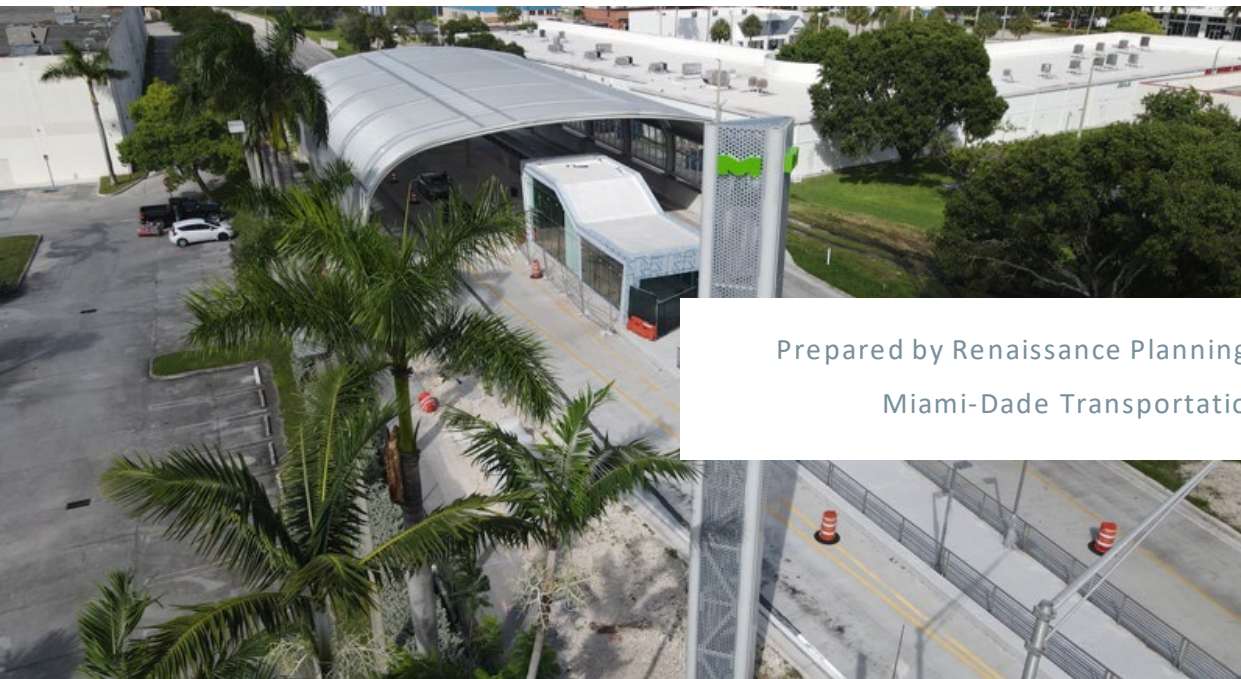




FIRST LAST-MILE (FLM) CONNECTIVITY SERVICES TO FEED INTO THE SOUTH DADE TRANSITWAY

Final Executive Summary



Prepared by Renaissance Planning Group on behalf of the
Miami-Dade Transportation Planning Organization

DISCLAIMER PAGE

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INTRODUCTION

The South Dade TransitWay covers the southernmost portion of Miami-Dade County. It begins at the Dadeland South Metrorail station and stretches 20 miles south, connecting the incorporated municipalities of Pinecrest, Palmetto Bay, Cutler Bay, Homestead, and Florida City.

The Strategic Miami Area Rapid Transit (SMART) Plan, adopted by the Miami-Dade Transportation Planning Organization (TPO) in 2016, advances rapid transit initiatives to address mobility needs throughout Miami-Dade County. The SMART Plan identifies six rapid transit corridors to address mobility, including the South Dade TransitWay.

The South Dade area is one of the fastest-growing communities in Miami-Dade; ensuring strong transportation connectivity is integral to fulfilling the corridor's social, cultural, and economic goals.

To address the SMART Plan goals, construction is currently underway for bus rapid transit (BRT) that will span the South Dade TransitWay. BRT will enhance transportation connectivity both within the corridor and to points south and north. To support the influx of residents and BRT, it is essential that new infrastructure, policy, and transit promote access to the BRT stations. On behalf of Miami-Dade TPO, this study offers recommendations for First Last-Mile connections to feed into the BRT stations along the South Dade TransitWay.



Figure 1 South Dade Corridor, Miami-Dade TPO

What is First Last-Mile?



Figure 2 Illustration of the three parts of a complete BRT trip, including the First Last-Mile connections

First Last-Mile (FLM) connections are one part of complete BRT trips. The BRT leverages high speeds and frequencies to transport riders most of the way, but short connections are necessary at the beginning and end to complete the trip. BRT can be thought of as the “trunk” of the trip and FLM as the “branches.” Riders can choose to walk, bike, drive, be driven, or take transit to and from the BRT stations for their FLM connections. To justify the capital and operating costs of transit FLM, transit services must attract sufficient ridership by being not only a good option, but as good or better than other mode choices.

PROJECT APPROACH

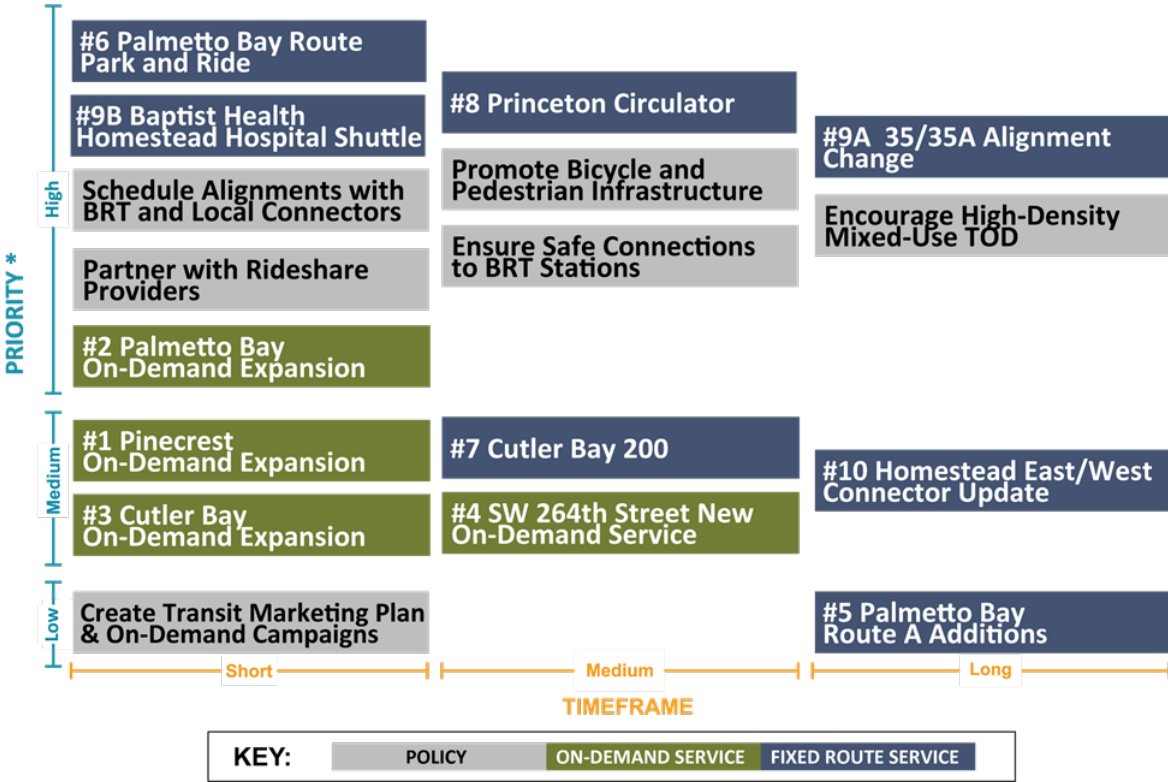
The study uses a three-step process to assess feasible transit service changes to expand FLM access and improve connectivity to the BRT. A thorough review of existing plans and studies (1) combined with new technical analysis using the best available data (2) was the basis for FLM Transit Recommendations in the corridor (3). A Stakeholder Advisory Committee of local and regional staff and stakeholders provided expertise, citizen perspectives, and policy guidance that informed every step of the study.



Figure 3 Project Approach diagram

RECOMMENDATIONS

The final recommendations developed by the study include six policy and eleven service recommendations. The study’s implementation plan contextualizes the priority and timeframe for each recommendation, as shown in **Figure 4**.



*Recommendations are designated high, medium, or low priority. There is no hierarchy within the categories.

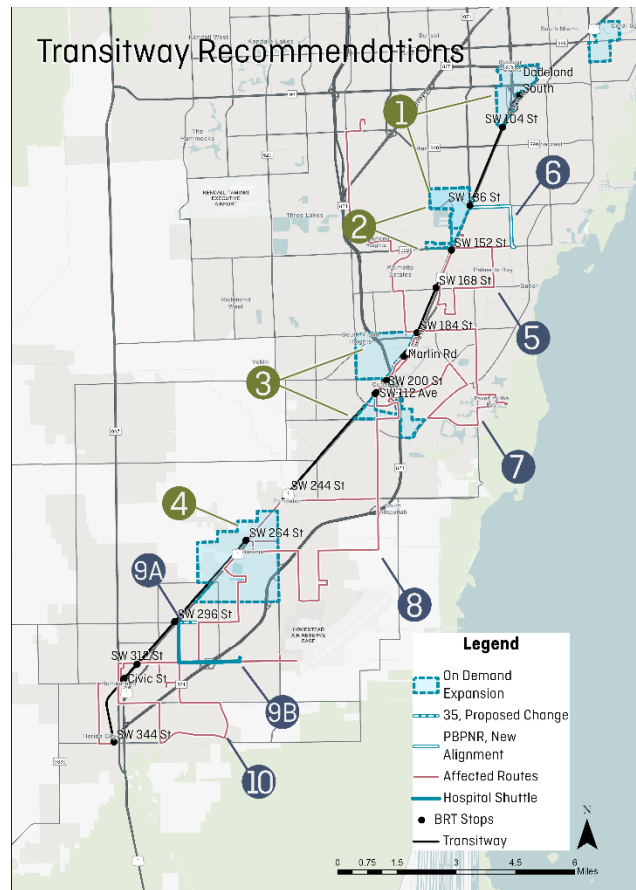
Figure 4 Recommendations, Priority, and Timeframe

Corridor-Wide Policy Recommendations

<p>Schedule Alignments with BRT & Local Routes</p> <p>Coordinate feeder service and BRT schedules.</p>	<p>Partner with Rideshare Providers</p> <p>Outsource on-demand service to private rideshare providers.</p>	<p>Ensure Safe Connections to BRT Stations</p> <p>Consider all modes in BRT station design and access across US-1.</p>	<p>Promote Bike/ Ped. Infrastructure</p> <p>Expand access and improve ridership by addressing gaps in infrastructure.</p>	<p>Encourage High-Density Mixed-Use TOD</p> <p>Support the development and jobs within the travelsheds.</p>	<p>Create Transit Marketing Plan & Campaigns</p> <p>Encourage the use of on-demand service to support all ridership.</p>
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On-Demand and Fixed Route Recommendations

<p>#1 Pinecrest On-Demand Expansion Expand service area to include adjacent, high-density areas</p> <p>New Annual Ridership 18,720 New Annual Operating 240k Est. Cost/Trip \$13</p>	<p>#2 Palmetto Bay On-Demand Expansion Expand service area to include adjacent, high-density areas</p> <p>New Annual Ridership 1,560 New Annual Operating \$0 Est. Cost/Trip \$0</p>	<p>#3 Cutler Bay On-Demand Expansion Expand service area to include adjacent, high-density areas</p> <p>New Annual Ridership 10,400 New Annual Operating \$130k Est. Cost/Trip \$13</p>	<p>#4 SW 264th Street New On-Demand Service Add new service area to provide service to unincorporated county</p> <p>New Annual Ridership 13,000 New Annual Operating \$300k Est. Cost/Trip \$23</p>
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<p>#5 Palmetto Bay Route A Additions Add bi-directional service, expand service to include AM/PM peak</p> <p>New Annual Ridership 3,900 New Annual Operating \$153k Est. Cost/Trip \$39</p>
<p>#6 Palmetto Bay Park & Ride Alignment Instead of Dadeland South, transfer to BRT at SW 136th St</p> <p>New Annual Ridership 5,200 New Annual Operating \$(35)k Est. Cost/Trip \$(7)</p>
<p>#7 200 Cutler Bay Local Additions Add bi-directional service, expand service to include AM/PM peak</p> <p>New Annual Ridership 26,000 New Annual Operating \$840k Est. Cost/Trip \$32</p>
<p>#8 Princeton Circulator Headway Update Increase frequency during AM/PM peak</p> <p>New Annual Ridership 6,240 New Annual Operating \$84k Est. Cost/Trip \$13</p>
<p>#9A 35/35A Alignment Change Explore opportunity to reroute 35 and 35A closer to BRT stations</p> <p>New Annual Ridership - New Annual Operating \$0 Est. Cost/Trip \$0</p>
<p>#9B Baptist Health Homestead Hospital Service Add shuttle connecting Hospital and SW 296 St BRT Station</p> <p>New Annual Ridership 5,200 New Annual Operating \$11.89M Est. Cost/Trip ~\$15</p>
<p>#10 Homestead East/West Connector Update Add bi-directional service, expand service to include AM/PM peak</p> <p>New Annual Ridership 15,600 New Annual Operating \$238k Est. Cost/Trip \$14</p>

LITERATURE REVIEW

A comprehensive study of prior and ongoing studies, engineering projects, and existing transit services was conducted to ensure new recommendations would be impactful and coordinated with regional efforts. The literature review identified key themes and service characteristics:

<p>The DTPW operates key fixed-route services within the corridor; the most utilized service is the 38 route, connecting local bus stops along the entire length of the South Dade Transitway.</p>	<p>Cutler Bay's GO Connect is the only service with origin and destination data showing a clear commute pattern to and from the Busway (at the Marlin St. Station).</p>
<p>Pinecrest's service shows the most pronounced commuter trip pattern with strong AM and PM peaks, suggesting untapped service capacity to meet mid-day travel needs.</p>	<p>Palmetto Bay's service has the highest average wait times throughout the day, suggesting the need for on-demand fleet expansion if the service is to grow.</p>

TECHNICAL ANALYSIS

The technical analysis included two primary methodologies: Origin and Destination (OD) Analysis and Accessibility Analysis.

The OD analysis was used to characterize the existing travel patterns to, from, and within the corridor, including average trip distance, duration, and mode share. This analysis shed light on which stations were trip importers/exporters, where existing activity centers lay, how large transit's existing mode share is, and how long riders are willing to travel for their trips.

These key insights about FLM rider behavior (specifically: travel budget, fixed route travelshed times, and bike/ped experiential factors) informed the necessary assumptions to complete the Accessibility Analysis.

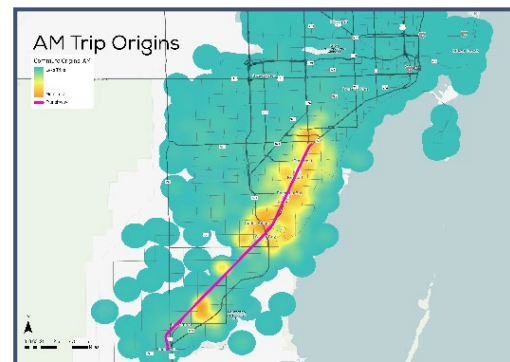


Figure 5 – O/D analysis corridor activity centers

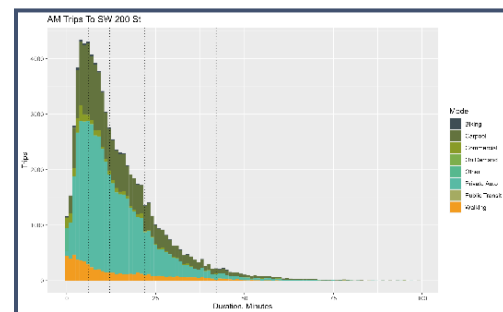


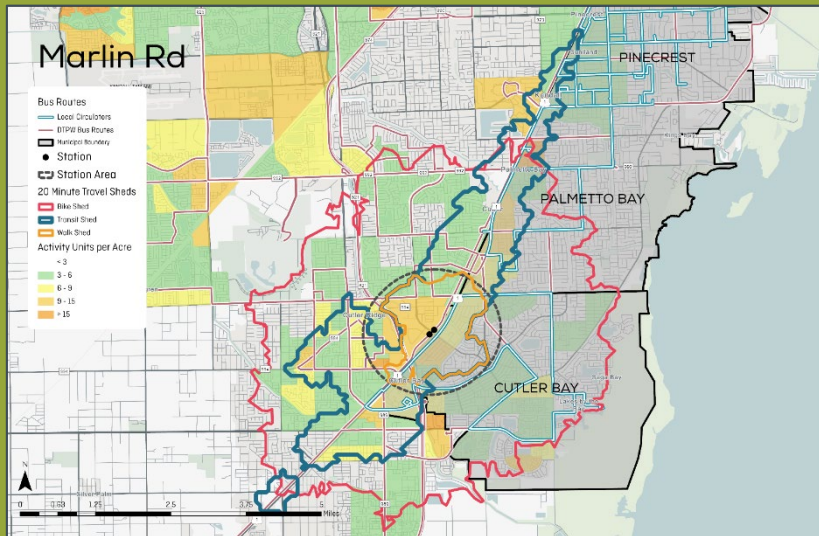
Figure 6 – O/D analysis station area trip travel times and mode share

Key Accessibility Analysis Assumptions

<p>Travel Budget</p>	<p>FLM Travelers are assumed to have taken a trunk trip and have limited remaining time in their travel budget. This analysis assumes 20 minutes.</p>
<p>Fixed Route Travelshed Times</p>	<p>Transit travelsheds must be analyzed by choosing a specific time. We chose the average departure time within an hour of peak service at each stop. After the BRT schedule is finalized, travelsheds should be reanalyzed.</p>
<p>Bike/Ped Experiential Factors</p>	<p>Accessibility analysis looks at what is possible on a bike or by walking, not what feels safe or comfortable. These experiential factors should be explored in future work.</p>

Station Area Accessibility Scores

The technical analysis effort included accessibility scoring, which measures the number of jobs and housing within a certain travel time from a location. Our study measures accessibility for each mode from each station within a 20-minute FLM travel budget. Across all stations, automobile has the highest accessibility score followed by bike and then transit. This underscores the value of biking and walking for first last-mile access, if safe and comfortable multi-modal infrastructure can be provided.

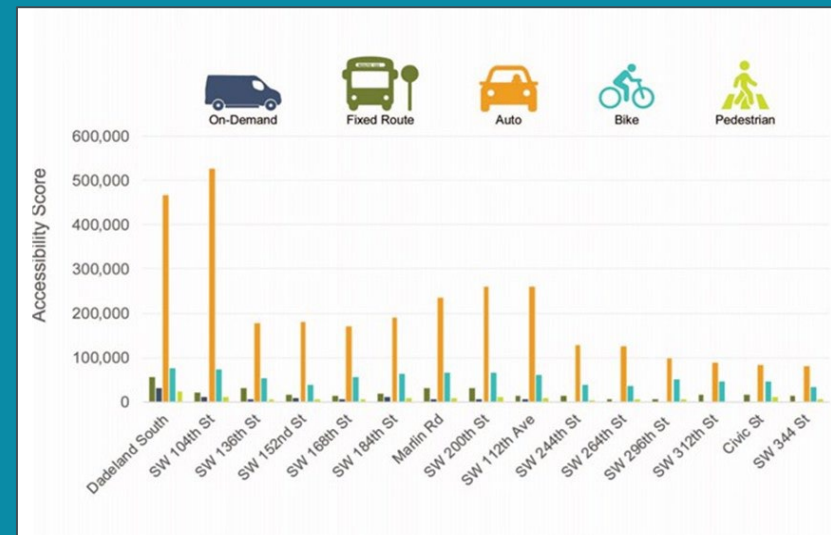


Accessibility Analysis

This map demonstrates accessibility analysis for the Marlin Rd. station. The colored shapes show how far someone can travel in 20 minutes by walking (orange), biking (red), or transit (blue). The number of jobs and housing inside each shape determines the accessibility score of that mode, which measures how useful that mode will be for FLM travelers.

Accessibility Analysis Findings

This graph compares accessibility scores across all the proposed BRT stations and highlights which have the highest and lowest transit access scores, especially compared to other modes at those stations. This comparison, along with each stations access map, identified opportunities for strengthening access through transit service recommendations.



Corridor-Wide Findings

Most trips take place within the SouthDade Corridor.	Trip lengths increase further south in the corridor.	75% of trips are under 23 minutes, identifying limited time budgets for travelers
Transfers and wait times are the greatest barriers to transit FLM access to BRT stations.	Bicycle accessibility outperforms transit accessibility, but has low mode share.	On-demand services are capacity-constrained and have volatile wait times.

Station-Specific Findings

BRT Station	Municipality	Station Area Trip Activity	Fixed Route Transit Accessibility Score	On-Demand Transit Accessibility Score
Dadeland South	Pinecrest	283,000	56,293	29,774
SW 104 St	Pinecrest	250,000	21,903	10,473
SW 136 St	Pinecrest/Palmetto Bay	203,000	30,945	6,138
SW 152 St	Palmetto Bay	155,000	15,588	9,432
SW 168 St	Palmetto Bay	158,000	12,779	7,448
SW 184 St	Palmetto Bay/Cutler Bay	201,000	18,268	12,017
Marlin Dr	Cutler Bay	264,000	31,114	6,933
SW 200 St	Cutler Bay	268,000	32,006	6,345
SW 112 Ave	Cutler Bay	259,000	13,143	5,101
SW 244 St	Unincorporated	103,000	14,378	N/A
SW 264 St	Unincorporated	135,000	7,232	N/A
SW 296 St	Unincorporated	189,000	6,269	N/A
SW 312 St	Homestead	226,000	15,999	N/A
Civic St	Homestead	222,000	14,545	N/A
SW 344 St	Florida City	165,000	14,376	N/A

NEXT STEPS

This study's policy and service recommendations speak to the needs, impediments, and opportunities relating to first and last-mile transit access to BRT stations on the South Dade TransitWay Corridor. These recommendations are well-grounded in planning theory in technical analysis but remain high-level recommendations. At the conclusion of this study, it will be up to the discretion of each municipality and the transit operating agencies to decide which recommendations are worth pursuing with detailed technical analysis, public engagement, service planning, and implementation.