miami-Dade Transit, December 2013



**Objective: Increase and improve transit access to Miami International Airport (MIA) and the PortMiami:** The transit service route miles within a ¼ mile of MIA and the PortMiami are presented in Table 7-18 Metrobus Routes J, 7, 37, 42, 57, 150 (Airport Flyer) and 238 serve the new MIA Metrorail Station. Route 297 (27th Avenue Orange MAX) provides a direct connection to the new MIA Metrorail Station from the Broward County Line along NW 27th Avenue. Riders can use the free MIA Mover, located on the Connector Level (4th floor) of the new MIA Metrorail Station to travel to the Airport Terminal.

The MIA Metrorail Station and MDT bus terminal are components of the Miami Intermodal Center which consolidates various modes of transportation in one location and allows for seamless transfers between modes as well as access to the Airport Terminal. The Route 133 schedule complements Tri-Rail's schedule and runs between the Hialeah Market Tri-Rail station and the Airport Terminal, with selected trips also serving the Tri-Rail Metrorail station. This route will be in effect until the new airport Tri-Rail station opens in late 2014, adjacent to the MIA Metrorail station.



Metrobus Route 243, the Seaport Connection, connects PortMiami to Downtown Miami and to MDTR’s Metrobus and Metrorail systems

**Table 7-18: Transit Service Route Miles within ¼ mile of MIA and PortMiami**

Facility	Transit Service Route Miles within 1/4 mile
Miami International Airport	61
Port of Miami	2

Source: Miami-Dade GIS, 2013.

**Objective: Implement projects that support economic development and redevelopment areas:** A number of corridors were identified by Miami-Dade County as potential redevelopment areas based on their older development and infrastructure. As Table 7-19 shows, MDT provides service on multiple routes to most of these areas.

**Table 7-19: Transit Route Miles within ¼ mile of Redevelopment Areas**

Redevelopment Areas*	Transit Service Route Miles within 1/4 mile
East Overtown	79
North Miami	64.5
City of Miami - OMNI	50.5
North Miami Beach	44.7
Florida City	30.5
Miami Beach	27.6
7 <sup>th</sup> Avenue Corridor	24.1
West Perrine	23.8
Naranja Lakes	15.8
Homestead	15.1
Midtown Miami	12.4
South Miami	10.3
NW 79 <sup>th</sup> Street	54.6

Source: \*Information taken from the Miami-Dade County's GIS webpage, 2013.

**Objective: Apply transportation and land use planning techniques, such as transit oriented development (TOD), that support intermodal connections and coordination:** Policy initiatives do exist within the CDMP Land Use element and Transportation Element related to development and population density around or near transit stations.

#### 7.9.5 Goal 5: Preserve the Environment and Promote Energy Conservation

**Objective: Reduce fossil fuels consumption through the consideration of alternative fuel vehicle technology:** In an innovative move to improve energy efficiency and reduce operational costs, MDT has electrified key accessories on eighteen (18) 40-foot diesel/electric hybrid buses - becoming one of the first transit agencies in the nation to electrify bus accessories. This modification is expected to make the buses 25 percent (25%) more fuel efficient or 2,471 gallons and estimated carbon reduction of 24.3 metric tons (53,612 pounds) of CO<sub>2</sub> per year are projected per hybrid bus. The estimated carbon reduction per bus for the proposed project during the 15 years expected life of the bus is 407.7 metric tons of CO<sub>2</sub>. This calculation was based on CO<sub>2</sub> emissions from a gallon of diesel equal to 22.2 pounds/gallon (Source: U.S. Environmental Protection Agency Web site).

As a Chicago Climate Exchange member, Miami-Dade County voluntarily agreed to annual emissions reductions. Miami-Dade Transit currently operates 43 diesel/electric hybrid buses of which 25 are 60-foot articulated buses that use a B5 blend (5 percent) of Biodiesel with Ultra Low Sulfur Diesel Fuel in its bus fleet. Biodiesel is non-toxic, biodegradable, and suitable for sensitive environments.



The hybrid buses are equipped with emissions gas recirculation (EGR) components, proven to reduce the NOx and carbon emissions up to 80 percent (80%). The urea (DEF) exhaust after treatment technology will achieve additional NOx reductions.

After examining various alternative fuels, Miami Dade Transit decided to migrate its bus fleet to clean-burning, compressed natural gas (CNG). A Request for Proposal for a Public Private Partnership (P3) was released. MDT expects to select an experienced CNG developer to enter into a Master Developer Agreement which will be dedicated to the conversion of Miami-Dade Transit heavy fleet vehicles to CNG. Specifically, through the Master Developer Agreements, MDT intends to form a public partnership with the selected Proposer(s) that allows the MDT to take advantage of the savings associated with the use of CNG for its fleet.

The Program objectives to be achieved by the selected Proposer(s) include the following:

1. Design, build, finance, operate and maintain CNG fuel service stations;
2. Upgrade existing County infrastructure including upgrading and/or converting MDT maintenance facilities and existing fuel stations to provide CNG;
3. Purchase and/or lease CNG powered buses;
4. Supply CNG; and
5. Generate revenues for the County through the sale of CNG to third parties.

MDT is also adding LED lighting at park-and-ride lot locations.

**Objective: Promote transit service projects that support urban infill and densification:** MDT operates transit service primarily within the urban infill area with the exception of various areas throughout the county that are not fully developed (Table 7-20).

**Table 7-20: Transit Route Miles Within ¼ mile of the Route Alignment**

Other	Transit Route Miles within 1/4 mile	
	2012	2013
Urban Infill Area (UIA) Boundary	1417	1414

Source: Miami-Dade GIS, 2013.

#### 7.9.6 Goal 6: Enhance the Integration and Connectivity of the Transportation System, Across and Between Modes and Transit Providers, for People and Freight

The number of transit service route miles within a ¼ mile of Traffic Analysis Zones (TAZ's) with a high proportion (20% or higher) of elderly (Age 65+) is about 880 miles which is a 27% increase since last year's MDT Annual Update. This indicates that areas with a high concentration of elderly are well served by transit service and have full access to the Metrobus system, with some areas also well served by Metrorail.

#### 7.9.7 Goal 7: Optimize Sound Investment Strategies for System Improvement and Management/Operation

**Objective: Optimize operations and maintenance expenses:** Cost per revenue mile and hour are measures of efficiency. Improving operating speeds on congested corridors are among the ways to improve cost efficiency.

**Table 7-21: Cost per Revenue Mile**

	<b>Metrobus</b>	<b>Metrorail</b>	<b>Metromover</b>	<b>STS</b>
FY 2012/2013	\$10.66	\$9.85	\$18.40	\$3.12
FY 2011/2012	\$10.59	\$11.40	\$21.96	\$3.82

Source: Miami-Dade Transit, 2013.

**Table 7-22: Cost per Revenue Hour**

	<b>Metrobus</b>	<b>Metrorail</b>	<b>Metromover</b>	<b>STS</b>
FY 2012/2013	\$114.70	\$198.95	\$185.48	\$39.51
FY 2011/2012	\$114.96	\$250.76	\$223.43	\$48.85

Source: Miami-Dade Transit, 2013.

**Objective: Identify Public, Private Partnership opportunities:** A 14-acre vacant parcel adjacent to the intersection of the Homestead Extension of the Florida Turnpike (HEFT) on NW 215<sup>th</sup> Street and NW 27<sup>th</sup> Avenue has been identified as a park-and-ride/transit terminal location for the NW 27<sup>th</sup> Avenue Enhanced Bus Service project. This facility will provide strategic TOD opportunities. Section 2.2.14 provides additional detail on MDT's existing and future transit joint development and TOD projects.

**Objective: Align MDT priorities and deliverables with available funding and resources:** Miami-Dade Transit continually evaluates operational and capital priorities and assesses the viability of securing various funding sources.

#### 7.9.8 Goal 8: Maximize and Preserve the Existing Transportation System

**Objective: Continue to examine the provision and utilization of special-use lanes on the existing system for transit use:** The existing special use lanes used by MDT

consists of the South Miami-Dade Busway which is approximately 20 miles in length. In 2010, the managed lanes were implemented on I-95 and increased transit's usage of Toll Express Lanes from the operation of 95 express service between locations in Broward County and downtown Miami. In addition, FDOT is studying a system of managed lanes for southeast Florida on which express transit routes could be implemented on SR 836, SR 826, and I-75.

**Objective: Identify and implement the best available technologies and innovations to improve the reliability and efficiency of the transportation system:**

Miami-Dade Transit continuously works to assess Intelligent Transportation System (ITS) needs through an organization of prioritized ITS projects for deployment that conform to regional ITS architecture while reflecting the local needs and preferences for transit operations. Newly implemented ITS projects include transit signal priority, wireless services, and personal digital assistants (PDAs) with real time next bus arrival information.

**Objective: Upgrade and maintain existing transit infrastructure and facilities in a state of good repair:** Miami-Dade Transit has developed a procedure for identifying, evaluating, prioritizing, and programming capital improvement projects that will upgrade and maintain the existing transit infrastructure and facilities. This Infrastructure and Renewal Program (IRP) is updated annually to assure the existing transit system and facilities remain in a state of good repair.

**Objective: Maintain the operational functionality of transit vehicles to maximize reliability:** MDT experienced 0.20 percent (0.20%) missed pullouts in FY 2013. The current goal set forth at the agency is zero percent. While even a single missed pullout can mean inconvenience and discomfort for hundreds of passengers, an average of less than one missed pullout per day is very good performance for a transit system of MDT's size.

Metromover plans to improve the adherence to its preventive maintenance program by implementing a mileage based maintenance program. A time based program is currently in place requiring vehicle inspections to be performed regardless of the vehicle mileage. Implementation of a time based program will more effectively utilize the agency's man power by ensuring that all preventive maintenance inspections are completed within the allotted time frames.

The current goal is set at a 90 percent (90%) adherence. According to the last fiscal year, Metrobus and Metrorail exceeded the 90 percent (90%) adherence goal while Metromover achieved a compliance rate of 86 percent (86%) (Table 7-23). The preventive maintenance program identifies mechanical issues before failures result and greatly contributes to MDT meeting its performance goal for this measure.

**Table 7-23: Percent of Adherence to Preventative Maintenance Program by Mode**

	<b>Metrobus</b>	<b>Metrorail</b>	<b>Metromover</b>
FY 2012/2013	98.4%	99.7%	85.5%
FY 2011/2012	98%	97.1%	78.8%
Goal	90%	90%	90%

Source: Miami-Dade Transit, as of March 2014.

Another measure of service reliability is the measure of the mean distance between service disruptions (Metrorail) or breakdowns (buses). Disruptions are described as five (5) minutes or more impact to the customer. Table 7-24 presents the mean number of miles for a breakdown according to MDT transit mode.

**Table 7-24: Mean Distance between Failures by Mode**

	<b>Metrobus</b>	<b>Metrorail</b>	<b>Metromover</b>
FY 2012/2013	4,391	40,505	7,571
FY 2011/2012	4,459	42,410	5,157
Goal	4,000	39,000	6,000

Source: Miami-Dade Transit, as of March 2014.

## 8.0 Ten-Year Implementation Plan

This section presents the various transit improvement projects that are proposed for the MDT transit system over the planning horizon of the FY 2015- 2024 TDP Major Update. The Ten-Year Implementation Plan has been developed through an assessment of the existing operating environment coupled with the input received from the public involvement process, survey results, peer and trend analysis and the outcome of the situation appraisal as collaborated with MDT staff.

This process informed the Ten-Year Implementation Plan which includes committed transit improvement initiatives that consist of capital projects, service adjustments, and infrastructure renewal program (IRP) projects. This is then followed by the 2024 Recommended Service Plan which provides the proposed transit system improvements, modification and new services as well as additional capital needs projects that are partially funded or unfunded altogether over the 10-year planning horizon of the TDP.

MDT's strategy for this implementation plan is to improve existing Metrobus routes, implement new Metrobus routes, advance premium transit corridors identified throughout Miami-Dade County and discontinue unproductive routes. MDT will continue to focus on improving on-time performance, providing a clean and attractive system for passenger use, improve customer convenience through the latest available technology and assess system expansion opportunities.

### 8.1 Assessment of Implemented Service Improvements and Adjustments (2013)

For the FY 2014 – 2023 TDP Annual Update, a listing of committed bus service improvements and adjustments planned for 2013 were included. A consistency analysis of these committed improvements is being performed for this TDP to assess and measure MDT's adherence for implementation.

The results of the consistency analysis for improvements implemented between January and December 2013 is presented in Table 8-1. Each of the service changes are identified according to whether it was a programmed commitment of the FY 2014 – 2023 TDP Annual Update as indicated with a check mark or an additional change not included in the TDP Annual Update as marked by an asterisk.

Between January and December of 2013, a total of 34 bus service improvements and adjustments were implemented by MDT. This includes the implementation of 16 additional improvements not planned in last year's TDP Annual Update. The FY 2014 – 2023 TDP Annual Update planned 19 committed bus service improvements and adjustments with 18 being implemented in 2013 resulting in a 95 percent level of consistency.



**Table 8-1: 2013 TDP Consistency Analysis Summary**

2013 TDP CONSISTENCY ANALYSIS SUMMARY				
JANUARY TO DECEMBER 2013				
ROUTE	DESCRIPTION	IMPROVEMENT / ADJUSTMENT	START DATE	2013 TDP CONSISTENCY
√	Implemented service change committed to in previous TDP			
*	Implemented service change not included in previous TDP			
2	Mall at 163rd Street, Jackson North, Miami Avenue, Horace Mann Middle School, NW 2 Avenue, Historic Overtown/Lyric Theatre Metrorail station, MDC Wolfson Campus, Downtown Bus Terminal, Government Center Metrorail station, Main Library, Historical Museum.	Minor weekday running time adjustment between 163rd Street Mall and 79th Street.	June 23, 2013	√
3	Aventura Mall, The Mall at 163rd Street, Biscayne Boulevard, Omni Metromover Station/Bus Terminal, Government Center Metrorail station, Stephen P. Clark Center, Downtown Bus Terminal, Main Library, Miami Art Museum, Historical Museum.	Minor weekday northbound schedule adjustments between NE 36th Street and 167th Street.	November 24, 2013	*
6	Bird Road, Coconut Grove Metrorail station, Douglas Road (37th Avenue), NW 14th Street, Little Havana, Brickell Metrorail/Metromover Station, Downtown Miami, Miami Avenue Metromover Station, NW 29th Street.	Minor weekday running time adjustments in both directions throughout the day.	June 23, 2013	√
7	MIA Metrorail station, City of Sweetwater, Dolphin Mall, Miami International Mall, Fontainebleau Blvd., 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.	Minor weekday running time adjustments in both directions throughout the day.	June 23, 2013	√
16	City of North Miami Beach, The Mall at 163rd Street, NE 6th Avenue, City of North Miami, City of Biscayne Park, City of Miami Shores, City of El Portal, Biscayne Boulevard, Omni Bus Terminal.	Minor weekday schedule adjustments between NE 36 Street and 167th Street Terminal.	November 24, 2013	*
19	Weekday service only. Southbound: MDC North. Northbound: 163rd Street Mall/Wal-Mart.	Added a weekday south bound trip from NE 165th Street and NE 15th Avenue.	January 30, 2013	*
22	North Miami Beach, The Mall at 163rd Street, Golden Glades Park & Ride, NW 22nd Avenue, Earlington Heights Metrorail station, Clinics, Coconut Grove Metrorail station.	Add timepoint for Sunshine Industrial Park.	June 23, 2013	√
24	SW 152 Avenue during Rush Hour, SW 137 Court/Coral Way, Florida International University Park Campus, FIU Bus Terminal, West Dade Regional Library, Westchester Shopping Center, City of Coral Gables, Vizcaya Metrorail station, Brickell Metrorail station. Coral Way Limited: Limited stop service from Ponce de Leon to Brickell Metrorail Station, Monday through Saturday.	Route 24 end at Brickell Metrorail Station instead of Downtown Miami. Route 24 - Coral Way Limited only serves busiest stops between Le Juene Road and Brickell Station from Monday to Saturday all other traffic is served by Coral Gables trolley.	November 24, 2013	*
32	Landmark Learning Center, Carol City, St. Thomas University, Florida Memorial College, City of Opa-locka, Opa-locka Tri-Rail station, NW 32nd Avenue, Miami Dade College North Campus (weekdays/Saturdays), Northside Metrorail station, Northside Shopping Center, Santa Clara Metrorail Station, Omni Bus Terminal, N. Bayshore Drive.	On Sundays route will not serve inside MDC North Campus.	November 24, 2013	*
33	NW 106th Street/South River Drive, Lehigh Industrial Park, City of Hialeah Gardens City Hall, City of Hialeah, Westland Mall, West/East 49th Street (NW 103rd Street), NW/NE 95th Street, North Shore Hospital, Miami Shores Village.	5 minute departure delayed at NE 5 Avenue and 80th Street for the weekday trips in westbound direction. (New Departures: 2:00 pm and 2:25 pm, Previous Departures: 1:55 pm and 2:20 pm).	November 24, 2013	*

Table 8-1: 2013 TDP Consistency Analysis Summary (continued)

2013 TDP CONSISTENCY ANALYSIS SUMMARY				
JANUARY TO DECEMBER 2013				
ROUTE	DESCRIPTION	IMPROVEMENT / ADJUSTMENT	START DATE	2013 TDP CONSISTENCY
√	Implemented service change committed to in previous TDP			
*	Implemented service change not included in previous TDP			
34 Busway Flyer	Weekday rush-hour service only. Florida City, Homestead, MDC Homestead Campus, US 1, SW 244th Street Park & Ride, Southland Mall, SW 168 Street and 152th Street. Park & Ride lots, Dadeland South Metrorail station.	Minor running time adjustments to the northbound trips that serve during AM hours.	November 24, 2013	*
35	MDC Kendall Campus, Kendall, Perrine, Southland Mall, Goulds, Naranja, Homestead, Florida City.	Minor running time adjustments to the southbound first trip on weekend at MDC Kendall Campus.	November 24, 2013	*
37	Hialeah, Hialeah Metrorail station, Tri-Rail Airport station, MIA Metrorail station, Douglas Road (SW 37th Avenue), Douglas Road Metrorail station, South Miami, Cocoplum Circle, South Miami Metrorail station.	Minor weekday running time adjustments in both directions throughout the day.	June 23, 2013	√
38 Busway Max	Dadeland South Metrorail station to Homestead, Florida City via the South Miami-Dade Busway.	Minor northbound running time adjustments during weekday and Sunday morning	November 24, 2013	*
42	Opa-locka, Hialeah, Tri-Rail Metrorail station, MIA Metrorail station, Coral Gables, Douglas Road Metrorail station.	Minor weekday running time adjustments in both directions throughout the day.	June 23, 2013	√
56	Weekday service only. Curry Middle School, John A. Ferguson High School, Town & Country Mall, MDC Kendall Campus, University Metrorail Station, Coral Gables, Univ. of Miami, Doctors Hospital, Miami Children's Hospital.	Discontinue route segment to MDC Kendall campus and modify peak headway from 30 to 40 minutes for the branch to SW 162nd Avenue; midday headway will remain as 60 minutes to SW 162nd Avenue. The route will no longer have an "A" branch designation.	June 23, 2013	√
57	Weekday service only. Tri-Rail Airport Station, MIA Metrorail station, South Miami Metrorail Station, Red Road, Busway at SW 152nd, Jackson South Hospital.	Minor southbound running time adjustments throughout the day.	June 23, 2013	√
70	South Miami-Dade Government Center, Southland Mall, Community Health Center, Goulds, Princeton, Homestead Air Reserve Base, Naranja, Homestead, Florida City.	Weekdays only, discontinue service to Saga Bay.	June 23, 2013	√
73	Miami Lakes, Hialeah, Palmetto Metrorail Station, Milam Dairy Road, US Postal Annex, Dadeland Mall, Dadeland South Metrorail Station.	Relocate northern layover to the park and ride at NW 186th Street/73rd Avenue.	November 24, 2013	*
75	Miami Lakes Technical Education Center, Miami Lakes, NW 175th Street, North Miami Beach, The Mall at 163rd Street, F.I.U. North.	Increase deadhead time from NE Division to FIU Biscayne campus.	June 23, 2013	√
77	NW 199 Street/NW 2 Avenue (SR 441), Golden Glades Park & Ride Lot, NW 7 Avenue, Liberty City, Culmer Metrorail station, Government Center Metrorail station, Main Library, Historical Museum of South Florida, Miami Art Museum, Downtown (Miami) Bus Terminal.	Improve weekday midday headway from 15 to 12 minutes.	June 23, 2013	√
87	Palmetto Metrorail Station, NW 74th Street Connector, SW 87th Avenue, Dadeland North Metrorail Station.	Minor schedule adjustment in the northbound direction to improve reliability.	June 23, 2013	√
88	Dadeland North Metrorail station, Dadeland Mall, Kendall Drive/SW 150th Ave Park & Ride Lot, West Kendall Transit Terminal/Park & Ride Lot.	Discontinue northern variant to Kendall Lakes. Run frequent service to SW 88th Street/162nd Avenue. Remove weekday midday interlining with route 104.	November 24, 2013	*

**Table 8-1: 2013 TDP Consistency Analysis Summary (continued)**

2013 TDP CONSISTENCY ANALYSIS SUMMARY				
JANUARY TO DECEMBER 2013				
ROUTE	DESCRIPTION	IMPROVEMENT / ADJUSTMENT	START DATE	2013 TDP CONSISTENCY
√	Implemented service change committed to in previous TDP			
*	Implemented service change not included in previous TDP			
93 Biscayne Max	Weekday service only. Downtown (Miami) Bus Terminal, Main Library, Historical Museum, Miami Art Museum, Government Center Metrorail station, Biscayne Boulevard, Omni Bus Terminal, El Portal Village, City of North Miami, City of North Miami Beach, City of Aventura, Aventura Mall.	Improve peak service from 18 minutes to 15 minutes.	November 24, 2013	*
95 Golden Glades Express	Golden Glades Park & Ride Lot, Civic Center, Veterans Hospital, Jackson Memorial Hospital, Norwood, Earlington Heights Metrorail station, Downtown Miami, Brickell.	- On the five holidays (Columbus Day, Veterans Day, Friday after Thanksgiving, MLK Day, President's Day) the Golden Glades to CBD/Biscayne Blvd service will be reduced from 5-10 minute headway to approximately 15 minute headway. - The following legs will keep the scheduled service since they operate less frequently: Civic Center, Miami Gardens/Carol City, Aventura, Doral/Earlington and Brickell.	June 23, 2013	√
95 Golden Glades Express	Golden Glades Park & Ride Lot, Civic Center, Veterans Hospital, Jackson Memorial Hospital, Norwood, Earlington Heights Metrorail station, Downtown Miami, Brickell.	- On the five minor holidays (Columbus Day, Veterans Day, Friday after Thanksgiving, MLK Day, President's Day) the Golden Glades to CBD/Biscayne Blvd service will be discontinued.	November 24, 2013	*
103 C	Downtown (Miami) Bus Terminal, Main Library, Historical Museum of South Florida, Miami Art Museum, Government Center Metrorail station, Omni Metromover Station/Bus Terminal, City of Miami Beach via MacArthur Causeway, South Beach, Washington Avenue., Lincoln Road, Collins Avenue, 41 Street, Alton Road, Mt. Sinai Hospital.	Minor early AM running time adjustments in both directions.	November 24, 2013	*
104	West Kendall Transit Terminal, Hammocks Town Center, MDC Kendall Campus, Dadeland Mall and Dadeland North Metrorail Station.	Remove weekday midday interlining with Route 88. Improve weekday midday service from 60 minutes to 45 minutes.	November 24, 2013	*
107 (G)	NW 27th Avenue/163rd Street, Bunche Park, Opa-locka, NW/NE 125 Street, Broad Causeway, Bal Harbour, Collins Avenue, Miami Beach, North Dade Health Center weekdays only.	Modify weekday recovery time on Miami Beach so most trips have eight (8) to 10 minutes or more when possible. Shift departure time of both westbound and eastbound trips.	June 23, 2013	√
115 / 117 Mid-North Beach Connection	Harding/88th Street, Alton Road, Sheridan Avenue, Lincoln/Washington, Mt. Sinai Medical Center, 17th Street/Washington Ave.	Minor weekday running time adjustments on both routes (loops) throughout the day.	June 23, 2013	√
120 Beach MAX	Downtown Bus Terminal, Main Library, Historical Museum, Miami Art Museum, Govt. Center Metrorail station, Miami Dade College Wolfson Campus, Omni Bus Terminal, MacArthur Causeway, City of Miami Beach, Collins Avenue, Town of Surfside, City of Bal Harbour, Haulover Park Marina, Aventura Mall.	Additional bus stop will be added to this limited stop route and the stop will be at the existing local bus stop on Collins Ave and at approximately at 16900 Block. Weekday runs will be modified - currently runs either do SB/NB Haulover or SB/NB Aventura; majority of new weekday runs Southbound Haulover Northbound Aventura and Southbound Aventura Northbound Haulover - will provide little more recovery time at Aventura.	June 23, 2013	√

**Table 8-1: 2013 TDP Consistency Analysis Summary (continued)**

2013 TDP CONSISTENCY ANALYSIS SUMMARY				
JANUARY TO DECEMBER 2013				
ROUTE	DESCRIPTION	IMPROVEMENT / ADJUSTMENT	START DATE	2013 TDP CONSISTENCY
√	Implemented service change committed to in previous TDP			
*	Implemented service change not included in previous TDP			
133 Tri-Rail Airport Shuttle	This route runs between the Hialeah Market Tri-Rail station and Miami International Airport, with selected weekday trips also serving the Tri-Rail Metrorail station. This route will be in effect until the new airport Tri-Rail station opens in 2014, adjacent to the MIA Metrorail station.	Weekend service increased to match the new Tri-Rail weekend (hourly) service.	March 2, 2013	√
135	Hialeah Metrorail station, Miami Lakes (weekdays only), Opa Locka Tri-Rail, F.I.U. Biscayne Bay.	Increase deadhead time from NE Division to FIU Biscayne campus.	Note: Service change not implemented. Committed in 2013	-
288 (Kendall Cruiser)	West Kendall Transit Terminal/Park & Ride Lot, SW 150th Avenue Park & Ride Lot, Kendall Drive and Dadeland North Metrorail Station.	Minor weekday running time adjustments made on westbound afternoon trips.	November 24, 2013	*
297 27th Avenue Orange MAX	NW 27th Avenue, MIA Metrorail station, Martin Luther King Jr. Metrorail Station, MDC North, Opa-locka, Miami Gardens, Dolphin Stadium.	Another bus stop added to this limited stop route. The stop at the existing local bus stop on NW 27th Avenue at NW 54th Street.	June 23, 2013	√

Source: Miami-Dade Transit, 2013.

## 8.2 FY 2014 Committed Transit Improvements

This section presents transit improvement projects that are committed for the MDT transit system for the next year or FY 2014. The committed transit improvement initiatives consist of capital projects, service adjustments, and infrastructure renewal program (IRP) projects that serve to further expand, improve, and maintain MDT services.

### 8.2.1 Committed Capital Improvement Plan

On an annual basis MDT prepares a proposed capital budget and multi-year Capital Plan that outlays specific projects related to the expansion and improvement of MDT's existing services. Table 8-2 presents the proposed capital budget for the next fiscal year. Please note that the following capital improvement table will be updated once MDT finalizes the proposed capital budget for FY 2014 – 2015.

**Table 8-2: MDT FY 2014 – 2015 Proposed Capital Budget (\$000's)**

Project Name	FY 2014 - 2015
Bus and Bus Facilities	\$ 109
Park and Ride lot SW 344th Street	\$ 954
Park and Ride lot Quail Roost Drive	\$ 1,030
High Cycle Switch Logic Control Cabinets (Mover)	\$ 1,660
Bus Replacement	\$ 20,000
Pedestrian Overpass at University	\$ 1,218
Kendall Enhanced Bus Service	\$ 942
Infrastructure Renewal Plan (IRP)	\$ 12,500
East/West Corridor (SR 836 Express Enhanced Bus)	\$ 7,626
Northeast Transit Hub Enhancements	\$ 996
North Corridor Enhanced Bus (NW 27 Ave-NW 215 St to MIC)	\$ 6,462
Bike Locker Replacement at all Rail Stations	\$ 26
Track and Guideway Rehabilitation	\$ 13,412
Passenger Amenities and Transit Enhancements	\$ 484
Security and Safety Equipment	\$ 600
Park and Ride lot Kendall Drive	\$ 270
Rail Vehicle Replacement	\$ 31,180
Central Control Overhaul	\$ 1,443
NW 7th Ave and NW 62nd St Passenger Activity Center	\$ 300
<b>Total</b>	<b>\$ 101,212</b>

Source: FY 2013-2014 Adopted Budget and Multi-Year Capital Plan, 2013.

### 8.2.2 Committed Bus Service Adjustments

In an effort to continually match service capacity with ridership demand MDT 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 planned to occur between January and December 2014 is presented in Table 8-3. Route improvements are assigned letters in the last column to describe the type of improvement made: Adjustments (A), Improvements (I), Reductions (R), and No Change (N.C).



**Table 8-3: 2014 Committed Bus Service Adjustments**

ROUTE	IMPROVEMENT / ADJUSTMENT	TYPE
3	Running time adjustments 7 days a week	A
7	Weekday running time adjustments to improve on-time performance	A
7	Move to Coral Way Division	A
8	Weekday running time adjustments to improve on-time performance	A
16	Running time adjustments 7 days a week	A
27	Weekday running time adjustments to improve on-time performance	A
35	Interline weekends with Route 70 as a result of running time changes made to route 70.	A
38	Improve Headway from 12 to 10 min in the peak hour	I
46	Service along NW 54 St, NW 37 Ave, NW 46 St west of NW 27 Ave will be removed due to low ridership. Service will be added to NW 27 Ave between NW 54 St and NW 46 St. Service frequency reduced from 45 minutes to 60 Minutes	R
52	The north end-of-line will be moved from the Dadeland North Metrorail Station to the Dadeland South Metrorail Station to improve route efficiency. on-time performance	A
52	Running time adjustments seven days a week to improve on-time performance	A
54	Minor wesbound running time adjustment between W 49 St/17 Ct and W 60 St/24 Ave	A
57	Discontinue the segment of the route on NW 42 Ct to Airport Villas.	R
57	Weekday running time adjustments.	A
70	Running time adjustments seven days a week.	R
71	On northbound trips, the loop through International Mall parking lot will be discontinued and will not serve the bus stop on NW 107 Ave/NW 14 St (northbound farside).	A
71	Running time adjustments seven days a week to improve on-time performance	A
72	Weekend running time adjustments.	A
88	Saturday running time adjustments. Change Saturday headway to accommodate additional running time (24-30min).	A
95	Add 5 min northbound PM running time between SE 8 St/Brickell Ave and Dade County Courthouse (W Flagler St/1 Ave) and start trips earlier	I/A
99	Reroute alignment in 2 areas: 1) Discontinue service on NE 10 Ave and California Dr; the route will remain on NE 205 Ter. 2) Discontinue service on NW/NE 204 St, NE 2 Ave and NW/NE 215 St; the route will remain on NW 2 Ave between NW 204 St and NW 215 St.	A/R
102 (B)	Realign service leaving Brickell Metrorail Station: southbound trips will use SW 1 Ave and SW/SE 13 St to Brickell Ave. Southbound trips will no longer serve SW/SE 8 St or Brickell Ave between SE 8th St and SE 13th St. Running time adjustments seven days a week.	A
105/E	Eliminate yacht club trips	R
115/117	Remove deviation along Meridian Ave and W 47 St. Adjust running times 7 days a week	A/R
120 Beach MAX	Add an additional weekday NB trip to Aventura Mall departing from the Omni Terminal at approximately 7:30 am.	A/I
133	Discontinue when MIC opens/Tri-Rail service begins (September 2014)	R
137	Realign the route to remain on SW 180 St between SW 142 Ave and SW 139 Ave; service in Serena Lakes along SW 142 Ave, SW 172 St and SW 139 Ave will be discontinued.	A
137	Running time adjustments seven days a week. Saturday headways will be changed from 40 to 45 min to accommodate additional running time.	A
150	Improve headway from 30 to 20 min 7 days a week (\$1.6M 2 years)	I
195 (Civic)	Begin new Civic Center service (April 2015)	N
200	Move end-of-line from SW 112 Ave/SW 211 St to Old Cutler Rd near Franjo Rd (Municipality Request).	A
238	Running time adjustments	A
243	Discontinue route.	R

Source: Miami-Dade Transit, 2014.

Notes: Abbreviations for Type column: A=Adjustment, I=Improvement, R=Reduction, N/C=No Change, N=New Service

### 8.2.3 Committed Infrastructure Renewal Program Projects

The following section lists those committed projects that are proposed to be implemented during the FY 2014 – 2015 timeframe. These project commitments are based on an Infrastructure Renewal Program (IRP) evaluation and prioritization process as performed by MDT. The IRP process results in the identification, evaluation, prioritization, and programming of capital improvement projects. Project commitments are based on the IRP evaluation and prioritization process.

Table 8-4 presents a listing of the committed projects that are proposed for implementation during the FY 2014-2015 time period as provided by MDT. Please note that at the time the TDP Major Update was being prepared MDT had not finalized the IRP evaluation and prioritization process results for FY 2014 – 2015. Once these results are final the following table will be updated.

**Table 8-4: Proposed FY 2014 – 2015 IRP Projects for Budget Approval**

Classification	Project Name	FY 14 - 15
Treasury Services	Armored Trucks (4)	\$ 640,000
FESM	Uninterrupted Power Supplies - Mover	\$ 1,000,000
FESM	Traction Power Rectifier Transformer	\$ 380,000
FESM	Traction Power Switchgear Upgrade	\$ 1,500,000
FESM	Fare Collection Emerging Technology Enhancements and Regional Expansion	\$ 500,000
FESM	Replace Metromover Platform LCD Signs and SCU	\$ 710,243
FESM	Replace Dadeland North Parking Garage Space Count Sign	\$ 500,000
Information Technology	Metrorail Electronic Real-time Signage	\$ 644,407
Maintenance Facilities	Garage Fire Suppression	\$ 1,935,000
Rail Maintenance	Overhaul Metrorail Wheel turning Machine @ WLC	\$ 600,000
Rail Maintenance	Traction Power Crane Truck	\$ 100,000
Rail Maintenance	WLF Railcar Office Space Renovation	\$ 94,125
Rail Maintenance	Traction Power Three Reel Trailer	\$ 50,000
Rail Maintenance	Metrorail Maintenance Vehicles Lifts	\$ 2,700,000
ROW	Park and Ride at SW 168th Street and Busway	\$ 142,000
Systems	Rebuild Switch Machines (M-3) - Mainline	\$ 380,000
Track and Guideway	Inspection Vehicles for the MIC Extension	\$ 400,000
	<b>Total</b>	<b>\$ 12,275,775</b>

Source: Miami-Dade Transit, 2013.

### 8.3 Multi-Year Capital Improvement Plan (FY 2015 – FY 2024)

Annually, MDT prepares a proposed capital budget and a multi-year Capital Plan. Funded Metrorail and Metrobus projects identified within the Capital Plan are expected to be implemented within the ten year planning period. The Capital Improvement Plan for FY 2015-2024 is presented in Table 8-5. The escalation applied is specific to each project as related to project conditions and contractual agreements. Each selected project corresponds to a committed funding source and is consistent with the Miami-Dade MPO's FY 2014/15 – 2018/19 Transportation Improvement Program (TIP).

Funded projects are expected to be implemented within the next ten years for the Metrorail and Metrobus system. There are no planned service extensions or expansion of the existing Metromover system under consideration by MDT at this time or within the planning horizon of this TDP Major Update.

### 8.4 2024 Recommended Service Plan

The MDT Recommended Service Plan (RSP) serves as the needs plan for the MDT system. The 2024 RSP has been developed for the FY 2015-2024 TDP Major Update. Any future project recommended in this section for implementation is contingent upon Miami-Dade County receiving the appropriate federal, state and local funding for its implementation.

Some of the improvements and adjustments reflected in the 2024 RSP are identified under the PTP one-half percent sales surtax approved by voters on November 5, 2002. Most of the improvements listed in the RSP beyond 2014 were not included in the original PTP improvements list, but may be funded with future PTP surtax funds. These improvements were deemed to be the most pressing or requested by the community after the original PTP list was completed. This section addresses the four modes of transit as operated by MDT to include Metrobus, Metrorail, Metromover and Special Transportation Services.

**Table 8-5: MDT FY 2013-14 Adopted Budget and Multi-Year Capital Plan (\$000's)**

Project Name	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021	FY 2021 - 2022	FY 2022 - 2023	FY 2023 - 2024	TOTAL
Bus and Bus Facilities	\$ 109	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 109
Park and Ride lot SW 344th Street	\$ 954	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 954
Park and Ride lot Quail Roost Drive	\$ 1,030	\$ 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,040
High Cycle Switch Logic Control Cabinets (Mover)	\$ 1,660	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,660
Bus Replacement	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Pedestrian Overpass at University	\$ 1,218	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,218
Kendall Enhanced Bus Service	\$ 942	\$ 922	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,864
Infrastructure Renewal Plan (IRP)	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,500
East/West Corridor (SR 836 Express Enhanced Bus)	\$ 7,626	\$ 14,398	\$ 2,472	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,496
Northeast Transit Hub Enhancements	\$ 996	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 996
North Corridor Enhanced Bus (NW 27 Ave - NW 215 St to MIC)	\$ 6,462	\$ 40	\$ 8,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,602
Bike Locker Replacement at all Rail Stations	\$ 26	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26
Track and Guideway Rehabilitation	\$ 13,412	\$ 10,372	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ 51,784
Passenger Amenities and Transit Enhancements	\$ 484	\$ 489	\$ 494	\$ 499	\$ 504	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,470
Security and Safety Equipment	\$ 600	\$ 630	\$ 661	\$ 661	\$ 661	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,213
Park and Ride lot Kendall Drive	\$ 270	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270
Rail Vehicle Replacement	\$ 31,180	\$ 75,922	\$ 107,209	\$ 65,022	\$ 12,689	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 292,022
Central Control Overhaul	\$ 1,443	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,443
NW 7th Ave and NW 62nd St Passenger Activity Center	\$ 300	\$ 145	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 445
<b>Total</b>	<b>\$ 101,212</b>	<b>\$ 135,428</b>	<b>\$ 158,436</b>	<b>\$ 105,682</b>	<b>\$ 53,354</b>	<b>\$ 7,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 561,112</b>

Source: FY 2013-2014 Adopted Budget and Multi-Year Capital Plan, 2013.

#### 8.4.1 Recommended Service Plan – Existing Metrobus Routes

MDT is committed to provide a level of transit service that will provide efficient services to passengers throughout the Miami-Dade County service area. The provision of service is continuously considered while MDT seeks to properly address critical issues such as of generating revenue, managing operational budgets, and prioritizing capital expansion programs.

Since the TDP comprises part of MDT’s operational foundation for the future, the importance of “rightsizing” the RSP cannot be over emphasized. Therefore, the following details both improvements and adjustments to achieve MDT’s long term objectives.

Service route improvement and adjustment needs outlined in the RSP are proposed for implementation throughout the TDP ten year planning horizon of FY 2015-FY 2024. Table 8-6 provides a summary description of all bus service improvements, impact of additional buses on the peak vehicle requirements (PVR), annual operating need per improvement, and programming of transit improvements by fiscal years; and corresponding funding needs by fiscal year. The estimated total need for improvements to existing transit routes over this ten year planning horizon is approximately \$129 million (Table 8-6).

It should be noted that the service route improvements and adjustment needs outlined in the 2024 RSP are anticipated to change once the results of the Transit Service Evaluation Study – Phase 2 are finalized. This study results will identify a service plan that maximizes the efficiency and effectiveness of the Metrobus system. The final product will be a schedule-ready detailed plan which includes estimated impact on ridership, resources, and operating cost.

##### 8.4.1.1 Transit Center and Feeder Routes for Existing Routes

The 2024 RSP improvements to the existing transit routes also include the development of a regional transit center system. The current bus system generally operates on a modified grid pattern to provide feeder services to Metrorail and Metromover stations. Under the modified grid, bus routes serve their respective corridors and Metrorail stations, but also provide connections to various routes within the general service area at a single location or transit center.

Fourteen (14) transit centers are proposed throughout Miami-Dade County. Passenger amenities are planned for these locations to provide transit riders the ability to purchase transit passes, obtain transit schedule information, shelters with weather protection and benches, etc. Some of these proposed transit centers already serve these functions (i.e., Dadeland station) while other centers continue to remain in the conceptual planning phase. Overall, the Downtown Intermodal Terminal and the Northeast Transit Hub Enhancements (NETHE) have the highest number of proposed routes, with twenty-four and twelve routes planned respectively.

Table 8-7 provides a list of the transit centers and planned route connections. These centers are also illustrated in Figure 8-1. In addition to those listed many other areas serve as transit centers such as Metrorail stations as well as the Metromover Omni Station.



**Table 8-6: 2015 – 2024 Recommended Service Plan Summary for Existing Routes (2024)**

Route	Change Description	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
A (101)	No planned improvements.																				
B (102)	No planned improvements.																				
C (103)	No planned improvements.																				
E (105)	No planned improvements.																				
G (107)	No planned improvements.																				
H (108)	No planned improvements.																				
J (110)	Improve peak headway from 20 to 10 minutes. Improve weekend headway from 30 to 15 minutes											\$2,360,000	5	\$2,360,000		\$2,360,000		\$2,360,000		\$2,360,000	
L (112)	No planned improvements.																				
M (113)	No planned improvements.																				
S (119)	No planned improvements.																				
1	Extend Route to Dadeland South Metrorail Station during weekday peak periods											\$880,000	3	\$880,000		\$880,000		\$880,000		\$880,000	
2	No planned improvements.																				
3	No planned improvements. Replace 8 of the 13 vehicles with new articulated vehicles			\$0	(8)									\$0	(5) A						
				\$0	8A									\$0	5						
6	No planned improvements.																				
7	No planned improvements.																				
8	No planned improvements.																				
9	No planned improvements.																				
10	Extend Route to Aventura Mall													\$1,400,000	1	\$1,400,000		\$1,400,000		\$1,400,000	
11	No planned improvements.																				
12	Improve peak headway 30 to 15 minutes/weekend from 40 to 20 minutes											\$3,000,000	5	\$3,000,000		\$3,000,000		\$3,000,000		\$3,000,000	
16	No planned improvements.																				
17	Extend to Golden Glades Multimodal Terminal											\$1,250,000	1	\$1,250,000		\$1,250,000		\$1,250,000		\$1,250,000	
19	No planned improvements.																				
21	No planned improvements.																				
22	No planned improvements.																				

**Table 8-6: 2014 – 2023 Recommended Service Plan Summary for Existing Routes (2024) (continued)**

Route	Change Description	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
24	No planned improvements.																				
27	Extend route to new Park & Ride at NW 215 <sup>th</sup> Street									\$0	0										
29	No planned improvements.																				
31 (Busway Local)	No planned improvements.																				
32	No planned improvements.																				
33	Extend route to Flagler Station									\$300,000	1	\$300,000		\$300,000		\$300,000		\$300,000		\$300,000	
34 (Busway Flyer)	No planned improvements.																				
35	No planned improvements.																				
36	No planned improvements.																				
37	No planned improvements.																				
38 (Busway MAX)	Improve peak headway from 12 to 10 minutes.	\$500,000	1	\$500,000		\$500,000		\$500,000		\$500,000		\$500,000		\$500,000		\$500,000		\$500,000		\$500,000	
	Replace 12 fleet vehicles with 14 new articulated vehicles.				14A (12)																
40	No planned improvements.																				
42	No planned improvements.																				
46 (Liberty City)	No planned improvements.																				
48	No planned improvements.																				
51 (Flagler)	Route to be transformed to													(\$2,975,000)							
52	No planned improvements.																				
54	No planned improvements.																				
56	No planned improvements.																				
57	No planned improvements.																				
62	No planned improvements.																				
70	No planned improvements.																				
71	No planned improvements.																				
72	No planned improvements.																				
73	No planned improvements.																				
75	No planned improvements.																				

**Table 8-6: 2014 – 2023 Recommended Service Plan Summary for Existing Routes (2024) (continued)**

Route	Change Description	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
77	No planned improvements.																				
79 (79 Street MAX)	Extend Route to South Beach. Headways improve 24 to 10 minutes. Introduce weekend service with 15 minute headways											\$5,800,000	8	\$5,800,000		\$5,800,000		\$5,800,000		\$5,800,000	
87	Extend route to Flagler Station									\$400,000	1	\$400,000		\$400,000		\$400,000		\$400,000		\$400,000	
88	No planned improvements.																				
93 (Biscayne MAX)	Route to be transformed to Biscayne Enhanced Bus. (See New Routes Table)				(10)									(\$2,800,000)	(10) A						
	Replace 10 fleet vehicles with 10 new articulated vehicles			\$0	10A																
95X	No planned improvements.																				
99	No planned improvements.																				
104	No planned improvements.																				
115 (Mid-Beach Local)	No planned improvements.																				
117 (North-Beach Local)	No planned improvements.																				
120 (Beach MAX)	Improve Peak hadways from 12 to 7 minutes											\$8,070,000	12	\$8,070,000		\$8,070,000		\$8,070,000		\$8,070,000	
123 (South Beach Local)	No planned improvements.																				
132 (Tri-Rail Doral Shuttle)	No planned improvements.																				
135	No planned improvements.																				
136	No planned improvements.																				
137 (West Dade Connection)	No planned improvements.																				
150 (Miami Beach Airport Flyer)	Improve peak headway from 30 to 20 minutes	\$1,695,000	2	\$1,695,000		\$1,695,000		\$1,695,000		\$1,695,000		\$1,695,000		\$1,695,000		\$1,695,000		\$1,695,000		\$1,695,000	
183 Local	No planned improvements.																				
195 (I-95 Dade Broward Express)	No planned improvements.																				
200 Cutler Bay Local	Add Saturday service. Improvement cost to paid for by the Town of Cutler Bay- (\$60,000)	\$0	0																		

**Table 8-6: 2015 – 2024 Recommended Service Plan Summary for Existing Routes (2024) (continued)**

Route	Change Description	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
202 (Little Haiti Connection)	No planned improvements.																				
204 (Killian KAT)	No planned improvements.																				
207 (Little Havana Circulator)	No planned improvements.																				
208	No planned improvements.																				
211 (Overtown Circulator)	No planned improvements.																				
212	No planned improvements.																				
238 (East-West Connection)	No planned improvements.																				
246 (Night Owl)	No planned improvements.																				
249 (Coconut Grove Circulator)	No planned improvements.																				
252 (Coral Reef MAX)	Operate later evening service into the Zoo Miami Entertainment complex.															\$80,000	0	\$80,000		\$80,000	
254 (Brownsville Circulator)	No planned improvements.																				
267 (Ludlam Limited)	No planned improvements.																				
272 (Sunset KAT)	No planned improvements.																				
277 (7th Avenue MAX)	No planned improvements.																				
286 North Pointe Circulator	No planned improvements.																				
287 (Saga Bay MAX)	No planned improvements.																				
288 (Kendall Cruiser)	Convert to Kendall EBS																	(\$1,500,000)	(9) A		
297 (Orange MAX)	Route to be transformed to 27 <sup>th</sup> Avenue Enhanced Bus.									(\$2,400,000)	(9)										

**Table 8-6: 2015 – 2024 Recommended Service Plan Summary for Existing Routes (2024) (continued)**

Route	Change Description	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
301	No planned improvements.																				
302	No planned improvements.																				
344	No planned improvements.																				
500 (Midnight Owl)	No planned improvements.																				
<b>INCREMENTAL TOTALS</b>		<b>\$2,195,000</b>	<b>3</b>	<b>\$2,195,000</b>	<b>2</b>	<b>\$2,195,000</b>	<b>0</b>	<b>\$2,195,000</b>	<b>0</b>	<b>\$495,000</b>	<b>(7)</b>	<b>\$24,255,000</b>	<b>34</b>	<b>\$19,880,000</b>	<b>(19)</b>	<b>\$25,735,000</b>	<b>0</b>	<b>\$24,235,000</b>	<b>(9)</b>	<b>\$25,735,000</b>	<b>0</b>
<b>(ARTICULATED)</b>			<b>0</b>		<b>32</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>(15)</b>		<b>0</b>		<b>(9)</b>		<b>0</b>
<b>(FULL SIZE BUSES)</b>			<b>3</b>		<b>(30)</b>		<b>0</b>		<b>0</b>		<b>(7)</b>		<b>34</b>		<b>(4)</b>		<b>0</b>		<b>0</b>		<b>0</b>
<b>CUMULATIVE TOTALS</b>		<b>\$2,195,000</b>	<b>3</b>	<b>\$4,390,000</b>	<b>5</b>	<b>\$6,585,000</b>	<b>5</b>	<b>\$8,780,000</b>	<b>5</b>	<b>\$9,275,000</b>	<b>(2)</b>	<b>\$33,530,000</b>	<b>32</b>	<b>\$53,410,000</b>	<b>13</b>	<b>\$79,145,000</b>	<b>13</b>	<b>\$103,380,000</b>	<b>4</b>	<b>\$129,115,000</b>	<b>4</b>
<b>(ARTICULATED)</b>			<b>0</b>		<b>32</b>		<b>32</b>		<b>32</b>		<b>32</b>		<b>32</b>		<b>17</b>		<b>17</b>		<b>8</b>		<b>8</b>
<b>(FULL SIZE BUSES)</b>			<b>3</b>		<b>(27)</b>		<b>(27)</b>		<b>(27)</b>		<b>(34)</b>		<b>0</b>		<b>(4)</b>		<b>(4)</b>		<b>(4)</b>		<b>(4)</b>

Source: Miami-Dade Transit, 2013.

Note: Improvement cost estimates are based on 2013 cost factors and do not account for inflation.

 Green shading indicates buses are funded.



**Table 8-7: Future Transit Center Locations and Feeder Routes for Existing Bus Routes**

TRANSIT CENTERS	ROUTES																		
	A	B	C	E	G	H	J	L	M	S	1	2	3	6	7	8	9	1	
Downtown Intermodal Terminal																			
Dadeland South Intermodal Station																			
Northeast Transit Hub Enhancements (NETHE) Aventura Mall																			
Northeast Transit Hub Enhancements (NETHE) Mall at NE 163rd St																			
Miami Intermodal Center (MIC)																			
Dolphin Station (HEFT at NW 12th Street)																			
South Miami-Dade Busway at SW 344th Street																			
Unity Station (NW 27th Avenue and NW 215th Street)																			
Tamiami Station (SW 147th Avenue and SW 8th Street)																			
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)																			
Golden Glades Multimodal Terminal																			
Palmetto Intermodal Terminal																			
Biscayne Landings (NE 151st Street and Biscayne Blvd.)																			
Mount Sinai Intermodal Terminal																			
Panther Station FIU Modesto A. Maidique Campus																			
Sharks North Station at MDC																			
Sharks South Station at MDC																			
Civic Center Station (NW 15th Street and NW 12 Avenue)																			
Brickell Station (SW 11th Street and SW 1st Avenue)																			
Americas Station (W Flagler Street and NW 77th Avenue)																			
Southland Mall (SW 205th Street and South Dixie Highway)																			

TRANSIT CENTERS	ROUTES																		
	11	12	16	17	19	21	22	24	27	29	31*	32	33	34*	35	36	37	38*	
Downtown Intermodal Terminal																			
Dadeland South Intermodal Station																			
Northeast Transit Hub Enhancements (NETHE) Aventura Mall																			
Northeast Transit Hub Enhancements (NETHE) Mall at NE 163rd St																			
Miami Intermodal Center (MIC)																			
Dolphin Station (HEFT at NW 12th Street)																			
South Miami-Dade Busway at SW 344th Street																			
Unity Station (NW 27th Avenue and NW 215th Street)																			
Tamiami Station (SW 147th Avenue and SW 8th Street)																			
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)																			
Golden Glades Multimodal Terminal																			
Palmetto Intermodal Terminal																			
Biscayne Landings (NE 151st Street and Biscayne Blvd.)																			
Mount Sinai Intermodal Terminal																			
Panther Station (FIU-MMC)																			
Sharks North Station at MDC																			
Sharks South Station at MDC																			
Civic Center Station (NW 15th Street and NW 12 Avenue)																			
Brickell Station (SW 11th Street and SW 1st Avenue)																			
Americas Station (W Flagler Street and NW 77th Avenue)																			
Southland Mall (SW 205th Street and South Dixie Highway)																			

**Table 8-7 Future Transit Center Locations and Feeder Routes for Existing Bus Routes (continued)**

TRANSIT CENTERS	ROUTES																	
	40	42	46*	48	51*	52	54	56	57	62	70	71	72	73	75	77	79	
Downtown Intermodal Terminal																		
Dadeland South Intermodal Station																		
Northeast Transit Hub Enhancements (NETHE) Aventura Mall																		
Northeast Transit Hub Enhancements (NETHE) Mall at NE 163rd St																		
Miami Intermodal Center (MIC)																		
Dolphin Station (HEFT at NW 12th Street)																		
South Miami-Dade Busway at SW 344th Street																		
Unity Station (NW 27th Avenue and NW 215th Street)																		
Tamiami Station (SW 147th Avenue and SW 8th Street)																		
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)																		
Golden Glades Multimodal Terminal																		
Palmetto Intermodal Terminal																		
Biscayne Landings (NE 151st Street and Biscayne Blvd.)																		
Mount Sinai Intermodal Terminal																		
Panther Station (FIU-MMC)																		
Sharks North Station at MDC																		
Sharks South Station at MDC																		
Civic Center Station (NW 15th Street and NW 12 Avenue)																		
Brickell Station (SW 11th Street and SW 1st Avenue)																		
Americas Station (W Flagler Street and NW 77th Avenue)																		
Southland Mall (SW 205th Street and South Dixie Highway)																		

TRANSIT CENTERS	ROUTES																	
	87	88	93*	95*	99	104	115*	117*	120*	123*	132*	133*	135	136	137*	150*	183*	195*
Downtown Intermodal Terminal																		
Dadeland South Intermodal Station																		
Northeast Transit Hub Enhancements (NETHE) Aventura Mall																		
Northeast Transit Hub Enhancements (NETHE) Mall at NE 163rd St																		
Miami Intermodal Center (MIC)																		
Dolphin Station (HEFT at NW 12th Street)																		
South Miami-Dade Busway at SW 344th Street																		
Unity Station (NW 27th Avenue and NW 215th Street)																		
Tamiami Station (SW 147th Avenue and SW 8th Street)																		
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)																		
Golden Glades Multimodal Terminal																		
Palmetto Intermodal Terminal																		
Biscayne Landings (NE 151st Street and Biscayne Blvd.)																		
Mount Sinai Intermodal Terminal																		
Panther Station (FIU-MMC)																		
Sharks North Station at MDC																		
Sharks South Station at MDC																		
Civic Center Station (NW 15th Street and NW 12 Avenue)																		
Brickell Station (SW 11th Street and SW 1st Avenue)																		
Americas Station (W Flagler Street and NW 77th Avenue)																		
Southland Mall (SW 205th Street and South Dixie Highway)																		

**Table 8-7 Future Transit Center Locations and Feeder Routes for Existing Bus Routes (continued)**

TRANSIT CENTERS	ROUTES															
	200*	202*	204*	207*	208*	211*	212*	238*	243*	246*	249*	252*	254*	267*	272*	277*
Downtown Intermodal Terminal																
Dadeland South Intermodal Station																
Northeast Transit Hub Enhancements (NETHE) Aventura Mall																
Northeast Transit Hub Enhancements (NETHE) Mall at NE 163rd St																
Miami Intermodal Center (MIC)																
Dolphin Station (HEFT at NW 12th Street)																
South Miami-Dade Busway at SW 344th Street																
Unity Station (NW 27th Avenue and NW 215th Street)																
Tamiami Station (SW 147th Avenue and SW 8th Street)																
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)																
Golden Glades Multimodal Terminal																
Palmetto Intermodal Terminal																
Biscayne Landings (NE 151st Street and Biscayne Blvd.)																
Mount Sinai Intermodal Terminal																
Panther Station (FIU-MMC)																
Sharks North Station at MDC																
Sharks South Station at MDC																
Civic Center Station (NW 15th Street and NW 12 Avenue)																
Brickell Station (SW 11th Street and SW 1st Avenue)																
Americas Station (W Flagler Street and NW 77th Avenue)																
Southland Mall (SW 205th Street and South Dixie Highway)																

TRANSIT CENTERS	ROUTES					
	288*	297*	301*	302*	344	500*
Downtown Intermodal Terminal						
Dadeland South Intermodal Station						
Northeast Transit Hub Enhancements (NETHE) Aventura Mall						
Northeast Transit Hub Enhancements (NETHE) Mall at NE 163rd St						
Miami Intermodal Center (MIC)						
Dolphin Station (HEFT at NW 12th Street)						
South Miami-Dade Busway at SW 344th Street						
Unity Station (NW 27th Avenue and NW 215th Street)						
Tamiami Station (SW 147th Avenue and SW 8th Street)						
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)						
Golden Glades Multimodal Terminal						
Palmetto Intermodal Terminal						
Biscayne Landings (NE 151st Street and Biscayne Blvd.)						
Mount Sinai Intermodal Terminal						
Panther Station (FIU-MMC)						
Sharks North Station at MDC						
Sharks South Station at MDC						
Civic Center Station (NW 15th Street and NW 12 Avenue)						
Brickell Station (SW 11th Street and SW 1st Avenue)						
Americas Station (W Flagler Street and NW 77th Avenue)						
Southland Mall (SW 205th Street and South Dixie Highway)						

Source: Miami-Dade Transit, 2013.

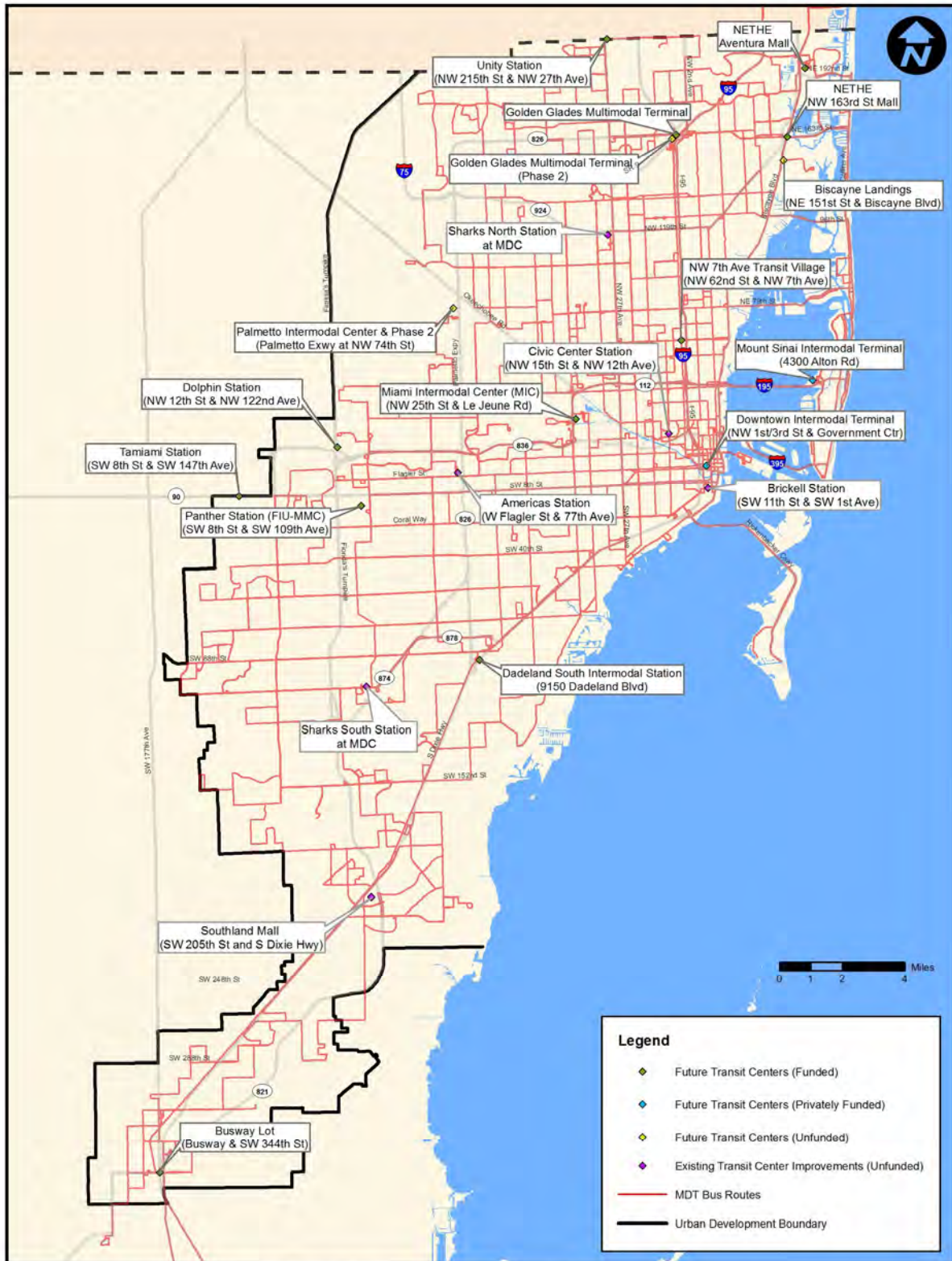
**\*ROUTE DESCRIPTIONS**

Route 31: Busway Local  
 Route 34: Busway Flyer  
 Route 38: Busway Max  
 Route 46: Liberty City Connection  
 Route 51: Flagler MAX  
 Route 79: 79 Street MAX  
 Route 93: Biscayne MAX  
 Route 95: Golden Glades Express  
 Route 115: Mid-North Beach Connection (CW)  
 Route 117: Mid-North Beach Connection (CCW)  
 Route 120: Beach MAX  
 Route 123: South Beach Local  
 Route 132: Doral/Tri-Rail Shuttle  
 Route 133: Airport/Tri-Rail Shuttle

Route 137: West Dade Connection  
 Route 150: Miami Beach Airport Flyer  
 Route 183: 183 Street Local  
 Route 195: Dade-Broward Express  
 Route 200: Cutler Bay Local  
 Route 202: Little Haiti Connection  
 Route 204: Killian KAT  
 Route 207: Little Havana Connection (CW)  
 Route 208: Little Havana Connection (CCW)  
 Route 211: Overtown Circulator  
 Route 212: Sweetwater Circulator  
 Route 238: East-West Connection/Weekend Express  
 Route 243: Seaport Connection  
 Route 246: Night Owl

Route 249: Coconut Grove Circulator  
 Route 252: Coral Reef MAX  
 Route 254: Brownsville Circulator  
 Route 267: Ludlam Limited  
 Route 272: Sunset KAT  
 Route 277: 7 Avenue MAX  
 Route 286: North Pointe Circulator  
 Route 287: Saga Bay MAX  
 Route 288: Kendall Cruiser  
 Route 297: 27 Avenue Orange MAX  
 Route 301: Dade Monroe Express  
 Route 302: Card Sound Express  
 Route 500: Midnight Owl

**Figure 8-1: Transit Center Locations and Feeder Routes for Existing Bus Routes**



Transit Center Locations and Feeder Routes. Source: Miami-Dade Transit, December 2013



#### 8.4.2 Recommended Service Plan – New Metrobus Routes

Eleven (11) new transit routes have been proposed under the 2024 RSP to replace old existing routes or add new service (Table 8-8). The table presents the proposed new transit routes with associated service levels, peak vehicle requirements for buses, annual operating funding needs, and proposed implementation schedule. The preliminary programming of these routes was conducted in a systematic and regional approach based on coordination with major transit capital projects. These new routes represent MDT's response to citizens' request for additional enhanced bus service throughout Miami-Dade County. These new transit routes are also illustrated in Figure 8-2.

- **195-BC Express Broward Boulevard to Civic Center:** This route would provide express commuter transit service between the Fort Lauderdale Tri-Rail Station located at Broward Boulevard in Broward County and the Civic Center Metrorail Station in Miami-Dade County via I-95. Service headways will be 30 minutes during the AM/PM peak-hour. Revenue service is anticipated to begin in 2015 using four (4) new commuter coach buses.
- **195-SC Express Sheridan Street to Civic Center:** This route would provide express commuter transit service between the Sheridan Street Tri-Rail Station in Broward County and the Civic Center Metrorail Station in Miami-Dade County via I-95. Service headways will be 30 minutes during the AM/PM peak-hour. Revenue service is anticipated to begin in 2015 using three (3) new commuter coach buses.
- **Palmetto Express Bus (Palmetto Corridor):** This route would provide express commuter transit service between the MDT's existing park-and-ride lot at Miami Gardens Drive and NW 73<sup>rd</sup> Avenue to the Palmetto Metrorail Station via SR 826. Service headways will be 15 minutes during the AM/PM peak-hour. Implementation of this new route will coincide with the opening of the I-75 Express Lanes which are scheduled to open in late 2017. Revenue service is anticipated to begin in 2018 using five (5) new commuter coach buses.
- **295 Express Bus:** This route would provide express commuter transit service between the Miami-Dade/Broward County Line (NW 215<sup>th</sup> Street and NW 27<sup>th</sup> Avenue) and Downtown Miami via the Turnpike and I-95. Service headways will be 15 minutes during the AM/PM peak-hour. Revenue service is anticipated to begin in 2019 using six (6) new commuter coach buses.
- **NW 27<sup>th</sup> Avenue Enhanced Bus Service (North Corridor):** This route would provide premium limited-stop transit service along the NW 27<sup>th</sup> Avenue corridor from the Miami-Dade/Broward County Line (NW 215<sup>th</sup> Street and NW 27<sup>th</sup> Avenue) to the MIC. A park-and-ride/transit center station is proposed at the northern terminus of the route at NW 215<sup>th</sup> Street. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day. Revenue service is anticipated to begin in 2019 using 11 new 60-foot alternative fuel buses.
- **SR 836 Express Bus (East-West Corridor):** This route would provide premium express transit service along SR 836 from west Miami-Dade County (SW 8<sup>th</sup> Street and SW 147<sup>th</sup> Avenue) to the Miami Intermodal Center (MIC) via SW 137<sup>th</sup> Avenue/SR 836 Extension as well as via the Homestead Extension of the Florida Turnpike (HEFT). This route will feature two legs. The first leg will serve the proposed Tamiami Station (park-and-ride/transit center station located at SW 8<sup>th</sup> Street and SW 147<sup>th</sup> Avenue), the proposed Dolphin Station (NW 12<sup>th</sup> Street and

HEFT) and the MIC via the SW 137<sup>th</sup> Avenue/SR 836 Extension. The second leg will serve the proposed Tamiami Station, the proposed Panther Station (Florida International University's Modesto A. Maidique Campus (MMC), the proposed Dolphin Station, and the MIC via the HEFT. Service headways will be 10 minutes during the AM/PM peak-hour. The planned long-term improvements for this route will be completed by 2019 using 11 new 60-foot alternative fuel buses.

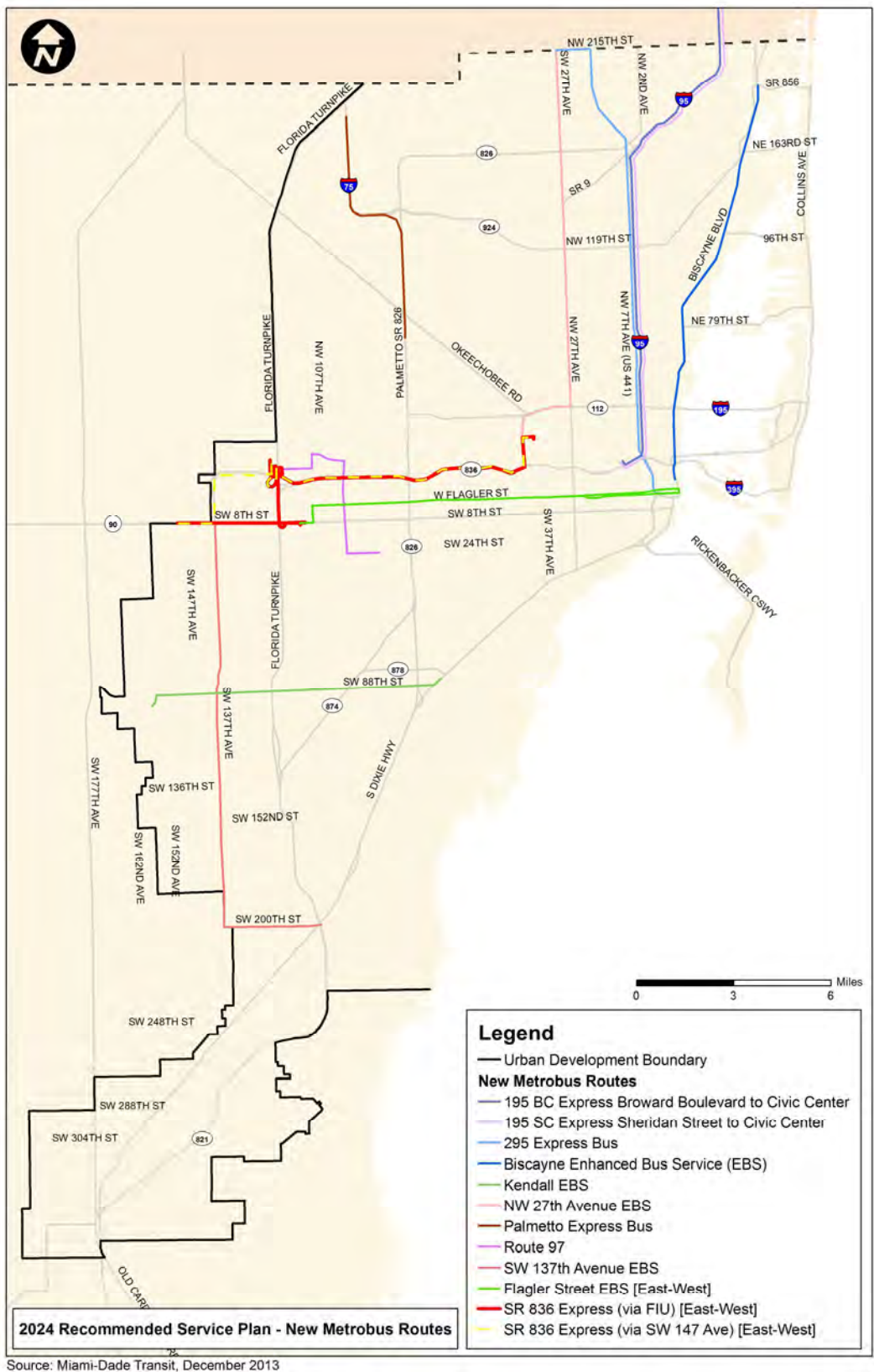
- **Flagler Enhanced Bus Service (East-West Corridor):** This route will provide premium limited-stop transit service along Flagler Street from Downtown Miami to the proposed Panther Station (Florida International University's Modesto A. Maidique Campus – MMC). This service will connect the new Marlins Ballpark along NW 7<sup>th</sup> Street as well as serve the Government Center Metrorail Station, Miami-Dade College Wolfson Campus, American Airlines Arena, the Metropolitan Hospital, the Magic City Casino and Mall of the Americas. In addition, this route will serve Florida International University's Engineering Campus (EC). Service headways will be 10 minutes during the AM/PM peak hour and 20 minutes during the mid-day. Revenue service is anticipated to begin in 2021 using 10 new 60-foot alternative fuel buses.
- **Biscayne Enhanced Bus Service (Northeast Corridor):** This route will provide premium limited-stop transit service along Biscayne Boulevard/US-1 from Downtown Miami to Aventura Mall. This route provides service to the Adrienne Arsht Performing Arts Center, and a direct connection to Little Haiti, Miami Shores, North Miami and North Miami Beach. Service headways will be 15 minutes during the AM/PM peak-hour and 30 minutes during the mid-day. Revenue service is anticipated to begin in 2016 using 10 new 60-foot alternative fuel buses. The bus purchase component is considered Phase I for this corridor.

The Miami-Dade MPO in cooperation with MDT developed a detailed plan for the staged implementation of Bus Rapid Transit (BRT) along Biscayne Boulevard. This EBS route will feature robust stations, WiFi, real-time "Where is the Bus?" arrival times via the internet or on web-enabled mobile devices, real-time "Next Bus" arrival information via electronic signs, Transit Signal Priority (TSP), and Park-and-Rides. Phase II for the Biscayne Enhanced Bus Service project will feature 10 minute service headways during the AM/PM peak-hour and 20 minutes during the mid-day using an additional five (5) new 60-foot alternative fuel buses. Phase II is expected to be completed by 2021.

- **Kendall Enhanced Bus Service (Kendall Corridor):** Miami-Dade Transit is pursuing incremental improvements along Kendall Drive (SW 88<sup>th</sup> Street) from the West Kendall Transit Center at Kendall Town Center (Kendall Drive and SW 162<sup>nd</sup> Avenue) to the Dadeland North Metrorail Station. Phase I was completed in 2010 with the implementation of Route 288 (Kendall Cruiser) which features 12 minute peak-hour headways using 60-foot diesel/electric hybrid buses, WiFi, and real-time "Where is the Bus?" information. Phase II is expected to be complete in 2023. Phase II service headways will be 10 minutes during the AM/PM peak-hour using nine (9) 60-foot alternative fuel buses. This phase consists of robust stations, queue jump and by-pass lanes, transit signal priority, and real-time "Next Bus" arrival information via electronic signs at the stations.

- **SW 137th Avenue Enhanced Bus Service:** This route will provide premium limited-stop transit service along SW 137<sup>th</sup> Avenue from MDT's proposed Tamiami Station (park-and-ride/transit center station located at SW 8<sup>th</sup> Street and SW 147<sup>th</sup> Avenue) to MDT's proposed park-and-ride lot located at SW 200 Street (Caribbean Blvd.) and the Busway. This enhanced bus project will feature strategic park-and-ride locations. In addition, this route provides a premium north-south transit connection for the West Kendall area connecting several residential areas with large shopping centers, which include Kendale Lakes Mall, Miller Square and London Square. In 2007, the Miami-Dade Metropolitan Planning Organization conducted a study of potential transit service improvements in the Kendall area. Bus rapid transit (BRT) service on SW 137<sup>th</sup> Avenue was one of the recommendations made in that study. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day. Revenue service is anticipated to begin in 2023 using nine (9) new standard 40-foot buses.
- **Route 97:** This route will connect major retail centers in Westchester and the Cities of Sweetwater and Doral. This route will provide local transit service along NW/SW 97<sup>th</sup> Avenue from the Walmart located at the intersection of SW 24<sup>th</sup> Street (Coral Way) and SW 87<sup>th</sup> Avenue to International Mall (City of Doral) and Dolphin Mall (City of Sweetwater). Service headways will be 45 minutes during weekdays only, for eight hours daily. Revenue service is anticipated to begin in 2016 using 2 existing fleet buses.

Figure 8-2: 2024 Recommended Service Plan – New Metrobus Routes



**Table 8-8: 2015 – 2024 Recommended Service Plan New Routes Description**

New Route	Description	Headways			2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Peak	Mid Day	Week End	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
295 Express Bus	This route would provide express commuter transit service between the Miami-Dade/Broward County Line (NW 215 <sup>th</sup> Street and NW 27 <sup>th</sup> Avenue) and Downtown Miami via the Turnpike and I-95.	15	N/S	N/S									\$1,184,000	6C	\$1,184,000		\$1,184,000		\$1,184,000		\$1,184,000		\$1,184,000	
Palmetto Express Bus	This route would provide express commuter transit service between MDT's existing park-and-ride lot at Miami Gardens Drive and NW 73 <sup>rd</sup> Avenue to the Palmetto Metrorail Station via SR 826.	15	N/S	N/S							\$987,000	5C	\$987,000		\$987,000		\$987,000		\$987,000		\$987,000		\$987,000	
195-BC - Broward Blvd. to Civic Center	This route would provide express commuter transit service between the Ft. Lauderdale Tri-Rail Station located at Broward Boulevard in Broward County and the Civic Center Metrorail Station in Miami-Dade County via I-95.	30	N/S	N/S	\$781,440	4C	\$781,440		\$781,440		\$781,440		\$781,440		\$781,440		\$781,440		\$781,440		\$781,440		\$781,440	
195- SC- Sheridan Street to Civic Center	This route would provide express commuter transit service between the Sheridan Street Tri-Rail Station in Broward County and the Civic Center Metrorail Station in Miami-Dade County via I-95.	30	N/S	N/S	\$592,000	3C	\$592,000		\$592,000		\$592,000		\$592,000		\$592,000		\$592,000		\$592,000		\$592,000		\$592,000	
Kendall Enhanced Bus Service	Phase 2 service improvements will consist of robust stations, queue jump lanes and bypass lanes, transit signal priority and real-time "Where is the Bus?" arrival information via electronic signs at the stations.	10	N/S	N/S																\$2,000,000	9A	\$2,000,000		
Route 97	This route will provide local transit service along NW/SW 97 <sup>th</sup> Avenue from SW 24 <sup>th</sup> Street and SW 87 <sup>th</sup> Avenue to International Mall and Dolphin Mall.	45	45	N/S			\$400,000	2	\$400,000		\$400,000		\$400,000		\$400,000		\$400,000		\$400,000		\$400,000		\$400,000	
SW 137 <sup>th</sup> Avenue Enhanced Bus Service	This route will provide premium limited-stop transit service along SW 137 <sup>th</sup> Avenue from MDT's proposed Tamiami Station (park-and-ride/transit terminal station located at SW 8 <sup>th</sup> Street and SW 147 <sup>th</sup> Avenue) to MDT's proposed park-and-ride lot located at SW 200 <sup>th</sup> Street (Caribbean Blvd.) and the Busway.	10	20	N/S																\$2,763,000	9	\$2,763,000		



**Table 8-8: 2015 – 2024 Recommended Service Plan New Routes Description (continued)**

New Route	Description	Headways			2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
		Peak	Mid Day	Week End	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR	Cost	PVR
Biscayne Enhanced Bus Service	Phase 2 service to be implemented which will feature robust stations, WiFi, real-time "Where is the Bus?" arrival times via the internet or on web-enabled mobile devices, real-time "Next Bus" arrival information via electronic signs, Transit Signal Priority (TSP), and park-and-rides.	10	20	N/S													\$3,900,000	15A	\$3,900,000		\$3,900,000		\$3,900,000	
NW 27 <sup>th</sup> Avenue Enhanced Bus Service	This route will provide premium limited-stop transit service along the NW 27 <sup>th</sup> Avenue corridor from the Miami-Dade/Broward County Line (NW 215 <sup>th</sup> Street and NW 27 <sup>th</sup> Avenue) to the MIC. (Phase 2)	10	20	N/S									\$3,200,000	11A	\$3,200,000		\$3,200,000		\$3,200,000		\$3,200,000		\$3,200,000	
SR 836 Express Bus	This route will provide premium express transit service along SR 836 and SW 8 <sup>th</sup> Street East-West corridor from Tamiami Station (park-and-ride/transit terminal station located at SW 8 <sup>th</sup> Street and SW 147 <sup>th</sup> Avenue) to the MIC via HEFT and SR 836/SW 137 <sup>th</sup> Avenue (Two legs).	10	N/S	N/S									\$2,400,000	11A	\$2,400,000		\$2,400,000		\$2,400,000		\$2,400,000		\$2,400,000	
Flagler Enhanced Bus Service	This route will provide premium limited-stop transit service along Flagler Street from Downtown Miami to Panther Station (Florida International University Modesto A. Maidique Campus (MMC).	10	20	N/S													\$3,600,000	10A	\$3,600,000		\$3,600,000		\$3,600,000	
<b>INCREMENTAL TOTALS</b>					\$1,373,440	7	\$1,773,440	2	\$1,773,440	0	\$2,760,440	5	\$9,544,440	28	\$9,544,440	0	\$17,044,440	25	\$17,044,440	0	\$21,807,440	18	\$21,807,440	0
(ARTICS)						0		0		0		0		22		0		25		0		9		0
(COMMUTER COACH BUSES)						7		0		0		5		6		0		0		0		0		0
(FULL SIZE BUSES)						0		2		0		0		0		0		0		0		9		0
<b>CUMULATIVE TOTALS</b>					\$1,373,440	7	\$3,146,880	9	\$4,920,320	9	\$7,680,760	14	\$17,225,200	42	\$26,769,640	42	\$43,814,080	67	\$60,858,520	67	\$82,665,960	85	\$104,473,400	85
(ARTICS)						0		0		0		0		22		22		47		47		56		56
(COMMUTER COACH BUSES)						7		7		7		12		18		18		18		18		18		18
(FULL SIZE BUSES)						0		2		2		2		2		2		2		2		11		11

Source: Miami-Dade Transit, 2013.

Note: Improvement cost estimates are based on 2013 cost factors and do not account for inflation.

 Green shading indicates buses are funded.

#### 8.4.2.1 Transit Centers and Feeder Routes for New Metrobus Routes

The 2024 RSP provided that 14 transit centers were proposed for implementation in locations throughout Miami-Dade County. As a result, these new bus routes would serve local corridors and stations, while also providing connecting service to transit centers. provides a summary overview of the new routes that have been added to provide additional service to identified transit center locations.

**Table 8-9: Future Transit Center Locations and Feeder Routes for New Metrobus Routes**

TRANSIT CENTERS	ROUTES					
	195- BC - Broward Blvd. to Civic Center	195- SC - Sheridan Street to Civic Center	Palmetto Express Bus	295 Express Bus	NW 27th Avenue Enhanced Bus Service	SR 836 Express Bus
Downtown Intermodal Terminal						
Dadeland South Intermodal Station						
Northeast Transit Hub Enhancements (NETHE) Mall at 163rd St						
Miami Intermodal Center (MIC)						
Dolphin Station (HEFT at NW 12th Street)						
South Miami-Dade Busway at SW 344th Street						
Unity Station (NW 27th Avenue and NW 215th Street)						
Tamiami Station (SW 147th Avenue and SW 8th Street)						
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)						
Golden Glades Multimodal Terminal						
Palmetto Intermodal Terminal						
Biscayne Landings (NE 151st Street and Biscayne Blvd.)						
Mount Sinai Intermodal Terminal						
Panther Station (FIU-MMC)						
Sharks North Station at MDC						
Sharks South Station at MDC						
Civic Center Station (NW 15th Street and NW 12 Avenue)						
Brickell Station (SW 11th Street and SW 1st Avenue)						
Americas Station (W Flagler Street and NW 77th Avenue)						
Southland Mall (SW 205th Street and South Dixie Highway)						

TRANSIT CENTERS	ROUTES					
	Flagler Enhanced Bus Service	Biscayne Enhanced Bus Service	Kendall Enhanced Bus Service	SW 137th Avenue Enhanced Bus Service	Route 97	
Downtown Intermodal Terminal						
Dadeland South Intermodal Station						
Northeast Transit Hub Enhancements (NETHE) Mall at 163rd St						
Miami Intermodal Center (MIC)						
Dolphin Station (HEFT at NW 12th Street)						
South Miami-Dade Busway at SW 344th Street						
Unity Station (NW 27th Avenue and NW 215th Street)						
Tamiami Station (SW 147th Avenue and SW 8th Street)						
NW 7th Ave Transit Village (NW 7th Ave and NW 62nd St)						
Golden Glades Multimodal Terminal						
Palmetto Intermodal Terminal						
Biscayne Landings (NE 151st Street and Biscayne Blvd.)						
Mount Sinai Intermodal Terminal						
Panther Station (FIU-MMC)						
Sharks North Station at MDC						
Sharks South Station at MDC						
Civic Center Station (NW 15th Street and NW 12 Avenue)						
Brickell Station (SW 11th Street and SW 1st Avenue)						
Americas Station (W Flagler Street and NW 77th Avenue)						
Southland Mall (SW 205th Street and South Dixie Highway)						

Source: Miami-Dade Transit, 2013.

## 8.5 2025 and Beyond Recommended Service Plan

### 8.5.1 2025 and Beyond Recommended Service Plan- Metrobus

- **NW 27<sup>th</sup> Avenue Enhanced Bus Service (South Extension):** This project will extend the NW 27<sup>th</sup> Avenue Enhanced Bus Service from Dr. Martin Luther King, Jr. Metrorail Station to the Coconut Grove Metrorail Station. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.
- **NW 27<sup>th</sup> Avenue Bus Rapid Transit (BRT) (North Corridor):** This project will build upon the incremental improvements achieved in the NW 27<sup>th</sup> Avenue Enhanced Bus project by providing dedicated “bus only” lanes along the NW 27<sup>th</sup> Avenue corridor from the Miami-Dade/Broward County Line (NW 215<sup>th</sup> Street and NW 27<sup>th</sup> Avenue) to Dr Martin Luther King, Jr. Metrorail Station.
- **NW 27<sup>th</sup> Avenue Bus Rapid Transit (BRT) (North Corridor – South Extension):** This project will provide dedicated “bus only” lanes along the NW/SW 27<sup>th</sup> Avenue corridor from the Dr Martin Luther King, Jr. Metrorail Station to the Coconut Grove Metrorail Station.
- **NW 7<sup>th</sup> Avenue Enhanced Bus Service:** This route would provide premium limited-stop transit service along NW 7<sup>th</sup> Avenue between Downtown Miami and the park-and-ride lot located at the Golden Glades Interchange. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day. This route will provide a premium transit connection to the NW 7<sup>th</sup> Avenue Transit Village located at NW 7<sup>th</sup> Avenue and NW 62<sup>nd</sup> Street.
- **Coral Reef Enhanced Bus Service:** This route would provide premium limited-stop transit service along SW 152<sup>nd</sup> Street from SW 152<sup>nd</sup> Avenue to Dadeland North Metrorail Station. This enhanced bus route would provide a premium transit connection to the future regional entertainment complex near Zoo Miami and Metrorail. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.
- **HEFT Express Bus South:** This route would provide premium express transit service along the HEFT Express Lanes from the proposed park-and-ride/transit center station at SW 344<sup>th</sup> Street and the South Miami-Dade Busway to the proposed park-and-ride/transit center station at Dolphin Station (HEFT at NW 12<sup>th</sup> Street). This express route will exit the HEFT Express Lanes to serve the following two major stops: Kendall Drive/SW 88<sup>th</sup> Street and FIU’s Panther Station. Service headways will be 10 minutes during the AM/PM peak-hour.
- **HEFT Express Bus North:** This route would provide premium express transit service along the HEFT Express Lanes from Broward County to the proposed park-and-ride/transit center station at Dolphin Station (HEFT at NW 12<sup>th</sup> Street). This express route will exit the HEFT Express Lanes to serve the following two stops: the proposed Okeechobee park-and-ride/transit center and MDT’s existing park-and-ride lot at Miami Gardens Drive and NW 73<sup>rd</sup> Avenue. Service headways will be 10 minutes during the AM/PM peak-hour.
- **NW 7<sup>th</sup> Street Enhanced Bus Service:** This route would provide premium limited-stop transit service along NW 7<sup>th</sup> Street from the proposed park-and-ride/transit center station at Dolphin Station (HEFT at NW 12<sup>th</sup> Street) to Downtown Miami. This

enhanced bus route would provide an additional east-west premium transit connection between west Miami-Dade County and Downtown Miami. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.

- **NW 79<sup>th</sup> Street Enhanced Bus Service:** This new enhanced transit service will build upon high ridership on MDT's existing Route 79 Street MAX by converting the existing route to enhanced bus service. This route will provide premium limited-stop transit service along NW 79<sup>th</sup> Street from the Northside Metrorail Station to the Miami Beach Convention Center. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.
- **I-195 Express Bus (South):** This route would provide premium express transit service along the I-195 from Miami-Beach Convention Center to Downtown Miami. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.
- **Douglas Road Enhanced Bus Service (Douglas Corridor):** This route would provide premium limited-stop transit service along NW/SW 37<sup>th</sup> Avenue connecting the MIC on the north and the Douglas Road Metrorail Station on the south. The Douglas Road corridor is the only People's Transportation Plan (PTP) transit corridor that has not been studied for rapid transit improvements and represents an important connection to high employment centers of MIA and the Coral Gables Central Business District along a densely populated area. Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.
- **SW 8<sup>th</sup> Street Enhanced Bus Service:** This route will provide premium limited-stop transit service along SW 8<sup>th</sup> Street from Downtown Miami to the proposed Panther Station (Florida International University's Modesto A. Maidique Campus - MMC). Service headways will be 10 minutes during the AM/PM peak-hour and 20 minutes during the mid-day.

#### 8.5.2 2025 and Beyond Recommended Service Plan – Light Rail

- **Beach Connection (f.k.a. Baylink):** In 2013, the Miami-Dade Metropolitan Planning Organization began a study to update past studies that examined a premium transit connection between Miami Beach and the City of Miami using current and future conditions. Light rail transit connecting the proposed Downtown Intermodal Terminal and the Miami Beach Convention Center is being analyzed. The study is currently ongoing and will evaluate a way to best advance rapid transit through the project development process.

#### 8.5.3 2025 and Beyond Recommended Service Plan – Transit Centers

- **Americas Station:** This project includes improvements to the existing terminal located within the mall property.
- **Golden Glades Multimodal Terminal (Phase 2):** This project includes construction of an additional 1,800 parking spaces housed within 2 parking garages with ground floor retail.
- **Busway Park-and-Ride Lot at SW 152<sup>nd</sup> Street:** This project includes construction of an additional 500 parking spaces within a parking garage.

- **Dadeland South Intermodal Station Expansion:** This project includes construction of a new parking garage with ground floor retail and office space as well as layover bus bays.
- **Palmetto Intermodal Center (Phase 2):** This project includes construction of direct access ramps from the Palmetto Express Lanes to the Palmetto Metrorail Station.
- **Dolphin Station (NW 12<sup>th</sup> Street and NW 122<sup>nd</sup> Avenue):** This project includes construction of direct access ramps from the SR 836 Express Lanes to the Dolphin Station.
- **Okeechobee Terminal:** This project includes construction of a new park-and-ride/transit center station in the vicinity of US 27/Okeechobee Road and HEFT.

#### 8.5.4 2025 and Beyond Recommended Service Plan – Direct Access Ramps

**Palmetto SR 826 and Busway:** This project includes construction of direct access ramps connecting the Busway to the Palmetto Expressway.

#### 8.5.5 2025 and Beyond Recommended Service Plan – Bus Lanes

**SR 90 (SW 7<sup>th</sup> Street and SW 8<sup>th</sup> Street):** MDT is collaborating with the Florida Department of Transportation to examine the feasibility of implementing dedicated bus lanes along SR 90 (SW 7<sup>th</sup> Street and SW 8<sup>th</sup> Street) from SW 27<sup>th</sup> Avenue to Brickell Avenue.

#### 8.5.6 Recommended Service Plan - Metromover

In 2013, the Miami-Dade Metropolitan Planning Organization (MPO) began a study to assess the feasibility of expanding the Metromover System to connect the underserved markets while maintaining an efficient operation. As part of this study, viable options for system expansion will be conceptualized and evaluated to provide greater system accessibility to Metromover users and improve system efficiency within Downtown Miami, Brickell, and the Arts/Entertainment areas.

However, expansion of the Metromover System would entail additional operations and maintenance costs which is a topic of concern given MDT's approved 10-year operating budget and existing revenue sources. As such, there are no planned service extensions or expansion of the existing Metromover System under consideration by MDT at this time or within the planning horizon of this TDP Major Update.

#### 8.5.7 Recommended Service Plan – Metrorail

The completion of the Orange Line to MIA in 2012 represents a milestone achievement for MDT and the PTP. However, feasibility of future Metrorail extensions has been a topic of concern given MDT's approved 10-year operating budget and existing revenue sources. Therefore, MDT is considering an expansion plan that involves the development of less costly modal approaches to the expansion program such as Bus Rapid Transit and Express Bus service.

#### 8.5.8 Recommended Service Plan – Special Transportation Services

Miami-Dade Transit has modified its Special Transportation Service area to complement fixed route service in the City of Homestead. The City of Homestead inaugurated seasonal service to Everglades and Biscayne National Parks in April 2014. Miami-Dade Transit will



provide complementary STS Service that will be funded by the City of Homestead. The service will operate weekends from April to November.

## 8.6 Capital Needs

### 8.6.1 Transit Centers

As identified in the 2024 RSP, the modified grid system requires the development of transit centers throughout the region of service. All the projects listed are under different stages of project development. Table 8-10 lists the capital needs identified for transit center locations along with their respective status and whether improvements are funded or unfunded for the 2024 RSP. This is followed by a list of proposed park-and-ride needs as presented in Table 8-11 and illustrated in Figure 8-3.

**Table 8-10: 2024 Recommended Service Plan Transit Center Needs**

Transit Centers	Status	Funding
<b>Downtown Intermodal Terminal</b>	A Downtown Miami Intermodal Terminal east of the Government Center Metrorail Station between NW 1 <sup>st</sup> Street and NW 3 <sup>rd</sup> Street would accommodate various transportation modes. This site is currently under private ownership and has been identified as a potential station location within the context of two parallel and on-going studies: The Tri-Rail Coastal Link Study and Florida East Coast Industries (FECI)'s All Aboard Florida. The existing Downtown Miami transit center site would be consolidated with this new intermodal facility which would feature bus bays, layover bays, internal bus circulation areas, kiss –and–ride, bus stops, and boarding areas.	Privately Funded
<b>Dadeland South Intermodal Station</b>	The Dadeland South Intermodal Station project includes facility improvements to the parking garage, roadways, signage, fencing, painting, landscaping, canopy, escalators and lighting up-grades.	Funded
<b>Northeast Transit Hub Enhancements (NETHE)<sup>1</sup></b>	Since determining that the Northeast Passenger Activity Center (NEPAC) project was no longer feasible, MDT identified a feasible project alternative and has proposed transit center improvements at two existing transit centers – NW 163 <sup>rd</sup> Street Mall and Aventura Mall. Currently both of these transit centers which serve the northeast portion of the County and are major destinations with important bus connections have multiple deficiencies (e.g., capacity, drainage, pavement, shelters, lighting, access, signage etc.). Therefore, MDT has created a new project which is referred to as the Northeast Transit Hub Enhancements (NETHE). This new project will upgrade both transit center sites to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities. The Aventura Mall project has been cancelled as an MDT project and will be included as part of the Aventura Mall Master Plan expansion project. The NETHE 163 <sup>rd</sup> Street Mall project features six articulated bus bays along NE 167 <sup>th</sup> Street and four bus bays along NE 15 <sup>th</sup> Avenue.	Funded

**Table 8-10: 2024 Recommended Service Plan Transit Center Needs (continued)**

Transit Centers	Status	Funding
<b>Miami Intermodal Center (MIC)</b>	FDOT is managing this project. FDOT has over \$400 million programmed for the MIC distributed among 17 projects. These include the rental car HUB, the MIC Core Roadway and intersection improvements, transit connections to the terminal building, utilities relocation, etc. Phase I (MIC Core) includes the transit center facilities and infrastructure to coordinate with other modes. Both the MDT Transit Center Facility and the Airport Metrorail Station opened for service in July 2012. The Tri-Rail component of this facility is currently under construction and is scheduled to open in 2014. The MDT Transit Center Facility features a total of 13 bus bays (6 of the 13 bays are used for layover).	Funded
<b>Dolphin Station (NW 12<sup>th</sup> Street and NW 122<sup>nd</sup> Avenue)</b>	Property owned by the FDOT located adjacent to the intersection of the Homestead Extension of the Florida Turnpike (HEFT), SR 836 and NW 12 <sup>th</sup> Street has been identified as a strategic location for a Transit Center with a park-and-ride facility. This transit center would support the SR 836 Express Bus project and provide a potential terminus or stop for several local bus routes serving the Dolphin Mall and nearby cities of Sweetwater and Doral. This site will be further evaluated for its potential to support a Transit Oriented Development (TOD).	Funded
<b>South Miami-Dade Busway at SW 344<sup>th</sup> Street</b>	Miami-Dade Transit is planning to build a 266 space parking lot with bus bays and shelters, located west of the southern end of the Busway between NW 2 <sup>nd</sup> Avenue and NW 3 <sup>rd</sup> Avenue at SW 344 <sup>th</sup> Street (Palm Drive), in Florida City. This project features 10 bus bays and a layover area. Currently MDT is in the process of completing the dry-run permit process.	Funded
<b>Unity Station (NW 27<sup>th</sup> Avenue and NW 215<sup>th</sup> Street)</b>	A 14-acre vacant parcel adjacent to the intersection of the Turnpike (HEFT) and NW 27 <sup>th</sup> Avenue has been identified as a strategic park-and-ride location for the NW 27 <sup>th</sup> Avenue Enhanced Bus Service project. Up to 350 parking spaces are proposed for this facility which would serve as the northern most station for the new enhanced bus or BRT service in the corridor. This park-and-ride also provides strategic transit oriented development (TOD) opportunities. This project features 6 bus bays and 2 layover bays.	Funded
<b>Tamiami Station (SW 8<sup>th</sup> Street and SW 147<sup>th</sup> Avenue)</b>	An 8-acre vacant parcel on the SW corner of the intersection at SW 8 <sup>th</sup> Street and SW 147 <sup>th</sup> Avenue has been identified as a strategic park-and-ride location for the SR-836 Express Bus project. Up to 500 parking spaces are proposed for this facility which would serve as the western most station for the new enhanced bus or BRT service in the corridor. This park-and-ride lot also provides strategic transit-oriented development (TOD) opportunities. This project features 8 bus bays that can accommodate articulated buses and a layover area.	Funded

**Table 8-10: 2024 Recommended Service Plan Transit Center Needs (continued)**

Transit Centers	Status	Funding
<b>NW 7<sup>th</sup> Avenue Transit Village (NW 7<sup>th</sup> Avenue and NW 62<sup>nd</sup> Street)</b>	This proposed MDT joint development project is expected to provide space for an enhanced transit facility within an active, mixed-use development including space for housing, community serving activities and functions in addition to retail use. The project includes 25 park-and-ride spaces and 4 bus bays.	Funded
<b>Golden Glades Multimodal Terminal</b>	MDT recommends that the FDOT Golden Glades Interchange System Improvements – Ultimate Plan consider improvements to the existing park-and-ride lots located at the Golden Glades Interchange. The Golden Glades Multi-Modal Terminal was studied under a separate PD&E study (FM#251684-1-22-01) that contemplates the following improvements as part of Phase 1: new transit platforms with canopy, new intercity bus platform with canopy, “Hub” facility containing stairs, elevators, enclosed waiting area, restrooms, and enclosed operational spaces with canopies, new pedestrian bridge leading to existing pedestrian bridge serving Tri-Rail and roadway improvements. Phase 2 includes construction of a parking garage to accommodate 1,700 vehicles. This project features a total of 20 bus bays for MDT and BCT buses.	Funded
<b>Palmetto Intermodal Terminal (Palmetto Expressway at NW 74<sup>th</sup> Street)</b>	MDT recommends that the FDOT SR 826/Palmetto Expressway Express Lanes PD&E Study address the feasibility of acquiring an 11.88-acre semi-vacant parcel of land located immediately south of the Palmetto Metrorail Station for the purpose of constructing the Palmetto Station Intermodal Terminal that will include but not be limited to: long-term parking, short-term parking, kiss-and-ride, pool-and-ride and a minimum of 6 bus bays and 2 layover bays.	Unfunded
<b>Biscayne Landings (NE 151<sup>st</sup> Street and Biscayne Boulevard)</b>	Property owned by the City of North Miami located on the southeast corner of NE 151 <sup>st</sup> Street and Biscayne Boulevard was identified in an MPO Study titled “Improving Access in Florida International University Biscayne Bay Campus Area” as a strategic location for a Transit Center Facility. MDT is pursuing incremental improvements along the Biscayne Boulevard Corridor and an implementation plan for the Biscayne Enhanced Bus are currently being drafted through the MPO. This site will be further evaluated as a strategic Park-and-Ride/Transit Center Facility as part of the implementation plan for the Biscayne Enhanced Bus. This project features 6 bus bays and 2 layover bays.	Unfunded
<b>Mount Sinai Intermodal Terminal (4300 Alton Rd)</b>	Mount Sinai Medical Center is a hospital located at 4300 Alton Road in Miami Beach and is the largest independent non-profit teaching hospital in South Florida. Miami-Dade Transit is coordinating with the Hospital and the City of Miami Beach to incorporate a Transit Center at this location. The Hospital is already well served by seven existing MDT Metrobus Routes and will be served by additional routes in the future. The proposed Mount Sinai Intermodal Center features a total of 12 bus bays (8 for existing service and 4 for future routes) and 75 park-and-ride spaces.	Privately Funded.

**Table 8-10: 2024 Recommended Service Plan Transit Center Needs (continued)**

<b>Panther Station (Florida International University's (FIU) Modesto A. Maidique Campus – MMC)</b>	Florida International University (FIU) is constructing a parking garage along SW 8 Street with ground floor space reserved for a future transit center. The location of the new parking garage, between SW 112 Avenue and SW 109 Avenue, presents an access challenge that requires roadway widening to construct bus only lanes and traffic signal improvements to provide bus signal priority at the two intersections along this roadway segment. The new terminal would provide 10 bus bays to accommodate the relocation of the existing MDT routes from the current bus terminal located near SW 107 <sup>th</sup> Avenue/SW 17 <sup>th</sup> Street and provide capacity for future routes such as the SR-836 Express Bus, the Flagler Street Enhanced Bus Service (EBS) and express routes operating on the Homestead Extension of the Florida Turnpike (HEFT). Completion of the transit center should coincide with the beginning of the SR-836 Express Bus in 2019.	Funded
<b>Southland Mall (SW 205<sup>th</sup> Street and South Dixie Highway)</b>	This new project will upgrade the transit center site to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities.	Unfunded
<b>Sharks South Station at MDC</b>	This new project will upgrade the transit center site to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities.	Unfunded
<b>Americas Station (W Flagler Street and NW 77<sup>th</sup> Avenue)</b>	This new project will upgrade the transit center site to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities.	Unfunded
<b>Brickell Station (SW 11<sup>th</sup> Street and SW 1<sup>st</sup> Avenue)</b>	This new project will upgrade the transit center site to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities.	Unfunded
<b>Civic Center Station (NW 15<sup>th</sup> Street and NW 12<sup>th</sup> Avenue)</b>	This new project will upgrade the transit center site to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities.	Unfunded
<b>Sharks North Station at MDC</b>	This new project will upgrade the transit center site to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities.	Unfunded

<sup>1</sup>Miami-Dade Transit worked with the City of North Miami Beach and other stakeholders for the last several years to develop a transit center near the Mall at NE 163<sup>rd</sup> Street. However, after numerous meetings and several attempts to reach an agreement with the City of North Miami Beach on the project scale, scope and capital cost of the preferred site, MDT has determined that this project is no longer feasible and will not be implemented. Subsequently, the NETHE is being studied.

<sup>2</sup>A funded improvement is defined as a project for which funds have been programmed in either a local, state or federal plan.

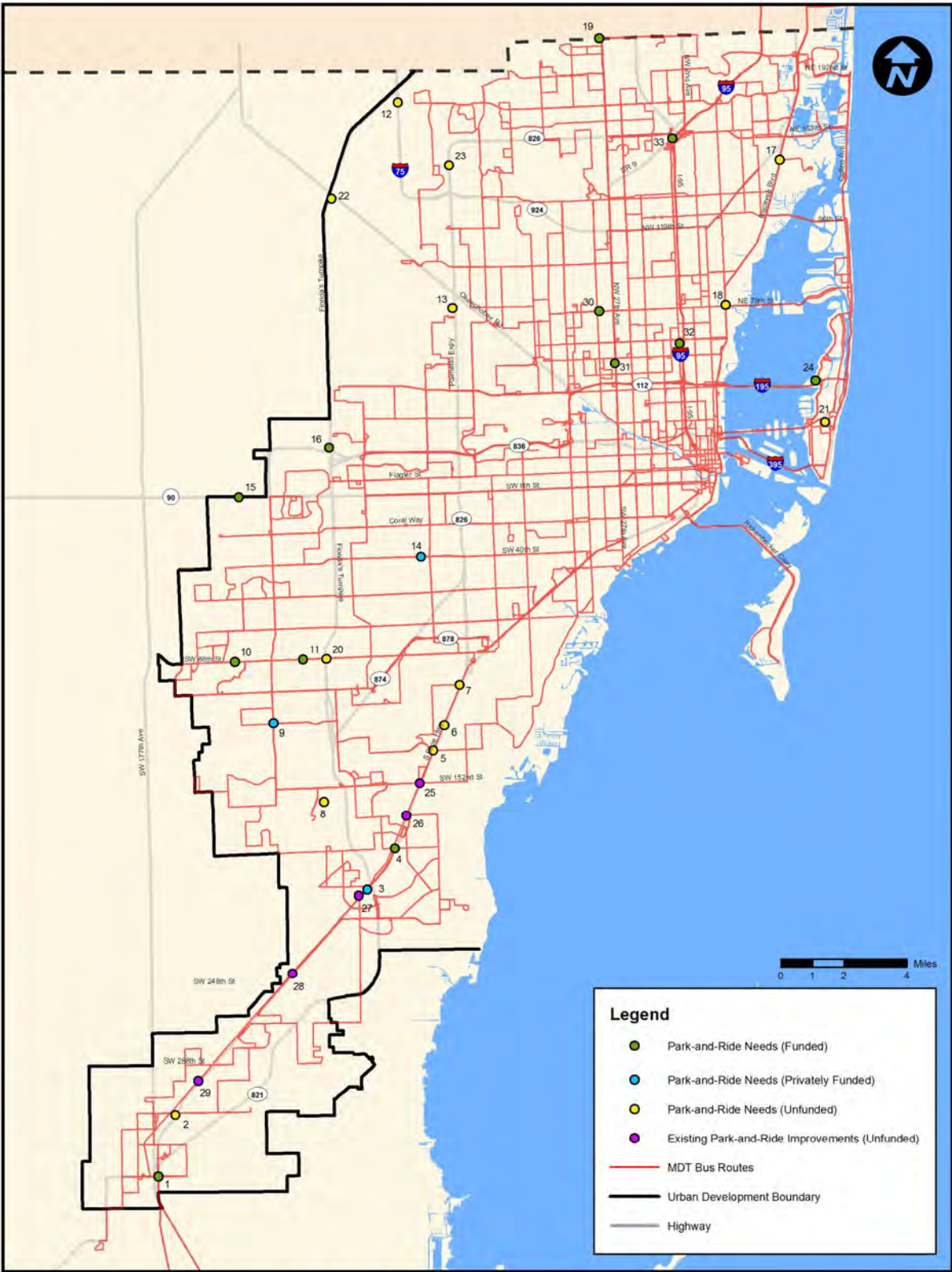
**Table 8-11: Park-and-Ride Needs**

MAP ID	NAME	LOCATION	Status
1	Busway Lot	Busway and SW 344th St	Funded
2	Busway Lot	Busway and SW 312th St	Unfunded
3	Busway Lot	Busway and SW 200th St	Privately Funded
4	Busway Lot (Quail Roost Dr)	Busway and SW 184th St	Funded
5	Busway Lot	Busway and SW 136th St	Unfunded
6	Busway Lot (Killian Pkwy)	Busway and SW 112th St	Unfunded
7	Busway Lot	Busway and SW 104th St	Unfunded
8	Zoo Miami	12400 SW 152nd St	Unfunded
9	Kendall-Tamiami Executive Airport Park-and-Ride	SW 120th St and SW 137th Ave	Privately Funded
10	Kendall Dr and SW 149th Ave	SW 88th St and SW 149th Ave	Funded
11	FPL Lot	SW 88th St and SW 127th Ave	Funded
12	I-75 Park-and-Ride Lot (FDOT Study)	I-75 and Miami Gardens Dr Interchange	Unfunded
13	Palmetto Intermodal Center	Palmetto Exwy at NW 74th St	Unfunded
14	Senator Villas	SW 40th St between SW 89th Ave and SW 89th Ct	Privately Funded
15	Tamiami Station	SW 8th St and SW 147th Ave	Funded
16	Park and Ride Facility at Dolphin Station	NW 12th St and NW 122nd Ave	Funded
17	Biscayne Landings	NE 151st St and Biscayne Blvd	Unfunded
18	Little River Park and Ride	NE 79th St and Biscayne Blvd	Unfunded
19	Unity Station	NW 215th St and NW 27th Ave	Funded
20	Intermodal Terminal at SW 88th St and HEFT	SW 88th St and HEFT	Unfunded
21	Miami Beach Convention Center Intermodal Terminal	Convention Center Dr and 19th St	Unfunded
22	Okeechobee Terminal	HEFT and US 27/Okeechobee Rd	Unfunded
23	Miami Lakes Terminal	Palmetto Exwy (SR 826) at NW 154th St	Unfunded
24	Mount Sinai Intermodal Center	4300 Alton Road	Funded
25	Busway Lot	Busway and SW 152nd St	Unfunded
26	Busway Lot	Busway and SW 168th St	Unfunded
27	Busway Lot	Busway and SW 112th Ave	Unfunded
28	Busway Lot	Busway and SW 244th St	Unfunded
29	Busway Lot	Busway and SW 296th St	Unfunded
30	Northside Metrorail Station	3150 NW 79th St	Funded
31	Brownsville Metrorail Station	5200 NW 27th Ave	Funded
32	NW 7th Ave Transit Village	NW 62nd St and NW 7th Ave	Funded
33	Golden Glades Multimodal Terminal	Golden Glades Multimodal Terminal	Funded

Source: Miami-Dade Transit, 2013.



Figure 8-3: Park-and-Ride Needs



Park-and-Ride Needs. Source: Miami Dade Transit, 2013

### 8.6.2 Bus Fleet Expansion

The 2024 RSP service improvements identify the peak vehicle requirements (PVR) for designated bus routes. A determination of bus fleet needs based on the 2024 RSP, which accounts for a 20 percent (20%) vehicle spare ratio results in a total requirement of 108 buses.

Table 8-12 shows how many buses are needed to include 40-foot and 60-foot as well as 40-foot commuter coach diesel/electric hybrid, clean diesel, compressed natural gas, or other alternative fuel vehicles. This fleet need also includes new service routes. Based on the RSP, there will be no additional purchase needs of minibuses.

**Table 8-12: Bus Fleet Vehicle Needs**

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Sub-Total Needs	Additional Spare Buses Needed	Total Buses Needed
<b>Existing Routes</b>													
Full size	3	(30)	0	0	(7)	34	(4)	0	0	0	(4)	(1)	(5)
Articulated	0	32	0	0	0	0	(15)	0	(9)	0	8	2	10
Commuter Coach	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total	3	2	0	0	(7)	34	(19)	0	(9)	0	4	1	5
<b>New Routes</b>													
Full size	0	0	0	0	0	0	0	0	9	0	9	2	11
Articulated	0	0	0	0	22	0	25	0	9	0	56	12	68
Commuter Coach	7	2	0	5	6	0	0	0	0	0	20	4	24
Sub-Total	7	2	0	5	28	0	25	0	18	0	85	18	103
<b>GRAND TOTAL</b>	<b>10</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>21</b>	<b>34</b>	<b>6</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>89</b>	<b>19</b>	<b>108</b>

Source: Miami-Dade Transit 2013.

### 8.6.3 Alternative Fuels

After examining various alternative fuels, Miami Dade Transit decided to migrate its bus fleet to clean-burning, compressed natural gas (CNG). A Request for Proposal for a Public Private Partnership (P3) was released. MDT expects to select an experienced CNG developer to enter into a Master Developer Agreement which will be dedicated to the conversion of Miami-Dade Transit heavy fleet vehicles to CNG.

Specifically, through the Master Developer Agreements, MDT intends to form a public partnership with the selected Proposer(s) that allows the MDT to take advantage of the savings associated with the use of CNG for its fleet.

The Program objectives to be achieved by the selected Proposer(s) include the following:

1. Design, build, finance, operate and maintain CNG fuel service stations;
2. Upgrade existing County infrastructure including upgrading and/or converting MDT maintenance facilities and existing fuel stations to provide CNG;
3. Purchase and/or lease CNG powered buses;
4. Supply CNG; and
5. Generate revenues for the County through the sale of CNG to third parties.

## 8.7 Infrastructure Renewal Program Needs

The following table presents a number of proposed projects that have been identified by MDT as necessary for the upkeep and maintenance of existing infrastructure to ensure the MDT transit system operates in a state of good repair. The infrastructure renewal program (IRP) includes planned investments in the following program areas:

- Information technology, including data center modernization, network upgrades, and improved accident/incident reporting;
- Passenger amenities, including escalator covers and improved signage;
- Passenger facilities, including escalator and elevator replacements, Busway improvements, and platform refurbishments;
- Rolling stock, including bus maintenance component replacements;
- Systems, including wayside overhauls, uninterrupted power supplies, AC unit substations, train control system replacement, traction power substations, and traction power cabling;
- Maintenance facilities, including bus garage lot resurfacing, emergency backup generators, and A/C replacement;
- Safety and security, including fire alarm replacement, railing replacements, and pedestrian safety improvements;
- Track and guideway, including guideway painting, frog replacement, and work vehicles;
- Field engineering and systems maintenance; and
- Design and engineering.

The proposed year of implementation is also presented in the following tables for the FY 2015-2024 planning horizon according to funded IRP (Table 8-13) project and unfunded IRP needs (Table 8-14).

**Table 8-13: Infrastructure Renewal Program Funded Need (2024)**

Classification	Project Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Treasury Services	Armored Trucks (4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FESM	Uninterrupted Power Supplies - Mover	\$ 1,040,000	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,890,000
FESM	Traction Power Rectifier Transformer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FESM	Traction Power Switchgear Upgrade	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FESM	Fare Collection Emerging Technology Enhancements and Regional Expansion	\$ 1,000,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
FESM	Replace Metromover Platform LCD Signs and SCU	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FESM	Replace Dadeland North Parking Garage Space Count Sign	\$ 650,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 650,000
Information Technology	Metrorail Electronic Real-time Signage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance Facilities	Garage Fire Suppression	\$ 495,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 495,000
Rail Maintenance	Overhaul Metrorail Wheel turning Machine @ WLC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rail Maintenance	Traction Power Crane Truck	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rail Maintenance	WLF Railcar Office Space Renovation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rail Maintenance	Traction Power Three Reel Trailer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rail Maintenance	Metrorail Maintenance Vehicles Lifts	\$ 2,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,700,000
ROW	Park and Ride at SW 168th Street and Busway	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Systems	Rebuild Switch Machines (M-3) - Mainline	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Track and Guideway	Inspection Vehicles for the MIC Extension	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>		<b>\$ 5,885,000</b>	<b>\$ 1,350,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,235,000</b>

Source: Miami-Dade Transit, Infrastructure Renewal Program Existing System FY 2014-15.

**Table 8-14: Proposed Infrastructure Renewal Program Unfunded Need (2024)**

Classification	Project Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Passenger Facilities	Metrorail Station Refurbishment / Door Replacement at Metromover	\$ 2,320,000	\$ -	\$ 2,470,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,790,000
Passenger Facilities	Escalators Replacement / Elevators Refurbishment	\$ 3,860,000	\$ 3,990,000	\$ 4,120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,970,000
Passenger Facilities	Parking Garages Overhaul	\$ 1,160,000	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,360,000
Rolling Stock	Bus Replacement Plan	\$ 52,000,000	\$ 57,000,000	\$ 107,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 216,000,000
Rolling Stock	Bus Maintenance Component Replacement Plan	\$ 4,070,000	\$ 6,080,000	\$ 6,220,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,370,000
Systems	Traction Power Gap Ties	\$ 1,830,000	\$ 1,900,000	\$ 1,950,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,680,000
Systems	Train Control Systems Replacement	\$ 1,050,000	\$ 32,100,000	\$ 34,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,950,000
Systems	Traction Power Substations	\$ 17,680,000	\$ 18,260,000	\$ 18,860,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,800,000
Systems	Wayside Overhaul	\$ -	\$ -	\$ 32,980,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,980,000
Systems	AC Unit Substations	\$ -	\$ 8,650,000	\$ 8,940,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,590,000
Systems	Switch Machine Cable - Yard	\$ -	\$ 1,040,000	\$ 1,080,000	\$ 1,110,000	\$ 1,110,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,340,000
Systems	AC Unit Substations - Palmetto Yard	\$ -	\$ 4,230,000	\$ 4,360,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,590,000
Systems	Switch Machine Cable- Mainline	\$ 1,270,000	\$ 1,380,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,650,000
Systems	Replace Switch Machines - Yard	\$ 950,000	\$ 980,000	\$ 1,010,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,940,000
Systems	Traction Power Cabling	\$ 5,060,000	\$ 5,080,000	\$ 5,050,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,190,000
Track & Guideway	Metromover Omni Extension Guideway Painting	\$ 380,000	\$ 8,820,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,200,000
Track & Guideway	Metrorail Steel Box Girder Guideway Painting	\$ 520,000	\$ 9,550,000	\$ 6,490,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,560,000
Track & Guideway	Fastener Replacement Station Areas	\$ 1,420,000	\$ 1,400,000	\$ 1,360,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,180,000
<b>Total</b>		<b>\$ 93,570,000</b>	<b>\$161,660,000</b>	<b>\$ 236,690,000</b>	<b>\$ 1,110,000</b>	<b>\$ 1,110,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 494,140,000</b>

Source: Miami-Dade Transit, Infrastructure Renewal Program Existing System FY 2014-15.



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## 9.0 Financial Plan

The analyses described in the previous chapters were intended to identify critical transit needs in Miami-Dade County and were undertaken without consideration of cost. In this Financial Plan chapter, however, Miami-Dade Transit (MDT) must match its needed transit improvements with available financial resources. In the financial plan, the estimated costs of providing the agency's existing and planned new services are projected out over the ten-year horizon of the TDP, and the financial resources that will support those services are also identified and estimated. It is through the development of this financial plan that MDT has determined which service improvements can be realistically achieved and when those service improvements should be implemented.

### 9.1 Operating Expenses

#### 9.1.1 Current Operating Expenses

MDT is the largest transit operator in the State of Florida and the 15<sup>th</sup> largest transit provider in the United States according to the *2013 Public Transportation Fact Book*. MDT's size is reflected in the agency's direct operating budget, which is projected at approximately \$490 million in FY 2015. The primary components of the direct operating expenses are shown in Table 9-1 below. Salaries and overtime make up 44 percent of MDT's total operating expenses. Paratransit services are contracted out for 8.7 percent of the operating budget; Fuel is just over 8 percent of MDT's operating budget.

**Table 9-1: MDT Projected FY 2015 Direct Operating Expenses**

Direct Operating Expense Category	Amount
Employee Regular	\$181,193,213
Part-Time Employee (COLA only)	\$8,036,477
Premium Pay	\$4,205,500
Holiday Pay / merit for bus drivers	\$7,300,000
Flex Dollars	\$3,558,500
Longevity Payments	\$1,937,842
Salary Other	(\$17,592,467)
<b>Subtotal (Salary)</b>	<b>\$188,639,065</b>
<b>Subtotal (Overtime)</b>	<b>\$27,675,984</b>

Source: Transit Pro Forma FY 2014.

**Table 9-1: MDT Projected FY 2015 Direct Operating Expenses (continued)**

Direct Operating Expense Category	Amount
Social Security	\$12,333,755
Retirement	\$12,440,254
OT Fringe FICA and MICA	\$2,117,213
OT Fringe Retirement	\$1,857,059
Health Insurance	\$34,320,115
Reduction	-\$7,100,000
Life Insurance	\$398,561
Unemployment Insurance	\$164,000
Workers Comp (gr 5% for 3 yr/then 3%)	\$11,282,880
Other	\$1,091,519
MICA Medicare	\$2,832,909
<b>Subtotal (Fringe)</b>	<b>\$71,738,264</b>

Source: Transit Pro Forma FY 2014.

**Table 9-1: MDT Projected FY 2015 Direct Operating Expenses (continued)**

Direct Operating Expense Category	Amount
DIP	\$32,700
Electric Services	\$9,516,640
Electric Services EH-MIC	\$951,664
Water and Disposal	\$1,576,295
Security Expenses	\$15,968,814
Janitorial Services	\$5,433,540
Repair of Bus Engines	\$6,414,145
Metrorail Liability	\$1,000,000
Property and Fire	\$4,002,240
Payouts and Claims	\$3,000,000
Outside Maintenance	\$5,533,670
Building Leases	\$3,014,657
Copy Machine Rental	\$508,164
Lease Payments	\$542,500
GSA Charges	\$2,143,205
Data Processing Services	\$1,309,627
ITD Radio Microwave	\$839,160
ETSD Funding Model	\$4,815,985
Police Services	\$340,000
Department Transfers	\$656,000
Telecommunications	\$1,738,750
Easy Card Printing	\$1,548,100
Fuel and Lubricants	\$40,825,838
Tires and Tubes	\$3,639,535
Inventory	\$24,088,500
STS Contract	\$42,840,000
	\$17,124,525
Other CS Line Items	\$2,328,383
<b>Subtotal</b>	<b>\$201,732,637</b>
<b>GRAND TOTAL</b>	<b>\$489,785,949</b>

Source: Transit Pro Forma FY 2014.

In addition to these direct expenses, MDT will support over \$167 million of other operating expenses, debt service payments, and funding of reserves in FY 2015. These other expenses are detailed in the following table. Almost 30 percent of these other operating expenses are MDT's contribution to municipal transit services within Miami-Dade County.

**Table 9-2: MDT Projected FY 2015 Other Operating Expenses**

Direct Operating Expense Category	Amount (000s)
Municipal Contribution	\$43,639
New Municipal Contribution	\$6,546
CITT Staff	\$2,360
SFRTA Contribution	\$4,235
Public Works Support	\$3,640
CITT Reserve	\$7,167
Pre-existing Debt	\$2,495
Rezoning Bonds	\$784
Bus Replacement	\$2,717
PTP Debt Service	\$93,985
<b>TOTAL</b>	<b>\$167,568</b>

Source: Transit Pro Forma FY 2014.

In total, MDT will spend over \$650 million in FY 2015 for the ongoing operation of the transit system and the support of MDT's other local and regional responsibilities. A brief explanation of each expense area is provided below.

### 9.1.2 Projected Operating Expenses

The key inflation assumptions that drive the cost projections, as included in the Transit Pro Forma, are summarized in Table 9-3.

**Table 9-3: MDT Operating Expense Inflation Assumptions**

Expense Item	Annual Inflation Rate
Labor Increase- Merit	2.0% (2015 and thereafter)
Labor Increase-COLA	2.0% (2015 and thereafter)
Health Insurance	3.0% (2015 and thereafter)
Major Support Line Items	2.0% (2015 to 2018) 2.5% (2019 and thereafter)
Inventory	1.0%
Fuel	1.5% (2015) 1.8% (2016) 2.0% (2017) 2.2% (2018) 2.5% (2019 and thereafter)

Source: Transit Pro Forma FY 2014.

### 9.1.3 Operating Revenues

Miami-Dade Transit's operations are supported by a range of federal, state, local, and directly-generated revenue streams. Table 9-4 shows the projected agency operating revenues for FY 2015 by major category. Operating revenues total over \$650 million.



**Table 9-4: MDT Projected FY 2015 Operating Revenues**

Operating Revenue Category	Amount (000s)
Fare Revenues	\$117,333
Other Operating Revenues	\$10,942
Federal Grant Funds Used for PM	\$62,959
State Block Grant	\$19,751
Other State Operating Support	\$15,031
PTP Surtax	\$218,196
County General Funds	\$173,743
Additional Local Revenue or Service Cut	\$10,020
Local Option Gas Tax	\$17,387
SFRTA PMT	\$666
Interest, Reimbursement & Other	\$4,409
<b>TOTAL</b>	<b>\$650,437</b>

Source: Transit Pro Forma FY 2014.

Explanations of the revenue categories found in Table 9-4 are provided in the following paragraphs.

- Fare Revenues: MDT currently recovers approximately 27 percent (27%) of its operating expenses from fare revenue. This is a relatively high recovery ratio among transit agencies in Florida.
- Other Operating Revenues: These operating revenues include items such as advertising.
- Federal Grants: Federal grants take two forms: Formula Grant for Preventative Maintenance and Job Access/Reverse Commute (JARC). The first assists transit agencies with keeping equipment in a state of good repair; the second assists transit agencies with serving commuters.
- State Block Grants: These revenues were developed by the Florida Legislature to provide a stable form of funding for public transit. The grants are distributed to all eligible Florida transit providers on a formula basis.
- Other State Operating Support: This category includes funds from the Urban Corridor Program and Transportation Disadvantaged (TD) program. The Urban Corridor program provides funding for projects that relieve congestion or assist with other mobility issues within a particular corridor. The Transportation Disadvantaged programs provide funding to assist TD populations which include persons with physical or mental disabilities, have low incomes, or are older individuals who are unable to transport themselves or purchase transportation.
- PTP Surtax: The People's Transportation Plan provides for sales tax revenue to support public transit.

- **County General Funds:** Miami-Dade County supplies MDT with funding each year from its general fund.
- **Additional Local Revenue or Service Cuts:** MDT may receive funds from other local sources in a given year or cut service to balance the budget.
- **Local Option Gas Tax:** MDT receives three cents for every local gallon of gasoline purchased.
- **Interest and Capital Reimbursements:** Sometimes MDT receives reimbursement from other governmental entities on joint purchases.

#### 9.1.4 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 MDT is expected to grow at slightly over three percent (3%) annually. In addition, MDT does foresee two separate major policy actions related to funding during FY 2015 – FY 2024 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 2018, with another 25 cent increase levied in 2021. These increases have the effect of increasing the overall revenue growth rate in those years. These programmed fare increases which occur every four (4) years is determined by policies approved by the Miami-Dade County Board of County Commissioners that authorize MDT to implement regular fare increases to keep pace with inflation.
- Additional local funding: In 2015, MDT anticipates receipt of two additional local funding sources to support operations -- the local option gas tax (LOGT) and County General Funds. Miami-Dade County currently imposes three (3) of the five (5) cents allowed under the fuel tax, and Pro Forma assumes that the other two (2) cents will be approved, levied, and collected for MDT's use in 2015. The value of those additional two cents from the LOGT is approximately \$13 million annually.

The critical funding growth assumptions that drive the Pro Forma results are also outlined below.

**Table 9-5: MDT Operating Revenue Growth Assumptions**

Revenue Item	Annual Growth Rate
PTP Surtax	3.00% (2015-2019) 4.50% (2020 and thereafter)
General Funds (Maintenance of Effort)	3.50%
Fare Revenue (Trip Growth)	1.00%
State Block Grant and Transportation Disadvantaged Funds	2.00%
Federal Funds	1.00% (2015 - 2019) 2.50% (2020 and thereafter)
Local Option Gas Tax	1.50% (2015 - 2016) 0.50% (2017 and thereafter)

Source: Transit Pro Forma FY 2014.

#### 9.1.5 Summary of Operating Budget

The operating budget, as presented in the 2014 Pro Forma for the ten-year period from FY 2015 to FY 2024, is balanced. This means that projected operating expenses are covered by the forecasted revenues from various local and non-local sources. This operating budget is achieved by a combination of cost efficiencies; an avoidance of any major service expansion and aggressive use of available local funding sources (LOGT and general funds). However, this operating budget is based upon the budgetary assumptions that were applied within the FY 2014 Pro Forma.

These assumptions are subject to change resulting in a different budgetary outcome than presented in this TDP due to the volatility in gas prices and pressure from the public to reduce the tax roll which would have impacts to the general fund share MDT receives and the availability of federal and state grants.

**Table 9-6: MDT Operating Budget (FY 2015 - FY 2024) (\$000s)**

Operating Revenues	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Fare Revenues	\$117,333	\$118,506	\$119,691	\$131,634	\$132,950	\$134,279	\$146,463	\$147,928	\$149,407	\$161,860	\$ 1,360,051
Other Operating Revenues	\$10,942	\$11,052	\$11,162	\$11,274	\$11,387	\$11,501	\$11,616	\$11,732	\$11,849	\$11,967	\$ 114,481
Federal Grant Funds Used for PM	\$62,959	\$63,589	\$64,225	\$64,867	\$65,516	\$67,154	\$68,832	\$70,553	\$72,317	\$74,125	\$ 674,138
State Block Grant	\$19,751	\$20,146	\$20,549	\$20,960	\$21,379	\$21,807	\$22,243	\$22,688	\$23,142	\$23,605	\$ 216,271
Other State Operating Support	\$15,031	\$15,214	\$15,400	\$15,590	\$15,784	\$15,982	\$16,183	\$16,389	\$16,599	\$16,813	\$ 158,984
PTP Surtax	\$218,196	\$224,742	\$231,484	\$238,429	\$245,582	\$256,633	\$268,181	\$280,250	\$292,861	\$306,040	\$ 2,562,398
County General Funds	\$173,743	\$179,825	\$186,119	\$192,633	\$199,375	\$206,353	\$213,576	\$221,051	\$228,787	\$236,795	\$ 2,038,256
Additional Local Revenue or Service Cut	\$10,020	\$22,350	\$43,905	\$52,579	\$63,910	\$69,147	\$71,567	\$74,072	\$76,664	\$79,348	\$ 563,562
Local Option Gas Tax	\$17,387	\$17,648	\$17,736	\$17,825	\$17,914	\$18,003	\$18,093	\$18,184	\$18,275	\$18,366	\$ 179,431
SFRTA PMT	\$666	\$666	\$666	\$666	\$666	\$666	\$666	\$666	\$666	\$666	\$ 6,660
Interest, Reimbursements & Other	\$4,409	\$4,629	\$4,860	\$5,103	\$5,359	\$5,627	\$5,908	\$6,203	\$6,513	\$6,839	\$ 55,450
<b>Total Revenues</b>	<b>\$650,437</b>	<b>\$678,366</b>	<b>\$715,798</b>	<b>\$751,560</b>	<b>\$779,821</b>	<b>\$807,151</b>	<b>\$843,329</b>	<b>\$869,715</b>	<b>\$897,081</b>	<b>\$936,423</b>	<b>\$ 7,929,680</b>
Operating Expenses											
MDT Operating Expenses	\$489,786	\$505,960	\$520,596	\$535,995	\$552,168	\$568,905	\$586,226	\$604,153	\$623,223	\$642,654	\$ 5,629,667
SFRTA Contribution	\$4,235	\$4,235	\$4,235	\$4,235	\$4,235	\$4,235	\$4,235	\$4,235	\$4,235	\$4,235	\$ 42,350
PTP Debt Service	\$93,985	\$93,988	\$113,870	\$133,752	\$141,521	\$149,286	\$149,286	\$149,286	\$149,286	\$149,286	\$ 171,905
Municipal Contribution	\$43,639	\$44,948	\$46,297	\$47,686	\$49,116	\$51,327	\$53,636	\$56,050	\$58,572	\$61,208	\$ 512,480
New Municipal Contribution	\$6,546	\$6,742	\$6,945	\$7,153	\$7,367	\$7,699	\$8,045	\$8,407	\$8,786	\$9,181	\$ 76,872
PWD Project Management (Pay Go)	\$3,640	\$3,749	\$3,862	\$3,978	\$4,097	\$4,220	\$4,346	\$4,477	\$4,611	\$4,749	\$ 41,729
CITT Staff	\$2,360	\$2,360	\$2,360	\$2,360	\$2,431	\$2,504	\$2,579	\$2,656	\$2,736	\$2,818	\$ 25,163
CITT Reserve	\$7,167	\$7,670	\$6,201	\$4,748	\$4,515	\$4,582	\$5,464	\$6,385	\$7,348	\$8,355	\$ 62,434
Pre Existing Debt Service	\$2,495	\$2,495	\$2,495	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 7,485
Other (Bus Leasing Payment/Rezoning Bonds	\$3,501	\$6,219	\$8,936	\$11,653	\$14,371	\$14,371	\$14,371	\$14,371	\$14,371	\$14,371	\$ 116,534
PTP New Project Bond Program (2.5 Billion)	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$3,708	\$18,736	\$18,749	\$ 41,197
<b>Total Expenses</b>	<b>\$657,354</b>	<b>\$678,367</b>	<b>\$715,797</b>	<b>\$751,560</b>	<b>\$779,821</b>	<b>\$807,127</b>	<b>\$828,192</b>	<b>\$853,729</b>	<b>\$891,903</b>	<b>\$915,606</b>	<b>\$7,879,456</b>

Source: Transit Pro Forma FY 2014 and RFRO (Working). Total values presented may vary due to rounding.

\*The Budget for FY 2015 is balanced due to an overage of \$6,917 from FY 2014.

## 9.2 Capital Expenditures and Funding Sources

### 9.2.1 Planned Capital Expenditures

Miami-Dade Transit's planned capital expenditures for the period FY 2015 to FY 2024 are divided into two groups: 1.) Those projects which will be financed with People's Transportation Plan (PTP)-backed debt; and, 2.) Those projects which will be paid for on a "cash" basis with funding from various sources. For large capital projects or ongoing projects during FY 2015 – FY 2024 (such as bus acquisition and replacement), these may be funded by a combination of debt proceeds and cash. A summary of the two groups of projects is provided below.

Many of the projects listed in the following table, such as the rail vehicle replacement, will greatly improve the quality and longevity of the existing MDT transit system. However, most of the projects in Table 9-7 are scheduled for completion on or before 2020. After 2020, the capital program consists only of scheduled bus acquisitions and the Infrastructure Renewal Program (IRP), which is the agency's long-term projection of future rehabilitation and replacement needs throughout the MDT system.



Table 9-7: Planned MDT Capital Expenditures FY 2015-2024

PTP Debt Financed Capital Projects	Total Cost FY15-FY24 (000s)
Park and Ride SW 344th Street	\$87
High Cycle Switch Logic Control Cabinets (Mover)	\$1,660
Kendall Enhanced Bus Service	\$932
Infrastructure Renewal Plan (IRP)	\$62,500
East/West Corridor (SR 836 Express Enhanced Bus)	\$7,962
Northeast Transit Hub Enhancements	\$499
North Corridor Enhanced Bus (NW 27 Ave-NW 215 St to MIC)	\$5,196
Track and Guideway Rehabilitation	\$51,784
Park and Ride lot Kendall Drive	\$87
Rail Vehicle Replacement	\$292,022
Central Control Overhaul	\$1,443
<b>SUBTOTAL</b>	<b>\$424,172</b>
Non-PTP Debt Financed Capital Projects	Total Cost FY15-FY24 (000s)
Bus and Bus Facilities	\$109
Park and Ride lot SW 344th Street	\$867
Park and Ride lot Quail Roost Drive	\$1,040
Bus Replacement	\$100,000
Pedestrian Overpass at University of Miami	\$1,218
Kendall Enhanced Bus Service	\$932
East/West Corridor (SR 836 Express Enhanced Bus)	\$16,534
Northeast Transit Hub Enhancements	\$497
North Corridor Enhanced Bus (NW 27 Ave-NW 215 St to MIC)	\$9,406
Bike Locker Replacement at all Rail Stations	\$26
Passenger Amenities and Transit Enhancements	\$2,470
Security and Safety Equipment	\$3,213
Park and Ride lot Kendall Drive	\$183
NW 7th Ave and NW 62nd St Passenger Activity Center	\$445
<b>SUBTOTAL</b>	<b>\$136,940</b>
<b>TOTAL</b>	<b>\$561,112</b>

Source: Transit Pro Forma FY 2014.

### 9.2.2 Capital Funding Sources

As noted, MDT's capital projects between FY 2015 – FY 2024 will either be debt-financed or funded on a pay-as-you-go basis. The debt financing is backed by the PTP surtax revenues, as projected in the previous financial section. The “cash”-funded projects will be supported by a combination of funding sources, which are shown in Table 9-8. All of these funding sources for pay-as-you-go capital will be concluded by 2019.

**Table 9-8: Projected “Cash” Revenue Sources for Capital Projects, FY 2015-2024**

Capital Funding Source	Total Amount (000s)
FTA Section 5307/5309 Formula Grant	\$16,560
FTA Section 5309 Discretionary Grant	\$554
FDOT Funds	\$19,778
Lease Financing-County Bonds/Debt	\$100,000
PTP Bond Program	\$424,172
Capital Improvement Local Option Gas Tax	\$48
<b>TOTAL</b>	<b>\$561,112</b>

Source: Transit Pro Forma FY 2014.

### 9.2.3 Summary of Capital Plan

The capital budget is presented in the FY 2014 Pro Forma for the ten-year period from FY 2015 to FY 2024. 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 MDT's budget, as described above, to guarantee debt coverage).

This capital budget is based upon the budgetary assumptions applied within the FY 2014 Pro Forma and these assumptions are subject to change correspondingly in line with the finalization of the County's Budget and Capital Operating Plan resulting in a different budgetary outcome than presented in this TDP.

Table 9-9: MDT Capital Budget (FY 2015 - FY 2024) (\$000s)

Capital Revenues	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
FTA Section 5307/5309 Formula Grant	\$6,607	\$3,582	\$4,046	\$1,160	\$1,165	\$0	\$0	\$0	\$0	\$0	\$16,560
FTA Section 5309 Discretionary Grant	\$409	\$145	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$554
FDOT Funds	\$9,485	\$6,453	\$3,840	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,778
Building Better Communities (BBC)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lease Financing	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$100,000
PTP Bond Program	\$64,663	\$105,248	\$130,550	\$84,522	\$32,189	\$7,000	\$0	\$0	\$0	\$0	\$424,172
Local Option Gas Tax	\$48	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$48
Operating Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Capital Project Revenues</b>	<b>\$101,212</b>	<b>\$135,428</b>	<b>\$158,436</b>	<b>\$105,682</b>	<b>\$53,354</b>	<b>\$7,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$561,112</b>
<b>PTP Debt-Financed Projects</b>											
Park and Ride SW 344th Street	\$87	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$87
High Cycle Switch Logic Control Cabinets (Mover)	\$1,660	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,660
Kendall Enhanced Bus Service	\$471	\$461	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$932
Infrastructure Renewal Plan (IRP)	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$0	\$0	\$0	\$0	\$0	\$62,500
East/West Corridor (SR 836 Express Enhanced Bus)	\$743	\$5,983	\$1,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,962
Northeast Transit Hub Enhancements	\$499	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$499
North Corridor Enhanced Bus (NW 27 Ave-NW 215 St to MIC)	\$2,581	\$10	\$2,605	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,196
Track and Guideway Rehabilitation	\$13,412	\$10,372	\$7,000	\$7,000	\$7,000	\$7,000	\$0	\$0	\$0	\$0	\$51,784
Park and Ride lot Kendall Drive	\$87	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$87
Rail Vehicle Replacement	\$31,180	\$75,922	\$107,209	\$65,022	\$12,689		\$0	\$0	\$0	\$0	\$292,022
Central Control Overhaul	\$1,443	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,443
<b>Total PTP Debt-Financed Project Expenditures</b>	<b>\$64,663</b>	<b>\$105,248</b>	<b>\$130,550</b>	<b>\$84,522</b>	<b>\$32,189</b>	<b>\$7,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$424,172</b>

Source: Miami-Dade Transit Capital Book, F2 (revenue) and F5 (expense) Reports.

**Table 9-9: MDT Capital Budget (FY 2015 - FY 2024) (\$000s) (Continued)**

Other Funding Sources Financed Projects	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Bus and Bus Facilities	\$ 109	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 109
Park and Ride lot SW 344th Street	\$ 867	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 867
Park and Ride lot Quail Roost Drive	\$ 1,030	\$ 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,040
Bus Replacement	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Pedestrian Overpass at University of Miami	\$ 1,218	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,218
Kendall Enhanced Bus Service	\$ 471	\$ 461	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 932
Infrastructure Renewal Plan (IRP)	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,500
East/West Corridor (SR 836 Express Enhanced Bus)	\$ 6,883	\$ 8,415	\$ 1,236	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,534
Northeast Transit Hub Enhancements	\$ 497	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 497
North Corridor Enhanced Bus (NW 27 Ave-NW 215 St to MIC	\$ 3,881	\$ 30	\$ 5,495		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,406
Bike Locker Replacement at all Rail Stations	\$ 26	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26
Passenger Amenities and Transit Enhancements	\$ 484	\$ 489	\$ 494	\$ 499	\$ 504	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,470
Security and Safety Equipment	\$ 600	\$ 630	\$ 661	\$ 661	\$ 661	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,213
Park and Ride lot Kendall Drive	\$ 183	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 183
NW 7th Ave and NW 62nd St Passenger Activity Center	\$ 300	\$ 145	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 445
<b>Total Other Funding Financed Projects</b>	<b>\$ 49,049</b>	<b>\$ 42,680</b>	<b>\$ 40,386</b>	<b>\$ 33,660</b>	<b>\$ 33,665</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 199,440</b>
<b>Total Project Expenditures</b>	<b>\$ 113,712</b>	<b>\$ 147,928</b>	<b>\$ 170,936</b>	<b>\$ 118,182</b>	<b>\$ 65,854</b>	<b>\$ 7,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 623,612</b>
<b>Capital Funding Surplus/(Deficit)</b>	<b>\$ (12,500)</b>	<b>\$ (12,500)</b>	<b>\$ (12,500)</b>	<b>\$ (12,500)</b>	<b>\$ (12,500)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (62,500)</b>

Source: Miami-Dade Transit Capital Book, F2 (revenue) and F5 (expense) Reports.

### 9.3 Unfunded Needs for New Service Initiatives

MDT FY 2015 – FY 2024 TDP Major Update is based upon initiatives as identified by MDT that are currently unfunded, which represent important areas of need to include:

- Bus route improvements, including modifications to existing routes and the introduction of new routes, which have both a capital cost component and an operating cost component;
- Additional Capital Improvement Program (CIP) projects that represent selective improvements to the existing transit network as identified under the Infrastructure Renewal Program.

The estimated capital and operating costs to support these service expansion and capital investment initiatives between FY 2015 – FY 2024 are included. These unfunded project costs are presented in year-of-expenditure (YOE) dollars, according to the planned implementation schedules and inflation assumptions.

#### 9.3.1 Bus Route Improvements

MDT has identified a number of service improvements to existing routes as well as the implementation of additional new routes based upon the availability of funding. The projected YOE costs of implementing these services are presented in Table 9-10. For all these replacement vehicles, a 20 percent (20%) vehicle spare ratio is assumed. Bus capital costs are assumed to be \$650,000 per 40-foot diesel/electric hybrid vehicle, \$950,000 per 60-foot diesel/electric hybrid vehicle, and \$800,000 per 40-foot diesel/electric hybrid commuter coach vehicle in 2014 dollars.

#### 9.3.2 Total Unfunded Needs

MDT's total unfunded needs between FY 2015 – FY 2024 – covering bus service improvements, capital investment in priority travel corridors, and CIP projects – is \$786 million in YOE dollars Table 9-11.



**Table 9-10: Proposed Bus Route Improvements (FY 2015-FY 2024) (Unfunded)**

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Existing Routes											
Operating Costs	\$ 2,195,000	\$ 2,195,000	\$ 2,195,000	\$ 2,195,000	\$ 495,000	\$ 24,255,000	\$ 19,880,000	\$ 25,735,000	\$ 24,235,000	\$ 25,735,000	\$ 129,115,000
Capital Costs	\$ 1,950,000	\$ 1,900,000	\$ -	\$ -	\$ -	\$ 26,650,000	\$ -	\$ -	\$ -	\$ -	\$ 30,500,000
Total	\$ 4,145,000	\$ 4,095,000	\$ 2,195,000	\$ 2,195,000	\$ 495,000	\$ 50,905,000	\$ 19,880,000	\$ 25,735,000	\$ 24,235,000	\$ 25,735,000	\$ 159,615,000
New Routes											
Operating Costs	\$ 1,373,440	\$ 1,773,440	\$ 1,773,440	\$ 2,760,440	\$ 9,544,440	\$ 9,544,440	\$ 17,044,440	\$ 17,044,440	\$ 21,807,440	\$ 21,807,440	\$ 104,473,400
Capital Costs	\$ 6,720,000	\$ 3,480,000	\$ -	\$ 4,800,000	\$ 5,760,000	\$ -	\$ -	\$ -	\$ 7,020,000	\$ -	\$ 27,780,000
Total	\$ 8,093,440	\$ 5,253,440	\$ 1,773,440	\$ 7,560,440	\$ 15,304,440	\$ 9,544,440	\$ 17,044,440	\$ 17,044,440	\$ 28,827,440	\$ 21,807,440	\$ 132,253,400
Total Operating Costs	\$ 3,568,440	\$ 3,968,440	\$ 3,968,440	\$ 4,955,440	\$ 10,039,440	\$ 33,799,440	\$ 36,924,440	\$ 42,779,440	\$ 46,042,440	\$ 47,542,440	\$ 233,588,400
Total Capital Costs	\$ 8,670,000	\$ 5,380,000	\$ -	\$ 4,800,000	\$ 5,760,000	\$ 26,650,000	\$ -	\$ -	\$ 7,020,000	\$ -	\$ 58,280,000
TOTAL	\$12,238,440	\$ 9,348,440	\$ 3,968,440	\$ 9,755,440	\$ 15,799,440	\$ 60,449,440	\$ 36,924,440	\$ 42,779,440	\$ 53,062,440	\$ 47,542,440	\$ 291,868,400

Source: Miami-Dade Transit, 2014.

**Table 9-11: Proposed Unfunded Improvements**

Service Improvement Category	Total Funding Required FY 15-24
Bus Improvements (Operating)*	\$ 233,588,400
Bus Improvements (Capital)**	\$ 58,280,000
IRP Projects (Capital)***	\$ 494,140,000
TOTAL UNFUNDED NEEDS	\$ 786,008,400

Source: Miami-Dade Transit, 2014.

\* Sum of cumulative totals from Tables 8-6 and 8-8.

\*\*Incremental totals by year from Tables 8-6 and 8-8 minus funded capital bus improvements (including spares).

\*\*\*Total Infrastructure Renewal Plan (IRP) Unfunded Need from Table 8-14.

## 9.4 Funding Sources

This section evaluates both the current and potential funding sources available to Miami-Dade Transit (MDT) in maintaining and improving its transit service, both within Miami-Dade County and regional service extending into Broward and Monroe counties.

While maintaining the existing funding sources for transit services is critical, the ability to both improve existing service and expand bus and rail service coverage relies heavily on additional funding. More specifically, leveraging additional federal and state funding to provide new routes or expand existing route coverage often requires significant local matching funds.

The funding sources analyzed within this section include federal, state and local sources that can potentially be used to fund expanded MDT service. Identifying the current funding structure as well as potential additional funding will provide the necessary framework for MDT to address funding issues or shortfalls in the future.

### 9.4.1 Federal Funding Sources

This section outlines the existing federal funding sources available to partially cover the costs of the agency's existing and planned new services, identified earlier in the TDP. The majority of federal funding sources identified here are most commonly used to cover capital costs. Identifying O&M funding is often difficult because the cash flow must be recurring and growing annually to match inflation (and potentially service growth).

Federal funding for transportation has declined since 2008, and as a result discretionary funding has become more competitive and formula funding less predictable. As such, MDT's reliance on federal funds for operations has declined from over 50 percent (50%) of operating revenues in 2000 to under one-third today. Similarly, federal sources for capital projects are estimated to comprise only six percent of overall capital revenue in the period between 2010 and 2019. The following discussion identifies a range of federal funding sources currently available for transit operations and capital expenses which MDT may pursue as a way of leveraging the state and local sources being considered.

#### 9.4.1.1 Federal Formula Grants

The Federal Transit Administration (FTA) apportions funds based on legislated formulas set forth in MAP-21, the current federal transportation funding authorization bill passed in 2012. These formulas use characteristics such as population, transit ridership, and other demographic and operating factors to determine the share of total funding available to individual states, metropolitan areas, and large transit agencies. Formula funds can flow through a local MPO to be allocated to projects directly, or allocated to individual jurisdictions or agencies to use as necessary based on their capital improvement program and local planning priorities. The total amount apportioned annually under each federal grant program is authorized by law.

For capital projects, formula funds may be used for up to 80 percent of the project costs, with a 20 percent local match. States are permitted to use certain toll revenue expenditures as a credit toward the non-federal share of programs authorized by Title 23 (with the exception of Emergency Relief Programs) and for transit programs authorized by Chapter 53 of Title 49, U.S.C. This is in essence a "soft-match" provision that allows the federal share to be increased

up to 100 percent (100%) to the extent credits are available. Miami-Dade Transit may be eligible for the following federal formula grant programs:

- **Urbanized Area Formula Program (§ 5307).** FTA's largest formula-based grant program, and currently utilized by MDT, this source offers the broadest range of eligibility among all FTA funding programs. Eligible activities include capital, planning, job access and reverse commute, and certain operating costs for transit providers based on their size and service frequencies. Section 5307 funds are distributed to designated recipients who then sub-allocate funds to government authorities or public transit agencies. While MDT may not currently have headroom within this program to allocate funds to additional projects, this is the most applicable and common source of funding for the types of transit improvements identified in the Transit Development Plan. Under the current MAP-21 authorization, the Section 5307 program will distribute \$4.5 billion in fiscal year 2014.
- **Elderly and Disabled Specialized Transit Program (§5310).** Section 5310 funds are available on a discretionary basis to private non-profit and public agencies in the form of capital and operating grants to provide transportation services for the elderly and individuals with disabilities. Public agencies are eligible for 5310 funds only where no private non-profits are readily available to provide such services, or where the public agency has been pre-approved by the State to coordinate such services. Under MAP-21 the Section 5310 program will distribute \$258.3 million in fiscal year 2014 based on a jurisdiction's number of seniors and individuals with disabilities. The federal share under Section 5310 is 80% for capital projects and 50 percent (50%) for operations assistance.
- **Bus and Bus Facilities (§ 5339).** This program changed to a formula program under MAP-21. FTA's Bus and Bus Facilities program provides capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. This source would be applicable to capital costs only, such as buses and bus stop improvements. Under the current MAP-21 authorization, Section 5339 will distribute \$427.8 million in fiscal year 2014.
- **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 in order 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 \$10.1 billion in fiscal year 2014.
- **State of Good Repair Program (§ 5337).** FTA's first stand-alone initiative that is dedicated to repairing and upgrading the nation's rail transit systems along with high-intensity motor bus systems that use high-occupancy vehicle lanes, including bus rapid transit (BRT). Eligible projects must improve safety, efficiency, reliability, and sustainability, and funds are limited to replacement and rehabilitation or capital projects required to maintain state of good repair, including rolling stock, track, line

equipment/structures, and other transit components. Section 5337 will distribute \$2.2 billion in fiscal year 2014.

#### 9.4.1.2 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. These programs typically allow for a federal share of up to 80 percent of the project capital cost and require a local match for the remaining 20 percent.

**FTA New Starts.** The Fixed Guideway Capital Investment Grants program (§ 5309) is the largest federal grant program for transit projects. FTA administers the program and defines three categories of eligibility: New Starts, Small Starts, and Core Capacity. All of these programs are aimed at “Fixed Guideway” projects, which generally mean rail or Bus Rapid Transit (BRT). The program provides approximately \$2 billion per year for various fixed guideway transit infrastructure projects. New fixed guideway projects, or extensions to fixed guideway projects, costing less than \$250 million and requiring less than \$75 million in Section 5309 funding may qualify for “Small Starts” funding. In order to qualify, Small Starts projects must follow a specific project development process and be subject to evaluation against a number of justification and financial criteria mandated by MAP-21.

MAP-21 also established within the Capital Investment Grant program the ability to fund capacity improvements to existing fixed guideway projects. Core Capacity projects can be of any size and cost, and must adhere to a more complicated project development process than Small Starts. Candidate projects must also meet the following conditions:

- Be located in a corridor that is at or over capacity, or will be in five (5) years;
- Increase capacity by 10 percent (10%);
- Not including project elements designed to maintain a state of good repair;
- National Infrastructure Investments (TIGER). The Transportation Investment Generating Economic Recovery (TIGER) program is a discretionary grant program originally established under the American Recovery and Reinvestment Act (ARRA). TIGER provides discretionary grants for capital investments in, and planning for, surface transportation infrastructure that will have a significant impact on the nation, a metropolitan area, or a region. Eligible projects include highways, bridges, transit, rail passenger and freight investments, and marine port infrastructure.

In February 2014 the USDOT issued a Notice of Funding Availability (NOFA) for up to \$600 million in FY 2014 for round six of the TIGER program, making it USDOT’s largest multimodal discretionary program, and the highest level of available TIGER funding since TIGER II in FY 2010. TIGER is not a statutory program, but it is expected that the program will be extended into at least FY 2015, and the Obama Administration has proposed \$5 billion for the program over four years as part of its early transportation reauthorization proposal.

The U.S. Department of Transportation (DOT) administers the TIGER program and may award grants covering up to 80 percent (80%) of a project’s construction costs, although successful

applications in urban areas generally request no more than \$20 million and less than 35 percent (35%) of project costs from this program. Funds are required to be obligated within two years of award and are typically allocated to projects that have completed the National Environmental Policy Act (NEPA) process.

#### 9.4.2 State Funding Sources

There are several well-established and stable state revenue sources currently used by not only MDT, but other transit providers in Florida to include Palm Tran, Broward County Transit (BCT), and the South Florida Transportation Authority (SFRTA). Each of these state revenue sources was reviewed and with key aspects of each presented below.

##### 9.4.2.1 FDOT Transit Block Grant Program

The State Block Grant Program was established by the Florida Legislature to provide a stable source of funding for public transit. Transit Block Grant funds may be used to fund eligible capital and operating costs of providing public transit service. Program funds also may be used for transit service development and transit corridor projects. Public Transit Block Grant projects must be consistent with applicable approved local government comprehensive plans. State participation is limited to 50 percent of the non-federal share of capital projects. Program funds may be used to fund up to 50 percent of eligible operating costs, or an amount equal to the total revenue (excluding farebox, charter, and advertising revenue) and federal funds received by the provider for operating costs, whichever amount is less.

For MDT, revenue received under the Transit Block Grant program is issued under a Joint-Participation Agreement (JPA) with FDOT. For FY 2014/15, MDT anticipates receiving approximately \$19.75 million under this program to fund bus and rail services.

##### 9.4.2.2 FDOT Transit Corridor Program

The FDOT Transit Corridor program provides funding to support new transit services within specific roadway corridors where transit services are designed and expected to help alleviate congestion or address other mobility issues within the corridor. Transit Corridor funds are discretionary and are distributed by FDOT based on documented need. Projects that have regional or statewide significance may be funded up to 100 percent under this program. These funds can be used for capital or operating expenses, but eligible projects must be identified in a Transit Development Plan (TDP), Congestion Management Plan (CMP), or other formal study undertaken by a public agency.

##### 9.4.2.3 FDOT Transit Service Development Grant Program

The Transit Service Development Grant Program is designed to provide initial funding to public transportation projects that provide new or innovative techniques to improve system efficiencies, ridership, or revenues. This grant may fund up to 50 percent of the capital, marketing, and net operating costs (less any federal funds, fares, or other sources of income available for the project). Projects that have regional or statewide significance may be funded up to 100 percent. Under this program, funds are available for up to three years. If a bus route is funded for the duration of the grant, and the route is successful in meeting the established project goals, then funding for the route must then be provided by the transit agency without additional Transit Service Development Program funds. In addition, projects submitted for funding must be



justified in the recipient's Transit Development Plan (TDP) or other appropriate plan and then compete statewide for funding from FDOT.

#### **9.4.2.4 New Starts Transit Program (NSTP)**

The New Starts Transit Program assists local governments in developing and constructing fixed guideway and bus rapid transit projects to accommodate and manage urban growth and development. The program also leverages state funds to generate local transportation revenues and secure FTA New Starts Program funding for Florida projects. Eligible projects include capital projects that support the Strategic Intermodal System (SIS). These funds may be used to support final design, right of way acquisition, and construction project phases. Projects eligible for funding under this program must have a dedicated funding commitment and be included in appropriate local plans. A project must also have either a Record of Decision (ROD) from the FTA or a Finding of No Significant Impact (FONSI). State participation of transit capital projects may not exceed 50 percent of the nonfederal share of a project. Other state funds cannot be used as match for NSTP funds.

#### **9.4.2.5 FDOT Intermodal Development Program**

The Intermodal Development Program provides assistance for major capital investments in fixed guideway transportation systems and to facilitate movement of people and goods through multiple modes. This includes construction of intermodal, multimodal, or other transportation terminals, as well as projects that provide access to seaports or airports. Projects that are regional in nature or provide multimodal connections are given a higher priority and may be funded up to 100 percent. Eligible projects must be consistent with approved local government comprehensive plans to the maximum extent feasible.

#### **9.4.2.6 Park and Ride Lot Program**

The Park and Ride Lot Program provides funding for the purchase or leasing of private land for the construction of park and ride lots, the promotion of these lots, and the monitoring of their use. Park-and-ride lots that serve a regional need or provide connections between multiple modes of transportation will be given a higher priority. To be eligible for funding under this program, a park and ride lot must be shown on the applicable FDOT District's park and ride project list, a Transit Corridor Plan, a TDP, a major highway construction justification plan, or another locally published plan. The project must also be designed in accordance with the FDOT's State Park and Ride Lot Planning Handbook.

#### **9.4.2.7 FDOT Commuter Assistance Program**

Commuter Assistance funding is allocated for various ridesharing, vanpooling, and other commuter services that fall under the transportation demand management (TDM) list of strategies. Creating transportation alternatives for commuters could potentially be eligible for funding under this program. Commuter routes that are initiated with the intent to connect commuters directly to work sites through shuttles or other means may be eligible. Under this program, capital and operating expenses are both eligible for funding. Although competition with other regional priorities can be an issue under this program, guidance from FDOT District 6 should be used to help make the decision to pursue funding under this program.

#### 9.4.2.8 Transportation Regional Incentive Program (TRIP)

The TRIP program was created by the Florida Legislature in 2005, with the goal to improve regionally significant transportation facilities in “regional transportation areas.” Under this program, state funds are available to provide incentives for local governments and the private sector to help pay for critically needed projects that benefit regional travel and commerce. If eligible, a project can be funded under this program up to 50 percent of the project costs, or up to 50 percent of the non-federal share of project costs for public transportation facility projects. Eligible TRIP projects must be identified in appropriate local government capital improvement program(s) or long-term concurrency management system(s) that are in compliance with state-mandated comprehensive plan requirements and the SIS. Projects must also support facilities that serve national, statewide, or regional functions and function as an integrated transportation system.

#### 9.4.2.9 County Incentive Grant Program

The County Incentive Grant Program provides funding to counties to improve a transportation facility (including transit) that is located on or that relieves traffic congestion on the State Highway System. Municipalities are also eligible to apply by submitting their application through the county. FDOT will cover 50 percent of eligible project costs. Eligible projects include those that improve the mobility on the State Highway System; encourage, enhance, or create economic benefits, foster public-private partnerships, maintain or protect the environment, or enhance intermodal opportunities and safety.

### 9.4.3 Local and Regional Funding Sources

As part of this effort, a review of various local and regional funding sources was also conducted. The funding categories and a majority of the sources summarized are based on the information from 2009 TCRP Report 129: Local and Regional Funding Mechanisms for Public Transportation, published by the Transportation Research Board (TRB).

#### 9.4.3.1 People’s Transportation Plan (PTP)

The People's Transportation Plan (PTP) is a half-penny transportation surtax approved by Miami-Dade County voters in November 2002. PTP revenue is used to fund major roadway and public transportation improvements. PTP-funded roadway projects will facilitate the movement of traffic and people to meet future needs. The funds have been used for projects that include roadway resurfacings, improvements to the County's traffic signalization system, American with Disabilities Act (ADA) sidewalk and bus stop accessibility, providing traffic calming devices, and others. The funds have also been used to fund the Metrorail Orange Line extension, provide free Metromover service in Downtown Miami, and extend Metrobus service hours. These transit improvements greatly enhance the safety and mobility of people and goods throughout the county.

To be eligible for PTP funding, projects must be included in the PTP Plan, which is updated annually. The PTP Transportation Trust has initiated an enhanced major capital investment review process, which began with the AirportLink project and will continue with projects such as MDT systems upgrades and the railcar procurement.

For FY 2015, some PTP project objectives include: completion of an innovative financing study for the North (27th Avenue) Corridor; identifying and improving MDT operations and performance; coordination between MDT and municipal shuttles to reduce duplication of services; and continuing to enhance transparency and multi-media outreach efforts.

#### **9.4.3.2 Local Option Gas Tax (LOGT)**

The Local Option Gas Tax (LOGT) is authorized by Section 336.025(1)(B), Florida Statutes, which became effective in January 1994. State law requires that funds from the LOGT tax be programmed for transportation projects that meet the requirements of the capital improvement element of the adopted comprehensive plan. The Miami-Dade Board of County Commissioners (BCC) reviews the distribution of LOGT funds on an annual basis to ensure the most effective use of the funds.

#### **9.4.3.3 County/City General Revenue**

General fund and other local revenues from municipalities and counties are often critical to expanding local transit services; however, this local revenue is often difficult to come by as many services and projects compete for these limited funds. Local funding must be fair and equitable in areas where multiple jurisdictions contribute to a public transportation system. Additionally, as new routes or expanded services are requested by local jurisdictions, those that receive benefit should be encouraged to contribute a fair and reasonable share of the local match needed to implement the services. Establishing a funding allocation process that is based on the benefit of the services received and potential ridership demand should be developed to assist in this process.

#### **9.4.3.4 Property Taxes**

One of the main revenue sources for local governments is property (ad valorem) taxes on land and building values. Property taxes are fairly unrestricted in their use. Property tax revenue is often used by special districts and authorities, including transit authorities, and other local public services, like police and sanitation.

#### **9.4.3.5 Contract or Purchase-of-Service Revenues**

Contract or purchase-of-service revenues are based on levels of service and rates established by a transit agency. Transit systems that provide contract services in addition to their regularly scheduled services, like MDT's Special Transportation Service (STS) services, typically receive the funds directly. Municipal government, individual businesses and industries, health and social service agencies, and educational institutions may purchase transit services.

#### **9.4.3.6 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. 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.

#### **9.4.3.7 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.

#### **9.4.3.8 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.

#### **9.4.3.9 Concessions**

Transit agencies with available space in terminals and station facilities may enter into 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.

#### **9.4.3.10 Employer/Payroll Taxes**

Payroll taxes support transit by imposing taxes directly on an employer for the amount paid for services performed within the transit district. Employer taxes are typically received quarterly and administered by a state agency on behalf of the transit agency. Enabling legislation, along with associated regulations and guidelines, define the specific types of wages and payments to which the tax is applied and also identifies any types of organizations that may be exempt from contributing under this program.

#### **9.4.3.11 Rental Car Fees**

Rental car fees are paid during the rental of a passenger car, with the amount depending on the length of the rental. Rental car fees are typically transmitted by the rental car company to the state revenue department, and revenues may then be reallocated back to authorized local governments or agencies. Funds collected under this program are often dedicated to specific projects or purposes, including public transportation.

#### **9.4.3.12 Vehicle Lease Taxes and Fees**

Vehicle lease taxes and fees are charged when vehicles are purchased or leased. The amount 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.

#### **9.4.3.13 Parking Fees**

Transit agencies 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.

#### **9.4.3.14 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 s, parks and open space and, in some instances, public transportation.

#### **9.4.3.15 Corporate Franchise Taxes**

A 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.

#### **9.4.3.16 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 for to promote tourism or construct/operate tourism-related facilities.

#### **9.4.3.17 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. The tax is often put in place in lieu of a business and occupation tax or sales tax.

#### **9.4.3.18 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.

#### **9.4.3.19 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.

For example, the joint developments around rail stations in Miami-Dade and Broward counties provide potential new funding streams for MDT. 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 MDT transit services and facilities.

#### **9.4.3.20 Impact Fees/Exactions**

New development brings higher demand for additional public facilities and services, including additional transportation capacity and, particularly in urban areas, for expanded transit services. Impact fees are frequently charged to generate revenues needed to provide the necessary transportation capacity improvements necessitated by the 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 in Florida.

### **9.5 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 analysis. There is a wide range of delivery and financing methods that will allow for different levels of control, risk and responsibility allocation between MDT (or another sponsor/public entity) and private partners, and funding and financing strategies. 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, and sponsor resources and risk preferences, all of which then need to be matched with the specific risk allocation provided under various delivery options. The ultimate 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), requiring a first 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).

This section 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.

#### **9.5.1.1 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 the majority of 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.

### 9.5.1.2 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 of time (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 (through the use of performance-based O&M contract requirements and operator input during the design), and improves budget visibility for the public owner.

The DBOM model (as well as DBFOM, which includes financing into the P3 scope, as discussed below) 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.

### 9.5.1.3 Design-Build-Finance

Design-Build-Finance (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. In essence, a DBF arrangement is a DB procurement with short-term gap financing.

### 9.5.1.4 Design-Build-Finance-Operate-Maintain

The Design-Build-Finance-Operate-Maintain (DBFOM) model (also referred to as DBFO or Build-Operate-Transfer or BOT) 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 of time (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."

Compared to DBOM, DBFOM procurement comes with the additional oversight of equity and debt providers who will 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) in order to attract private capital, justify the transaction costs, and generate competition to attract large contractors with the necessary expertise.

#### 9.5.1.5 Privatization

Under a privatization scheme (also known as 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 of the surplus operating revenue in perpetuity, corresponding to a full privatization. While this approach is more common in the water and telecommunication sectors, it has also been used historically to develop transportation infrastructure (e.g. freight railroad).

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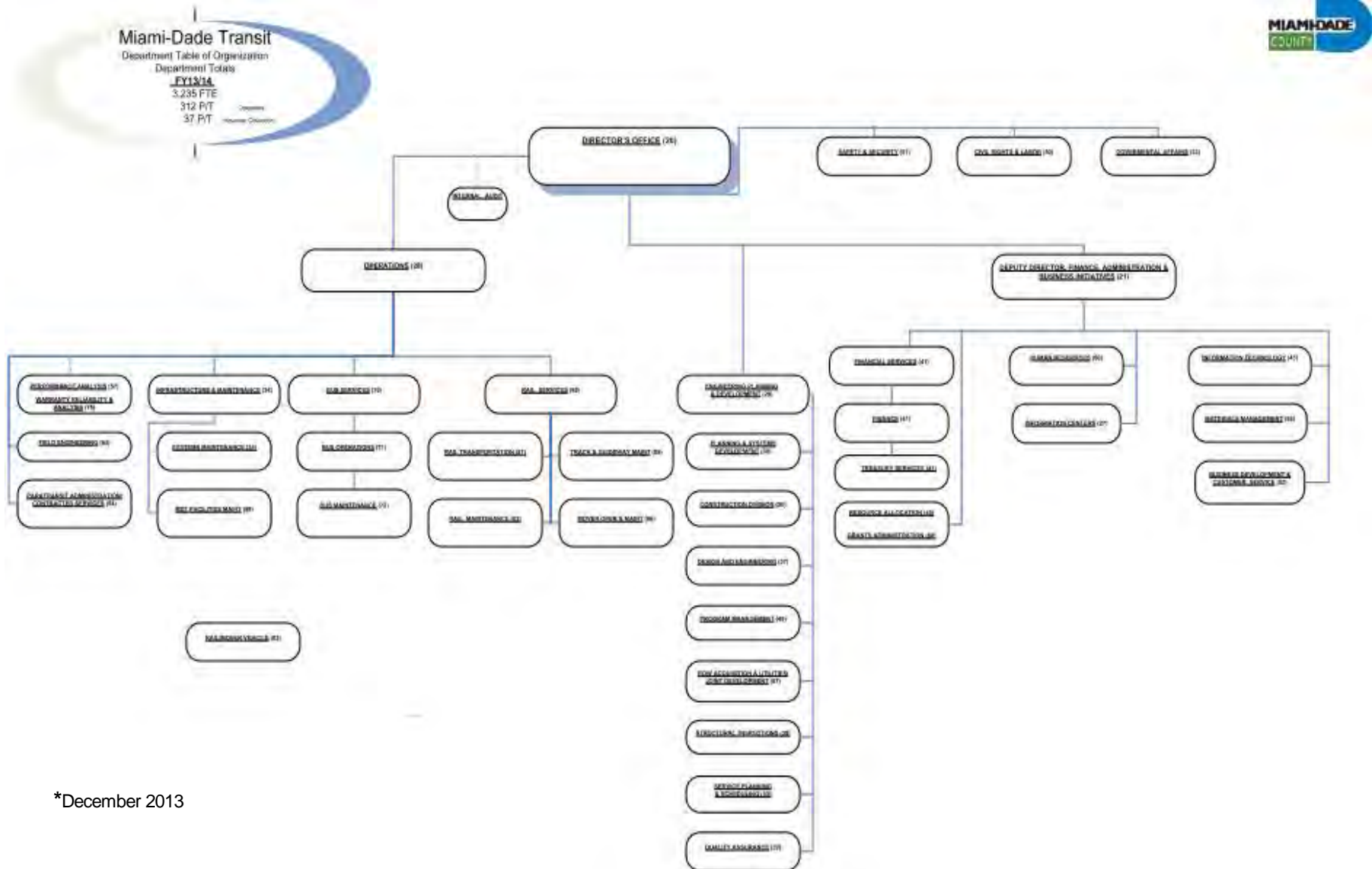


## A.1 MIAMI-DADE TRANSIT TABLE OF ORGANIZATION





## MDT Table of Organization



\*December 2013



## A.2 SERVICE CHARACTERISTICS (DECEMBER 2013)



MDT METROBUS ROUTE HEADWAYS (December 2013)						
ROUTE	PEAK (AM/PM)	OFF-PEAK (Midday)	EVENING (at 8 pm)	OVER NIGHT	SATURDAY	SUNDAY
BRANCHES						
1	30	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	60	n/a	n/a	n/a
3	18	18	30	60	15	20
6	60	60	n/a	n/a	60	60
7						
East of NW 44 Avenue	15	20	30	n/a	20	20
MIA Metrorail Station	30	40	60	n/a	40	40
Dolphin Mall	30	40	60	n/a	40	40
8						
East of SW 57 Avenue	10	15	20	n/a	15	20
East of SW 82 Avenue	15	15	20	n/a	15	20
Westchester	30	30	20	n/a	15	20
FIU via SW 8 Street	30	30	n/a	n/a	n/a	n/a
FIU via Coral Way	30	30	20	n/a	n/a	n/a
9						
163rd Street Mall	12	30	30	n/a	30	30
Aventura Mall	24	30	60	n/a	30	30
10	30	30	30	n/a	30	30
11						
East of 79 Avenue	7½	12	20	60	12	15
Mall of the Americas	15	24	40	60	24	30
FIU-University Park Campus	15	24	40	60	24	30
12	30	30	45	n/a	40	40
16	18	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						
Westchester	20	20	30	n/a	30	30
FIU-University Park Campus	40	40	30	n/a	60	60
SW 137 Avenue/26 Street	40	40	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	15	30	60	20	30
Calder via NW 27 Avenue	30	30	60	n/a	40	60
Calder via NW 37 Avenue	30	30	60	60	40	60
29	50	50	n/a	n/a	n/a	n/a
31 (Busway Local)	15	30	40	n/a	30	30
32	24	30	60	n/a	40	60
33	30	30	60	n/a	30	30
34 (Busway Flyer)	7½	n/a	n/a	n/a	n/a	n/a
35	30	30	35	n/a	60	60
36						
East of NW 57 Avenue	20	30	20	n/a	30	30
Doral Center	20	60	40	n/a	60	60
Miami Springs Circle	60	60	60	n/a	60	60
Dolphin Mall	60	60	40	n/a	n/a	n/a
37	30	30	30	n/a	30	30
38 (Busway MAX)	12	15	15	60	15	20



MDT METROBUS ROUTE HEADWAYS (December 2013 - continued)						
ROUTE	PEAK (AM/PM)	OFF-PEAK (Midday)	EVENING (at 8 pm)	OVER NIGHT	SATURDAY	SUNDAY
<b>BRANCHES</b>						
40						
East of SW 127 Avenue	15	30	40	n/a	60	60
SW 8 Street/SW 129 Avenue	30	60	45	n/a	n/a	n/a
Miller Drive/SW 152 Avenue	30	60	45	n/a	60	60
42						
MIA Metrorail Station	20	30	60	n/a	40	60
Miami Springs Circle	40	60	n/a	n/a	n/a	n/a
Opa-locka Tri-Rail Station	40	60	n/a	n/a	40	60
46 (Liberty City Connection)	45	n/a	n/a	n/a	n/a	n/a
48	60	60	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	25	30	30	n/a	30	40
Miami Gardens Drive/NW 87 Avenue	50	60	n/a	n/a	n/a	n/a
56	40	60	n/a	n/a	n/a	n/a
57	40	60	n/a	n/a	n/a	n/a
62						
Dr. Martin Luther King, Jr. Station	12	20	30	n/a	20	30
Hialeah	30	40	30	n/a	20	30
Miami Beach	30	n/a	n/a	n/a	n/a	n/a
70						
South Dade Government Center	30	60	60	n/a	60	60
Saga Bay	n/a	n/a	n/a	n/a	60	60
71	30	60	45	n/a	60	60
72						
East of SW 137 Avenue	30	30	30	n/a	60	60
Miller Square	60	60	60	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	45	60
77						
South of NW 183 Street	7½	12	30	n/a	15	30
NW 199 Street	15	24	30	n/a	30	60
79 (79 Street MAX)	24	n/a	n/a	n/a	n/a	n/a
87						
Koger Center	30	45	60	n/a	45	60
Palmetto Station	30	45	60	n/a	n/a	n/a
88	20	30	30	n/a	24	30
93 (Biscayne MAX)	15	30	n/a	n/a	n/a	n/a
95	5	n/a	n/a	n/a	n/a	n/a
99						
East of NW 47 Avenue	30	30	40	n/a	40	40
Miami Lakes	60	60	60	n/a	40	40
101 (Route A)	24	48	40	n/a	45	45
102 (Route B)						
East of Harbor Drive	8	30	30	n/a	30	30
Cape Florida State Park	8	60	30	n/a	60	60
Mashta Drive	60	60	n/a	n/a	60	60
103 (Route C)	20	20	30	n/a	20	30
104	25	45	60	n/a	60	60
105 (Route E)	30	45	30	n/a	50	50
107 (Route G)	30	30	60	n/a	30	30
108 (Route H)	25	25	40	n/a	30	30
110 (Route J)	20	30	30	n/a	30	30
112 (Route L)						
Northside Station	12	12	20	60	15	20
Amtrak Station	24	24	60	n/a	sel	sel
Hialeah Station	24	24	20	n/a	30	40

## MDT METROBUS ROUTE HEADWAYS (December 2013 - continued)

ROUTE BRANCHES	PEAK (AM/PM)	OFF-PEAK (Midday)	EVENING (at 8 pm)	OVER NIGHT	SATURDAY	SUNDAY
113 (Route M)	45	60	60	n/a	60	60
115 (Mid-North Beach Connection CW)	45	45	n/a	n/a	60	60
117 (Mid-North Beach Connection CCW)	45	45	60	n/a	60	60
119 (Route S)	12	12	12	60	15	15
120 (Beach MAX)						
South of Collins Avenue/Haulover Park Entrance	12	12	30	n/a	15	30
Haulover Park Marina	24	24	n/a	n/a	30	n/a
Aventura Mall	24	24	30	n/a	30	30
123 (South Beach Local)	20	13	20	n/a	13	13
132 (Tri-Rail Doral Shuttle)	80	n/a	n/a	n/a	n/a	n/a
133 (Tri-Rail Airport Shuttle)	20	60	30	n/a	100	100
135						
East of LeJeune Road	30	30	30	n/a	60	60
Hialeah Station	60	60	60	n/a	60	60
Miami Lakes	60	60	60	n/a	n/a	n/a
136	45	n/a	n/a	n/a	n/a	n/a
137 (West Dade Connection)	30	45	60	n/a	40	45
150 (Miami Beach Airport Flyer)	30	30	30	n/a	30	30
183						
East of NW 57 Avenue	12	20	20	n/a	20	24
Miami Gardens Drive/NW 87 Avenue	24	40	40	n/a	40	48
195 (I-95 Dade-Broward Express)	15	n/a	n/a	n/a	n/a	n/a
200 (Cutler Bay Local)	50	50	n/a	n/a	n/a	n/a
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)	7½	n/a	30	n/a	n/a	n/a
207 (Little Havana Connection CW)	15	20	20	n/a	20	20
208 (Little Havana Connection CCW)	15	20	20	n/a	20	20
211 (Overtown Circulator)	45	45	n/a	n/a	n/a	n/a
212 (Sweetwater Circulator)	n/a	30	n/a	n/a	n/a	n/a
238 (East-West Connection)	45	60	n/a	n/a	60	60
243 (Seaport Connection)	30	n/a	n/a	n/a	n/a	n/a
246 (Night Owl)	n/a	n/a	n/a	60	60ovn	60ovn
249 (Coconut Grove Circulator)	18	18	20	n/a	25	25
252 (Coral Reef MAX)						
East of SW 117 Avenue	20	60	50	n/a	60	60
Zoo Miami	20	60	n/a	n/a	60	60
Country Walk	20	60	50	n/a	60	60
SW 162 Avenue	30	n/a	n/a	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)	15	n/a	n/a	n/a	n/a	n/a
277 (7 Avenue MAX)	18	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)	30	n/a	n/a	n/a	n/a	n/a
288 (Kendall Cruiser)	12	n/a	n/a	n/a	n/a	n/a
297 (27th Avenue Enhanced Bus)	15	30	n/a	n/a	n/a	n/a
344	60	60	n/a	n/a	n/a	n/a
500 (Midnight Owl)	n/a	n/a	n/a	60	60ovn	60ovn

## 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



### A.3 MUNICIPAL TRANSIT SERVICES





## Municipal Transit Services



Municipality	Service Operator	Website Address
Aventura	Contractor	<a href="http://www.cityofaventura.com/index.aspx?page=121">http://www.cityofaventura.com/index.aspx?page=121</a>
Bal Harbour Village	Contractor	<a href="http://www.balharbourgov.com/how-do-i/access-the-bal-harbour-express-bus">http://www.balharbourgov.com/how-do-i/access-the-bal-harbour-express-bus</a>
Bay Harbor Islands	Contractor	<a href="http://www.bayharborislands.org/content.aspx?id=29">http://www.bayharborislands.org/content.aspx?id=29</a>
Biscayne Park	N/A	
Coral Gables	Contractor	<a href="http://www.coralgables.com/index.aspx?page=3">http://www.coralgables.com/index.aspx?page=3</a>
Cutler Bay	Miami-Dade Transit	<a href="http://www.cutlerbay">http://www.cutlerbay</a>
Doral	Contractor	<a href="http://www.cityofdoral.com/index.php?option=com_content&amp;view=article&amp;id=149&amp;Itemid=339">http://www.cityofdoral.com/index.php?option=com_content&amp;view=article&amp;id=149&amp;Itemid=339</a>
El Portal	N/A	
Florida City	N/A	
Golden Beach	N/A	
Hialeah	Contractor	<a href="http://www.hialeahfl.gov/index.php?option=com_content&amp;view=article&amp;id=141&amp;Itemid=409&amp;lang=en">http://www.hialeahfl.gov/index.php?option=com_content&amp;view=article&amp;id=141&amp;Itemid=409&amp;lang=en</a>
Hialeah Gardens	ILA with Hialeah	<a href="http://cityofhialeahgardens.com/cohg2/index.php?option=com_content&amp;view=article&amp;id=63&amp;Itemid=1">http://cityofhialeahgardens.com/cohg2/index.php?option=com_content&amp;view=article&amp;id=63&amp;Itemid=1</a>
Homestead	Contractor	<a href="http://www.cityofhomestead.com/index.aspx?id=106">http://www.cityofhomestead.com/index.aspx?id=106</a>
Indian Creek Village	N/A	
Key Biscayne	N/A	
Medley	Municipality	<a href="http://www.townofmedley.com/socialservices.p">http://www.townofmedley.com/socialservices.p</a>
Miami	Contractor	<a href="http://www.miamigov.com/trolley/">http://www.miamigov.com/trolley/</a>
Miami Beach	Miami-Dade Transit and Contractor planned for 2014	<a href="http://www.miamibeachfl.gov/">http://www.miamibeachfl.gov/</a>
Miami Gardens	Planned for 2015	<a href="http://www.miamigardens-fl.gov/">http://www.miamigardens-fl.gov/</a>
Miami Lakes	Contractor	<a href="http://miamilakes-fl.gov/index.php?option=com_content&amp;view=article&amp;id=65&amp;Itemid=410">http://miamilakes-fl.gov/index.php?option=com_content&amp;view=article&amp;id=65&amp;Itemid=410</a>
Miami Shores	Contractor	<a href="http://www.miamishoresvillage.com/miami-shores-village/shores-shuttle-information.html">http://www.miamishoresvillage.com/miami-shores-village/shores-shuttle-information.html</a>
Miami Springs	Contractor	<a href="http://www.miamisprings-fl.gov/community/ride-free-bee-shuttle">http://www.miamisprings-fl.gov/community/ride-free-bee-shuttle</a>
North Bay Village	Municipality	<a href="http://www.nbvillage.com/Pages/NorthBayFL_VebDocs/Minibus">http://www.nbvillage.com/Pages/NorthBayFL_VebDocs/Minibus</a>
North Miami	Contractor	<a href="http://www.northmiamifl.gov/Departments/publicworks/transportation.aspx">http://www.northmiamifl.gov/Departments/publicworks/transportation.aspx</a>
North Miami Beach	Municipality	<a href="http://www.citynmb.com/index.asp?Type=BLIST&amp;SEC=48AC2614-6884-4BA4-83C3">http://www.citynmb.com/index.asp?Type=BLIST&amp;SEC=48AC2614-6884-4BA4-83C3</a>
Opa Locka	Contractor	<a href="http://opalockafl.gov/index.aspx?id=239">http://opalockafl.gov/index.aspx?id=239</a>
Palmetto Bay	Contractor	<a href="http://www.palmettobay-fl.gov/content/ibus-bus-circulator">http://www.palmettobay-fl.gov/content/ibus-bus-circulator</a>
Pinecrest	Contractor	<a href="http://www.pinecrest">http://www.pinecrest</a>
South Miami	N/A	
Sunny Isles Beach	Municipality	<a href="http://www.sibfl.net/main_transportation/">http://www.sibfl.net/main_transportation/</a>
Surfside	Contractor	<a href="http://www.townofsurfsidefl.gov/Pages/SurfsideFL_Clerk/SurfsideFL_PDOcs/SurfsideFL_CompPlan/TransportationElement.pdf">http://www.townofsurfsidefl.gov/Pages/SurfsideFL_Clerk/SurfsideFL_PDOcs/SurfsideFL_CompPlan/TransportationElement.pdf</a>
Sweetwater	Municipality	<a href="http://cityofsweetwater-fl.gov/transit.html">http://cityofsweetwater-fl.gov/transit.html</a>
Virginia Gardens	ILA with Miami Springs	<a href="http://www.viriniagardens-fl.gov/">http://www.viriniagardens-fl.gov/</a>
West Miami	Municipality	<a href="http://www.cityofwestmiamifl.com/public-works-transportation.html">http://www.cityofwestmiamifl.com/public-works-transportation.html</a>

Note: ILA = Interlocal Agreement

Legend:

**Total 34 municipalities**

Existing municipal service	26
Future municipal service	1
No current or planned service	7



## A.4 PUBLIC INVOLVEMENT PLAN





**TRANSIT DEVELOPMENT PLAN MAJOR UPDATE**  
**PUBLIC INVOLVEMENT PLAN**

*July 2014*





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## 1.0 INTRODUCTION

Miami-Dade Transit (MDT) is preparing its 10-year 2014 Transit Development Plan (TDP), which will provide planning, development and operational guidance for the evolution of the transit system over the next 10 years. As required by Florida Administrative Code 14-73.001, MDT 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 MDT's vision for public transportation in its service area and defines actions to help MDT achieve its vision. Specifically, a TDP includes the following major elements:

- Public involvement plan (PIP) 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.

## 2.0 PUBLIC INVOLVEMENT PROGRAM

The TDP PIP for MDT 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 public involvement process shall include the following:

- Educate and present information by promoting proactive and early public involvement.



- 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 public involvement process.

The PIP is consistent with the Miami-Dade Metropolitan Planning Organization's (MPO) 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 PIP and have it approved by FDOT or use the MPO's PIP. The MPO's PIP was developed to cover all MPO needs and, as such, is a general document. MDT has elected to develop its own PIP to provide a more detailed description of the public involvement activities specifically to be undertaken during the development of the TDP. MDT intends to adhere to the greater goals of the MPO's PIP throughout the course of the TDP. In addition to adhering to the MPO's PIP, MDT will include an MPO representative on the TDP Major Update Project Steering Committee (PSC).

## 2.1 TDP PROJECT TEAM

The Project Team for the development of the TDP comprises four groups – Project Management Team, a Project Steering Committee, Commission District Representative Group, and Municipal Representative Group. 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 MDT 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 PSC, and generally oversee the project's progression. The MDT 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.

### 2.1.2 Project Steering Committee

The role of the PSC 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 PSC 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 PSC will meet four times over the course of the project. Members of the PSC are listed in Appendix B, Table B-1. As required by statute, FDOT, regional workforce board (i.e., CareerSource South Florida), and MPO 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 Project Steering Committee.



### 2.1.3 Board of County Commissioners District Representative Group

Each Board of County Commissioner will be asked to provide a recommendation for a constituent from their respective commission district to participate with this group. It is anticipated that this group will meet at least one time during the course of TDP development. The group will provide input with regard to transit needs in their districts. Some members of this group will also participate in the Project Steering Committee.

### 2.1.4 Municipal Representative Group

Each municipality will be requested to recommend a staff representative to participate in the municipal representative discussion. It is anticipated that this group will meet at least one time during the course of TDP development. The group will provide input with regard to transit needs in their municipalities. Some members of this group will also participate in the Project Steering Committee.

### 2.1.5 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,
- Workforce development boards,
- 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,

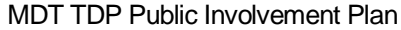




- School and university representatives,
- Tourism representatives,
- Media representatives, and
- State and federal agencies (e.g., environmental, planning, or transportation agencies).



#### 2.1.6 Schedule

Table 1 provides an overview of the schedule for public outreach. While efforts will be made to adhere to this schedule, it is expected that some items may shift to accommodate the needs of targeted groups and agenda requests by the various committees.



### Table 1: Public Involvement Schedule

[illegible]

	Tentative Meeting	
	Deliverable	



## 2.2 Public Involvement Activities

One of the main goals of the PIP is that all segments of the public be provided the opportunity to actively participate in the development and preparation of the TDP. The PIP utilizes various tools such as surveys, comment cards/fact sheets, and social media to facilitate communication with the public and gather input into TDP preparation.

The following public involvement activities will be undertaken during the TDP development process. Each public involvement activity type indicates the timeframe for its completion. These timeframes may be adjusted, in consultation with MDT staff, to ensure the most appropriate timing for the project. See Table 1 for the project schedule overview.

### 2.2.1 Ongoing MDT Outreach

Through coordinated county-wide efforts MDT continues its efforts to educate and provide early and ongoing public involvement 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 MDT website and social media outlets, mobile telephone applications ("apps"), posters and signs on buses, television screens and posters at stations, etc.

MDT 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 MDT or advertising an upcoming public meeting.

Schedule: Ongoing.

### 2.2.2 Branding

The first step for public involvement 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.

Schedule: February 2014.

### 2.2.3 Public Hearing

The TDP will be reviewed by and presented to the Transportation and Aviation Committee (TAC), a subcommittee of the 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 the FDOT for review and approval. The public hearing process will also allow members of the public to comment on the TDP.

Schedule: November 2014.

### 2.2.4 TDP Contact Information

To assist the public and stakeholders in providing information to MDT related to the TDP, a number of mechanisms will be established to gather information. The first is a TDP-specific email address ([MDT10Ahead@miamidade.gov](mailto:MDT10Ahead@miamidade.gov)) where commenters can direct any TDP-

related comments. The second is to use the Community Information and Outreach Center's (CIAO) electronic ([www.miamidade.gov](http://www.miamidade.gov) or [311@miamidade.gov](mailto:311@miamidade.gov)) and telephone (3-1-1, 305-468-5900, 888-311-DADE (3233), or TTY 305-468-5402) portals to gather information. If a commenter indicates that the comment is related to the TDP, the information will be forwarded by CIAO to MDT staff. Commenters can also call MDT's customer service line (305-891-3131 or TTY 305-499-8971) to provide a comment.

Schedule: Ongoing.

### 2.2.5 Printed Materials

MDT will produce a number of printed materials in English, Spanish and Creole for distribution. Materials will include TDP Contact Information such as the TDP-specific email address and CIAO's contact information. A TDP comment card will be developed which will provide an overview of the TDP process, provide information on how people can get involved, and will include a few short questions. The comment card and other related information will be available at TDP public meetings, public libraries, various County public meetings and community events attended by MDT and at MDT facilities. Efforts will be undertaken to distribute these materials through other mechanisms such as MPO and Miami-Dade County events. The card may be submitted at any TDP event or returned via pre-paid postage.

Schedule: Materials will be developed January/February 2014. Distribution will be ongoing.

### 2.2.6 Electronic Survey

MDT 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 MDT should move in the future. Access to the survey will be promoted through print materials, electronic materials, and in-person events.

Schedule: Survey to be online February/March 2014. Data collection will be ongoing.

### 2.2.7 Electronic Communication

MDT will promote TDP outreach activities and encourage input through its electronic communication outlets. Notices will be posted on the MDT, MPO, CITT and other Miami-Dade County websites, [www.miamidade.gov/transit/](http://www.miamidade.gov/transit/), and respectively. MDT will also post information on its Facebook page ([www.facebook.com/MiamiDadeTransit](http://www.facebook.com/MiamiDadeTransit)) and through its Twitter account ([www.twitter.com/iridemdt](http://www.twitter.com/iridemdt)). MDT may also use its mobile app to reach passengers (see example).





Schedule: Ongoing.

### 2.2.8 Special Outreach

MDT will offer alternative outreach opportunities for those who have difficulty participating in conventional public outreach events. Some individuals may have difficulty attending an event due to disabilities, work conflicts, lack of childcare, etc. These individuals may access information and provide comment through MDT's website, the various Community Information and Outreach portals, MDT's customer service line or the TDP's email address.

In addition, MDT continually attends 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. Appendix C, Table C-1 provides a list of the events that will be attended by MDT staff.

Schedule: Ongoing.

## 2.3 Technical Committee Coordination

MDT expands its public involvement program by engaging members of transportation related advisory committees established in Miami-Dade County as listed in the following sections. MDT will engage these committees during regularly scheduled meetings as informational agenda or action items to seek input, provide information and address questions on the development of the MDT TDP. MDT will make several presentations 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 MPO 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 MPO Governing Board members. The CTAC meets once a month and is open to the public. MDT will attend the CTAC to seek input for the TDP based upon a review and formal presentation of the TDP development.

Schedule: June 2014

### 2.3.2 Transportation Planning Technical Advisory Committee (TPTAC)

The MPO 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. MDT will attend the TPTAC to seek input for the TDP based upon a review and formal presentation of the TDP development.

Schedule: June 2014

### 2.3.3 Transportation and Aviation Committee (TAC) – Public Hearing

The TAC 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





TAC will review and provide input on the TDP as well as take formal action in providing its recommendation to the BCC based upon a formal presentation at this public hearing. MDT will attend the TAC to seek input and address comments and questions for the development of the TDP. MDT will seek formal action by the TAC to approve and make recommendation to the BCC.

Schedule: November 2014

#### 2.3.4 Miami-Dade County Board of County Commissioners (BCC)

The Miami-Dade County BCC is the administrative body for county government which 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: November 2014

#### 2.4 Documentation

Miami-Dade Transit 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 public involvement event will be completed after each event and properly logged. Requests received from the public are forwarded to the appropriate MDT division for follow-up and resolution.

Schedule: Ongoing.

### 3.0 PUBLIC INVOLVEMENT EVALUATION MEASURES

The following performance measures will be used to measure the effectiveness of MDT public involvement efforts with regard to the TDP.

**Table 2: Public Involvement Evaluation Measures**

Public Involvement Goal	Strategy	Objectives	Measures	Targets
<b>Goal 1: Early and Consistent Involvement</b>  Involve riders, the public, and stakeholders early and regularly in the project.	<ul style="list-style-type: none"><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>• Number of participants who actively participate</li></ul>	<ul style="list-style-type: none"><li>• Greater than 1,000 interactions</li></ul>
	<ul style="list-style-type: none"><li>• Provide opportunities for passive participation in the project. Passive participation is defined as one-way communication from the TDP Team to the participant. Examples include posting material on a website, sending an email, posting notices on all buses, etc.</li></ul>	<ul style="list-style-type: none"><li>• Catalog the amount of passive participation throughout the project.</li></ul>	<ul style="list-style-type: none"><li>• Number of participants who passively participate (e.g., number of people who received the email, number of people viewing the website, etc.)</li></ul>	<ul style="list-style-type: none"><li>• Greater than 5,000 opportunities provided to participate</li></ul>


**Table 2: Public Involvement Evaluation Measures (Continued)**

Public Involvement Goal	Strategy	Objectives	Measures	Targets
<b>Goal 2: Opportunity</b>  Provide all MDT 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"> <li>• Provide multiple opportunities for input so that if a person cannot attend an event, he/she can still provide input via the website. In addition to obtaining printed material in all public libraries.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish project-specific email address so participants can submit comments and questions any time.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of a project-specific email address</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of a project-specific email address throughout the duration of the project. Review comments and questions received.</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunity for traditionally under-represented groups to participate</li> </ul>	<ul style="list-style-type: none"> <li>• Identify under-represented groups early in the process and include representatives on the PSC</li> </ul>	<ul style="list-style-type: none"> <li>• Number of PSC members that fall into an under-represented group</li> </ul>	<ul style="list-style-type: none"> <li>• Greater than 10% of PSC members are members of an under-represented group</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunity for non-English speaking individuals to participate</li> </ul>	<ul style="list-style-type: none"> <li>• Provide all printed materials in English, Spanish and Creole</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of completed alternative language surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Greater than 20% of returned surveys are alternative language surveys (based on percentage of residents who speak Spanish at home.)</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunity for persons with disabilities to participate</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure in-person events are held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of events held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>• 100% of all events are held at locations accessible by at least one transit route and are ADA accessible</li> </ul>

**Table 2: Public Involvement Evaluation Measures (Continued)**

Public Involvement Goal	Strategy	Objectives	Measures	Targets
<b>Goal 3: Information and Communication</b>  Provide all citizens and interested stakeholder agency groups with clear, timely, and accurate information relating to the project as it progresses.	• Provide information in accessible format	• Provide printed copies of materials when requested by those who do not have access to the internet.	• Number of individuals not provided printed copies when requested	• Zero individuals not provided printed copies when requested
	• Provide regular updates on the TDP's progress	• Update the TDP website on a regular basis	• Frequency of updates to the TDP website	• Update the TDP website more than once per month
	• Provide opportunities for the public to ask questions	• Establish means for the public to submit questions via email and in person	• Percent of questions responded to within two business days	• Greater than 90% of questions responded to within two business days
<b>Goal 4: Range of Techniques</b>  Use a broad-spectrum of techniques to gather input from a diverse population within the project area	• Employ the techniques identified in this PIP to provide a broad range of opportunities	• Assess whether or not the goals of this PIP have been met	• Percent of goals met by the conclusion of the TDP process	• Greater than 75% of goals met by the conclusion of the TDP process



## 4.0 TITLE VI/LIMITED ENGLISH PROFICIENCY (LEP)

Under Title VI of the Civil Rights Act of 1964, as amended, as recipients of federal financial assistance, Miami-Dade Transit, without regard to race, color, or national origin, operate and plan 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: mo7225@miamidade.gov

In accordance with MDT's Title VI Program, ensuring meaningful participation of minority and low-income populations throughout the TDP process is a major objective of this PIP. The following steps will be taken to provide meaningful access and participation of our Title VI protected populations.

- The demographic composition of our PSC will seek to represent the diversity of Miami-Dade County.
- Electronic surveys will be created with a Title VI sensitivity to give MDT a deeper understanding of the needs of our 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 our 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.

MDT is concerned about gathering input from individuals with limited English proficiency (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.





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The website also will indicate that individuals may email questions and comments in Spanish. Questions will be responded to in Spanish, 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 MDT TDP's use. After receiving written comment, efforts will be made to have it translated and addressed.



## Appendix A

### Project Management Team

**Table A-1: Project Management Team**

<b>Name</b>	<b>Agency/Firm</b>	<b>Role</b>
<b>Jacqueline Carranza</b>	<b>Miami-Dade Transit</b>	<b>MDT Project Manager</b>
Monica Cejas	Miami-Dade Transit	MDT Manager
Nilia Cartaya	Miami-Dade Transit	MDT Principal Planner
Doug Robinson	Miami-Dade Transit	MDT Principal Planner
<b>John Lafferty</b>	<b>Parsons Brinckerhoff</b>	<b>Project Manager</b>
Carlos Alba	Parsons Brinckerhoff	Deputy Project Manager
Joel Rey	Tindale-Oliver & Associates	Technical Lead
Laura Everitt	Tindale-Oliver & Associates	Technical Lead
Oliver Rodrigues	Florida Transportation Engineering	Support
Sheng (Sam) Yang	CTS Engineering	Support

**Appendix B****Table B-1: TDP Project Steering Committee Participants**

<b>No.</b>	<b>Stakeholder</b>	<b>Representative</b>
1	Miami-Dade Transit	Jerry Blackman
2	Miami-Dade Transit	Derrick Gordon
3	Miami-Dade Transit	Marcus Ortega
4	Citizens Independent Transportation Trust (CITT)	Charles Scurr
5	Miami-Dade Transit Rider	Martha Vicedo
6	Miami Metropolitan Planning Organization*	Irma San Roman
7	Miami-Dade County Public Works	Antonio Cotarelo
8	Miami-Dade Expressway Authority	Javier Rodriguez
9	Miami-Dade County Regulatory and Economic Resources	Mark Woerner
10	Miami-Dade County Parks and Recreation	Maria Nardi
11	Bicycle and Pedestrian Advisory Committee	Eric Tullberg
12	League of Cities	Richard Kuper
13	Agency for Persons with Disabilities	Rosa Llaguno
14	City of Miami Downtown Development Authority	Alyce Robertson
15	Beacon Council	Stephen Beatus
16	Miami-Dade Chamber of Commerce	Terry McKinley
17	Miami-Dade Chamber of Commerce	Mitch Bierman
18	Urban Health Solutions Urban Health Partnerships	Anamarie Garces
19	CareerSource South Florida*	Rick Beasely
20	South Florida Regional Transportation Authority	Joseph Quinty
21	South Florida Commuter Services	James Udvardi
22	Florida Turnpike Enterprise	Diane Gutierrez-Scaccetti
23	Florida Department of Transportation District 6*	Aileen Boucle
24	Alliance for Aging, Inc.	Marsha Jenakovich
25	Center for Independent Living of South Florida	Marc Dubin, Esq.
26	Commission on Disability Issues (CODI)	Heidi Johnson Wright
27	Municipal Focus Group	Carlos Cruz
28	Municipal Focus Group	Julien Guevara
29	Municipal Focus Group	Jessica Keller

**Table B-1: TDP Project Steering Committee Participants (continued)**


<b>No.</b>	<b>Stakeholder</b>	<b>Representative</b>
30	Municipal Focus Group	Richard Block
31	Commission District Focus Group	Kenneth M. Kilpatrick
32	Commission District Focus Group	Jose A. Lopez
33	Commission District Focus Group	Alexander Adams
34	Commission District Focus Group	Anthony Garcia
35	Commission District Focus Group	Eric Katz
36	Commission District Focus Group	Harry Hoffman
37	Commission District Focus Group	Sean Schwinghammer

\*Inclusion on PSC fulfills statutory requirement



## Appendix C

Table C-1: TDP Public Outreach Events Schedule

       							
TAKE THE 10AHEAD SURVEY NOW >							
Number	DATE	EVENT	ADDRESS	DISTRICT	CARDS COMPLETED	STAFF	COMMENTS
1	2/22/14	CITT Summit	MDC Main Library	5 - Bruno A. Barreiro	33	Julio, Monica, Jackie, Karla, Doug, Bobbi	
2	3/1/14	West Kendall Charrette	Felix Varela Senior High 15255 SW 96th Street	11 - Juan C. Zapata	7	Monica, Doug	
3	3/8/14	University Center Festival	SW 107th Ave btw SW 5th & 6th Street	12 - Jose Pepe Diaz	13	Jackie	
4	4/3/14	Bike to Work Day	South Miami Metrorail Station	7 - Xavier L. Suarez	0	Monica, Doug	
5	4/9/14	FIU - Job Fair	Florida International University	11 - Juan C. Zapata	0	Irene	Palm cards distributed
6	4/12/14	Agriculture and Cattle Show	Tropical Park	10 - Sen. Javier D. Souto	71	Irene, George M., Jackie, Julio	
7	4/13/14	Agriculture and Cattle Show	Tropical Park	10 - Sen. Javier D. Souto	64	Froilan, Karla, Monica, Kaushik	
8	4/15/14	Miami HEAT's "White Hot Heat"	Dadeland North Metrorail Station	7 - Xavier L. Suarez	0	Irene	Handed out surveys/palm cards
9	4/22/14	LRTP Public Meeting - Central	Frankie Rolle Neighborhood Center	7 - Xavier L. Suarez	2	Jackie, Doug	
10	4/24/14	LRTP Public Meeting - Beach/CBD	Culmer/Overtown Neighborhood Center	3 - Audrey M. Edmonson	0	Doug	
11	4/25/14	Baynaza	Deering Estate	8 - Lynda Bell	0	Doug, Irene	
12	4/25/14	Earth Day at the Zoo	Zoo Miami	9 - Dennis C. Moss	0	Doug Bermudez	
13	4/29/14	LRTP Public Meeting - North	North Dade Regional Library	1 - Barbara J. Jordan	0	Doug	
14	4/30/14	LRTP Public Meeting - South	South Dade Regional Library	8 - Lynda Bell	0	Doug	
15	5/6/14	LRTP Public Meeting - West	West Kendall Regional Library	11 - Juan C. Zapata	0	Doug	
16	5/8/14	CAA Public Meeting - Miami Beach	Miami Beach South Shore Community Center	5 - Bruno A. Barreiro	2	Jackie	Handed out surveys/palm cards
17	5/15/14	CLEAN AIR MONTH FAIR	SPCC	5 - Bruno A. Barreiro	154	Jackie, Trecie	Handed out surveys/palm cards
18	5/20/14	Metrorail 30th Year Event	SPCC	5 - Bruno A. Barreiro	0	Irene	Handed out survey
19	5/31/14	Keep Doral Beautiful Fair	J.C. Bermudez Park	6 - Rebeca Sosa			





## A.5 PROJECT STEERING COMMITTEE



The individuals listed in Table A-1 were invited to represent the listed agencies on the Project Steering Committee.

**Table A-1: Project Steering Committee Participants**

No.	Stakeholder	Representative
1	Miami-Dade Transit	Jerry Blackman
2	Miami-Dade Transit	Derrick Gordon
3	Miami-Dade Transit	Marcus Ortega
4	Citizens Independent Transportation Trust (CITT)	Charles Scurr
5	Miami-Dade Transit Rider	Martha Vicedo
6	Miami-Dade Metropolitan Planning Organization*	Irma San Roman
7	Miami-Dade County Public Works	Antonio Cotarelo
8	Miami-Dade Expressway Authority	Javier Rodriguez
9	Miami-Dade County Regulatory and Economic Resources	Mark Woerner
10	Miami-Dade County Parks, Recreation and Open Spaces	Maria Nardi
11	Bicycle and Pedestrian Advisory Committee	Eric Tullberg
12	League of Cities	Richard Kuper
13	Agency for Persons with Disabilities	Rosa Llaguno
14	City of Miami Downtown Development Authority	Alyce Robertson
15	Beacon Council	Stephen Beatus
16	Miami-Dade Chamber of Commerce	Terry McKinley
17	Miami-Dade Chamber of Commerce	Mitch Bierman
18	Urban Health Solutions Urban Health Partnerships	Anamarie Garces
19	Career Source South Florida*	Rick Beasely
20	South Florida Regional Transportation Authority	Joseph Quinty
21	South Florida Commuter Services	James Udvardi
22	Florida Turnpike Enterprise	Diane Gutierrez-Scaccetti
23	Florida Department of Transportation District 6	Aileen Boucle
24	Alliance for Aging, Inc.	Marsha Jenakovich
25	Center for Independent Living of South Florida	Marc Dubin, Esq.
26	Commission on Disability Issues (CODI)	Heidi Johnson Wright
27	Municipal Focus Group	Carlos Cruz

**Table A-1: Project Steering Committee Members (Continued)**

No.	Stakeholder	Representative
28	Municipal Focus Group	Julien Guevara
29	Municipal Focus Group	Jessica Keller
30	Municipal Focus Group	Richard Block
31	Comm. District Focus Group	Kenneth M. Kilpatrick
32	Comm. District Focus Group	Jose A. Lopez
33	Comm. District Focus Group	Alexander Adams
34	Comm. District Focus Group	Anthony Garcia
35	Comm. District Focus Group	Eric Katz
36	Comm. District Focus Group	Harry Hoffman
37	Comm. District Focus Group	Sean Schwinghammer

\*Required by state statute.



## A.6 FOCUS GROUPS



Representatives from the municipalities listed Table B-1 were invited to participate in the Municipal Representatives focus group.

**Table B-1: Municipal Representatives**

City of Aventura	City of Miami Gardens
Village of Bal Harbour	Town of Miami Lakes
Town of Bay Harbor Islands	Miami Shores Village
Village of Biscayne Park	City of Miami Springs
City of Coral Gables	City of North Bay Village
Town of Cutler Bay	City of North Miami
City of Doral	City of North Miami Beach
Village of El Portal	City of Opa-Locka
City of Florida City	Village of Palmetto Bay
Town of Golden Beach	Village of Pinecrest
City of Hialeah	City of South Miami
City of Hialeah Gardens	City of Sunny Isles Beach
City of Homestead	Town of Surfside
Village of Key Biscayne	City of Sweetwater
Town of Medley	Village of Virginia Gardens
City of Miami	City of West Miami
City of Miami Beach	

Each Commissioner was asked to provide a recommended representative to invite to the Commission District Representatives focus group. The individuals listed in Table B-2 on the following page were invited to represent their respective Commission Districts.

**Table B-2: Commission Numbers and Commission District Representatives**

District and Commissioner	Representative
1 - Barbara J. Jordan	N/A
2 - Jean Monestime	N/A
3 - Audrey M. Edmonson	Kenneth M. Kilpatrick
4 - Sally A. Heyman	N/A
5 - Bruno A. Barreiro	Jose A. Lopez
6 - Rebeca Sosa	Alexander Adams
7 - Xavier L. Suarez	Anthony Garcia
8 - Lynda Bell	Eric Katz
9 - Dennis C. Moss	N/A
10 - Sen. Javier D. Souto	N/A
11 - Juan C. Zapata	Harry Hoffman
12 - Jose Pepe Diaz	N/A
13 - Esteban Bovo Jr.	Sean Schwinghammer

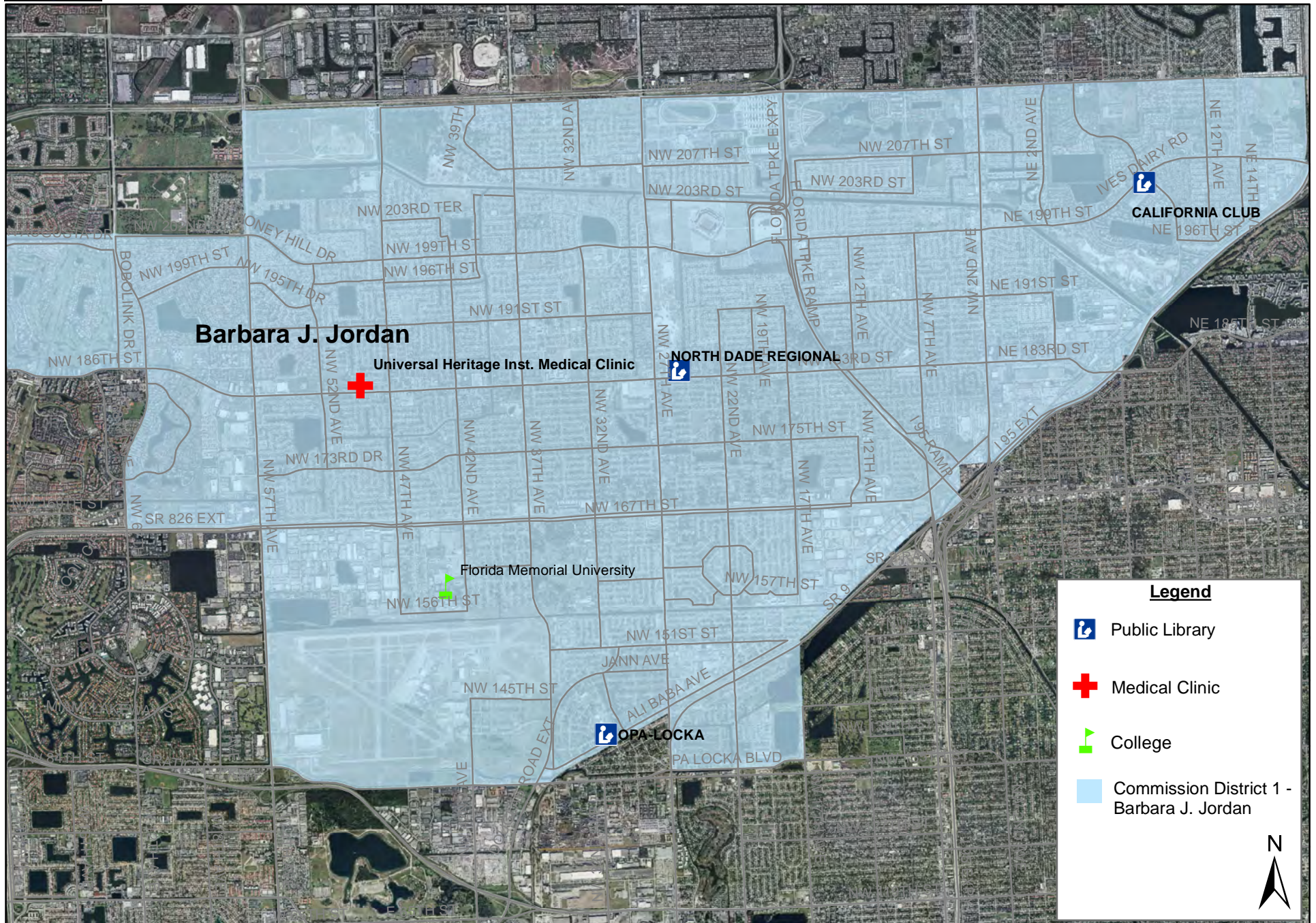


## A.7 OUTREACH ACTIVITIES BY COMMISSION DISTRICT

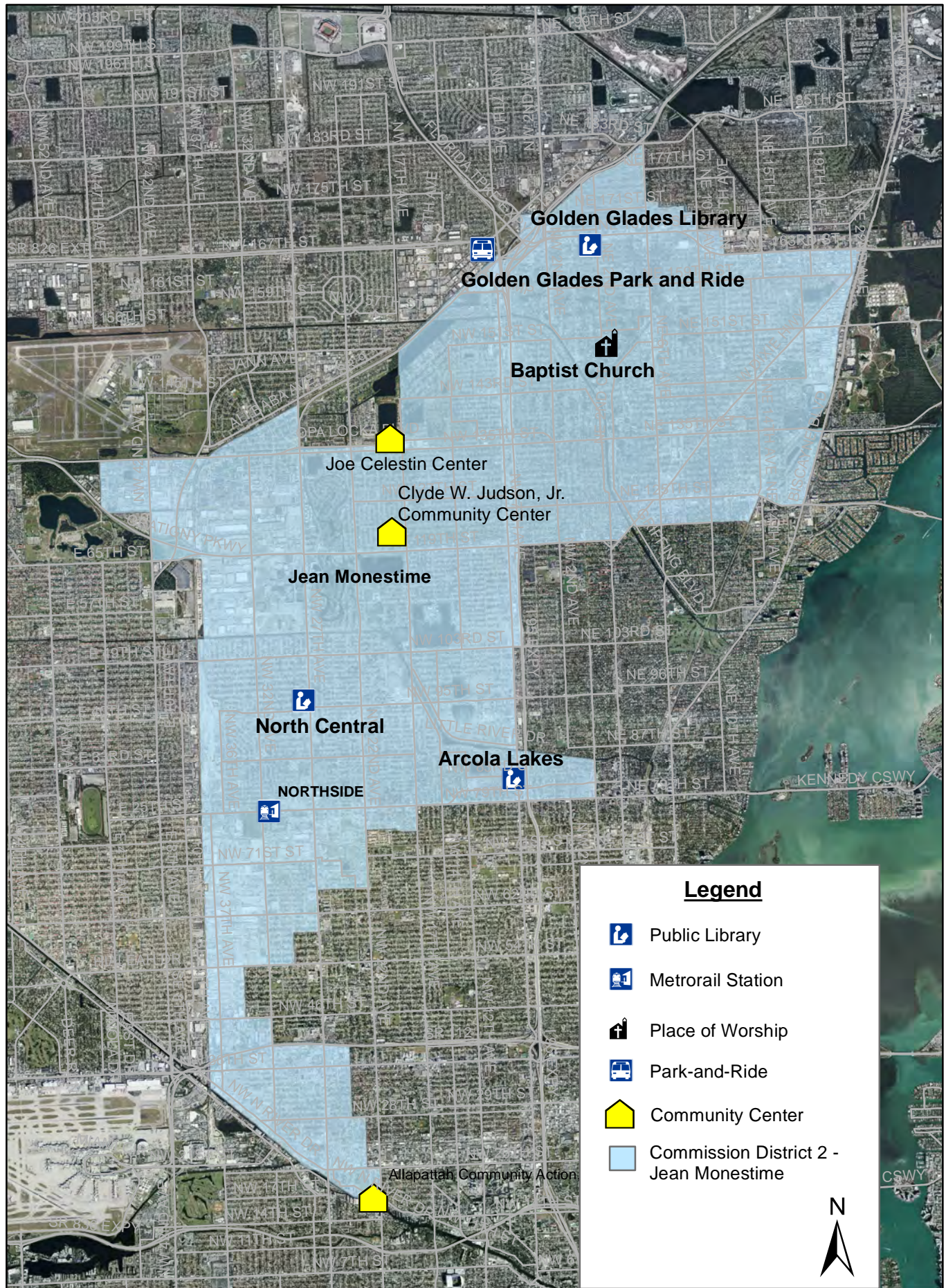




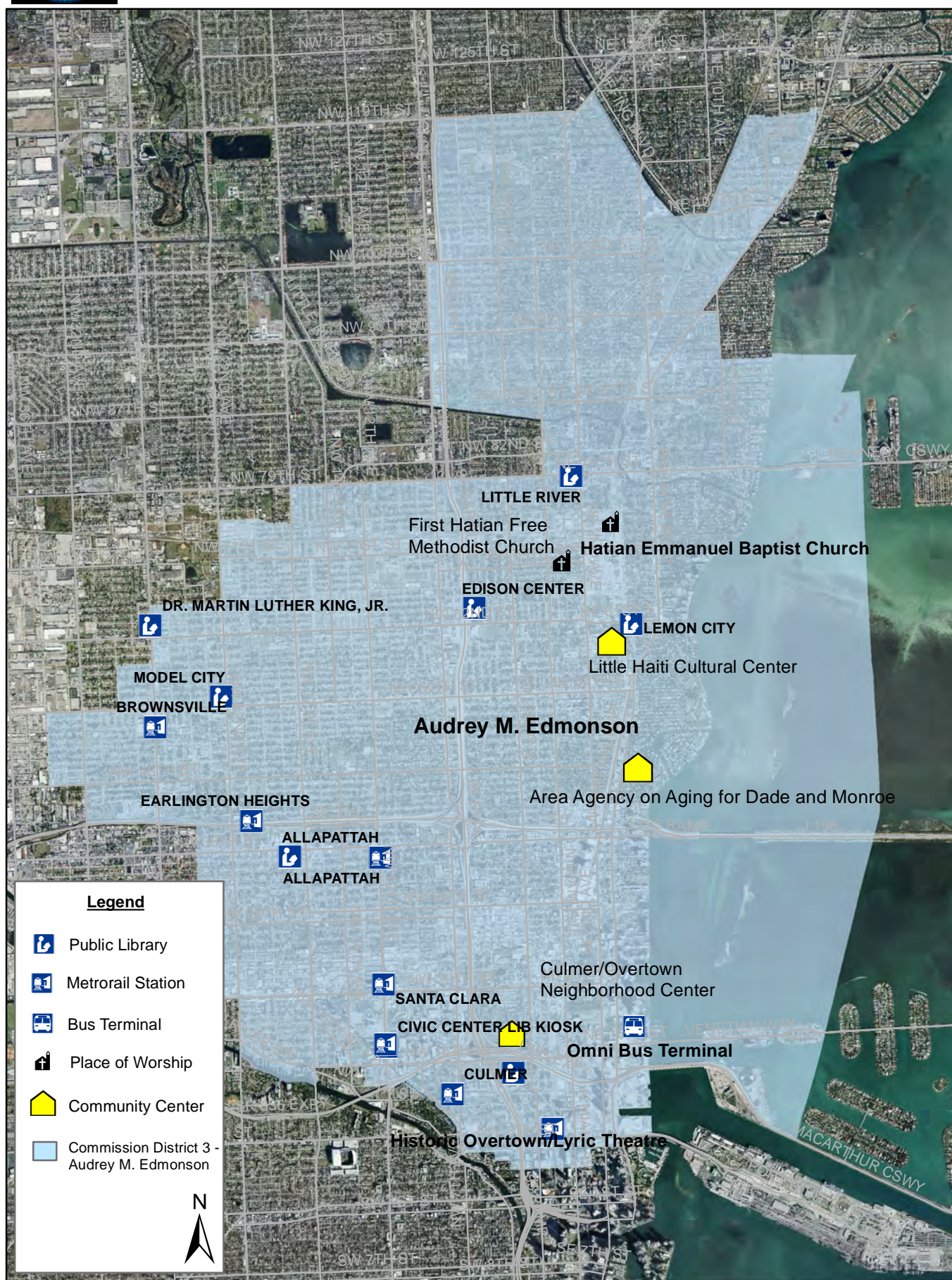












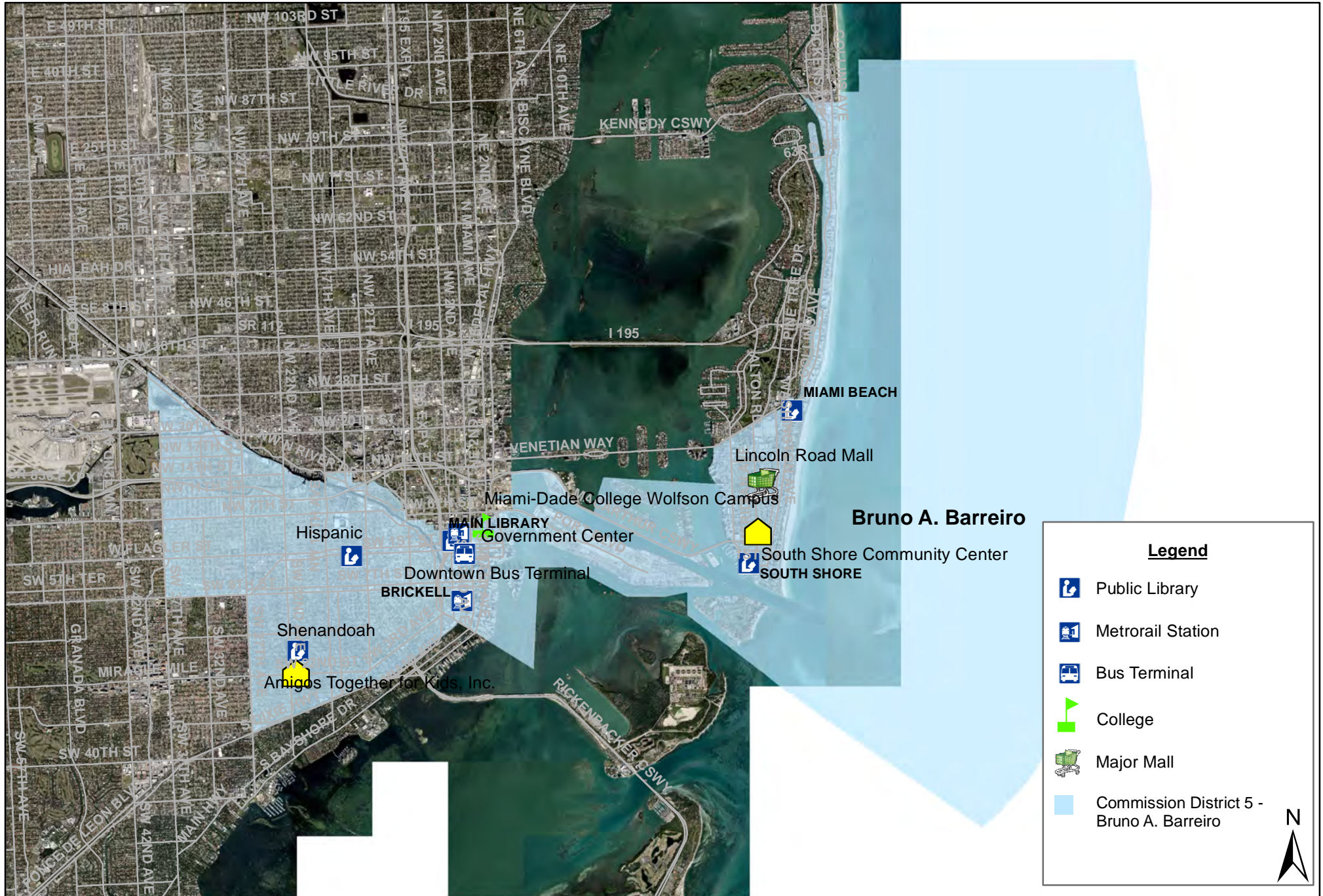








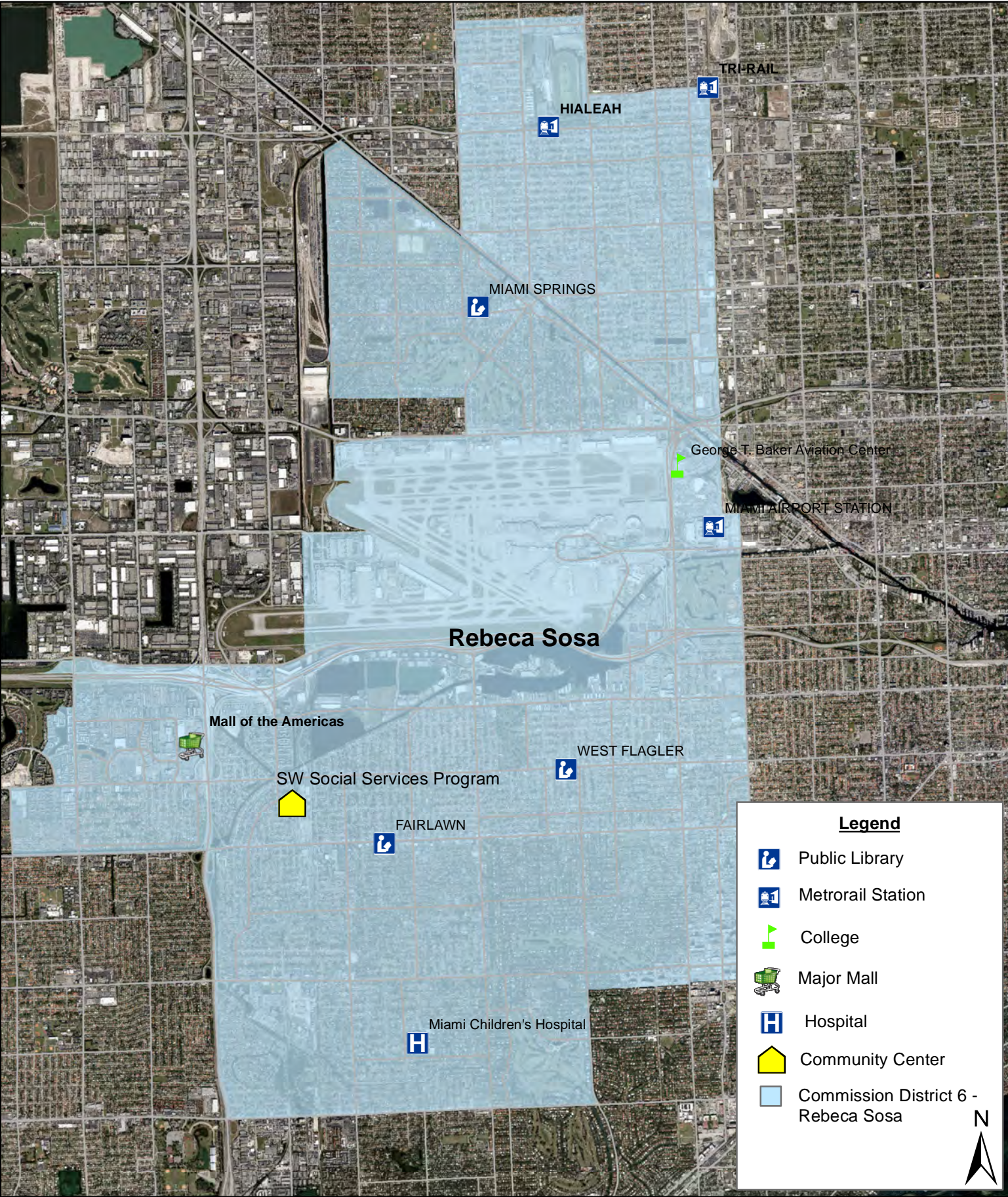
# District 5 - Miami - Dade Transit 10 Ahead Public Outreach







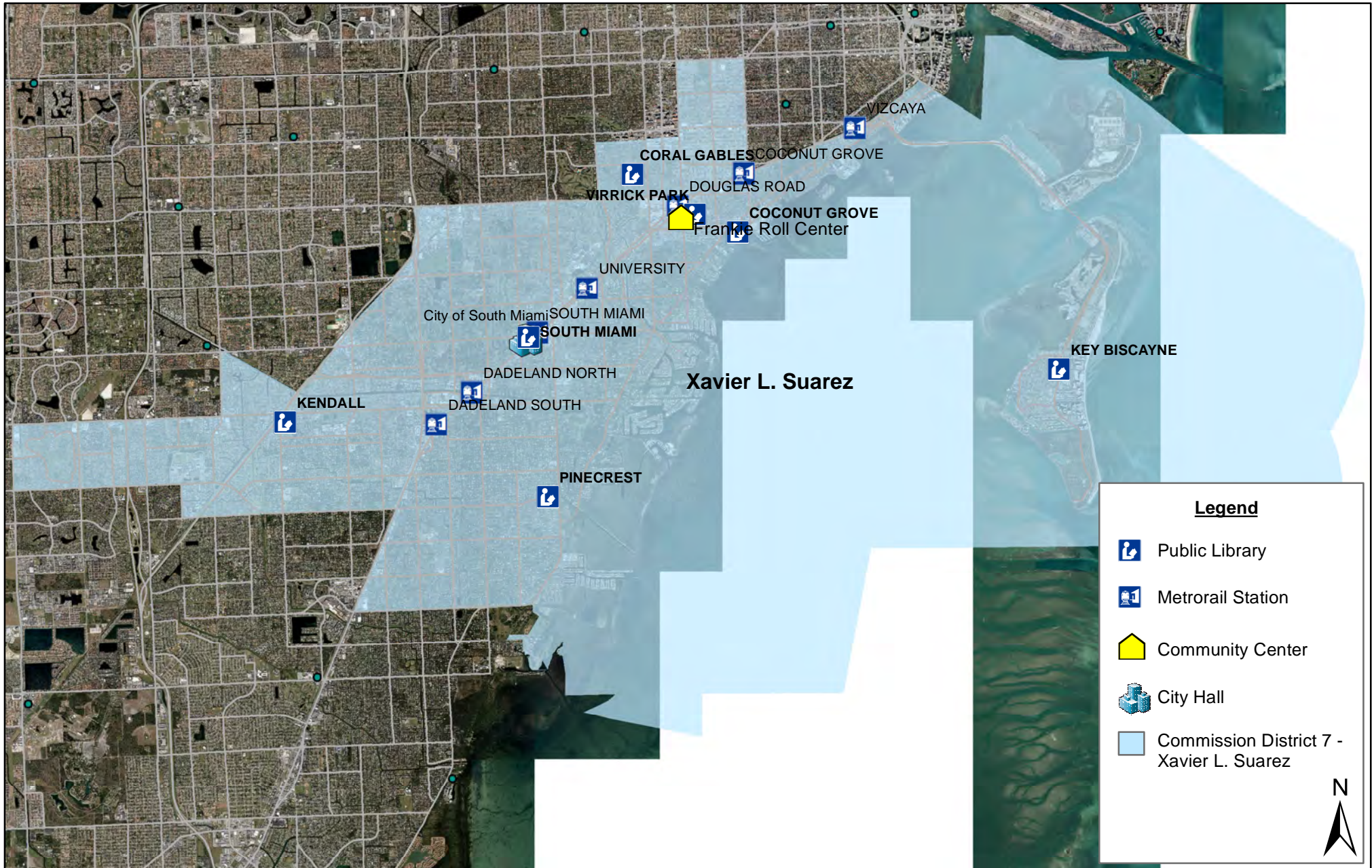
# District 6 - Miami-Dade Transit 10 Ahead Public Outreach







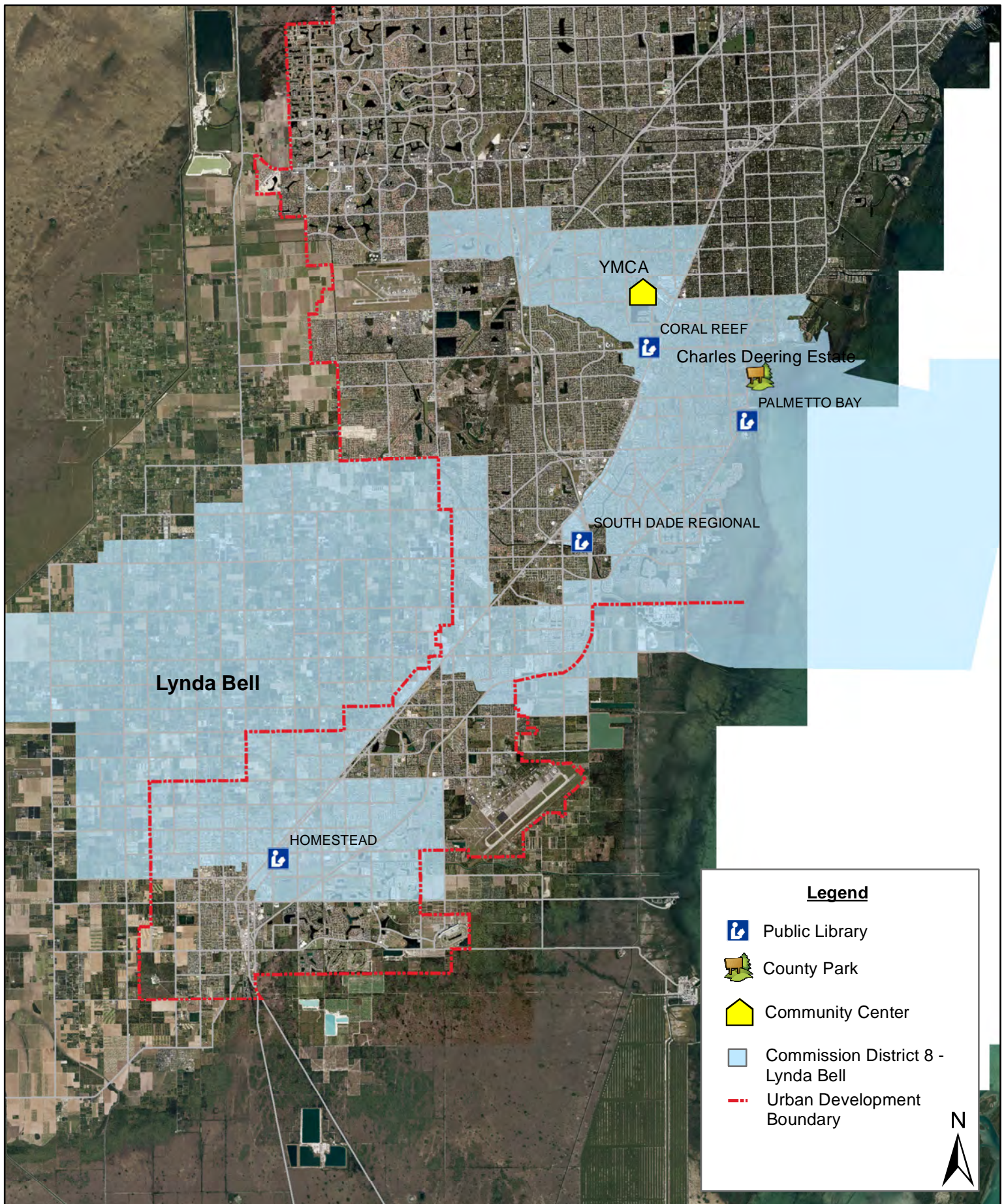
## District 7 - Miami-Dade Transit 10 Ahead Public Outreach







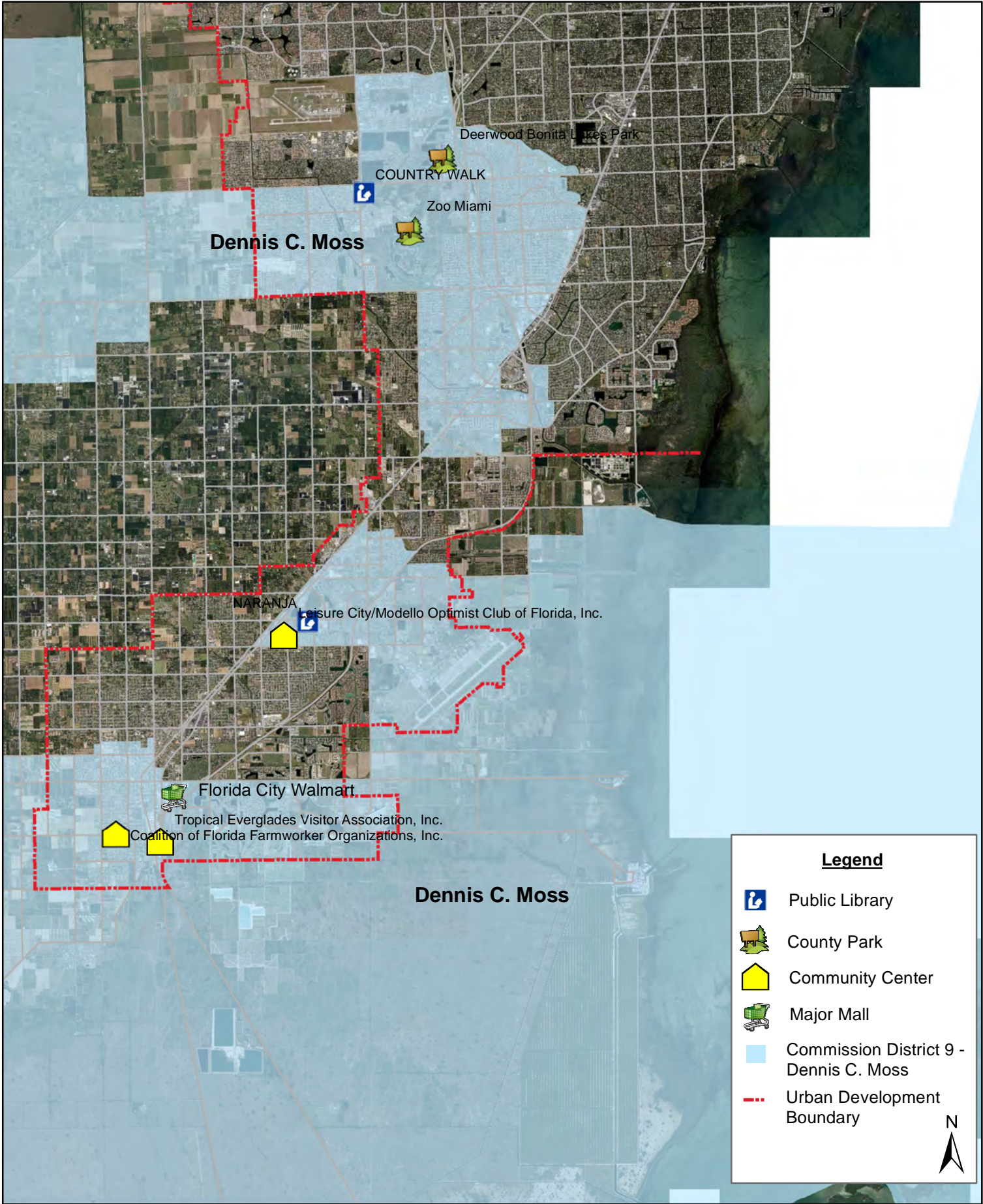
## District 8 - Miami-Dade Transit 10 Ahead Public Outreach







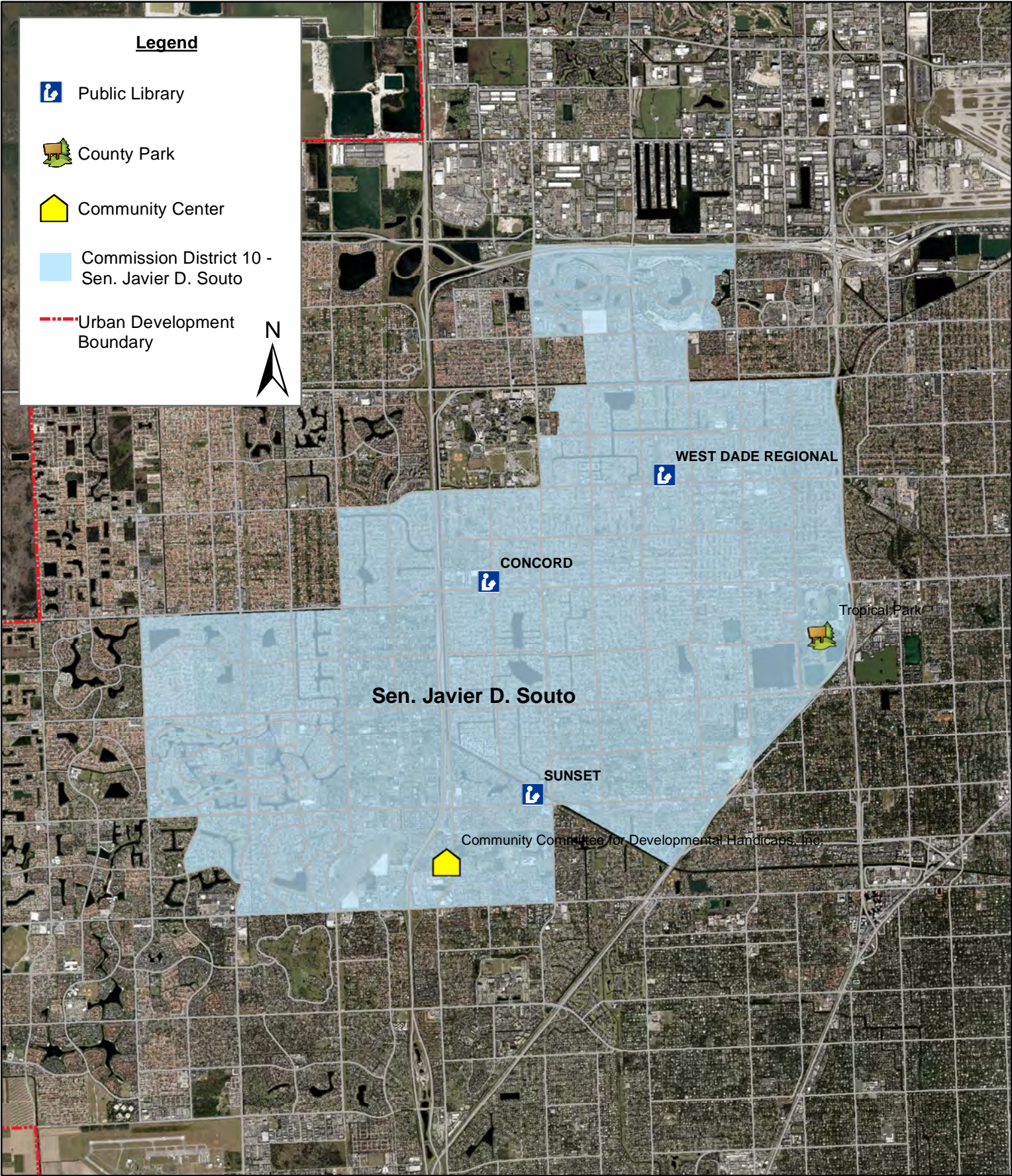
# District 9 - Miami-Dade Transit 10 Ahead Public Outreach







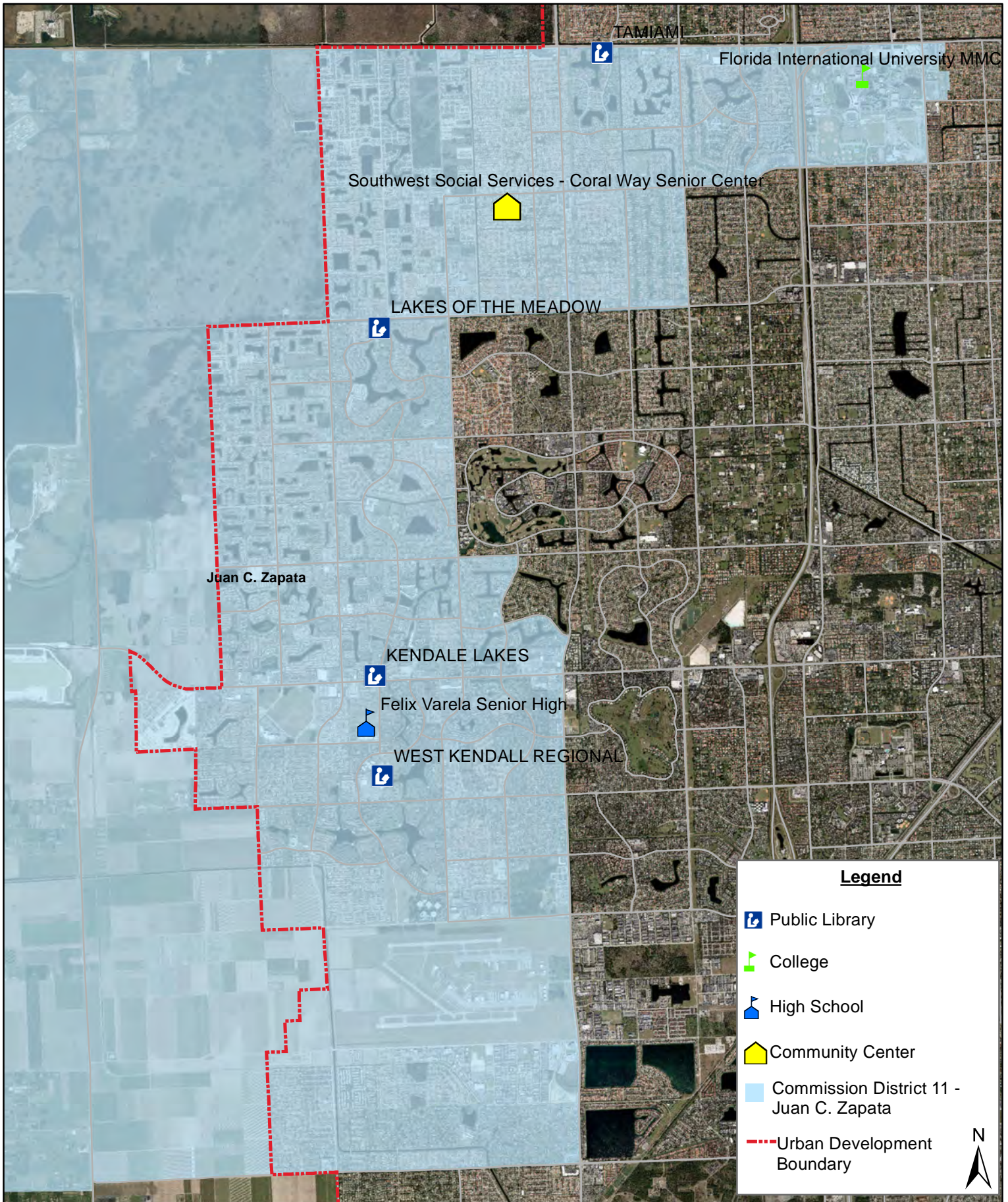
# District 10 - Miami-Dade Transit 10 Ahead Public Outreach







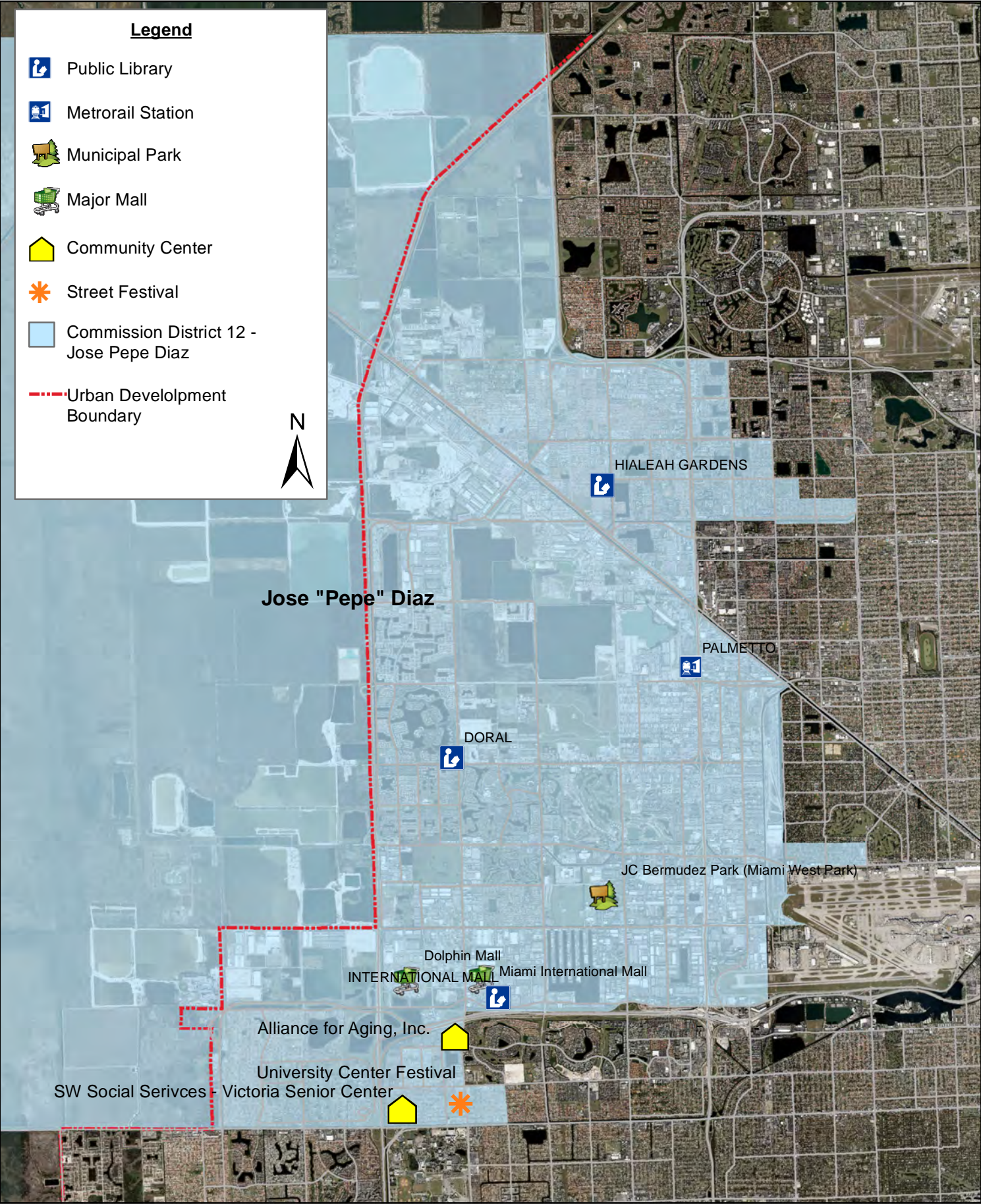
# District 11 - Miami-Dade Transit 10 Ahead Public Outreach







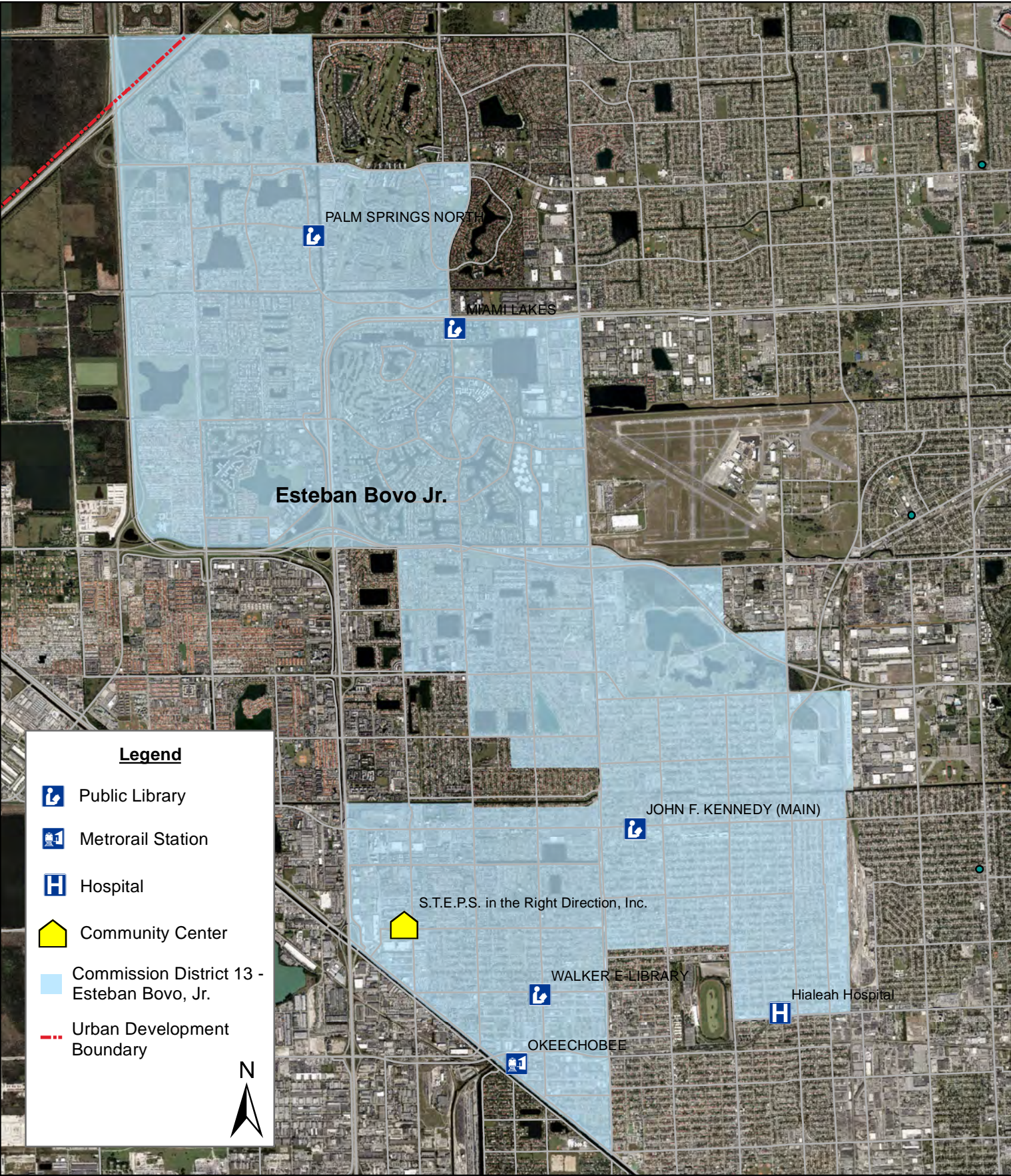
# District 12 - Miami-Dade Transit 10 Ahead Public Outreach







# District 13 - Miami-Dade Transit 10 Ahead Public Outreach







## A.8 TDP10AHEAD OUTREACH ACTIVITIES





As part of the MDT 10Ahead process, MDT conducted a survey to gather information about its services. The 19-question survey was distributed electronically with a shorter version being distributed in printed brochure format. The electronic version was posted on MDT's website and sent out via email to seven distribution groups listed in Table C-1.

**Table C-1: Electronic Distribution of Surveys**

Organization
Miami-Dade Transit
Miami-Dade County Newsletter
Miami-Dade Metropolitan Planning Organization
Office of Community Advocacy
Agency for Persons with Disabilities
South Florida Regional Transportation Authority
South Florida Commuter Services

The shorter versions of the survey, or comment cards, were distributed by staff at 26 outreach events where they collected them from respondents directly. In other venues, comment cards were left for people to pick up and return via postage-paid mail. Table C-2 lists the locations where comment cards were distributed by staff. It also lists the number of completed cards that were returned to staff. Table C-3 provides a list of stakeholder/contact information.

**Table C-2: Public Outreach Events**

Date	Event	Location	Commission District and Commissioner	Comment Cards Completed
February 22, 2014	CITT Summit	MDC Main Library	5 - Bruno A. Barreiro	33
March 1, 2014	West Kendall Charrette	Felix Varela Senior High	11 - Juan C. Zapata	7
March 8, 2014	University Center Festival	University Center	12 - Jose Pepe Diaz	13
April 3, 2014	Bike to Work Day	South Miami Metrorail Station	7 - Xavier L. Suarez	0
April 9, 2014	Florida International University - Job Fair	Florida International University	11 - Juan C. Zapata	0
April 12, 2014	Agriculture and Cattle Show	Tropical Park	10 - Sen. Javier D. Souto	71
April 13, 2014	Agriculture and Cattle Show	Tropical Park 7900 SW 40th St.	10 - Sen. Javier D. Souto	64
April 15, 2014	Miami HEAT's "White Hot Heat"	Dadeland North Metrorail Station	7 - Xavier L. Suarez	0
April 22, 2014	Planning (LRTP) Public Meeting - Central	Frankie Rolle Neighborhood Center	7 - Xavier L. Suarez	2
April 24, 2014	LRTP Public Meeting - Beach/CBD	Culmer/Overtown Neighborhood Center	3 - Audrey M. Edmonsor	0
April 25, 2014	Baynaza	Deering Estate	8 - Lynda Bell	0
April 25, 2014	Earth Day at the Zoo	Zoo Miami	9 - Dennis C. Moss	0
April 29, 2014	LRTP Public Meeting - North	North Dade Regional Library	1 - Barbara J. Jordan	0
April 30, 2014	LRTP Public Meeting - South	South Dade Regional Library	8 - Lynda Bell	0
May 6, 2014	Earth Day at the Zoo	Zoo Miami	9 - Dennis C. Moss	0
May 8, 2014	CAA Public Meeting - Miami Beach	Miami Beach South Shore Community Center	5 - Bruno A. Barreiro	2
May 15, 2014	Clean Air Month Fair	Stephen P. Clark Center (SPCC)	5 - Bruno A. Barreiro	154
May 20, 2014	Metrorail 30th Year Event	SPCC	5 - Bruno A. Barreiro	0
May 31, 2014	Keep Doral Beautiful Fair	J.C. Bermudez Park	12 - Jose Pepe Diaz	0
June 18, 2014	Brochure Distribution	Omni Bus Terminal	3 - Audrey M. Edmonsor	15
July 16, 2014	Brochure Distribution	Miami Dade College Wolfson Campus	5 - Bruno A. Barreiro	6
July 20, 2014	Brochure Distribution	Memorial Highway Baptist Church	2 - Jean Monestime	20
July 22, 2014	Brochure Distribution	First Haitian Free Methodist Church	3 - Audrey M. Edmonsor	18
July 24, 2014	Transportation Trust (CITT) Municipal Workshop	History Miami at the Cultural Center	5 - Bruno A. Barreiro	1
July 27, 2014	Brochure Distribution	Haitian Emmanuel Baptist Church	3 - Audrey M. Edmonsor	7
August 3, 2014	Brochure Distribution	YMCA	8 - Lynda Bell	46
<b>Total</b>				<b>459</b>

**Table C-3: Stakeholder/Contact Information**

Agency	Contact Name	Title
Miami-Dade Transit	Jerry Blackman	Asst. Director for Rail
Miami-Dade Transit	Derrick Gordon	Asst. Director for Bus
Miami-Dade Transit	Marcus Ortega	ADA Officer
Citizens Independent Transportation Trust (CITT)	Charles Scurr	Executive Director
Miami-Dade Transit Rider	Martha Vicedo	Transit Action Committee
Miami Metropolitan Planning Organization*	Irma San Roman	Executive Director
Miami-Dade County Public Works	Antonio Cotarelo	County Engineer
Miami-Dade Expressway Authority	Javier Rodriguez	Executive Director
Miami-Dade County Regulatory and Economic Resources	Mark Woerner	Assistant Director
Miami-Dade County Parks and Recreation	Maria Nardi	Chief, Planning and Research Division
Bicycle and Pedestrian Advisory Committee	Eric Tullberg	Chair
League of Cities	Richard Kuper	Executive Director
Agency for Persons with Disabilities	Rosa Llaguno	Community Relations Coordinator
City of Miami Downtown Development Authority	Alyce Robertson	Executive Director
Beacon Council	Stephen Beatus	Executive Vice President
Miami-Dade Chamber of Commerce	Terry McKinley	Transportation & Infrastructure Committee Chairman
Miami-Dade Chamber of Commerce	Mitch Bierman	Transportation & Infrastructure Committee Vice Chairman
Urban Health Solutions Urban Health Partnerships	Anamarie Garces	Executive Director
South Florida Workforce*	Rick Beasely	Executive Director
South Florida Regional Transportation Authority	Joseph Quinty	Transportation Planning Manager
South Florida Commuter Services	James Udvardi	Project Director
Florida Turnpike Enterprise	Diane Gutierrez-Scaccetti	Executive Director
Florida Department of Transportation District 6	Aileen Boucle	Intermodal Systems Development Manager
Alliance for Aging, Inc.	Marsha Jenakovich	Director of Planning and Special Projects

**Table C-3: Stakeholder/Contact Information (Continued)**

Agency	Contact Name	Title
Center for Independent Living of South Florida	Marc Dubin, Esq.	Director of Advocacy
Commission on Disability Issues (CODI)	Heidi Johnson Wright	Director
Municipal Focus Group	Carlos Cruz	City of Miami
Municipal Focus Group	Julien Guevara	City of Miami Beach
Municipal Focus Group	Jessica Keller	City of Coral Gables
Municipal Focus Group	Richard Block	Virginia Gardens
Comm. District Focus Group	Kenneth M. Kilpatrick	Commission District 3
Comm. District Focus Group	Jose A. Lopez	Commission District 5
Comm. District Focus Group	Alexander Adams	Commission District 6
Comm. District Focus Group	Anthony Garcia	Commission District 7
Comm. District Focus Group	Eric Katz	Commission District 8
Comm. District Focus Group	Harry Hoffman	Commission District 11
Comm. District Focus Group	Sean Schwinghammer	Commission District 13



## A.9 TDP10AHEAD SURVEY RESULTS



In total, 3,917 surveys and comment cards were collected as shown in Table C-4. Of that total, 1,404 were collected through the online survey and 2,513 were collected through comment cards. The results of the surveys are provided in the following figures. Questions included on the survey and the shorter comment cards are noted.

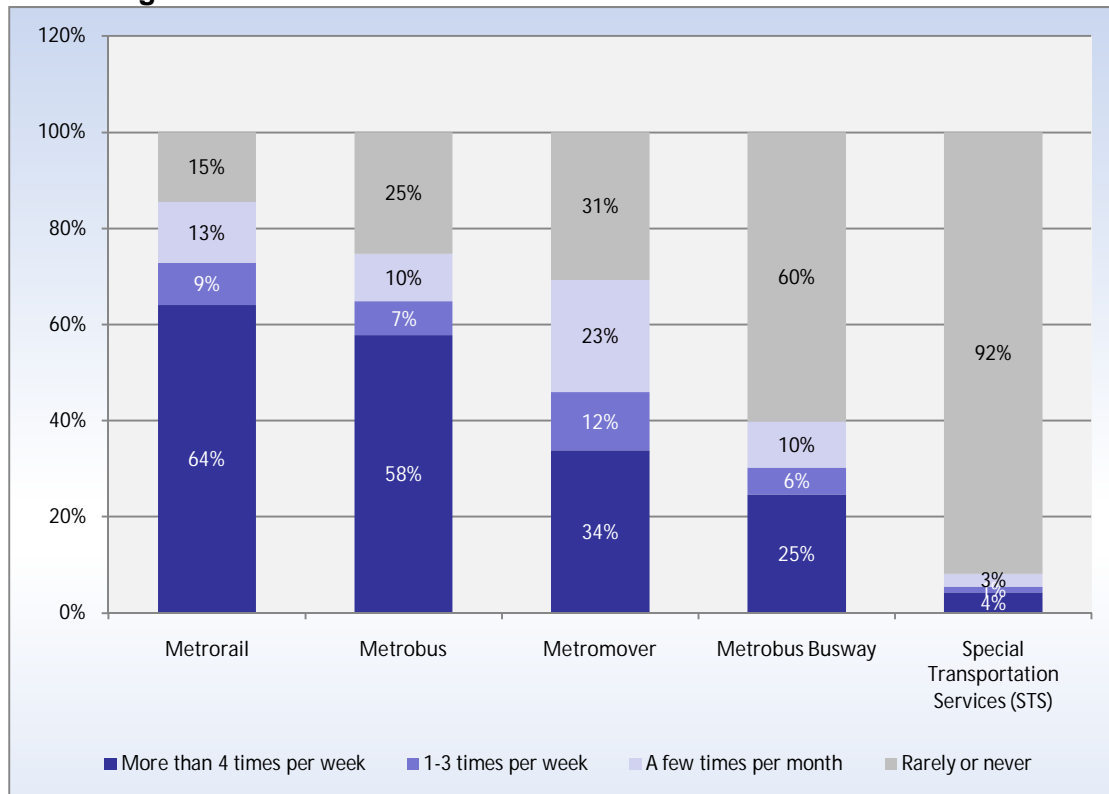
**Table C-4: Survey Response**

Survey Version	Number of Participants
English	3,525
Spanish	349
Creole	43
Total	3,917

## Transit Use

Figure C-1 provides insight into the types of transit being used by respondents. This question was on the electronic survey as well as the comment card. Over half of the respondents use Metrorail and Metrobus more than four times per week. A third of respondents use Metromover more than four times per week, while only a quarter use the Metrobus Busway more than four times per week. Only eight percent of respondents were regular Special Transportation Services (STS) users.

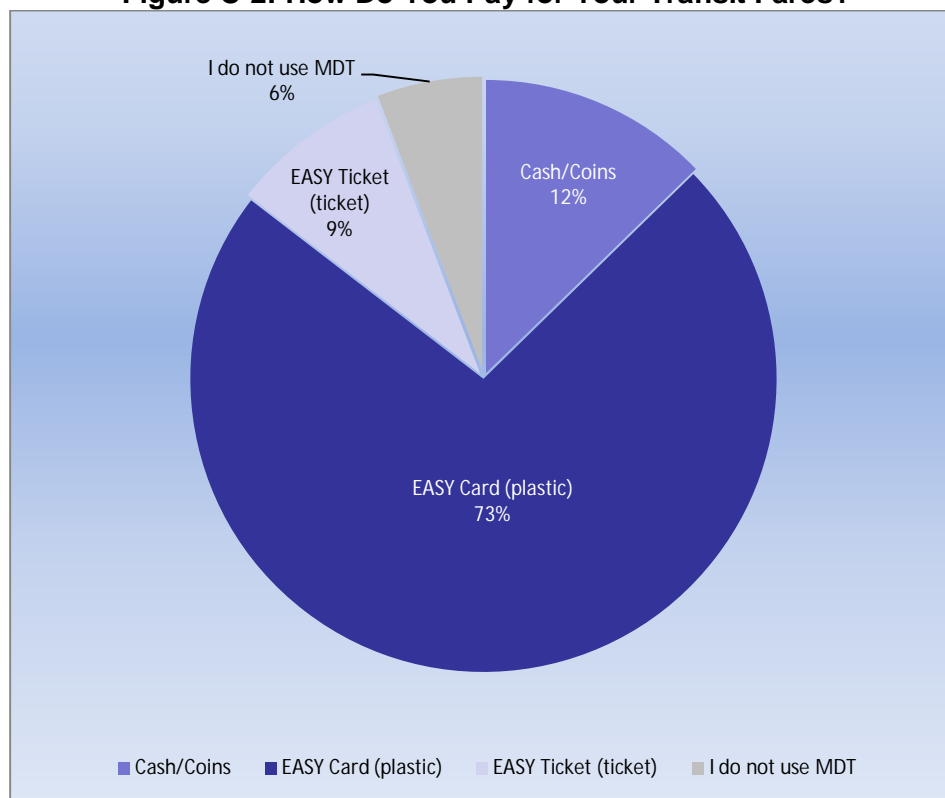
**Figure C-1: How Often Do You Use Miami-Dade Transit Services?**



## Fare Payment

Shown in Figure C-2, respondents on both the electronic survey and the comment card were asked how they paid for transit fares. Almost three-quarters of respondents use the EASY card to pay their transit fares. Only 12 percent use cash to pay for their fares.

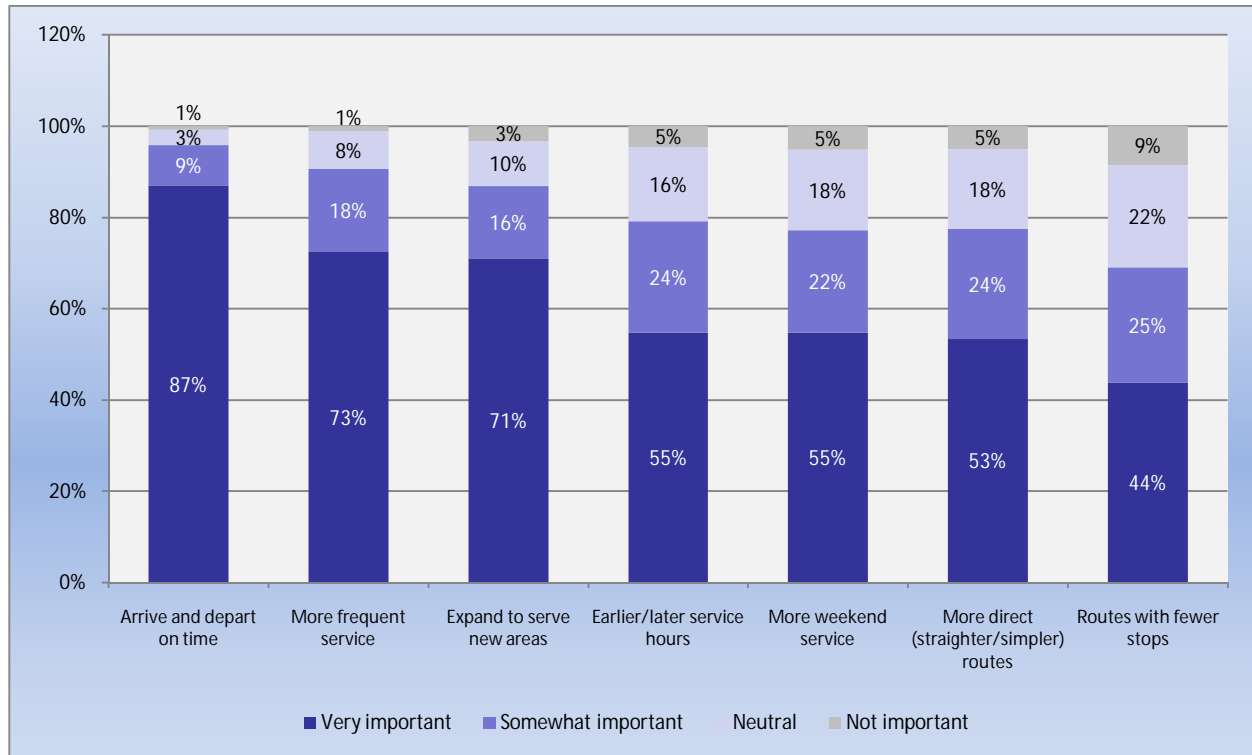
**Figure C-2: How Do You Pay for Your Transit Fares?**



## Service Priorities

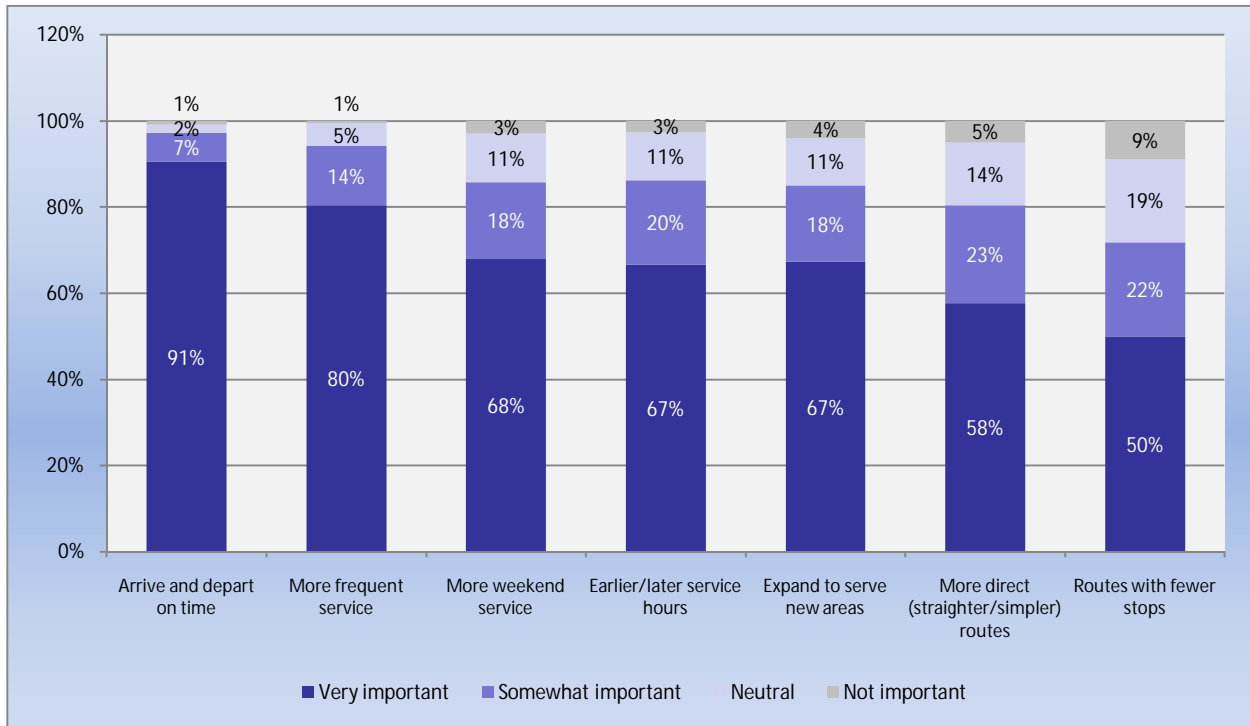
When asked about service priorities, respondents on both the electronic survey and comment cards indicated that on-time performance was the most important service priority. Behind that, more frequent service and expanding service to new areas was also important. Figure C-3 shows the total breakdown of all service priorities. Figures C-4 through C-8 display the results of the service priorities by mode. For those respondents who indicated that they used a particular mode more than 4 times per week or 1-3 times per week, the results were used to look at priorities by mode. For all modes, on-time performance was the most important service improvement needed followed by increasing the frequency of service.

**Figure C-3: Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**

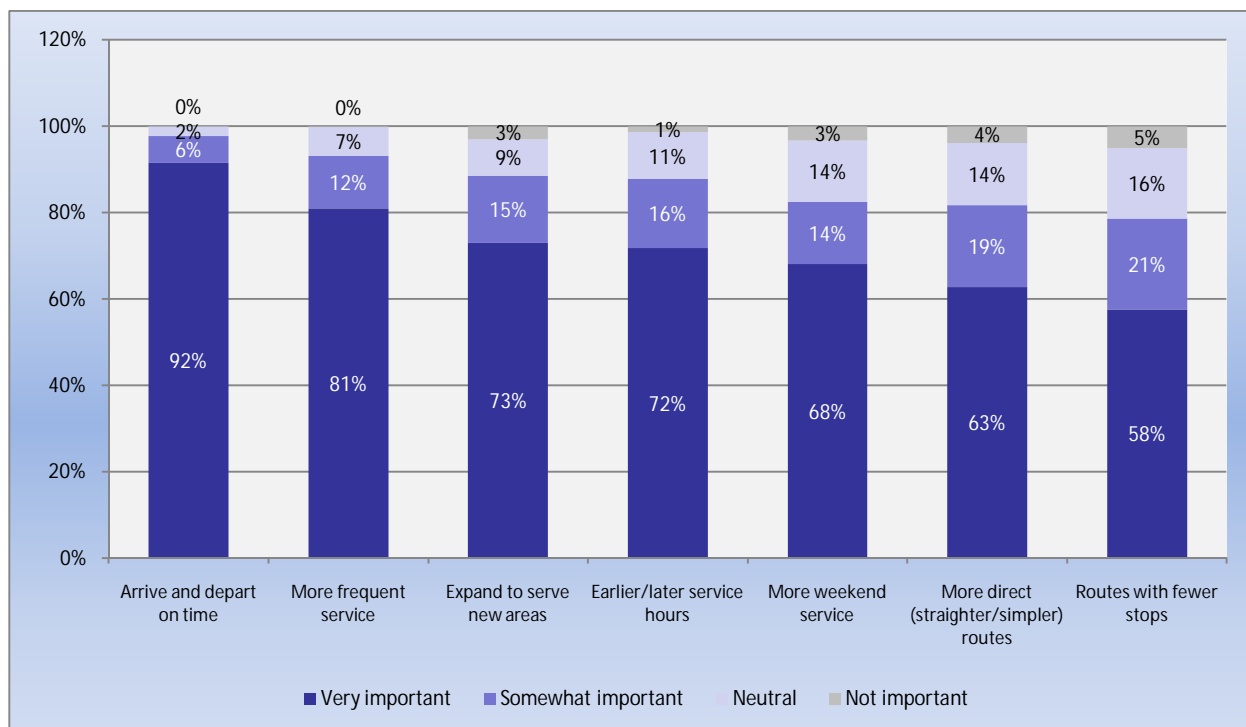




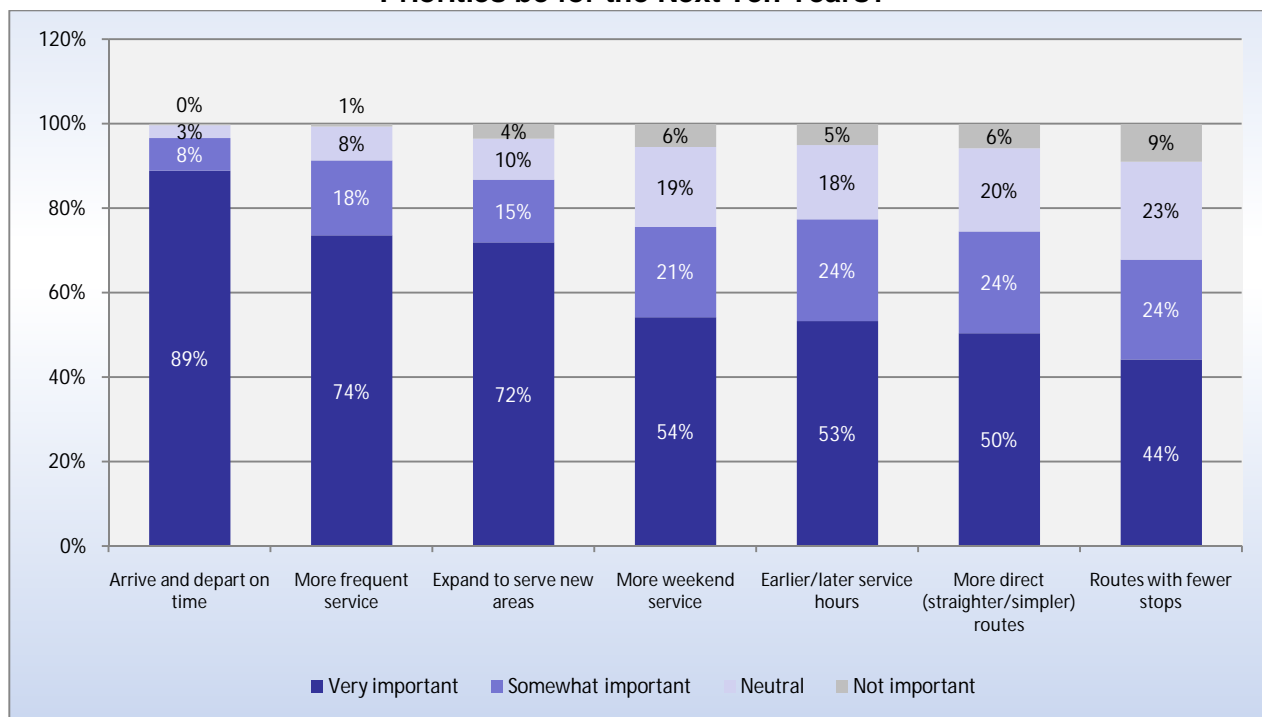
**Figure C-4: Metrobus - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



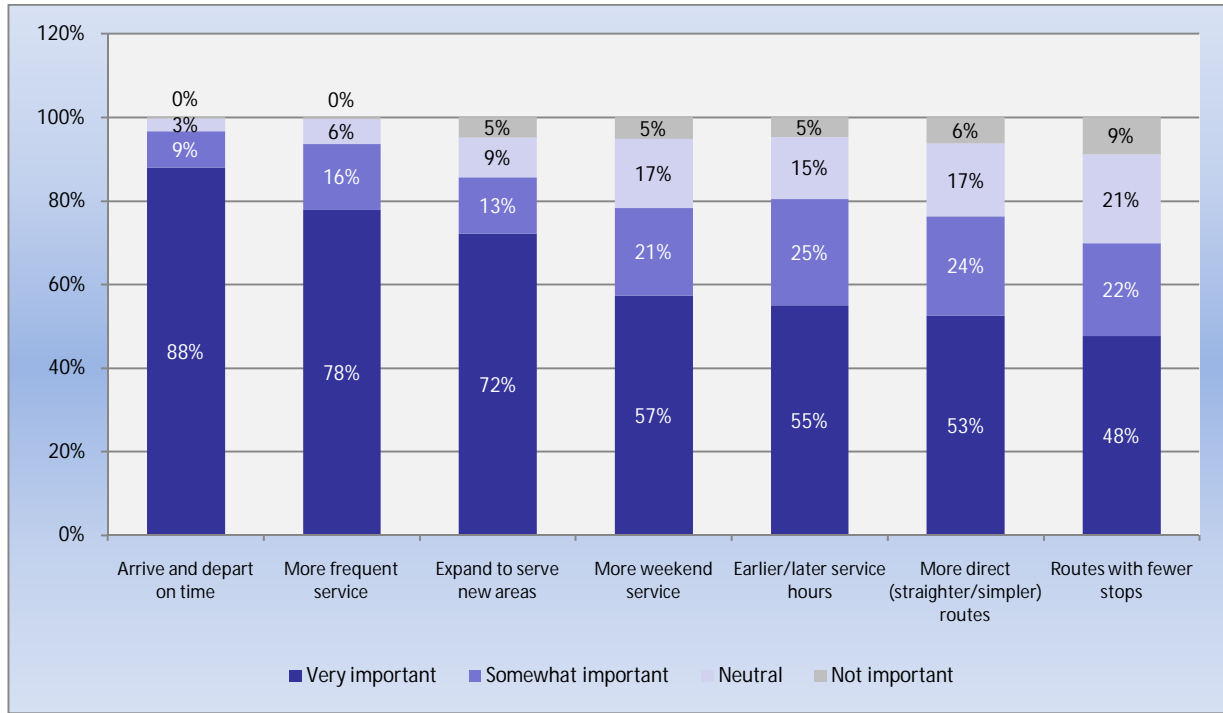
**Figure C-5: Metrobus Busway - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



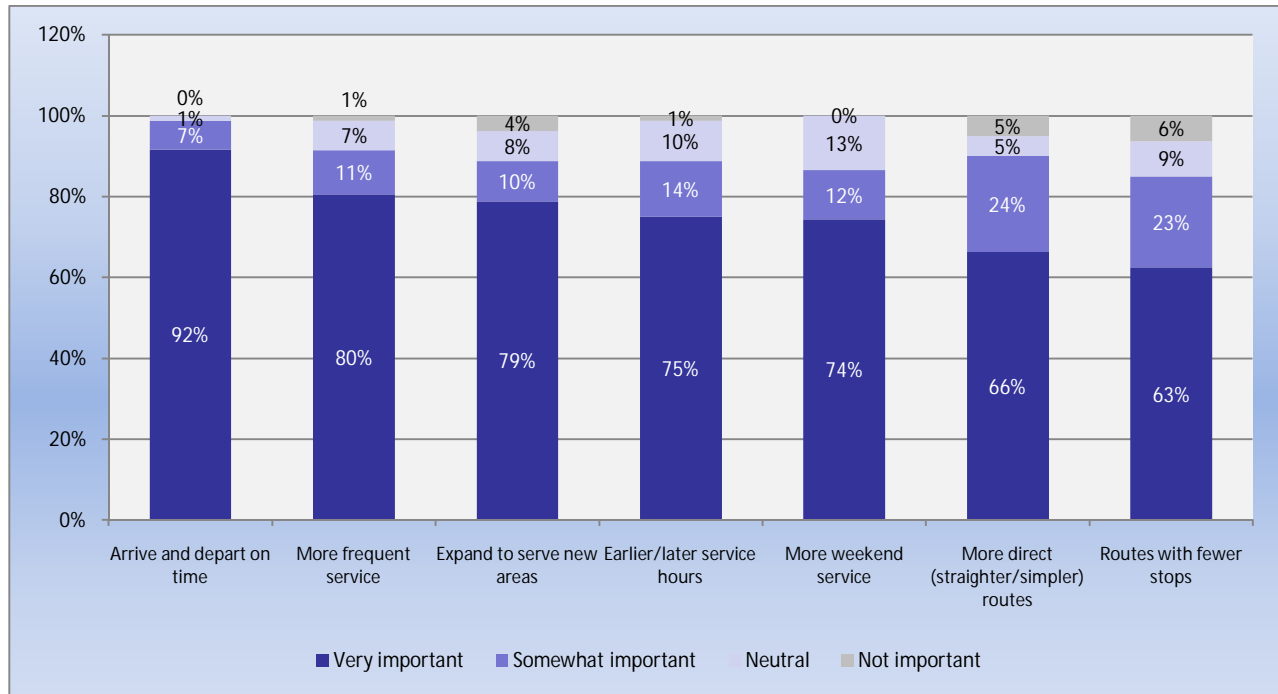
**Figure C-6: Metrorail - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



**Figure C-7: Metromover - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



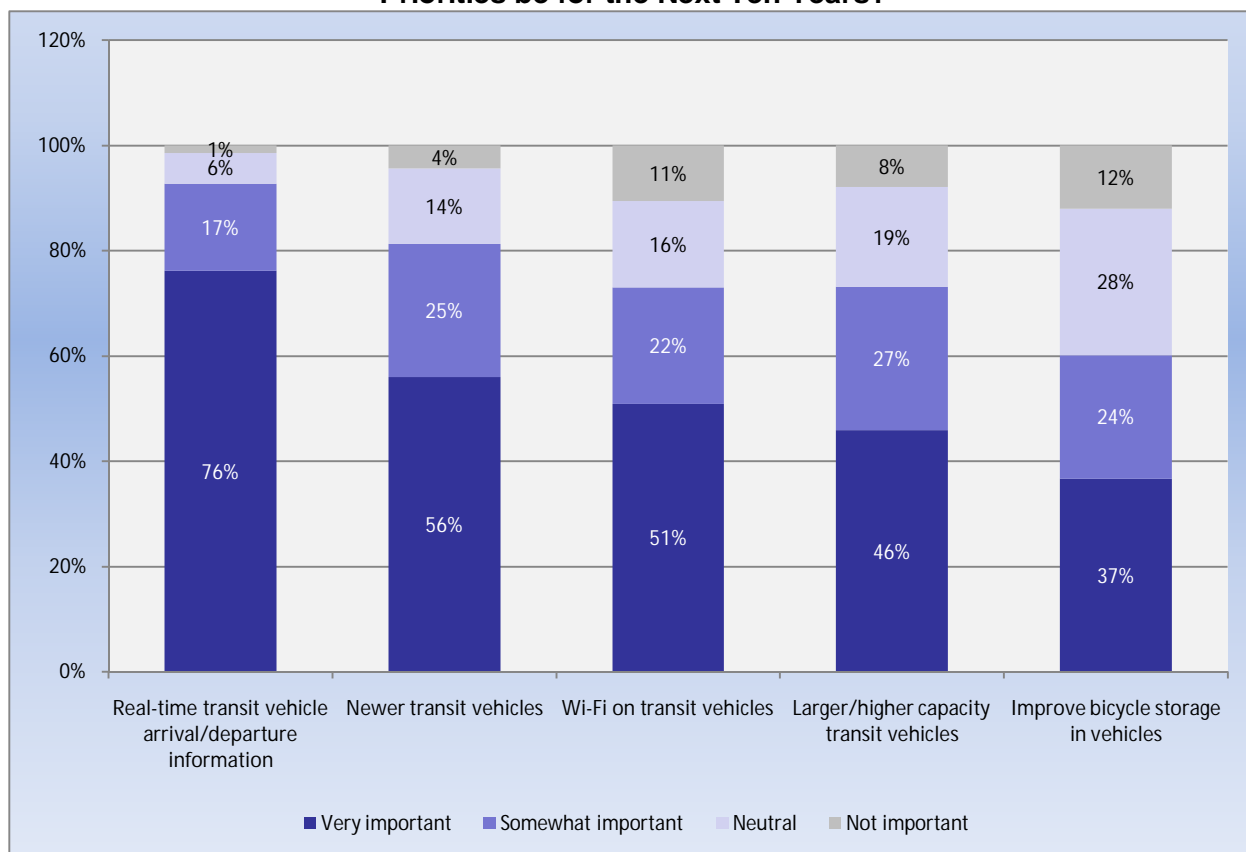
**Figure C-8: STS - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



## Vehicle Priorities

Displayed in Figure C-9, the following question was asked of online survey respondents and comment card respondents. Over three-quarters of respondents indicated that real-time vehicle arrival and departure information was a very important improvement with relation to vehicles. The second priority was buying newer vehicles.

**Figure C-9: Vehicles - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**

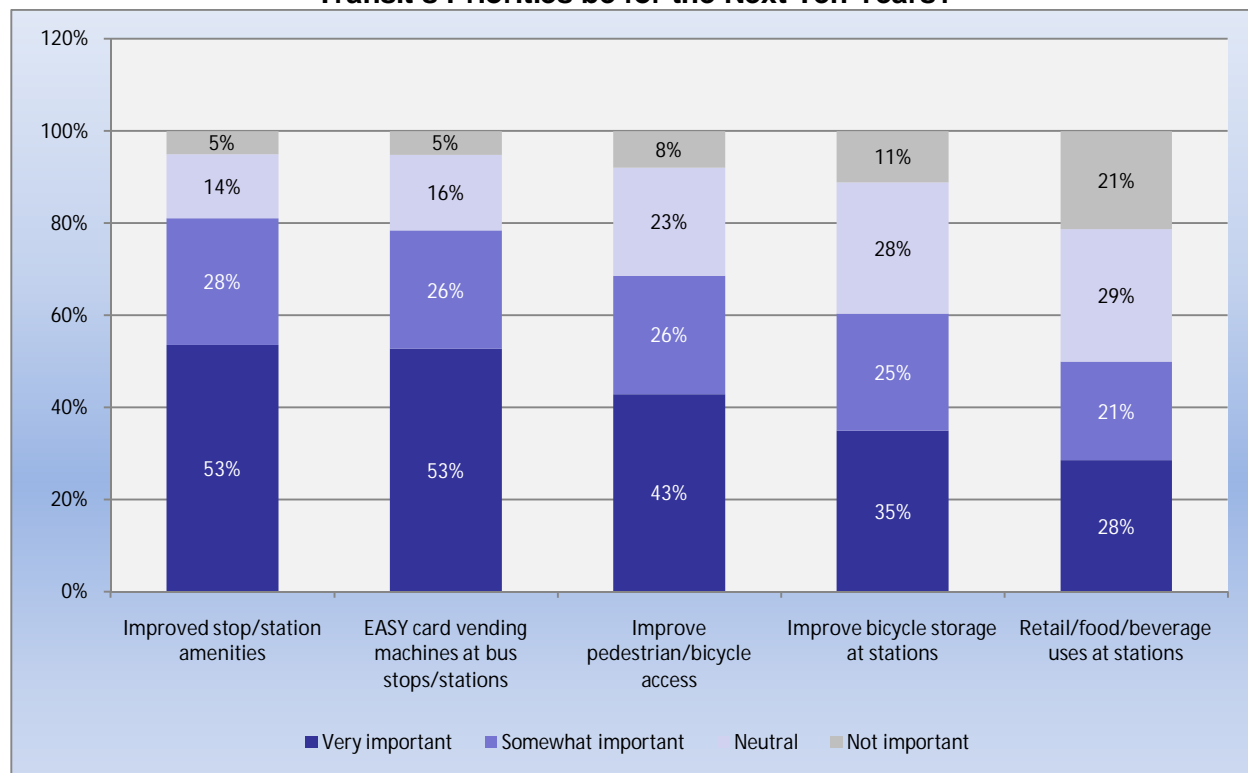


## Stop/Station Priorities

When asked about priorities for stations and stops, online and comment card respondents indicated there were two equally important items for improvement: improved stop/station amenities and the addition of EASY card vending machines. Other priorities are displayed in Figure C-10.



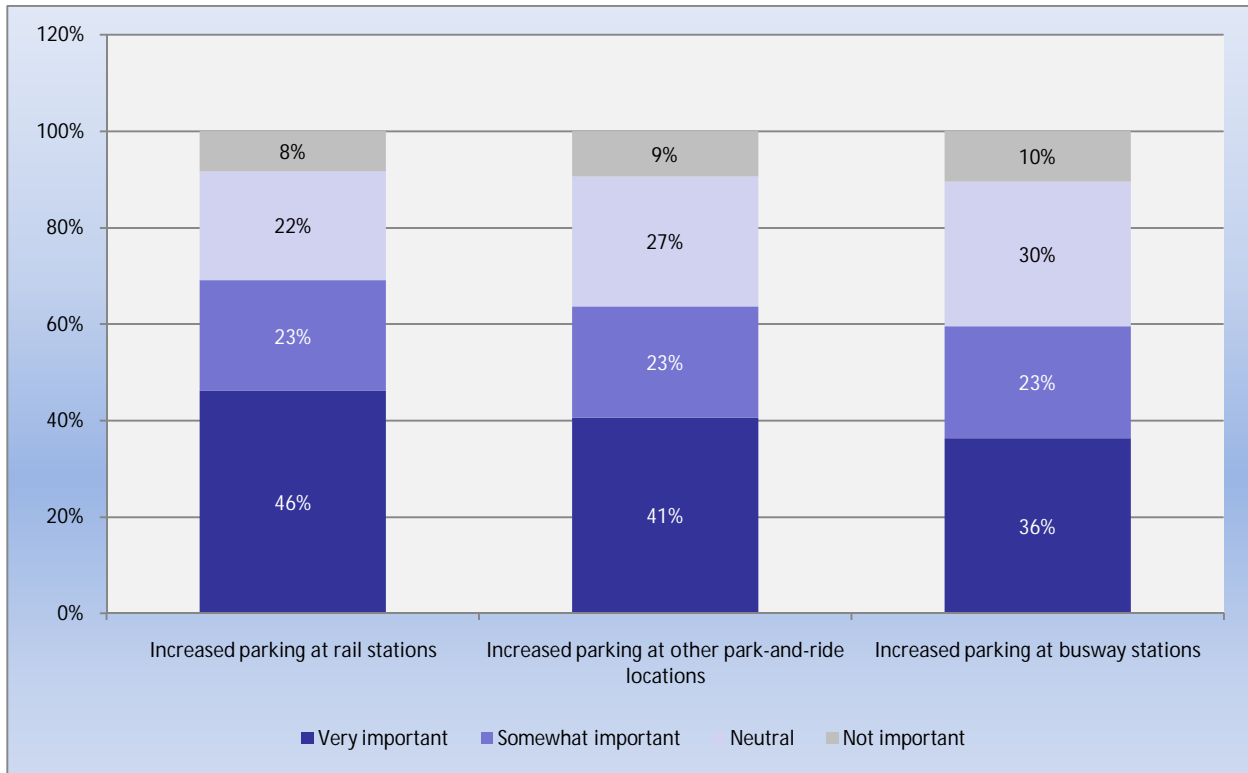
**Figure C-10: Stops/Stations - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



## Parking Priorities

Asked of both online and comment card respondents, increasing parking at rail stations received the highest priority ranking for parking facilities. Figure C-11 displays the results for parking priorities.

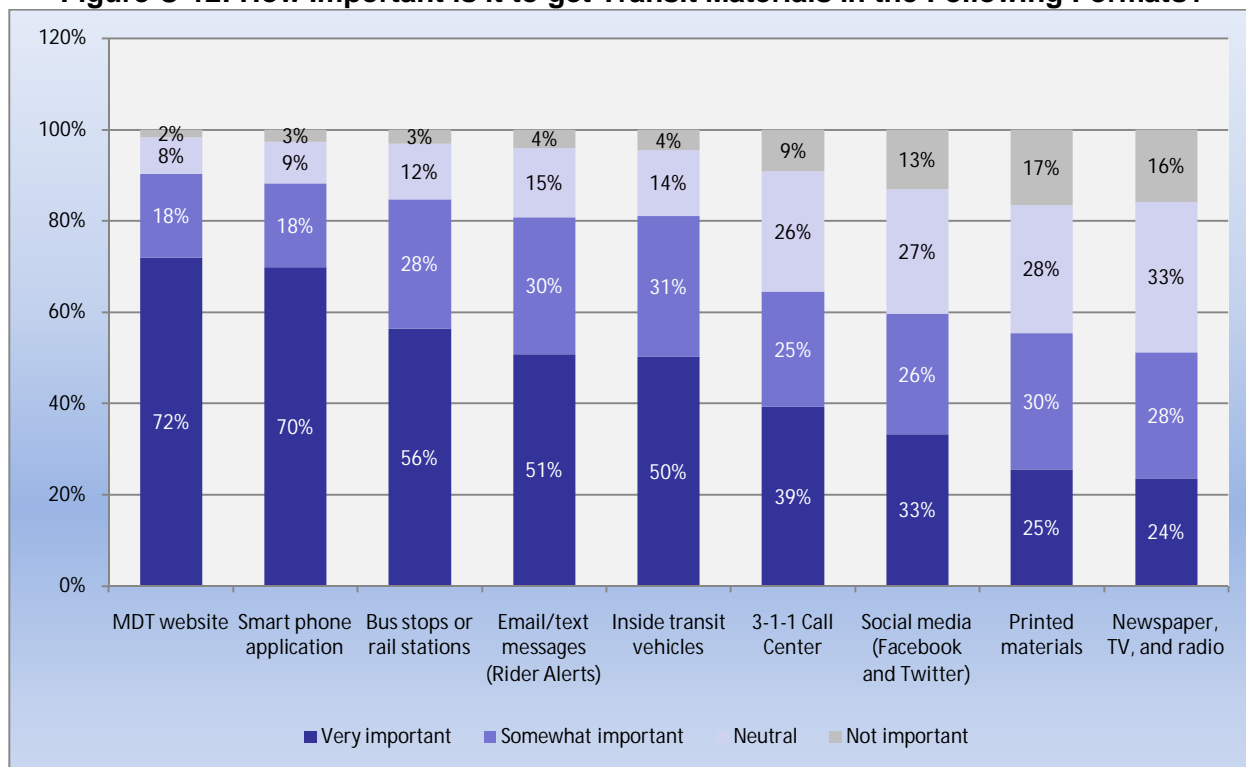
**Figure C-11: Parking - Given its Limited Resources, What Should Miami-Dade Transit's Priorities be for the Next Ten Years?**



## Transit Information

MDT asked respondents through the online survey how they preferred to access information about MDT's routes. Figure C-12 shows that over 70 percent of respondents were interested in receiving information through online sources. It is important to note that this question was not included on the shorter comment card, which may have led to a bias toward electronic priorities. The second highest response came for accessing information through smartphones.

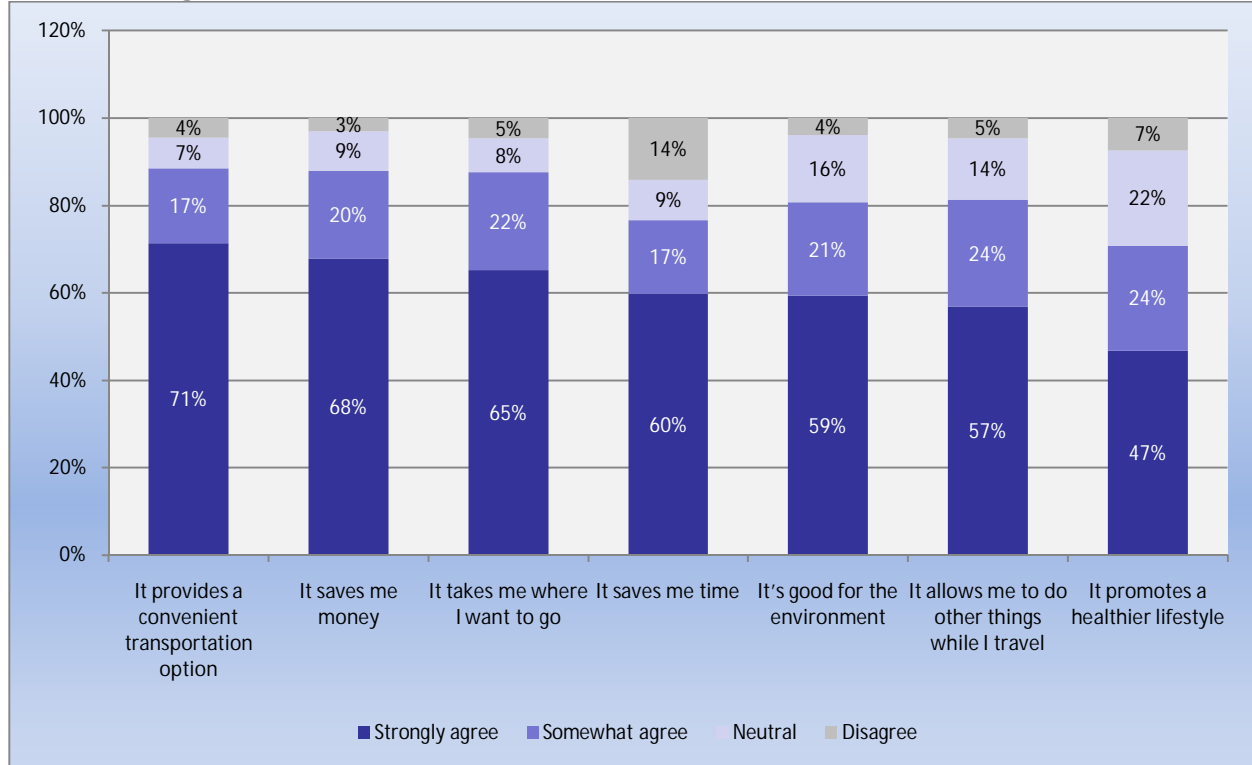
**Figure C-12: How Important is it to get Transit Materials in the Following Formats?**



## Reason for Transit Use

When asked why they use transit, the most popular response by online survey respondents was that it was convenient followed closely by the fact that it saves the user money. Figure C-13 shows why respondents choose to use transit services provided by MDT or the reasons a non-user might use transit.

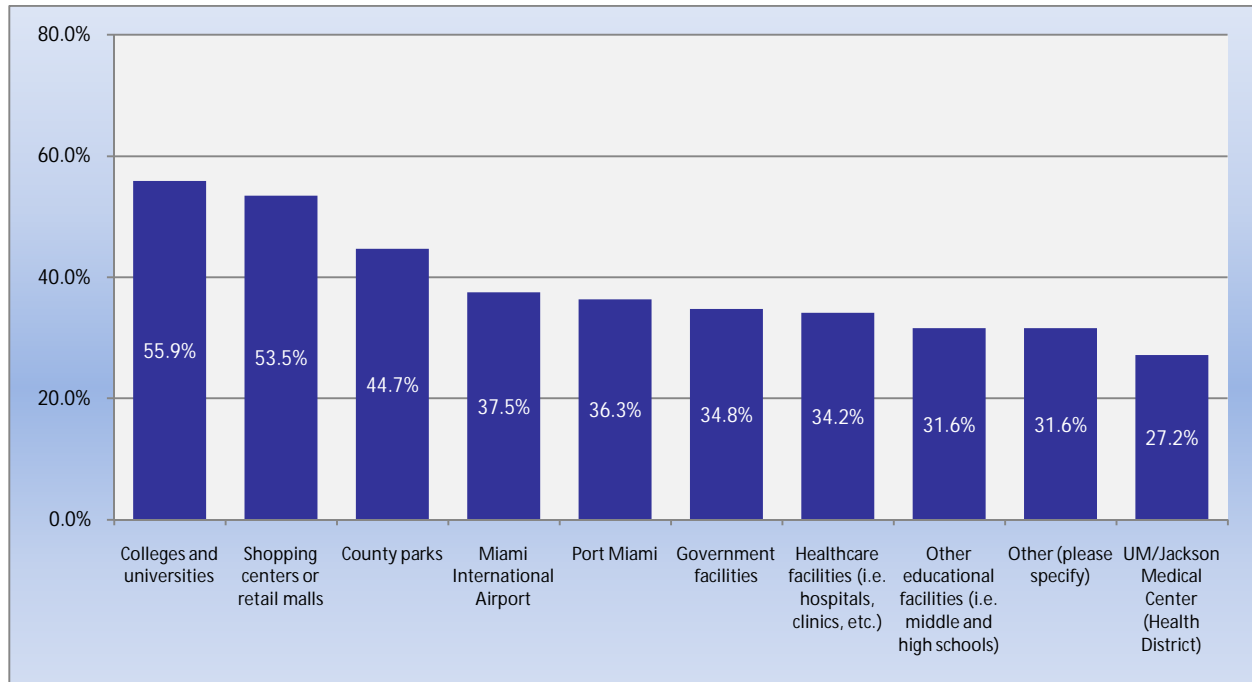
**Figure C-13: I Use Transit Services Because or Would Use Transit If?**



## Destinations

Figure C-14 provides insight into what types of destinations respondents would like to travel to. The number one response was to provide service to universities and colleges while second place went to shopping centers and retail malls. For those who indicated "Other" as a response, the most popular response by far was the beach although areas all over the county were mentioned.

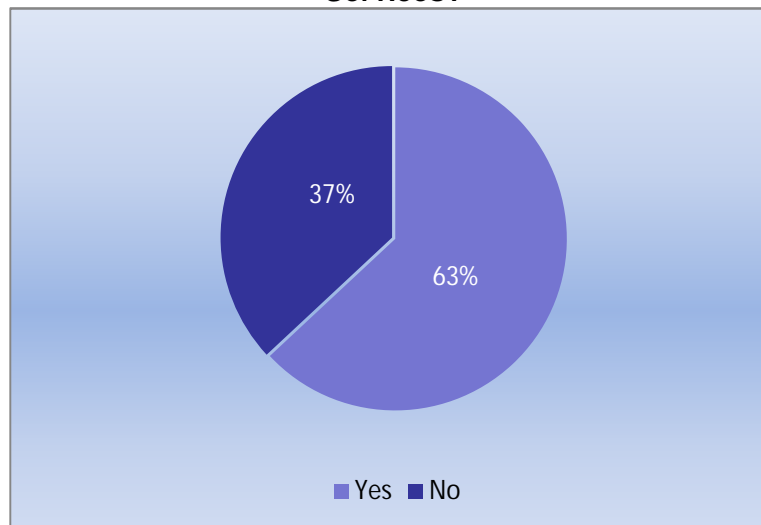
**Figure C-14: Which of the Following Destinations Could Miami-Dade Transit Serve Better?**



## Fare Increase

As displayed in Figure C-15, when asked about the trade off between better service and higher fares, 63 percent of respondents indicated that they would be willing to pay more for better service.

**Figure C-15: Would You be Willing to Pay Increased Transit Fares for Improved Transit Services?**

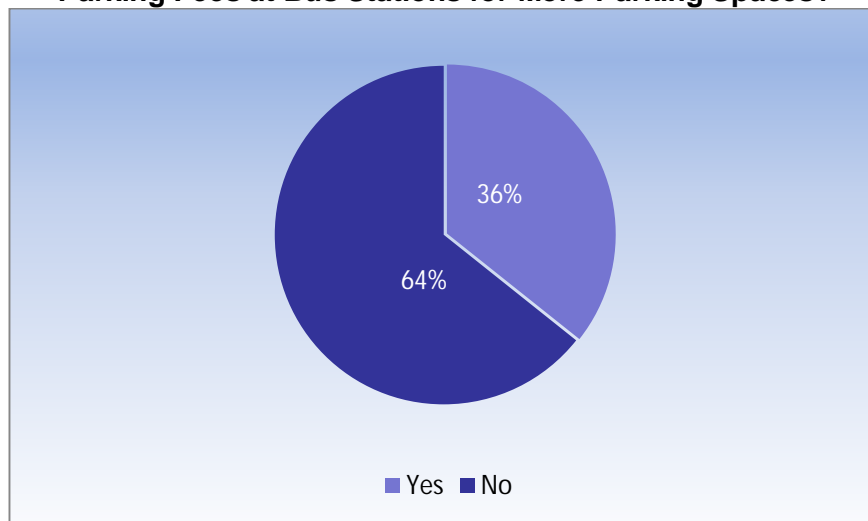




## Parking Fee Increases

Of the respondents from the online survey and shown in Figure C-16, only 36 percent indicated they were willing to pay increased fees for parking at stations.

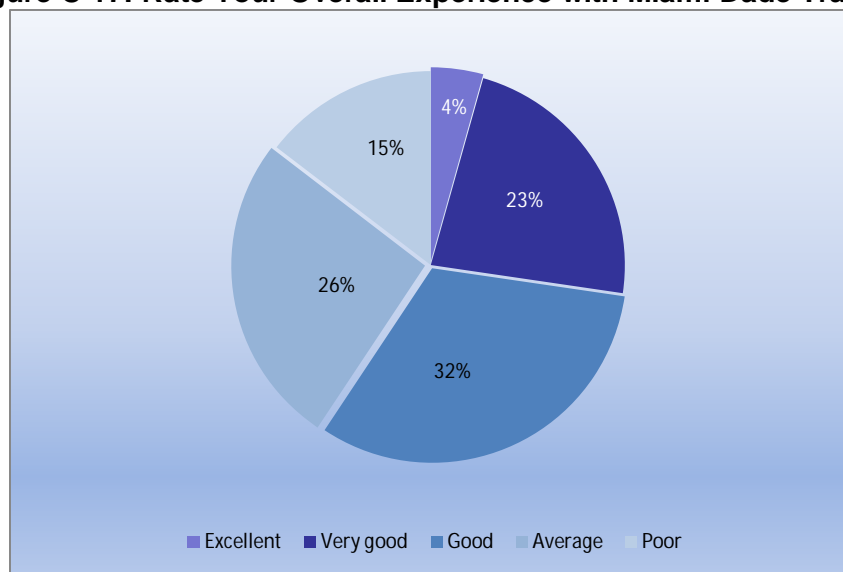
**Figure C-16: Would You be Willing to Pay Increased Parking Fees at Rail Stations or New Parking Fees at Bus Stations for More Parking Spaces?**



## Satisfaction

Figure C-17 provides an overview of the responses from a question asking for users to rate MDT's service. Fifty-nine percent indicated a satisfaction of good, very good, or excellent.

**Figure C-17: Rate Your Overall Experience with Miami-Dade Transit.**



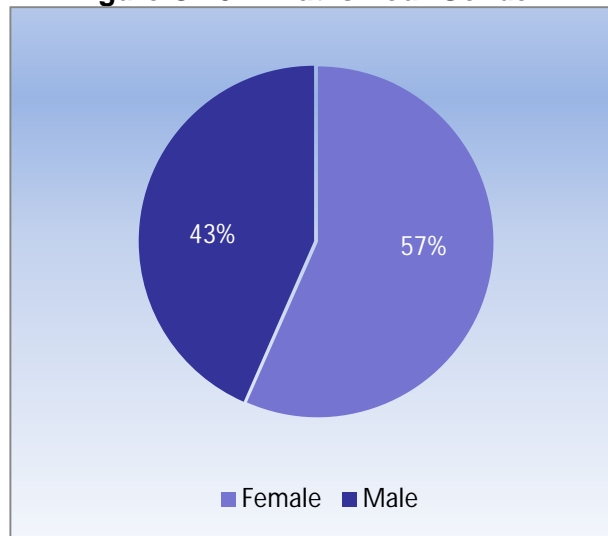
## Demographic Information

The remainder of this report provides demographic information for those taking the survey.

## Gender

As shown in Figure C-18, more than half of the respondents were female.

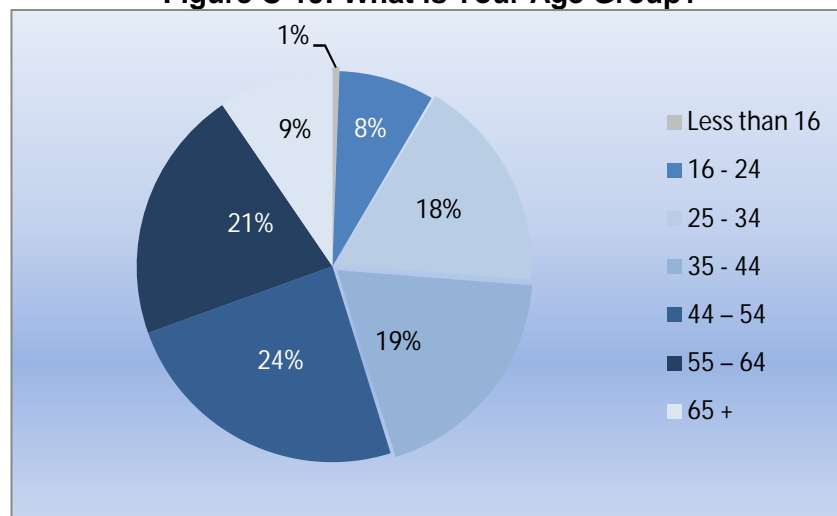
**Figure C-18: What is Your Gender?**



## Age

Respondents by age group are provided in Figure C-19. The largest cohort is between 44 and 54 years old.

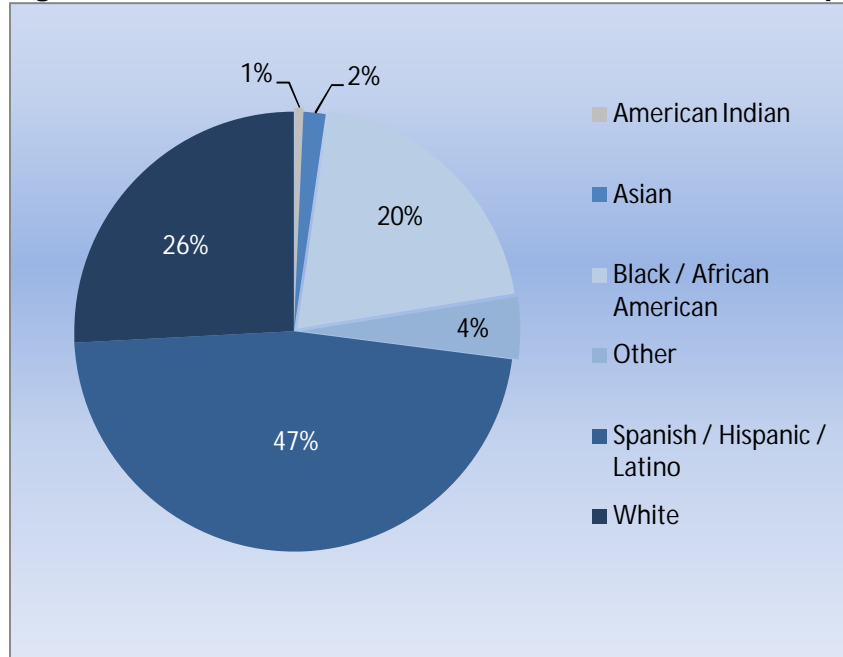
**Figure C-19: What is Your Age Group?**



## Race/Ethnicity

Figure C-20 provides information on the race and/or ethnicity of respondents. The largest ethnic group to complete the survey is Spanish/Hispanic/Latino at 47 percent followed by White at 26 percent.

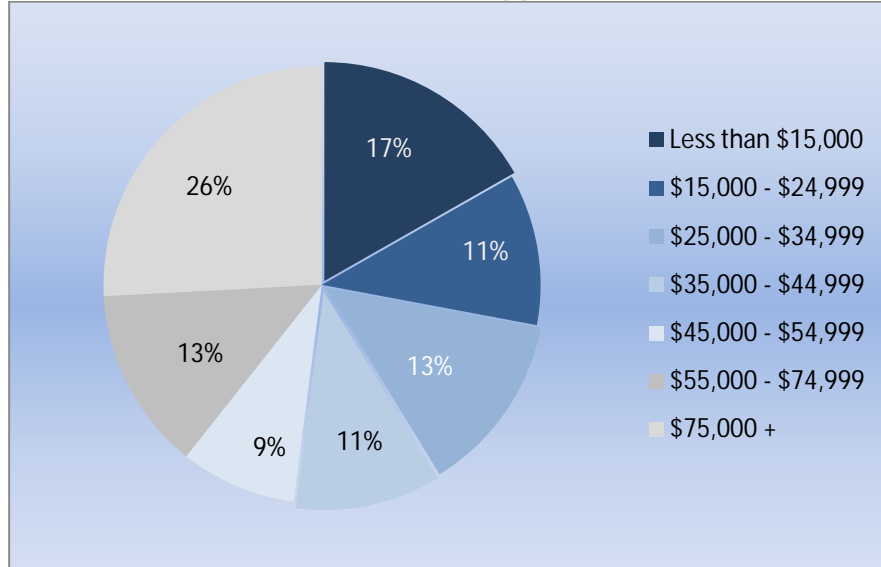
**Figure C-20: Which Best Describes Your Race/Ethnic Group?**



### Annual Income

Figure C-21 displays the income levels of respondents. The largest group of respondents have an annual income above \$75,000. Approximately 17 percent of respondents make less than \$15,000 annually.

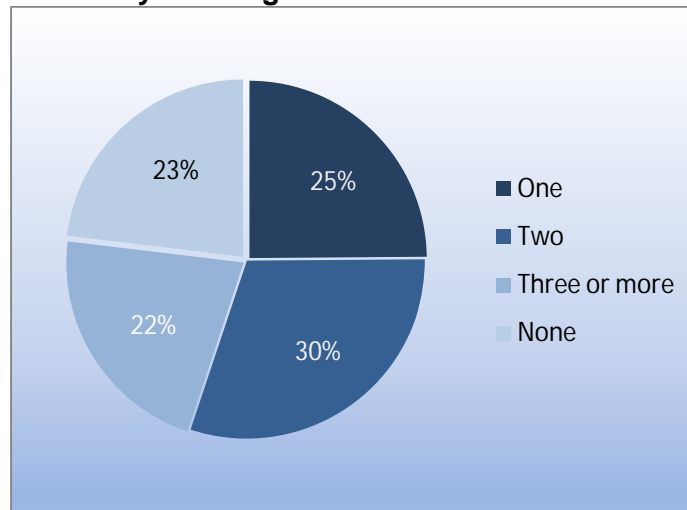
**Figure C-21: What is Your Household's Approximate Total Annual Income?**



## Household Vehicles

As shown in Figure C-22, twenty-three percent of respondents do not have a working vehicle in the home. An almost equal amount have three or more working vehicles.

**Figure C-22: How Many Working Vehicles are Available in Your Household?**



## General Comments

When asked if there were any other comments respondents would like to share with MDT, many respondents chose to make comments. The following themes were noted by many respondents.

- Public involvement participants clearly expressed a need to increase transit service whether it be to add new service areas, increase frequencies, or add to the diversity of modes.

- Current MDT services could be improved with regard to on-time performance and coordination for transfers between modes.
- If there is to be a fare increase, passengers need to be able to see what they are paying for. If the fares go up, there should be better service.
- There were also many comments about providing better information about transit services which included publications dedicated to tourists, real-time information, better signage within stations and on vehicles to note which vehicle is departing next, etc.
- Additional comments included keeping the vehicles in good working order, increasing security on the transit system, and cleaning the vehicles.



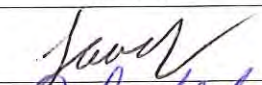
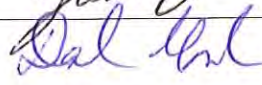
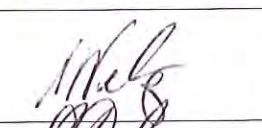

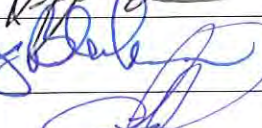


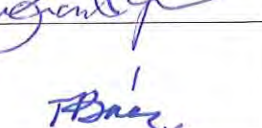
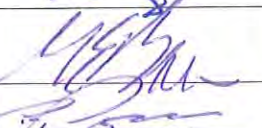
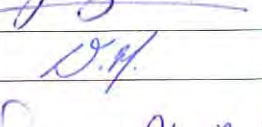

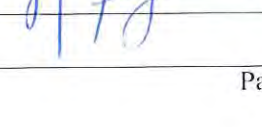

## A.10 TDP10Ahead Steering Council Review Log



Request:	Review of MDT10Ahead – 2014 Major Update to Transit Development Plan (TDP)	
Division	Planning & Development (Division 30)	Distribution Date
		9/5/2014

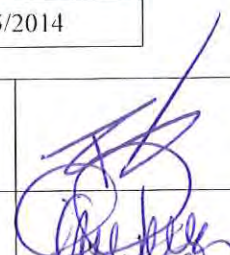

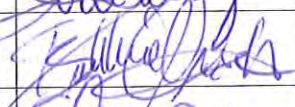
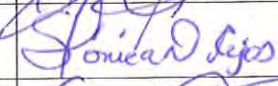





Reference Documents:	MDT10Ahead Draft Document	<a href="http://www.miamidade.gov/transit/mdt-10-ahead.asp">http://www.miamidade.gov/transit/mdt-10-ahead.asp</a>

## REVIEW LOG

MDT Division	Title	Print Name	Signature	Date
Performance Analysis (57)	MDT Section Chief	Sandy Amores		9/30/14
Infrastructure & Engineering (64)	Construction Manager 3	Daniel Mondesir		10/7/14
Paratransit Administration/Contracted Services (54)	MDT Section Chief	Bill Velez		9/22/14
Infrastructure and Maintenance (34)	Chief Infrastructure & Maintenance	Robert McClellan		10/7/14
Bus Services (70)	Assistant Director Bus Services	Derrick Gordon		10-7-14
Rail Services (80)	Assistant Director Rail Services	Jerry Blackman		10/7/14
Construction (36) & Structural Inspection & Analysis (39)	Chief Construction, Structural Inspection & Analysis	German Arenes		09/22/14
Design & Engineering (37)	Chief, Design & Engineering	Isabel Padron		9/22/14
Contract Services (49)	Manager, Contract Services	Jesus Valderrama		10/8/2014
Cost & Scheduling (49)	MDT Section Manager	Mercedes Sosa		9/23/14
ROW Acquisition & Utilities/Joint Development (67)	Chief, ROW	Froilan Baez		10/1/14
Service Planning & Scheduling (53)	MDT Section Chief	Gerald Bryan		9/26/14
Quality Assurance (32)	Chief, Quality Assurance	Lazaro Palenzuela		9/30/14
Finance (41)	Controller	Duane Mathis		9/22/14
Resource Allocation (45)	Chief, Budget/Performance Reporting	Robert Villar		10/1/14
Human Resources (60)	Chief, Human Resources	Jay Flynn		9/24/14



Request:	Review of MDT10Ahead – 2014 Major Update to Transit Development Plan (TDP)	
Division	Planning & Development (Division 30)	Distribution Date
		9/5/2014

Information Centers (27)	Sr. Manager EASY Card & Transit Service Centers & TD Program	Doug Bermudez		9/23/14
Information Technology (43)	Sr. Chief Information Technology	Rosie Perez		9/24/14
Marketing (62)	Marketing Programs Coordinator	Bobbie Crichton		9/30/2014
Planning & Systems Development (30)	Sr. Professional Engineer	Monica D. Cejas		10/6/14
Safety & Security (51)	Chief Office of Safety & Security	Eric Muntan		10/1/14
Civil Rights & Labor (50)	Chief Civil Rights	Cathy Lewis		9/23/14
Governmental Affairs (23)	Executive Assistant	Chimene Graham		10/8/14
Engineering Planning & Development (29)	Assistant Director Engineering Planning & Development	Albert Hernandez		10/8/14
Operations (28)	Deputy Director	Hugh Chen		

Interdepartmental reviews by required personnel are listed above.

## A.11 TDP10AHEAD Stakeholder Review Log





Request:	Review of MDT10Ahead – 2014 Major Update to Transit Development Plan (TDP)	
Division	Planning & Development (Division 30)	Distribution Date
		9/2/2014

Reference Documents:	MDT10Ahead Draft Document	<a href="http://www.miamidade.gov/transit/mdt-10-ahead.asp">http://www.miamidade.gov/transit/mdt-10-ahead.asp</a>

## REVIEW LOG

AGENCY	TITLE	CONTACT
Miami-Dade Transit	Asst. Director for Rail	Jerry Blackman
Miami-Dade Transit	Asst. Director for Bus	Derrick Gordon
Miami-Dade Transit	ADA Officer	Marcos Ortega
Citizens Independent Transportation Trust (CITT)	Executive Director	Charles Scurr
Miami-Dade Transit Rider	Transit Action Committee	Martha Vicedo
Miami- Dade Metropolitan Planning Organization (MPO)	Executive Director	Irma San Roman
Miami-Dade County Public Works and Waste Management	County Engineer	Antonio Cotarelo
Miami-Dade Expressway Authority	Executive Director	Javier Rodriguez
Miami-Dade County Regulatory and Economics Resources	Asst. Director	Mark Woerner
Miami-Dade County Parks, Recreation and Open Spaces	Chief, Planning and Research Division	Maria Nardi
Bicycle and Pedestrian Advisory Committee	Chair	Eric Tullberg
League of Cities	Executive Director	Richard Kuper
Agency for Persons with Disabilities	Community Relations Coordinator	Rosa Llaguno
City of Miami (Downtown Development Authority)	Executive Director	Alyce Robertson
Beacon Council	Executive vice President	Stephen Beatus
Miami-Dade Chamber of Commerce	Committee Chairman and Vice Chairman	Terry Mckinley and Mitch Bierman

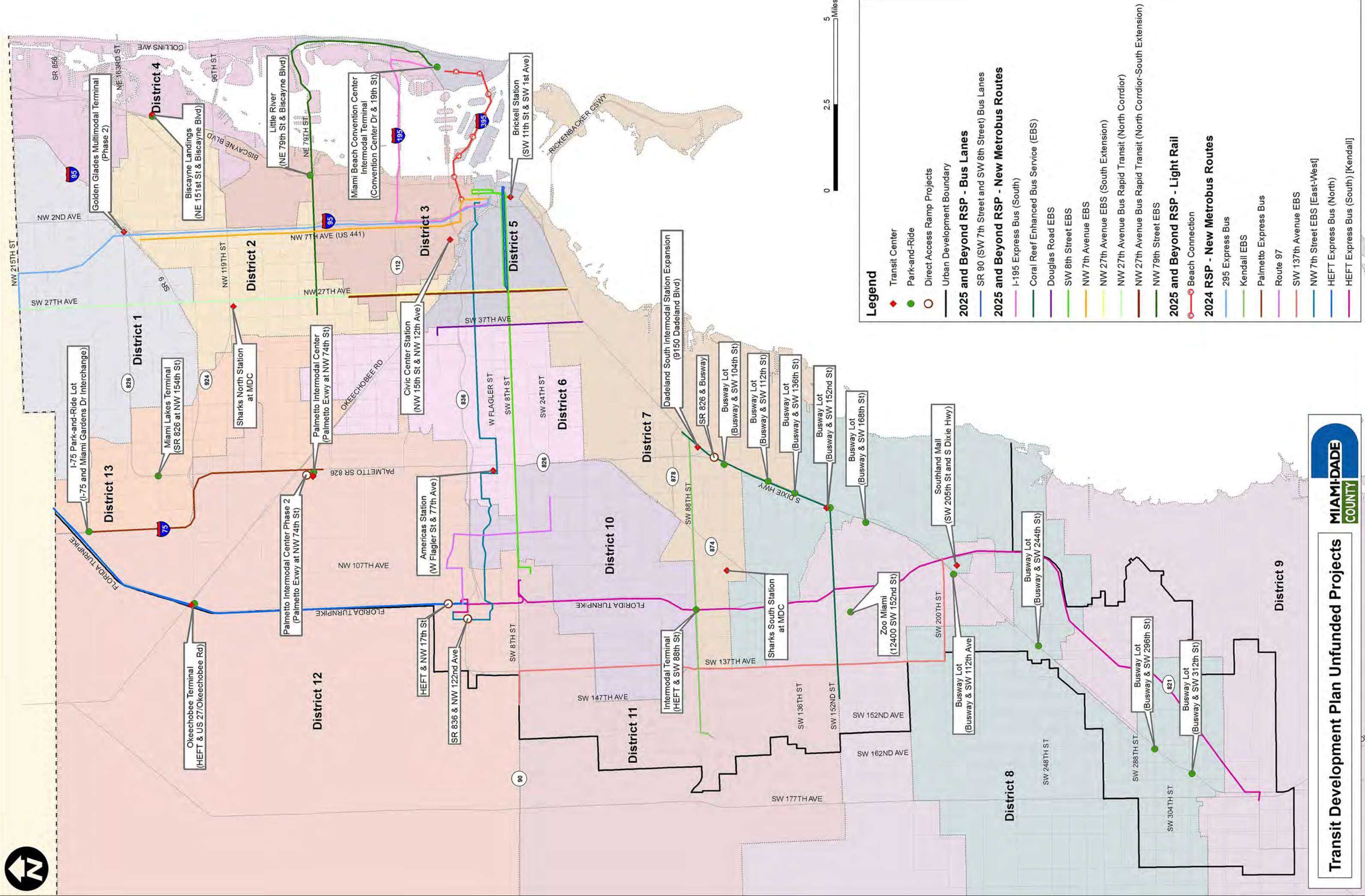
Request:	Review of MDT10Ahead – 2014 Major Update to Transit Development Plan (TDP)	
Division	Planning & Development (Division 30)	Distribution Date
		9/2/2014

Urban Health Solutions Urban Health Partnerships	Executive Director	Anamarie Garnes
Career Source South Florida	Executive Director	Rick Beasley
South Florida Regional Transportation Authority	Transportation Planning Manager	Joseph Quinty
South Florida Commuter Services	Project Director	James Udvardi
Florida Turnpike Enterprise	Executive Director	Diane Gutierrez-Scaccetti
Florida Department of Transportation, District 6	Intermodal Systems Development Manager	Aileen Boucle
Alliance for Aging, Inc.	Director of Planning and Special Projects	Marsha Jenakovich
Center for Independent Living of South Florida	Director of Advocacy	Marc Dubin, Esq.
Commission on Disability Issues (CODI)	Director	Heidi Johnson Wright
Municipal Focus Group	City of Miami	Carlos Cruz-Casa
Municipal Focus Group	City of Miami Beach	Julien Guevara
Municipal Focus Group	City of Coral Gables	Jessica Keller
Municipal Focus Group	Virginia Gardens	Richard Block
Comm. District Focus Group	Commission District 3	Kenneth M. Kilpatrick
Comm. District Focus	Commission District 5	Jose A. Lopez
Comm. District Focus	Commission District 6	Alexander Adams
Comm. District Focus	Commission District 7	Anthony Garcia
Comm. District Focus	Commission District 8	Eric Katz
Comm. District Focus	Commission District 11	Harry Hoffman
Comm. District Focus	Commission District 13	Sean Schwinghammer

## A.12 TDP10AHEAD Funded Projects







**Legend**

Transit Center

Park-and-Ride

Direct Access Ramp Projects

Urban Development Boundary

**2025 and Beyond RSP - Bus Lanes**

SR 90 (SW 7th Street and SW 8th Street) Bus Lanes

**2025 and Beyond RSP - New Metrobus Routes**

I-195 Express Bus (South)

Coral Reef Enhanced Bus Service (EBS)

Douglas Road EBS

SW 8th Street EBS

NW 7th Avenue EBS

NW 27th Avenue EBS (South Extension)

NW 27th Avenue Bus Rapid Transit (North Corridor)

NW 27th Avenue Bus Rapid Transit (North Corridor-South Extension)

NW 79th Street EBS

**2025 and Beyond RSP - Light Rail**

Beach Connection

**2024 RSP - New Metrobus Routes**

295 Express Bus

Kendall EBS

Palmetto Express Bus

Route 97

SW 137th Avenue EBS

NW 7th Street EBS [East-West]

HEFT Express Bus (North)

HEFT Express Bus (South) [Kendall]



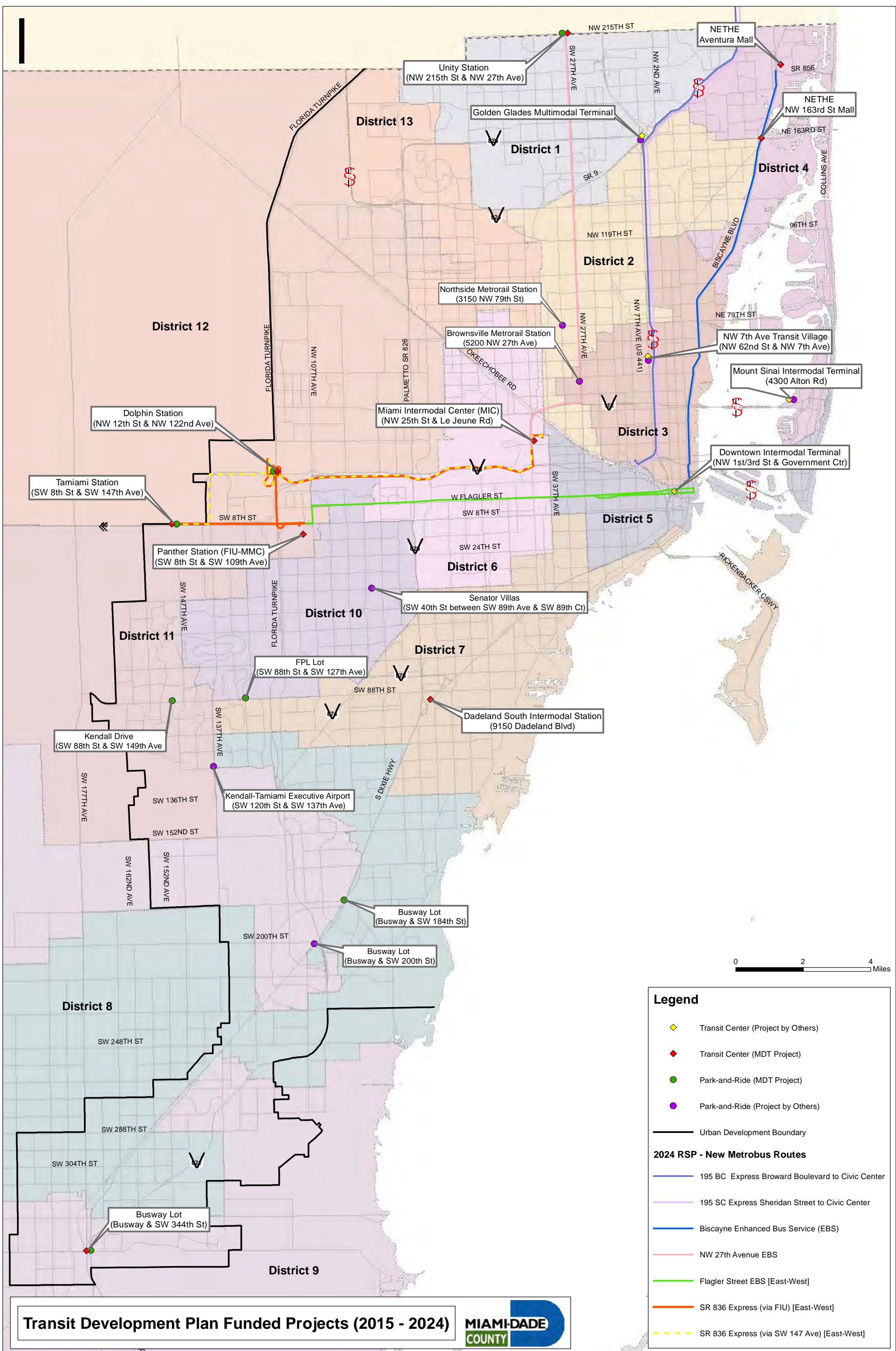
# Transit Development Plan Unfunded Projects





## A.12 TDP10AHEAD Unfunded Projects











**TRANSIT DEVELOPMENT PLAN MAJOR UPDATE**  
**PUBLIC INVOLVEMENT PLAN**

*July 2014*



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## 1.0 INTRODUCTION

Miami-Dade Transit (MDT) is preparing its 10-year 2014 Transit Development Plan (TDP), which will provide planning, development and operational guidance for the evolution of the transit system over the next 10 years. As required by Florida Administrative Code 14-73.001, MDT 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 MDT's vision for public transportation in its service area and defines actions to help MDT achieve its vision. Specifically, a TDP includes the following major elements:

- Public involvement plan (PIP) 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.

## 2.0 PUBLIC INVOLVEMENT PROGRAM

The TDP PIP for MDT 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 public involvement process shall include the following:

- Educate and present information by promoting proactive and early public involvement.





- 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 public involvement process.

The PIP is consistent with the Miami-Dade Metropolitan Planning Organization's (MPO) 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 PIP and have it approved by FDOT or use the MPO's PIP. The MPO's PIP was developed to cover all MPO needs and, as such, is a general document. MDT has elected to develop its own PIP to provide a more detailed description of the public involvement activities specifically to be undertaken during the development of the TDP. MDT intends to adhere to the greater goals of the MPO's PIP throughout the course of the TDP. In addition to adhering to the MPO's PIP, MDT will include an MPO representative on the TDP Major Update Project Steering Committee (PSC).

## 2.1 TDP PROJECT TEAM

The Project Team for the development of the TDP comprises four groups – Project Management Team, a Project Steering Committee, Commission District Representative Group, and Municipal Representative Group. 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 MDT 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 PSC, and generally oversee the project's progression. The MDT 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.

### 2.1.2 Project Steering Committee

The role of the PSC 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 PSC 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 PSC will meet four times over the course of the project. Members of the PSC are listed in Appendix B, Table B-1. As required by statute, FDOT, regional workforce board (i.e., CareerSource South Florida), and MPO 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 Project Steering Committee.



### 2.1.3 Board of County Commissioners District Representative Group

Each Board of County Commissioner will be asked to provide a recommendation for a constituent from their respective commission district to participate with this group. It is anticipated that this group will meet at least one time during the course of TDP development. The group will provide input with regard to transit needs in their districts. Some members of this group will also participate in the Project Steering Committee.

### 2.1.4 Municipal Representative Group

Each municipality will be requested to recommend a staff representative to participate in the municipal representative discussion. It is anticipated that this group will meet at least one time during the course of TDP development. The group will provide input with regard to transit needs in their municipalities. Some members of this group will also participate in the Project Steering Committee.

### 2.1.5 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,
- Workforce development boards,
- 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,



- School and university representatives,
- Tourism representatives,
- Media representatives, and
- State and federal agencies (e.g., environmental, planning, or transportation agencies).

#### 2.1.6 Schedule

Table 1 provides an overview of the schedule for public outreach. While efforts will be made to adhere to this schedule, it is expected that some items may shift to accommodate the needs of targeted groups and agenda requests by the various committees.



Table 1: Public Involvement Schedule

	January				February				March				April				May				June				July				August				September				October				November																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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	Tentative Meeting
	Deliverable



## 2.2 Public Involvement Activities

One of the main goals of the PIP is that all segments of the public be provided the opportunity to actively participate in the development and preparation of the TDP. The PIP utilizes various tools such as surveys, comment cards/fact sheets, and social media to facilitate communication with the public and gather input into TDP preparation.

The following public involvement activities will be undertaken during the TDP development process. Each public involvement activity type indicates the timeframe for its completion. These timeframes may be adjusted, in consultation with MDT staff, to ensure the most appropriate timing for the project. See Table 1 for the project schedule overview.

### 2.2.1 Ongoing MDT Outreach

Through coordinated county-wide efforts MDT continues its efforts to educate and provide early and ongoing public involvement 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 MDT website and social media outlets, mobile telephone applications (“apps”), posters and signs on buses, television screens and posters at stations, etc.

MDT 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 MDT or advertising an upcoming public meeting.

Schedule: Ongoing.

### 2.2.2 Branding

The first step for public involvement 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.

Schedule: February 2014.

### 2.2.3 Public Hearing

The TDP will be reviewed by and presented to the Transportation and Aviation Committee (TAC), a subcommittee of the 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 the FDOT for review and approval. The public hearing process will also allow members of the public to comment on the TDP.

Schedule: November 2014.

### 2.2.4 TDP Contact Information

To assist the public and stakeholders in providing information to MDT related to the TDP, a number of mechanisms will be established to gather information. The first is a TDP-specific email address ([MDT10Ahead@miamidade.gov](mailto:MDT10Ahead@miamidade.gov)) where commenters can direct any TDP-



related comments. The second is to use the Community Information and Outreach Center's (CIAO) electronic ([www.miamidade.gov](http://www.miamidade.gov) or [311@miamidade.gov](mailto:311@miamidade.gov)) and telephone (3-1-1, 305-468-5900, 888-311-DADE (3233), or TTY 305-468-5402) portals to gather information. If a commenter indicates that the comment is related to the TDP, the information will be forwarded by CIAO to MDT staff. Commenters can also call MDT's customer service line (305-891-3131 or TTY 305-499-8971) to provide a comment.

Schedule: Ongoing.

### 2.2.5 Printed Materials

MDT will produce a number of printed materials in English, Spanish and Creole for distribution. Materials will include TDP Contact Information such as the TDP-specific email address and CIAO's contact information. A TDP comment card will be developed which will provide an overview of the TDP process, provide information on how people can get involved, and will include a few short questions. The comment card and other related information will be available at TDP public meetings, public libraries, various County public meetings and community events attended by MDT and at MDT facilities. Efforts will be undertaken to distribute these materials through other mechanisms such as MPO and Miami-Dade County events. The card may be submitted at any TDP event or returned via pre-paid postage.

Schedule: Materials will be developed January/February 2014. Distribution will be ongoing.

### 2.2.6 Electronic Survey

MDT 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 MDT should move in the future. Access to the survey will be promoted through print materials, electronic materials, and in-person events.

Schedule: Survey to be online February/March 2014. Data collection will be ongoing.

### 2.2.7 Electronic Communication

MDT will promote TDP outreach activities and encourage input through its electronic communication outlets. Notices will be posted on the MDT, MPO, CITT and other Miami-Dade County websites, [www.miamidade.gov/transit/](http://www.miamidade.gov/transit/), and respectively. MDT will also post information on its Facebook page ([www.facebook.com/MiamiDadeTransit](http://www.facebook.com/MiamiDadeTransit)) and through its Twitter account ([www.twitter.com/iridemdt](http://www.twitter.com/iridemdt)). MDT may also use its mobile app to reach passengers (see example).





Schedule: Ongoing.

### 2.2.8 Special Outreach

MDT will offer alternative outreach opportunities for those who have difficulty participating in conventional public outreach events. Some individuals may have difficulty attending an event due to disabilities, work conflicts, lack of childcare, etc. These individuals may access information and provide comment through MDT's website, the various Community Information and Outreach portals, MDT's customer service line or the TDP's email address.

In addition, MDT continually attends 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. Appendix C, Table C-1 provides a list of the events that will be attended by MDT staff.

Schedule: Ongoing.

## 2.3 Technical Committee Coordination

MDT expands its public involvement program by engaging members of transportation related advisory committees established in Miami-Dade County as listed in the following sections. MDT will engage these committees during regularly scheduled meetings as informational agenda or action items to seek input, provide information and address questions on the development of the MDT TDP. MDT will make several presentations 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 MPO 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 MPO Governing Board members. The CTAC meets once a month and is open to the public. MDT will attend the CTAC to seek input for the TDP based upon a review and formal presentation of the TDP development.

Schedule: June 2014

### 2.3.2 Transportation Planning Technical Advisory Committee (TPTAC)

The MPO 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. MDT will attend the TPTAC to seek input for the TDP based upon a review and formal presentation of the TDP development.

Schedule: June 2014

### 2.3.3 Transportation and Aviation Committee (TAC) – Public Hearing

The TAC 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



TAC will review and provide input on the TDP as well as take formal action in providing its recommendation to the BCC based upon a formal presentation at this public hearing. MDT will attend the TAC to seek input and address comments and questions for the development of the TDP. MDT will seek formal action by the TAC to approve and make recommendation to the BCC.

Schedule: November 2014

#### 2.3.4 Miami-Dade County Board of County Commissioners (BCC)

The Miami-Dade County BCC is the administrative body for county government which 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: November 2014

#### 2.4 Documentation

Miami-Dade Transit 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 public involvement event will be completed after each event and properly logged. Requests received from the public are forwarded to the appropriate MDT division for follow-up and resolution.

Schedule: Ongoing.

### 3.0 PUBLIC INVOLVEMENT EVALUATION MEASURES

The following performance measures will be used to measure the effectiveness of MDT public involvement efforts with regard to the TDP.

**Table 2: Public Involvement Evaluation Measures**

Public Involvement Goal	Strategy	Objectives	Measures	Targets
<b>Goal 1: Early and Consistent Involvement</b>  Involve riders, the public, and stakeholders early and regularly in the project.	<ul style="list-style-type: none"><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>• Number of participants who actively participate</li></ul>	<ul style="list-style-type: none"><li>• Greater than 1,000 interactions</li></ul>
	<ul style="list-style-type: none"><li>• Provide opportunities for passive participation in the project. Passive participation is defined as one-way communication from the TDP Team to the participant. Examples include posting material on a website, sending an email, posting notices on all buses, etc.</li></ul>	<ul style="list-style-type: none"><li>• Catalog the amount of passive participation throughout the project.</li></ul>	<ul style="list-style-type: none"><li>• Number of participants who passively participate (e.g., number of people who received the email, number of people viewing the website, etc.)</li></ul>	<ul style="list-style-type: none"><li>• Greater than 5,000 opportunities provided to participate</li></ul>


**Table 2: Public Involvement Evaluation Measures (Continued)**

Public Involvement Goal	Strategy	Objectives	Measures	Targets
<b>Goal 2: Opportunity</b>  Provide all MDT 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"> <li>• Provide multiple opportunities for input so that if a person cannot attend an event, he/she can still provide input via the website. In addition to obtaining printed material in all public libraries.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish project-specific email address so participants can submit comments and questions any time.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of a project-specific email address</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of a project-specific email address throughout the duration of the project. Review comments and questions received.</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunity for traditionally under-represented groups to participate</li> </ul>	<ul style="list-style-type: none"> <li>• Identify under-represented groups early in the process and include representatives on the PSC</li> </ul>	<ul style="list-style-type: none"> <li>• Number of PSC members that fall into an under-represented group</li> </ul>	<ul style="list-style-type: none"> <li>• Greater than 10% of PSC members are members of an under-represented group</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunity for non-English speaking individuals to participate</li> </ul>	<ul style="list-style-type: none"> <li>• Provide all printed materials in English, Spanish and Creole</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of completed alternative language surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Greater than 20% of returned surveys are alternative language surveys (based on percentage of residents who speak Spanish at home.)</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunity for persons with disabilities to participate</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure in-person events are held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of events held at locations accessible by at least one transit route and are ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>• 100% of all events are held at locations accessible by at least one transit route and are ADA accessible</li> </ul>




**Table 2: Public Involvement Evaluation Measures (Continued)**

Public Involvement Goal	Strategy	Objectives	Measures	Targets
<b>Goal 3: Information and Communication</b>  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"> <li>• Provide information in accessible format</li> </ul>	<ul style="list-style-type: none"> <li>• Provide printed copies of materials when requested by those who do not have access to the internet.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of individuals not provided printed copies when requested</li> </ul>	<ul style="list-style-type: none"> <li>• Zero individuals not provided printed copies when requested</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide regular updates on the TDP's progress</li> </ul>	<ul style="list-style-type: none"> <li>• Update the TDP website on a regular basis</li> </ul>	<ul style="list-style-type: none"> <li>• Frequency of updates to the TDP website</li> </ul>	<ul style="list-style-type: none"> <li>• Update the TDP website more than once per month</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide opportunities for the public to ask questions</li> </ul>	<ul style="list-style-type: none"> <li>• Establish means for the public to submit questions via email and in person</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of questions responded to within two business days</li> </ul>	<ul style="list-style-type: none"> <li>• Greater than 90% of questions responded to within two business days</li> </ul>
<b>Goal 4: Range of Techniques</b>  Use a broad-spectrum of techniques to gather input from a diverse population within the project area	<ul style="list-style-type: none"> <li>• Employ the techniques identified in this PIP to provide a broad range of opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Assess whether or not the goals of this PIP have been met</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of goals met by the conclusion of the TDP process</li> </ul>	<ul style="list-style-type: none"> <li>• Greater than 75% of goals met by the conclusion of the TDP process</li> </ul>



## 4.0 TITLE VI/LIMITED ENGLISH PROFICIENCY (LEP)

Under Title VI of the Civil Rights Act of 1964, as amended, as recipients of federal financial assistance, Miami-Dade Transit, without regard to race, color, or national origin, operate and plan 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: mo7225@miamidade.gov

In accordance with MDT's Title VI Program, ensuring meaningful participation of minority and low-income populations throughout the TDP process is a major objective of this PIP. The following steps will be taken to provide meaningful access and participation of our Title VI protected populations.

- The demographic composition of our PSC will seek to represent the diversity of Miami-Dade County.
- Electronic surveys will be created with a Title VI sensitivity to give MDT a deeper understanding of the needs of our 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 our 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.

MDT is concerned about gathering input from individuals with limited English proficiency (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.



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The website also will indicate that individuals may email questions and comments in Spanish. Questions will be responded to in Spanish, 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 MDT TDP's use. After receiving written comment, efforts will be made to have it translated and addressed.



## Appendix A

### Project Management Team

**Table A-1: Project Management Team**

<b>Name</b>	<b>Agency/Firm</b>	<b>Role</b>
<b>Jacqueline Carranza</b>	<b>Miami-Dade Transit</b>	<b>MDT Project Manager</b>
Monica Cejas	Miami-Dade Transit	MDT Manager
Nilia Cartaya	Miami-Dade Transit	MDT Principal Planner
Doug Robinson	Miami-Dade Transit	MDT Principal Planner
<b>John Lafferty</b>	<b>Parsons Brinckerhoff</b>	<b>Project Manager</b>
Carlos Alba	Parsons Brinckerhoff	Deputy Project Manager
Joel Rey	Tindale-Oliver & Associates	Technical Lead
Laura Everitt	Tindale-Oliver & Associates	Technical Lead
Oliver Rodrigues	Florida Transportation Engineering	Support
Sheng (Sam) Yang	CTS Engineering	Support

**Appendix B****Table B-1: TDP Project Steering Committee Participants**

<b>No.</b>	<b>Stakeholder</b>	<b>Representative</b>
1	Miami-Dade Transit	Jerry Blackman
2	Miami-Dade Transit	Derrick Gordon
3	Miami-Dade Transit	Marcus Ortega
4	Citizens Independent Transportation Trust (CITT)	Charles Scurr
5	Miami-Dade Transit Rider	Martha Vicedo
6	Miami Metropolitan Planning Organization*	Irma San Roman
7	Miami-Dade County Public Works	Antonio Cotarelo
8	Miami-Dade Expressway Authority	Javier Rodriguez
9	Miami-Dade County Regulatory and Economic Resources	Mark Woerner
10	Miami-Dade County Parks and Recreation	Maria Nardi
11	Bicycle and Pedestrian Advisory Committee	Eric Tullberg
12	League of Cities	Richard Kuper
13	Agency for Persons with Disabilities	Rosa Llaguno
14	City of Miami Downtown Development Authority	Alyce Robertson
15	Beacon Council	Stephen Beatus
16	Miami-Dade Chamber of Commerce	Terry McKinley
17	Miami-Dade Chamber of Commerce	Mitch Bierman
18	Urban Health Solutions Urban Health Partnerships	Anamarie Garces
19	CareerSource South Florida*	Rick Beasely
20	South Florida Regional Transportation Authority	Joseph Quinty
21	South Florida Commuter Services	James Udvardi
22	Florida Turnpike Enterprise	Diane Gutierrez-Scaccetti
23	Florida Department of Transportation District 6*	Aileen Boucle
24	Alliance for Aging, Inc.	Marsha Jenakovich
25	Center for Independent Living of South Florida	Marc Dubin, Esq.
26	Commission on Disability Issues (CODI)	Heidi Johnson Wright
27	Municipal Focus Group	Carlos Cruz
28	Municipal Focus Group	Julien Guevara
29	Municipal Focus Group	Jessica Keller



**Table B-1: TDP Project Steering Committee Participants (continued)**

<b>No.</b>	<b>Stakeholder</b>	<b>Representative</b>
30	Municipal Focus Group	Richard Block
31	Commission District Focus Group	Kenneth M. Kilpatrick
32	Commission District Focus Group	Jose A. Lopez
33	Commission District Focus Group	Alexander Adams
34	Commission District Focus Group	Anthony Garcia
35	Commission District Focus Group	Eric Katz
36	Commission District Focus Group	Harry Hoffman
37	Commission District Focus Group	Sean Schwinghammer

\*Inclusion on PSC fulfills statutory requirement



## Appendix C

Table C-1: TDP Public Outreach Events Schedule

       							
TAKE THE 10AHEAD SURVEY NOW >							
Number	DATE	EVENT	ADDRESS	DISTRICT	CARDS COMPLETED	STAFF	COMMENTS
1	2/22/14	CITT Summit	MDC Main Library	5 - Bruno A. Barreiro	33	Julio, Monica, Jackie, Karla, Doug, Bobbi	
2	3/1/14	West Kendall Charrette	Felix Varela Senior High 15255 SW 96th Street	11 - Juan C. Zapata	7	Monica, Doug	
3	3/8/14	University Center Festival	SW 107th Ave btw SW 5th & 6th Street	12 - Jose Pepe Diaz	13	Jackie	
4	4/3/14	Bike to Work Day	South Miami Metrorail Station	7 - Xavier L. Suarez	0	Monica, Doug	
5	4/9/14	FIU - Job Fair	Florida International University	11 - Juan C. Zapata	0	Irene	Palm cards distributed
6	4/12/14	Agriculture and Cattle Show	Tropical Park	10 - Sen. Javier D. Souto	71	Irene, George M., Jackie, Julio	
7	4/13/14	Agriculture and Cattle Show	Tropical Park	10 - Sen. Javier D. Souto	64	Froilan, Karla, Monica, Kaushik	
8	4/15/14	Miami HEAT's "White Hot Heat"	Dadeland North Metrorail Station	7 - Xavier L. Suarez	0	Irene	Handed out surveys/palm cards
9	4/22/14	LRTP Public Meeting - Central	Frankie Rolle Neighborhood Center	7 - Xavier L. Suarez	2	Jackie, Doug	
10	4/24/14	LRTP Public Meeting - Beach/CBD	Culmer/Overtown Neighborhood Center	3 - Audrey M. Edmonson	0	Doug	
11	4/25/14	Baynaza	Deering Estate	8 - Lynda Bell	0	Doug, Irene	
12	4/25/14	Earth Day at the Zoo	Zoo Miami	9 - Dennis C. Moss	0	Doug Bermudez	
13	4/29/14	LRTP Public Meeting - North	North Dade Regional Library	1 - Barbara J. Jordan	0	Doug	
14	4/30/14	LRTP Public Meeting - South	South Dade Regional Library	8 - Lynda Bell	0	Doug	
15	5/6/14	LRTP Public Meeting - West	West Kendall Regional Library	11 - Juan C. Zapata	0	Doug	
16	5/8/14	CAA Public Meeting - Miami Beach	Miami Beach South Shore Community Center	5 - Bruno A. Barreiro	2	Jackie	Handed out surveys/palm cards
17	5/15/14	CLEAN AIR MONTH FAIR	SPCC	5 - Bruno A. Barreiro	154	Jackie, Trecie	Handed out surveys/palm cards
18	5/20/14	Metrorail 30th Year Event	SPCC	5 - Bruno A. Barreiro	0	Irene	Handed out survey
19	5/31/14	Keep Doral Beautiful Fair	J.C. Bermudez Park	6 - Rebeca Sosa			

