

TRANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



Florida East Coast (FEC) Transit Connection Study

From Dadeland North Metrorail Station To Miami International Airport (MIA)

FINAL REPORT

Prepared for:

Miami-Dade Metropolitan Planning Organization



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INTRODUCTION

The Florida East Coast (FEC) Ludlam Corridor is a partially-abandoned inactive railroad corridor connecting the Dadeland area with the existing South Florida Rail Corridor (SFRC) near Miami International Airport (MIA).

Historical Context

During much of the 20th century, the FEC Ludlam Corridor carried freight trains to serve industry along the corridor. However, the railroad track has been removed along the majority of the corridor's length. No train service is currently active along the corridor. The project corridor is approximately seven miles long and is located parallel to and west of NW/SW 67th Avenue (Ludlam Road). The FEC Ludlam Corridor represents a significant opportunity to expand alternative transportation modes in Miami-Dade County due to its length, connectivity, and strategic location.

During the 1990s, initial studies to enhance the use of the FEC Ludlam Corridor examined passenger rail transit service. However, recent studies have focused on bicycle and pedestrian improvements based on the "Rails-to-Trails" Conservancy program. Rails-to-Trails Conservancy is a non-profit organization based in Washington, D.C., whose mission is to create a nationwide network of trails from former rail lines and connecting corridors to build healthier places for a healthier citizenry. The multi-use bicycle and pedestrian path facility is known as the Ludlam Trail. The Miami-Dade Park and Recreation Department (MDPR) has been the lead agency for the Ludlam Trail Project.

The Miami-Dade Metropolitan Planning Organization (MPO) identified the FEC Ludlam Corridor as a "premium transit service with non-motorized trail facility" in the 2035 Long Range Transportation Plan (LRTP) Needs Plan. The corridor length was identified as from the Dadeland North Metrorail Station area to the Miami International Airport (MIA). In addition, the Miami-Dade MPO Governing Board's resolution relating to the Kendall Link



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Alternatives Analysis (AA) Study directed staff to evaluate transit service along the FEC

Ludlam Corridor from the Dadeland North Metrorail Station to MIA.

Transit service along this corridor has not been formally included in recent plans despite

several previous studies which have addressed the issue to one extent or another. The FEC

Ludlam Transit Connection Study examines the potential for integrating transit into future

plans for this inactive rail corridor based on the Miami-Dade MPO Governing Board's

resolution relating to the Kendall Link Alternatives Analysis (AA) Study.

Surrounding Community

The area surrounding the FEC Ludlam Corridor is generally characterized by residential and

residential support land uses such as schools and parks. However, many existing industrial

parcels remain active along the corridor between SW 44th Street and Flagler Street. Many

residential properties directly abut the corridor. Sensitivity to the surrounding residential

neighborhoods is a critical aspect of the planning for alternative transportation modes within

the corridor.

Objective and Purpose

The objective of this study is to provide a status report on recent corridor activities and

evaluate the feasibility of providing transit services along the FEC Ludlam Corridor from the

Dadeland North Metrorail Station to MIA. The main purpose of this study is to assess the

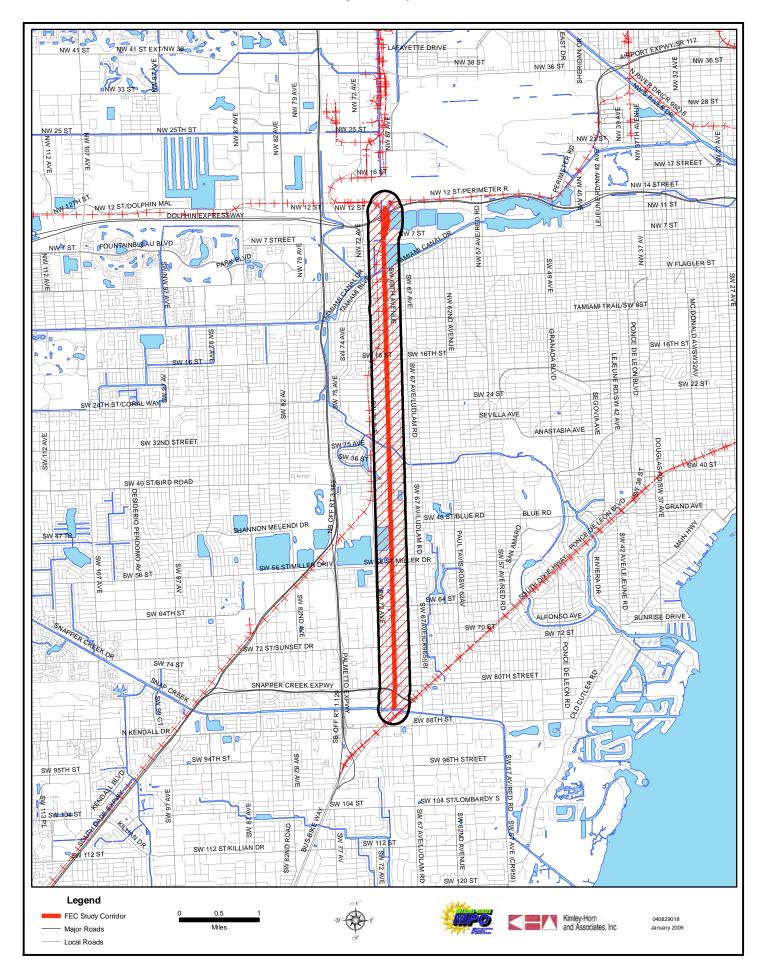
integration of a transit service component into future plans for this inactive rail corridor.

Figure 1 presents the Study Area Map.

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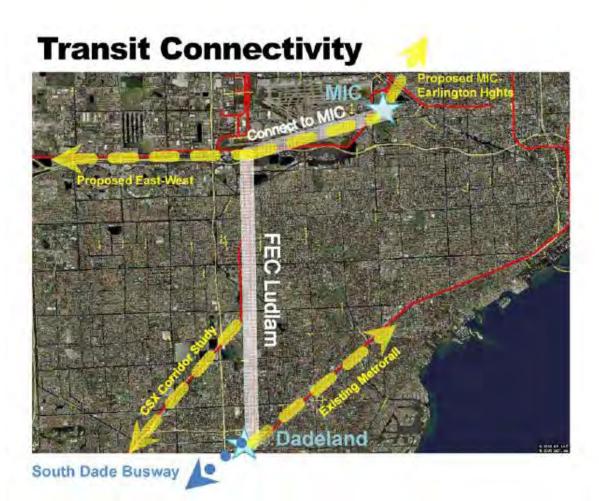
FEC Transit Connection Study

Figure 1 Study Area Map



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Transit Connectivity

The transit connectivity potential of the corridor is excellent. The corridor provides an exclusive path between the Dadeland North area and the south side of MIA. In the north, several options are evaluated in this study to connect the corridor with the Miami Intermodal Center (MIC) on the east side of MIA. In the south, the corridor provides connectivity to Metrorail and the South Dade Busway. This study examines an alternative to extend the South Dade Busway within the FEC Ludlam Corridor, thereby creating a one-seat busway ride from Florida City to the MIC. Other transit corridor studies that connect to this corridor include the East-West Corridor and the CSX Transit Corridor Study.

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This section presents a review of important prior work in the field of rails-with-trails (RWT) and other relevant studies pertaining to the study corridor and objective. The name rails-with-trails essentially refer to any transportation corridor that includes both a railroad component and a multi-use trail suitable for pedestrians and bicyclists. It should be noted that this study also evaluates the potential of non-rail transit such as a busway, so the name "transit-with-trails" would be more suitable to describe the potential for both transit service and a multi-use trail in the FEC Ludlam Corridor. Another important distinction is the difference between rails-to-trails and rails-with-trails. Rails-to-trails refers to a former railroad corridor that has been converted into a multi-use trail with no active rail service. The primary focus of this study will be on rails-with-trails or "transit-with-trails" since the purpose is to assess the integration of a transit component into future plans for this inactive rail corridor.

The literature review consisted of the following primary components.

- Rails-with-Trails: Lessons Learned U.S. Department Of Transportation (USDOT),
 August 2002
- The Impacts of Rail-Trails U.S. Department of the Interior National Park Service Rivers and Trails Conservation Program, 1992
- Sample Images of Rails-with-Trails from around the United States
- Ludlam Trail Non-Motorized Corridor Study FDOT District 6, March 2003
- Rail Convertibility Study Miami-Dade MPO, November 2004
- Existing multi-use trails with transit in Miami-Dade County
 - South-Dade Busway bike trail
 - Metrorail M-Path bike







U.S. Department of Transportation

Federal Highway Administration

Federal Railroad Administration

National Highway Traffic Safety Administration

Federal Transit Administration

Rails-with-Trails: Lessons Learned

Literature Review, Current Practices, Conclusions



August 2002

FTA-MA26-0052-04-1

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Rails-with-Trails: Lessons Learned – USDOT, August 2002

This report was prepared at the direction of the USDOT for the purpose of examining safety, design, and liability issues associated with the development of shared use paths and other multi-use trails within or adjacent to active railroad and transit rights-of-way. The document summarizes the lessons learned from the experience of rails-with-trails, and also suggests practices to enhance safety and security for railroads, transit, and trail users. The document summarizes twenty-one (21) rail-with-trail case studies.

According to the USDOT report, approximately 65 RWT projects in 30 states existed in 2002. Two (2) RWT projects were documented in Florida including a section of the West Orange Trail in Winter Park and St. Marks Trail near Tallahassee.

The following map of existing RWTs was reproduced from the USDOT report.

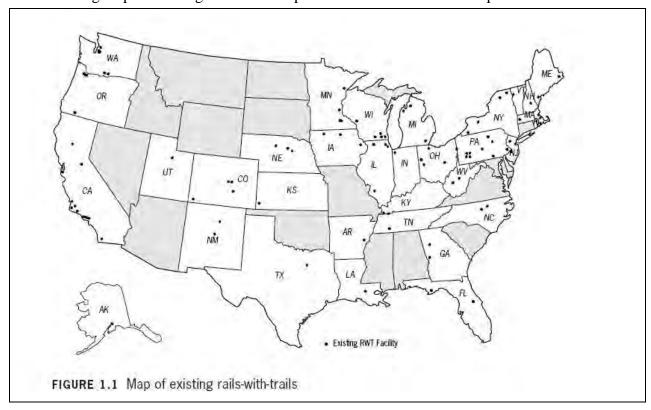


Figure 2: Map of Existing Rails-with-Trails

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A few of the more relevant case studies from the report are summarized below followed by a summary of the recommendations from the report.

Burlington Waterfront Bikeway, Burlington, Vermont

This is an existing trail that was opened in 1985, located in Burlington, Vermont. The entire length of this recreational corridor is 7.5 miles, of which the RWT section is approximately 2 miles long. The Vermont Agency of Transportation (VTRANS) owns the corridor and the City of Burlington developed and manages the trail. Hundreds of thousands of users cycle and walk annually on this trail. Fencing was required along the RWT according to contractual agreement. The construction of the trail is noted to have helped reduce the problem of people crossing the railroad tracks at undesignated locations to get to their destinations.



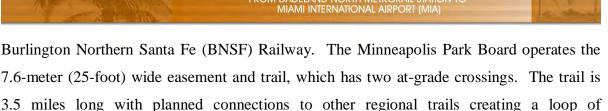
Burlington Waterfront Bikeway, Burlington, Vermont

Cedar Lake Trail, Minneapolis, Minnesota

This is an existing trail which opened in the 1980's, located in Minneapolis, Minnesota. The trail runs from downtown Minneapolis to the western city limits on property owned by the

trains per day.

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The minimum setback of the trail from the centerline of the track is 15 feet, with the average setback at 25 feet. In the areas of minimum setback, a 6-foot chain link fence separates the trail and the track. The construction of the trail has helped to improve railroad maintenance by upgrading the access roads and also reduced trespassing incidents on the adjacent tracks.

approximately 50 miles of trail. The railroad tracks next to the trail carry about 10 to 12



Cedar Lake Trail, Minneapolis, Minnesota

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Cottonbelt Trail, Grapevine, Texas

This is an existing trail that opened in 2000, located in Grapevine, Texas. The Cottonbelt Trail is 10 miles long and is a multi-phase, multi-jurisdictional trail. A 2.5-mile section of the trail path was completed in 2000. The railroad track next to the trail is a former freight corridor that is now used for tourist excursions and weekend dinner trips. The railroad track is adjacent to residential areas and several large open fields. The trail maintains a 25-foot setback from track centerline to the edge of the trail.



Cotton Belt Trail, Grapevine, Texas

Mission City Trail, San Fernando, California

This is an existing trail which opened in the 1990's. This one-mile multi-use path traverses through the city of San Fernando, in the northern portion of Los Angeles County. The Southern California Regional Rail Authority (SCRRA) runs 26 Metrolink passenger trains and five freight trains in the corridor. The city designed and installed self-closing stop gates at several at-grade crossings to slow bicyclists prior to crossing major roadways.

The trail is an 8-foot concrete pathway with 3 feet of shoulders. The trail typically has a setback of 25 feet from the track centerline and is typically separated by a 6-foot high fence,

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although variations exist in landscaped areas. The trail is well lit and allows night use. The construction of the trail was noted in the report to have helped decrease trespassing problems.



Mission City Trail, San Fernando, California

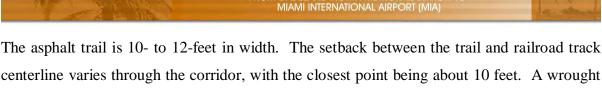
Schuylkill River Trail, Norristown, Pennsylvania

This is an existing trail which opened in 1993, located in Norristown, Pennsylvania. This 4-mile RWT is a part of the 22-mile Schuylkill River Trail connecting Philadelphia with Valley Forge. About 20 freight and commuter rail trains operate on the railroad tracks adjacent to the trail.



Schuylkill River Trail, Norristown, Pennsylvania





centerline varies through the corridor, with the closest point being about 10 feet. A wrought iron fence separates the tracks and the trail adjacent to the Norristown Transit Center and a split rail fence exists in the area where the trail is within 10 feet of the railroad tracks.

Seattle Waterfront Trail / Elliott Bay Trail, Seattle, Washington

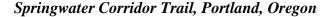
These two contiguous trails combine for a total length of approximately six miles. The trail opened in 1989 and runs along the waterfront from the heart of downtown Seattle north to the Interbay area. The BNSF Railway operates up to 60 passenger and freight trains daily on the railroad right-of-way, parallel to the trails. The southern section of the trail is close to a railroad line that carries four slow-moving trolleys per hour.



Seattle Waterfront Trail / Elliott Bay Trail, Seattle, Washington

The middle section of the trail is directly on the waterfront surrounded by landscaping. This section of the trail is set back from the railroad tracks by about 100 feet, and separated by a 10-foot high chain link fence and landscaping. The northern section of the trail runs parallel to the rail yards. Multiple warning signs are provided at several points along the trail to help avoid collisions between users.

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The Springwater Corridor Trail is a bicycle and pedestrian rail-with-trail, which is the major southeast segment of the 40-Mile Loop inspired by the 1903 Frederick Law Olmsted plan of a parkway and boulevard loop to connect Portland park sites. Metro, the regional government, owns the land on which the Oregon Pacific Railroad (OPR) runs short-line freight and excursion trains. OPR operates freight trains three times per week in winter and tourist excursion trains five times per day in summer.



Springwater Corridor Trail, Portland, Oregon

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Recommendations

Based on the research conducted for this report and information from the case studies that were conducted, the following recommendations for rails-with-trails were made in the USDOT report.

RWT Development Process

- 1. Local or regional bikeway or trail plans should include viable alternatives to any trail that is proposed within an active railroad corridor.
- 2. Each proposed RWT project should undergo a comprehensive feasibility study.
- 3. When active rail service is involved, trail agencies must involve the railroad throughout the process and work to address their safety, capacity, and liability concerns.
- 4. Trail agencies should coordinate with other stakeholders, such as abutting property owners, utility companies, law enforcement officials, and residents.
- 5. The feasibility study and environmental analysis should incorporate extensive public review.

RWT Legislation, Liability and Insurance

- 1. Trail development agencies interested in pursuing a RWT should conduct initial legal research as early into the process as possible. Important information includes: ownership, easement, and license agreements in the railroad corridor.
- 2. Trail development agencies interested in pursuing a RWT should acquire the affected railroad property for public ownership whenever feasible.
- 3. Trail managers should adhere to design standards and guidelines.
- 4. Both trail managers and railroad companies should review State statutes to ensure the validity of indemnification agreements, and the scope or applicability of fencing laws.
- 5. Trail management organizations should absolve railroad companies of liability responsibility for injuries related to trail activities.



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RWT Design Recommendations

- 1. RWT designers should maximize the setback between any RWT and active railroad track.
- 2. When on railroad property, RWT planners should adhere to the request or requirements for fencing by the railroad company.
- 3. Trail planners should minimize the number of at-grade crossings, examine all reasonable alternatives to new at-grade railroad track crossings, and seek to close existing at-grade crossings as part of the project.

The Impacts of Rail-Trails, U.S. Department of Interior National Park Service – Rivers and Trails Conservancy Program, 1992

This study was conducted to examine the benefits and impacts of rail-trails and also to examine the trail users and property owners near the trails. The study was a cooperative effort of the National Park Service and Penn State University conducted in 1991. The main objectives of this study were:

- 1. To explore the benefits of rail-trails to the surrounding communities and measure total economic impact of trail use
- 2. To examine what effects rail-trails have on adjacent property values
- 3. To determine the type and extent of trail related problems
- 4. To develop a profile of rail-trail users

The Heritage Trail in Iowa, the St. Marks Trail in Florida, and the Lafayette/Moraga Trail in California were used as samples for this study. Trail users were surveyed and counted and were then sent a follow-up mail survey. Usable mail surveys were obtained from 1,705 trail users and 663 property owners. The major study findings are summarized below.

- The study trails were observed to be heavily used by the nearby residents.
- Having no motorized vehicles allowed is the most desirable trail characteristic expressed by the users of each trail.
- Use of the trails generated significant levels of economic activity.



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- Landowners living along the trails expressed that living near the trails was better than living near the unused railroad lines before the trails were constructed.
- Landowners along the trails reported that their proximity to the trails had not adversely affected the value of their properties.
- Health and fitness and recreation opportunities were considered to be the most important benefits of the trails.
- Insufficient drinking water and restroom facilities were the biggest concerns that were expressed by the users.

The study concludes that rail-trails provide a wide range of benefits to users, local landowners, and trail communities. The trails were found to have a dedicated core of users who visited frequently. Although negative aspects of living adjacent to rail-trails were reported by some landowners, the rate of occurrence and seriousness of problems were relatively low and advantages of living near the trail were heavily reported.

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Additional Sample Images of Rails-with-Trails

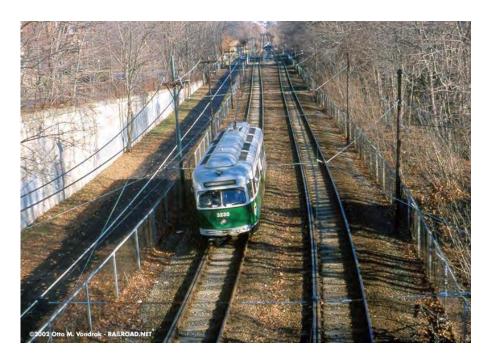


St. Louis Metro Bike, St. Louis, Missouri



Hiawatha Light Rail and Trail, Minneapolis, Minnesota

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Boston, Massachusetts



Boston Orange Line, Boston, Massachusetts

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San Diego, California

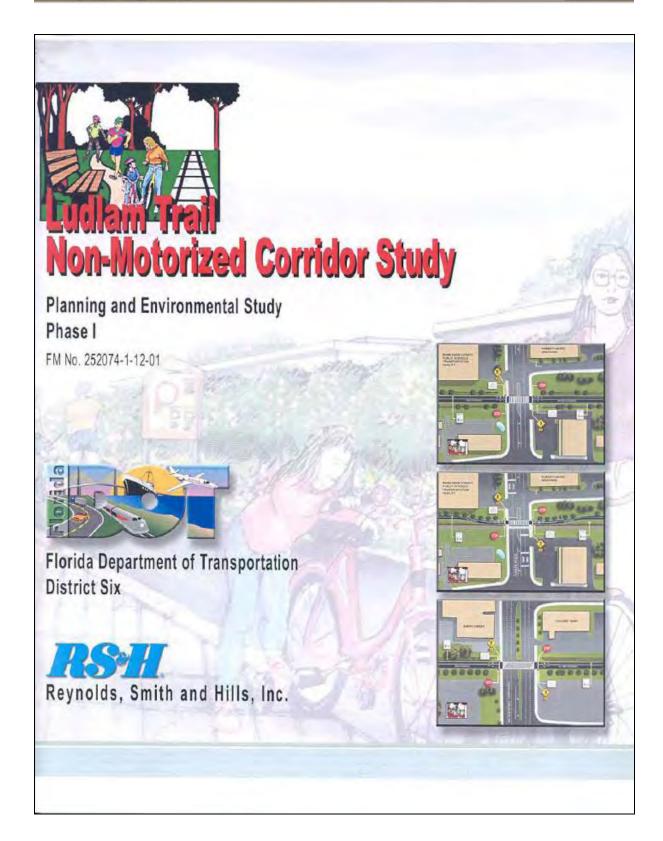


Madison, Wisconsin

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Ludlam Trail Non-Motorized Corridor Study, FDOT District 6, March 2003

The Ludlam Trail Non-Motorized Corridor Study was conducted by the Florida Department of Transportation, District 6. The Ludlam Trail is a major non-motorized transportation route through the urban core of Miami-Dade County. The trail would run from the Dadeland North Metrorail Station north to NW 12th Street/Perimeter Road adjacent to the Miami International Airport. The project corridor is approximately seven (7) miles long and follows the Florida East Coast (FEC) Railway parallel to and west of Ludlam Road/67th Avenue.

The main purpose of this study was to expand the "Ludlam Trail Research" to the next level of implementation by conducting the Planning and Environmental Study for the Ludlam Trail Non-Motorized Corridor. This stage includes data collection and development and evaluation of alternatives. Existing data were obtained from state, county, and local agencies.

Two alternatives were developed and evaluated for the corridor. Alternative 1 is the rail-with-trail option, which leaves the existing FEC railroad tracks in place and a 12- to 14-foot wide trail will be constructed alongside the tracks within the FEC right-of-way. Alternative 2 is the rail-to-trail option, which would remove the existing FEC railroad tracks and then a 16- to 18-foot wide trail would be constructed along the existing alignment of the tracks.

A comparative analysis of the alternatives was conducted. An evaluation matrix was developed that incorporates the evaluation criteria to present a quantified comparison of both the alternatives as shown in Figure 7.



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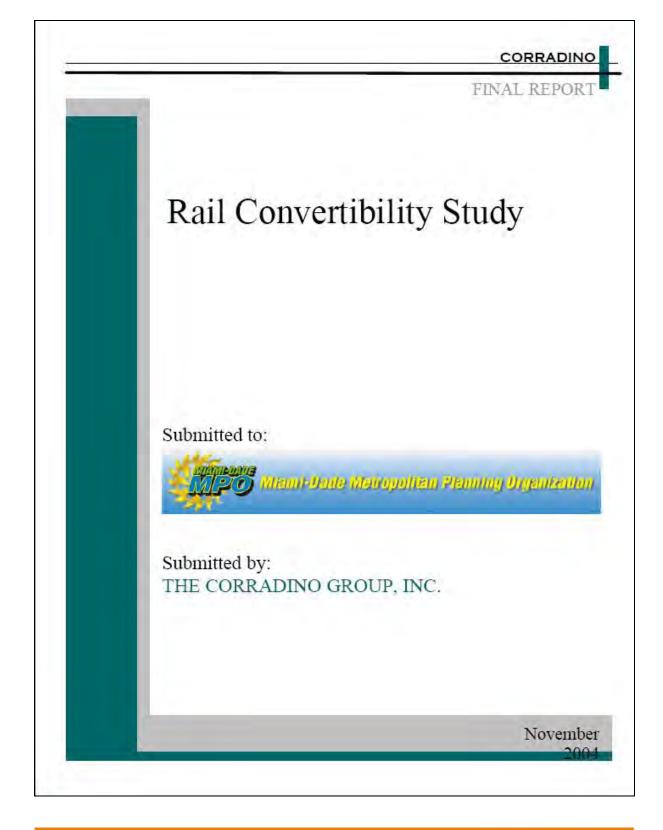
	Alternative 1 (Rail-with-Trail)	Alternative 2 (Rail-to-Trail)
Construction Cost	\$5.6 million	\$6.7 million
Right-of-Way Cost	\$39.2M - \$54.7M	\$53.2M - \$74.1M
Annual Users	386,949	455, 234
Evaluation Score	2.59	2.87

Figure 3: Summary of Alternatives, Ludlam Trail Non-Motorized Corridor Study

Though the evaluation score shows the preferred alternative to be the rail-to-trail alternative, the associated right-of-way acquisition cost is significant. Therefore another option was recommended that is a hybrid of both alternatives. The third option consists of the rail-to-trail alternative starting at A.D. Barnes Park and continuing south to the Dadeland North station and a rail-with-trail segment in the northern section from A.D. Barnes Park to NW 12th Street /Perimeter Road.

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Rail Convertibility Study, Miami-Dade MPO, November 2004

The Miami-Dade MPO conducted the Rail Convertibility Study from January to November 2004. The purpose of the study was to:

- Update the Railroad Rights-of-Way assessment conducted in 1993 and present an assessment of the existing rail corridors and facilities in the County,
- Assess the potential in both the short- and long-term for using the corridors for public transportation and/or bicycle/pedestrian activities, and
- Identify innovative strategies that can maximize the potential benefits of these corridors.

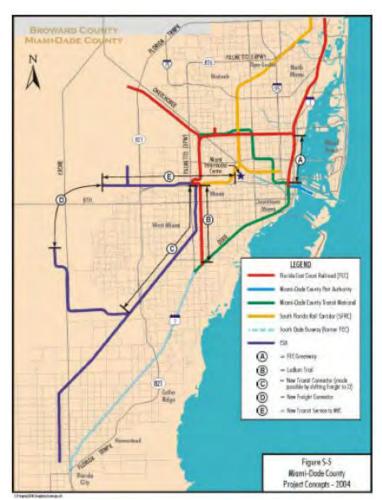


Figure 4: Miami-Dade County Project Concepts, Rail Convertibility Study

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The Ludlam Trail is highlighted as Corridor B in Figure 4. The study examined the existing railroad corridors in the county. A rail convertibility evaluation matrix was prepared in which the FEC Ludlam Corridor was labeled as a high priority for people-moving potential, high potential for implementation, and high priority for joint use. Figure 4 shows the map of railroad corridors examined in the study and Figure 5 presents the evaluation matrix.

Table 4-3 Rail Convertibility Evaluation Matrix

Rail	Critical to	Potential for	Potential for	Priority	and the same of th	
Corridors	Freight	Moving People	Implementation	for Joint Use	Other Comments	
FEC Northeast Confidor (North of 72nd Street)	les	High	Medium	HIGH	Need advance community awareness. Passes through many communities and has a high	
FEC Northeast Comidor (South of 72nd Street)	No	High (particularly bicycle/pedesman with reservation for future transit) from 72nd Street to downtown furough cultural center.	High		number of grade crossings. Is considered in both focal and regional studies for transit, including a proposed multi-County study examining the feasibility of a Jupiter to Miami transit line.	
FEC 72nd Street	les	Transit - Low Bike/Ped -	Low		Critical to fieight operations for both current and	
Consider East-West Consider		High (because of the number of schools and related institutions in the constor).	High (as a future finight/bicycle- pedestrian coundor).	Low	future needs.	
FEC Okeechobee Corridor	Marginal The corridor is used by rock trains.	Low - The corridor does not pass through heavily residential neighborhoods and does not have significant attractors or travel generators	Low	LOW		
FEC Milam Dary Comidor (North of 36th Street)	Yes	High	Law	MEDIUM	The corridor is not currently on any transit plans.	
FEC Milam Dairy Comidor (South of 36th Street)	No	High	Transit - Low Bike Ped - High	MEDIDIN		
FEC Ludlam Comidor	No	High	High (for non-transit) - The Ludiam bicycle- pedestrian trail is approved for this corridor.	HIGH		
CSX Dolphin Consider	No	High - This consider has potential to be a strong transit consider.	High - The corridor has particularly strong support from locally elected officials.	HIGH	Offers good potential for joint use, particularly, for manuit	
CSX Kendall Corridor	3io	High - There is good potential to supply a transit connector between Oleander and the Metro Zeo and bicycle-pedestrian link from the Zeo to Florida City.	Medium - The rail consider is not being considered in any current planning efforts:	MEDIUM		
South Florida Rail Corridor (SFRC) Tre-Tiali	Marginal Aiready is being used for freight and transit.	High	Low - It is already being used for fieight and transit. Adding a bicycle- pedestrian activity is unlikely.	LOW		
SFRC MIC to Downtown	No	Law	Law	LOW	Although evaluated as low in terms of moving people or implementation, the corridor should be "kept on the table" for further study because of the natural link between the MIC and downtown.	
SFRC MIC to Oleander	Yes	High - This counder is a natural transit consider.	Medium - There may be concerns with transit (Le. naim) because of the moximity to the anyort and the airport: fuel storage facilities.	HIGH		

Figure 5: Convertibility Evaluation Matrix, Rail Convertibility Study

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South Dade Trail

The South Dade Trail is a dedicated bicycle facility that is located on the west side of the existing South Dade Busway. The bicycle path extends the entire length of the Busway from the Dadeland South Metrorail Station to SW 344th Street in Florida City. Connections from the South Dade Trail to Metrorail are available at Dadeland South. Both the South Dade Busway and the South Dade Trail have been built along the former railroad line previously used by the Florida East Coast (FEC) Railroad.



Figure 6: South Dade Trail with South Dade Busway

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Metrorail M-Path

The M-Path is a nine-mile paved multi-use trail in urban Miami-Dade County. The M-Path was built in 1983 by Miami-Dade Transit as part of the original Metrorail construction. The path or trail meanders within Miami-Dade Transit right-of-way under the elevated Metrorail guideways. The M-Paths provides a course of travel from SW 67th Avenue in South Miami to the Miami River in downtown Miami. The M-Path is approximately six- to eight-feet wide with a surface varying from asphalt path to concrete sidewalk. The path is used both as a bicycle commuter route and jogging or walking trail. M-Path is owned and operated by Miami-Dade Transit. The Miami-Dade County Metropolitan Planning Organization's (MPO) Bicycle and Pedestrian Program has included the trail as a significant component of the regional greenways and trails network.



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Figure 7: Metrorail M-Path

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Existing data were collected and include the necessary information to develop and evaluate the possible options for incorporating a transit component into the FEC Ludlam Corridor. A detailed field review of the FEC Ludlam Corridor was conducted to prepare an inventory of the existing conditions, identify opportunities for multimodal connectivity, and identify potential constraints such as right-of-way encroachments. The data collected include the following items:

- Aerial mapping and survey
- Existing right-of-way
- Land use characteristics
- Encroachments on the FEC right-of-way
- Bus routes

Major street crossings are located along the following roadways:

- Perimeter Road (NW 12th Street) two lanes, undivided
- Flagler Street four lanes, divided
- SW 4th Street two lanes, undivided
- Tamiami Trail (SW 8th Street) four lanes, undivided
- SW 12th Street two lanes, undivided
- SW 16th Street two lanes, undivided
- SW 21st Street two lanes, undivided
- SW 22nd Street two lanes, undivided
- Coral Way (SW 24th Street) four lanes, divided
- North Waterway Drive two lanes, undivided
- Bird Road (SW 40th Street) six lanes, divided
- Miller Drive (SW 56th Street) four lanes, undivided
- SW 60th Street two lanes, undivided
- Hardee Drive (SW 64th Street) two lanes, divided



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- TUDY
- Sunset Drive (SW 72nd Street) four lanes, divided
- Davis Road (SW 80th Street) two lanes, undivided
- SR 878 Eastbound Exit Ramp three lanes, undivided

Photographs were taken at several locations along the study corridor to help depict the existing conditions. The photographs are included in Appendix A.

Existing Right-of-Way

The FEC Ludlam Corridor right-of-way between NW 12th Street (Perimeter Road) and Dadeland South is typically 100 feet in width. The right-of-way width was estimated using several sources including (a) field measurements using a surveyor's tape, (b) scaled aerial photography in a geographic information systems (GIS) database, and (c) using the distance measuring tool in Miami-Dade County's GIS "parcels" electronic database. Furthermore, a right-of-way width of 100 feet is generally standard for railroad and former railroad corridors that were operational in the U.S. during the 20th century. All ownership data referenced in this document is as cited by the Miami-Dade County Property Appraiser's (MDPA) Office. Right-of-way information from the MDPA is included in Appendix B.

Right-of-Way Deviations in the FEC Corridor

- Between NW 12th Street (Perimeter Road) and the north edge of the northern-most S.R. 836 (Dolphin Expressway) overpass, most of the corridor right-of-way is owned by Miami-Dade County Aviation Department (MDAD). However, a portion of the corridor right-of-way north of S.R. 836 is owned by Perimeter Road Management, LLC.
- Between the north edge of the northern-most S.R. 836 (Dolphin Expressway) overpass and Oleander Junction, the right-of-way is owned by the Miami-Dade Expressway Authority (MDX), and varies from approximately 100 feet to approximately 250 feet in width.



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- South of Oleander Junction, the right-of-way is owned by FEC's development corporation (Flagler Development) and is typically 100 feet in width except where noted below.
 - o Between SW 24th Street (Coral Way) and theoretical SW 32nd Street, the right-of-way width varies from approximately 85 feet at SW 24th Street to approximately 130 feet at theoretical SW 32nd Street (the right-of-way width gradually expands from north to south).
 - O Between theoretical SW 37th Street and SW 40th Street (Bird Road), the right-of-way width varies widely between approximately 45 feet and approximately 80 feet. An 850-foot long section of 45-foot right-of-way width exists adjacent to a Florida Power & Light (FPL) facility.
 - o Between SW 40th Street and SW 44th Street, the right-of-way width is approximately 90 feet.
 - o South of the S.R. 878 (Snapper Creek Expressway) overpass, the right-of-way width varies significantly from 70 feet down to a pinch point of 45 feet immediately west of the Dadeland Station Shopping Center. SW 70th Avenue is located under the Dadeland Station Shopping Center and is directly adjacent to the 45-foot right-of-way pinch point. South of the 45-foot pinch point, the FEC right-of-way expands gradually from 45 feet to approximately 85 feet in width at the location where it crosses the Snapper Creek Canal.
 - o South of the Snapper Creek Canal, the right-of-way width expands from approximately 85 feet in width to approximately 100 feet in width.

Potential Right-of-Way Encroachments along FEC Corridor

Please note that deed and easement research is beyond the scope of this analysis; therefore, it is unknown if easements or other agreements are in place to formalize the following potential right-of-way encroachments. The observations described below represent a list of locations where surrounding land uses appear to be utilizing portions of the FEC Ludlam Corridor right-of-way for activities such as warehousing, parking, driveways, fencing, etc.



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- North side of Flagler Street Portions of a paved parking lot and guardrail for King Luggage Shopping Plaza are located within the corridor right-of-way (24 feet from the railroad track) on the north side of Flagler Street, east side of corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 65 feet for a linear length of 160 feet north of Flagler Street.
- Between SW 4th Street and SW 8th Street Everglades Lumber driveway, parking area, staging area, and chained-link fence are within the corridor right-of-way (12 feet from the railroad track) north of SW 8th Street, west side of corridor right-of-way. A spur track serves the warehouse on the west side of the corridor. Several steel columns associated with the warehousing are also located along the west side right-of-way line. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 60 feet.
- North side of SW 8th Street Tropic Garden Hotel building, parking lot, and wooden fence are within the corridor right-of-way (47 feet from the railroad track) on the north side of SW 8th Street, east side of corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 55 feet.
- Between SW 8th Street and SW 10th Street Regions Bank parking area and chainlink fence are within the corridor right-of-way (18 feet from the railroad track) south of SW 8th Street, west side of corridor right-of-way. Several additional buildings, including residential buildings, appear to be within the corridor right-of-way between SW 9th Street and SW 10th Street. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 35 feet between SW 8th Street and SW 10th Street.
- Between SW 8th Street and SW 10th Street United Roofing Supply building, parking area, and chain-link fence are within the corridor right-of-way (16 feet from the railroad track) south of SW 8th Street, east side of corridor right-of-way. Several additional commercial and industrial buildings appear to be within the corridor right-



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of-way between SW 8th Street and SW 10th Street. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 35 feet between SW 8th Street and SW 10th Street.

- Between SW 10th Street and SW 12th Street Residential buildings and wooden fences exist within the corridor right-of-way (20 feet from the railroad track) between SW 10th Street and SW 12th Street, west side of corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 70 feet between SW 10th Street and SW 12th Street.
- South side of SW 12th Street Industrial building, parking area, and driveway exist within the corridor right-of-way (25 feet from the railroad bed) between SW 12th Street and SW 13th Terrace, west side of corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 75 feet between SW 12th Street and SW 13th Terrace.
- Between SW 14th Street and SW 15th Street Parking area and chain link fence for Jehovah's Witnesses religious parcel appear to be within the corridor right-of-way (30 feet from the railroad bed) between SW 14th Street and SW 15th Street, east side of corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 80 feet.
- South side of SW 24th Street Corridor right-of-way is completely consumed by Braman Honda parking area. No currently usable right-of-way exists without significant modifications to existing parking areas or structures. This condition exists for approximately 900 linear feet south of SW 24th Street.



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Car dealer service parking lot completely occupying the FEC Railroad right-of-way

- Between theoretical SW 28th Street and theoretical SW 30th Street Industrial parking areas and driveways exist within the corridor right-of-way (20 feet from the railroad bed) between theoretical SW 28th Street and theoretical SW 30th Street, west side of corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) ranges from 60 feet to 80 feet in this area.
- Between theoretical SW 28th Street and SW 32nd Street According to the property line mapping on the MDPA website and the County's GIS parcels database mapping, several improvements associated with private residences on the east side of the corridor appear to be within the corridor right-of-way. According to MDPA mapping, the corridor right-of-way gradually expands to a width of 130 feet in this area. Current usable right-of-way width (assuming no modification to existing paved areas or structures) ranges from 60 feet to 95 feet in this area.

From Dadeland North Metrorail Station to Miami International Airport (Mia)



- Between South Waterway Drive and theoretical SW 36th Street Improvements associated with private residences on the east side of the corridor appear to be within the corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) appears to be approximately 85 feet.
- Between SW 40th Street and SW 48th Street Paved driveways and vehicle storage areas associated with industrial uses primarily on the west side of the study corridor appears to be within the corridor right-of-way. Current usable right-of-way width (assuming no modification to existing paved areas or structures) ranges from 55 feet to 90 feet in this area. The study corridor was observed to be used as a parking area at SW 44th Street from the west. SW 44th Street appeared to be used as a private driveway. A chain-link fence exists at SW 44th Street.
- South side of SW 60th Street Landscaping and fencing associated with a private residence on the west side of the corridor appears to be within the corridor right-of-way approximately 300 feet south of SW 60th Street. Other various landscaping encroachments exist in this area, generally between SW 56th Street and SW 72nd Street.
- South side of theoretical SW 68th Street Landscaping and fencing associated with a
 private residence on the west side of the corridor appears to be within the corridor
 right-of-way. Other various landscaping encroachments exist in this area, generally
 between SW 56th Street and SW 72nd Street.

Other Notes on Right-of-Way Observations

- North of the S.R. 836 (Dolphin Expressway) overpass, the corridor right-of-way appears to be being used for equipment storage and construction staging. The ground is unpaved and the current use appears to be temporary. This area is owned by Perimeter Road Management, LLC. A portion of the former railroad right-of-way in this area is owned by the Miami-Dade County Aviation Department.
- Approximately 600 feet north of Flagler Street, a 107-foot long railroad bridge crosses the Tamiami Canal right-of-way.

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- Between Flagler Street and SW 4th Street Parked vehicles associated with surrounding properties were observed within the east side of the corridor right-ofway.
- South of SW 12th Street No railroad track exists from SW 12th Street to the southern end of the study corridor at Dadeland.
- Between_SW 19th Street and SW 22nd Street A path exists within the east side of the corridor right-of-way between SW 19th Street and SW 22nd Street.
- Approximately 100 feet south of Waterway Drive, a 75-foot long railroad bridge crosses the Coral Gables Waterway canal right-of-way.
- Between SW 56th Street and SW 72nd Street Various landscaping and fencing encroachments exist in this area associated with private residences.

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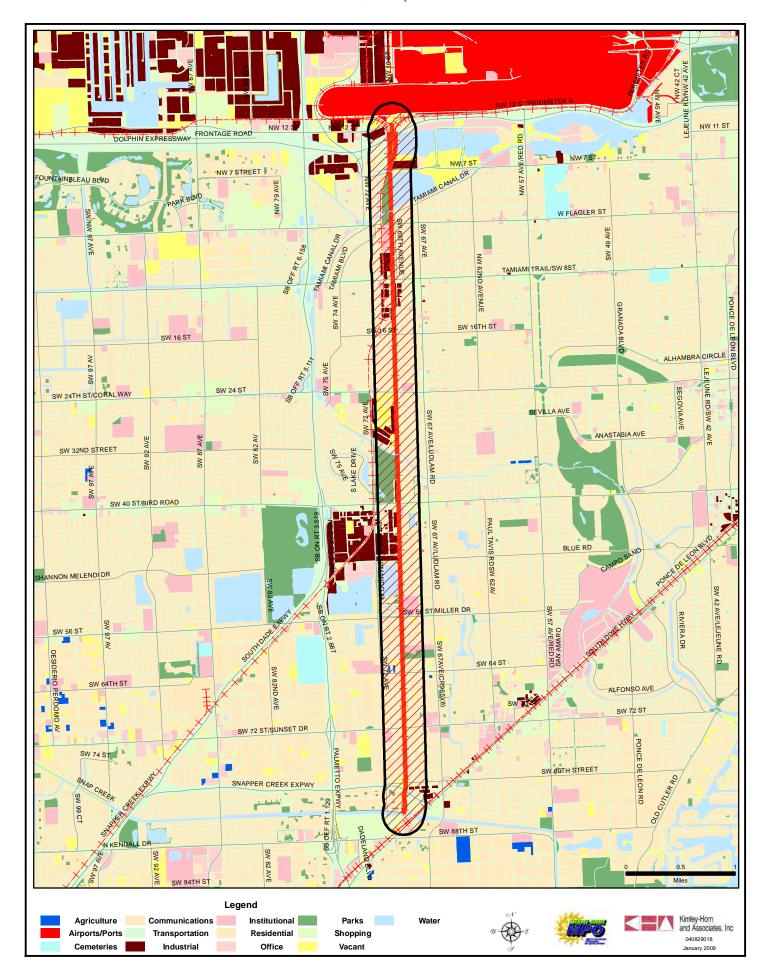
Land Use Characteristics

Existing land use maps were obtained from the Miami-Dade County Planning and Zoning Department. The existing land uses adjacent to the FEC Ludlam Trail are mostly residential. The land use in the northern section of the study area, north of Bird Road, is observed to have a mixed-use commercial and residential with some industrial use adjacent to the FEC railroad right-of-way. The southern section of the study area is mostly residential, with commercial use at the southern end of the study area.



FEC Transit Connection Study

Figure 8 Land Use Map



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TRANSIT SERVICE EVALUATION – INITIAL SCREENING

The FEC Ludlam railroad corridor can be a potential candidate for premium transit service because the corridor connects from the south side of Miami International Airport (MIA) to the Dadeland North Metrorail Station. In the north, several options exist for connecting the FEC Ludlam Corridor to the Miami Intermodal Center (MIC) site, which will serve as the major transit hub in the area and provide passenger connections to Metrorail, Metrobus, Tri-Rail commuter rail, a consolidated rental car facility, and to the MIA passenger terminals. Local traffic can be reduced with a proper implementation of transit service on this corridor. Based on the available right-of-way and the existing and future proposed transportation network near the FEC Ludlam Corridor, the corridor options were grouped into four major categories:

- Multi-use trail only
- Multi-use trail with busway
- Multi-use trail with at-grade passenger rail transit
- Multi-use trail with elevated passenger rail transit

Multi-use Trail Only

This alternative would essentially serve as the transit no-build option. The multi-use trail only alternative is similar to the recommendation from the *Ludlam Trail Non-Motorized Corridor Study* and the *Rail Convertibility Study*. This alternative provides a transportation corridor for bicyclists and pedestrians connecting the neighborhoods along the corridor to the Dadeland North Metrorail Station in the south and to Perimeter Road in the north. The trail only option will serve short and recreational trips in the neighborhood. Encroachments on the FEC railroad corridor are considered less critical with the trail only option because less space is required to accommodate the necessary elements within the corridor right-of-way.

During the course of the Miami-Dade MPO's FEC Transit Connection Study, MDPR initiated the *Ludlam Trail Design Guidelines* based on the purpose of advancing the multiuse trail only option for the corridor. MPO staff and consultant staff from the Transit



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Connection Study coordinated numerous times throughout the study process to ensure proper exchange of information, concepts, and ideas. A partial list of the coordination activities is as follows.

- KHA briefing of MDPR project manager (November 2008)
- Ludlam Trail Design Guidelines data-gathering meeting (January 2009)
- Ludlam Trail Design Guidelines kick-off meeting and field tour (February 2009)
- Draft Design Guideline Review Meeting (July 2009)

In addition, the MDPR project manager was invited to the Transit Connection Study kick-off meeting and review meetings with the Transportation Planning and Technical Advisory Committee (TPTAC).

Connections to Existing and Proposed Trails

The proposed FEC Ludlam Trail would connect to the following existing and proposed trails.

- **Perimeter Trail** The proposed 9.0-mile Perimeter Trail is a nodal point within the North Dade Greenways Master Plan. It serves as a central hub from which several other trails radiate. The trail would occupy the right-of-way of NW 12th Street/Perimeter Road and the rights-of-way of the FEC and CSX railroads circling north of MIA to the west and southeast to the MIC. By occupying designated road and railroad rights-of-way, this trail will provide a recreational and utilitarian nonmotorized corridor for airport employees and local residents alike.
- East-West Trail The proposed 7.9-mile East-West Trail will provide access from the University Park campus of Florida International University (FIU) to the Blue Lagoon area south of Miami International Airport.
- Merrick Trail The proposed 10.4-mile Merrick Trail corridor is along Coral Way, Granada Boulevard, and Riviera Drive in Coral Gables and connects to U.S. 1.
- **Snapper Creek Trail** The Snapper Creek Trail is a 9.4-mile greenway corridor that connects FIU with Dante B. Fascell Park near Red Road. The initial concept for this multi-use non-motorized trail was developed by faculty and students at FIU in the



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North Dade Greenway Network Master Plan and adopted by the Board of County Commissioners in 1998. The greenway corridor consists of the 5.6-mile Segment A and the 3.8-mile Segment B. A Planning Study was recently completed for Segment A that developed a conceptual design. The FEC Ludlam Corridor connects to Snapper Creek Trail Segment B near Dadeland North.

Multi-use Trail with Busway Option

This option would provide a multi-use trail and a Busway along the FEC Ludlam Corridor. Busway service would connect from the MIC to the Dadeland North Metrorail Station. The buses will use an exclusive bus guideway along the right-of-way of the FEC Ludlam Corridor and can also operate in mixed-traffic conditions on the local streets. The Busway would use low-floor buses operating on frequent headways, often 5 to 15 minutes apart in peak hours. This option can be built within the FEC Ludlam Corridor where the busway can be properly separated from the multi-use trail, and there is adequate right-of-way for the busway. A detailed description of the busway option along with typical sections and plan views are discussed in the next section.

Multi-use Trail with At-Grade Passenger Rail Option

This option would provide at-grade passenger rail service along the FEC Ludlam Corridor right-of-way from the MIC to the Dadeland North Metrorail Station. The alignment is approximately seven (7) miles long with the distance between stations generally ranging from one-half mile to one mile. At-grade passenger rail transit is a flexible mode of transportation which consists of a system of passenger rail cars. It can also be treated like a street car in mixed traffic with tracks embedded in the street in an at-grade right-of-way with street and pedestrian crossings. A detailed description of the at-grade rail option along with typical sections and plan views are discussed in the next section.

Multi-use Trail with Elevated Passenger Rail Option

This option would provide elevated fixed guideway rapid transit service from the MIC to the Dadeland North Metrorail station. Grade-separated heavy rail service would provide fast,



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reliable service to downtown Miami and other areas of Miami-Dade County currently served by Metrorail. The Metrorail vehicles and guideway would be similar to existing services in Miami. Station spacing would be approximately at one-mile intervals with easy access for bus riders, pedestrians, and passengers at stations.

Figure 9 shows the potential alignment for an elevated passenger rail along the FEC Ludlam Corridor. This option would provide Metrorail service from the northern terminus at the MIC to the southern terminus at Dadeland North Metrorail Station. This option will be integrated into the future east-west rail corridor to complete the connection to the MIC. The new Metrorail line could potentially operate from Dadeland South to Earlington Heights through the MIC. No additional traffic delay on cross streets will be observed since this option will be grade-separated.

Six (6) stations were proposed for the Metrorail with Trail option. The station locations along the FEC corridor are listed below and are also shown in Figure 15.

- 1. MIC station with parking garage
- 2. SW 8th Street with surface parking
- 3. SW 24th Street with surface parking
- 4. SW 40th Street with surface parking
- 5. SW 56th Street with surface parking
- 6. Dadeland South with parking garage

The order of magnitude of capital cost estimate for this option is approximately \$1,000,000,000.

Advantages

- Can be connected to the existing Metrorail track approaching Dadeland South
- Can also be connected to the MIC in the north co-terminus with East-West route, along S.R. 836

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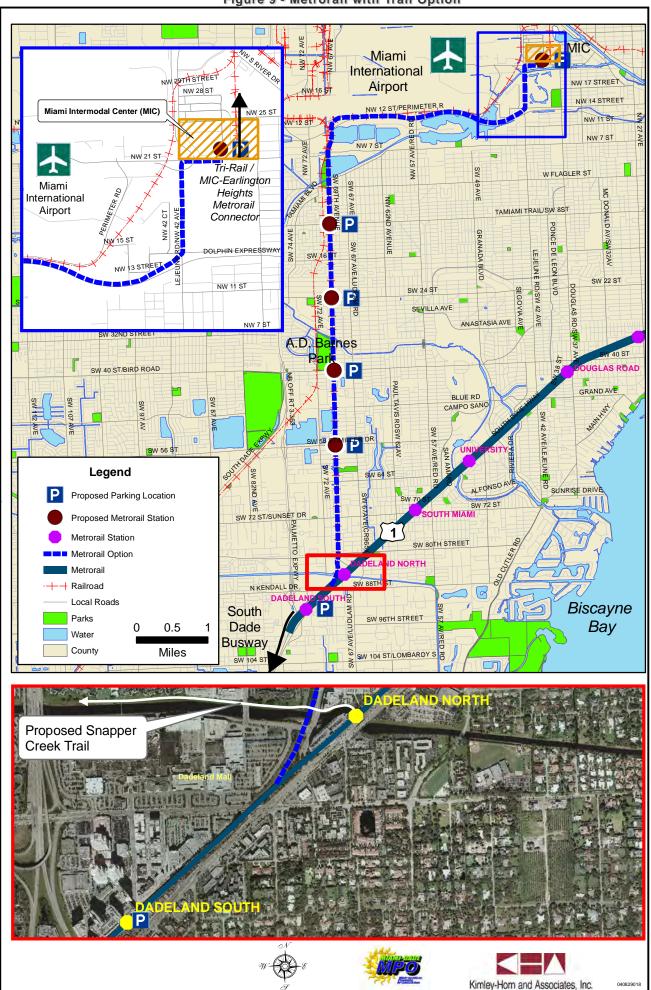


- No at-grade intersections
- The Ludlam Trail multi-use path could be constructed similar to the M-Path
- No additional signal delay on cross-streets as this option would be grade separated
- Faster travel speed than other transit options

Disadvantages

- Very high construction and maintenance cost
- Traffic operations will be impacted during the construction
- Additional right-of-way might have to be purchased for station locations

Figure 9 - Metrorail with Trail Option



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VIABLE TRANSIT OPTIONS

Three transit build alternatives were analyzed as discussed in the section above. Based on the cost, available right-of-way, and feasibility of implementation, the multi-use trail with elevated passenger rail option was removed from consideration after the initial screening stage of this study.

The busway option and at-grade passenger rail option were considered to be most viable for the FEC Ludlam Corridor to provide transit service from the MIC to the Dadeland North Metrorail Station. This section provides detailed descriptions for the busway and at-grade rail options including typical sections and plan details for both options.

Multi-use Trail with Busway Option

This option would provide a multi-use trail and a Busway along the FEC Ludlam Corridor. This option provides express and local Busway service from the MIC to the Dadeland South Metrorail Station. The buses use the exclusive right-of-way along the FEC Ludlam Corridor and can also operate in mixed-traffic conditions on local streets.

- The busway option provides the most flexibility for transit service at a lower cost than the other transit options.
- The buses would utilize the FEC Ludlam Corridor right-of-way to avoid operating in mixed-traffic conditions on local streets.
- The busway option has the potential to extend the existing South Dade Busway at Dadeland South Station and also to provide a one-seat busway ride from Florida City to the MIC.
- The busway option has the potential to extend the proposed Kendall Drive Bus Rapid Transit (BRT) project to the MIC via the FEC Ludlam Corridor.
- Trail users will experience safety enhancements at major intersections because signalized crossings are proposed for the trail/busway corridor.
- Ridership modeling conducted for the CSX Corridor Evaluation Study showed significant ridership demand along the FEC Ludlam Corridor.



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- The busway option accounts for a minimal additional signal delay on cross streets.
- Countywide transit efficiency strategies, such as Transit Signal Priority (TSP), can also be applied at intersections to provide additional travel time benefits for buses.
- Well-defined and efficient pedestrian paths are needed to promote proper walking to and from the proposed stations.
- Safe pedestrian access to stations should be a major consideration in the design of the multi-use trail and the busway.

Connectivity to the MIC

The corridor analysis primarily focused on the FEC Ludlam Corridor from Perimeter Road to Dadeland North. However, to provide efficient transit connectivity to a logical northern terminus, six paths were identified for the important connection from Flagler Street to the MIC for the busway option as described below. Figure 10 shows the proposed paths that can be considered for the busway option from Flagler Street to the MIC.

- North Path 1 (Perimeter Road) Buses exit the FEC busway corridor at the intersection of Perimeter Road/NW 12 Street and the FEC Ludlam Corridor and travel east along Perimeter Road to NW 15th Street. A series of local airport streets are used to connect to LeJeune Road including NW 45th Avenue and NW 14th Street. Buses then travel north on LeJeune Road and connect to the MIC at NW 25th Street. This option maximizes the usage of the exclusive right-of-way of the FEC Ludlam Corridor for the busway and significantly reduces the travel time of the bus as the bus travels less in mixed-traffic. The parcels to the north of Oleander junction are not currently part of the FEC right-of-way, which might introduce multiple land owners to purchase the corridor north of Oleander junction.
- North Path 2a (S.R. 836) Buses exit the FEC busway corridor by making a left-turn at the Flagler Street intersection. Buses then travel west on Flagler Street to NW 72nd Avenue, turn north on NW 72nd Avenue and utilize the existing eastbound ramp to S.R. 836 (Dolphin Expressway). Buses travel east to the LeJeune Road exit and

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then turn north on LeJeune Road to the MIC. This option would significantly reduce the travel times for the bus as the bus travels in a designated busway for the major length of its travel to the MIC and also reduces the construction significantly as there will be no construction of a partial interchange involved in this option.

- North Path 2b (S.R. 836 Managed Lanes) Buses exit the FEC busway corridor by making a right-turn below the existing S.R. 836 (Dolphin Expressway) overpass to take a proposed center lane ramp to the future S.R. 836 managed lanes and then travel east on S.R. 836 to LeJeune Road. Buses turn north on LeJeune Road to the MIC. This option would also significantly reduce the travel times for the bus as the bus travels in a designated busway for the major length of its trip to the MIC. Construction cost for a partial interchange center lane ramp to the S.R. 836 managed lanes increases the construction cost significantly.
- North Path 3a (Blue Lagoon) Buses exit the FEC busway corridor by making a left-turn at the Flagler Street intersection. Buses then travel west on Flagler Street to NW 72nd Avenue, turn north on NW 72nd Avenue, then enter the Blue Lagoon area on NW 7th Street to serve the office park area before accessing S.R. 836 (Dolphin Expressway) at the existing NW 57th Avenue interchange. Buses would need to access the left exit from S.R. 836 to LeJeune Road and travel north to the MIC. There is a potentially difficult weaving maneuver for buses associated with this option. The primary advantage of this option is that buses could serve the employment land uses along Blue Lagoon Drive and make use of the existing bus stop infrastructure in the area. Disadvantages of this option would be additional travel time will be needed to serve Blue Lagoon and a difficult weaving maneuver on S.R. 836 between the NW 57th Avenue interchange and the LeJeune Road interchange.
- North Path 3b (Blue Lagoon with new partial interchange) Buses exit the FEC busway corridor through a proposed partial interchange at NW 7th Street, then travel east along NW 7th Street to Blue Lagoon Drive to serve the Blue Lagoon office park area before accessing S.R. 836 (Dolphin Expressway) at the NW 57th Avenue

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interchange. Buses would need to access the left exit from S.R. 836 to LeJeune Road and travel north to the MIC. There is a potentially difficult weaving maneuver for buses associated with this option. The primary advantage of this option is that buses could serve the land uses along Blue Lagoon Drive and make use of the existing bus stop infrastructure in the area. Disadvantages of this option would be the cost of the proposed partial interchange, additional travel time will be needed to serve Blue Lagoon, and a difficult weaving maneuver between the NW 57th Avenue interchange and the LeJeune Road interchange.

• North Path 4 (Flagler Street) – Buses exit the FEC busway corridor at Flagler Street and travel east in mixed-traffic along Flagler Street to LeJeune Road, then turn north on LeJeune Road and proceed north to the MIC. This option would likely increase travel times as buses would have to travel in mixed-traffic along Flagler Street. The primary advantage of this option is that buses could serve the land uses along Flagler Street and make use of the existing bus stop infrastructure along Flagler Street.

Connectivity to Dadeland

To provide efficient transit connectivity to a logical southern terminus, four paths were identified for the important connection of the busway option to the southern terminus at the Dadeland area from the FEC right-of-way. Figure 11 shows the proposed paths that can be considered for the busway option for connection at the Dadeland North Station.

- South Path 1 (Dadeland North via SW 70th Avenue) Buses exit the FEC busway corridor at the existing SW 70th Avenue intersection (S.R. 878 exit ramp) and travel south on SW 70th Avenue. Buses enter the Dadeland North station at the intersection of SW 70th Avenue and SW 85th Street. This option provides an easy access to the Dadeland North station with a provision of a bus-only signal, which can be implemented with relatively minimal cost.
- South Path 2 (Dadeland North via new bus-only signal at SW 84th Street) Buses exit the FEC busway corridor by providing a bus-only signal at SW 70th Avenue. A



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bus-only signal will monitor the entry and exit of buses to and from the FEC busway corridor to SW 70th Avenue. Buses enter the Dadeland North station at the intersection of SW 70th Avenue and SW 85th Street. This option provides an easy access to the Dadeland North station with a provision of a proposed bus-only signal, which can be implemented with relatively minimal cost.

- South Path 3 (Dadeland North and Dadeland South via Dadeland Mall) Buses exit the FEC busway corridor by providing a bus-only signal at SW 70th Avenue. A bus-only signal will monitor the entry and exit of the bus to and from the FEC busway corridor to SW 70th Avenue. Buses enter the Dadeland North station at the intersection of SW 70th Avenue and SW 85th Street. Buses can travel between the Dadeland North Metrorail Station and the Dadeland South Metrorail Station following the same path that existing Metrobus Route 1 utilizes. The advantage of this option is that the Busway can connect to the Dadeland South Metrorail Station and provides an option of continuing the Busway Max from the Dadeland South Station.
- South Path 4 (Dedicated Path to Dadeland South) Buses exit the FEC busway corridor at the southern terminus through a proposed new bridge that would be constructed across the canal and connect into FEC right-of-way adjacent to the Dadeland North Metrorail Station, and enters the Dadeland South surface parking lot area through a bus-only signal at Kendall Drive and connects to the Dadeland South station. The bus-only signal at Kendall Drive would be similar to existing Busway signalized intersections along the west side of U.S. 1 to the south. The advantage of this option is that the Busway can connect to the Dadeland South Metrorail Station and provides an option of continuing the Busway Max from the Dadeland South Station. Construction of a new bridge across the canal would significantly increase the cost of construction.

One of the advantages of the busway option is that different trips/routes could be scheduled to utilize more than one of the potential northern and southern connectivity options. This



FLORIDA EAST COAST (FEC) RANSIT CONNECTION STUDY

rom dadeland north metrorail station to Miami international airport (Mia)



provides choices and expands the trips served by the transit system. The proposed system would include all of the basic elements such as fixed infrastructure and all system-wide and fixed equipment. Fixed infrastructure would include all bus shelters at selected locations along the corridor, asphalt parking lots at selected locations, signage, and the maintenance and operations facility to support system operations. Busway signals should be installed at identified locations.

Proposed Station Locations

Nine (9) stations were proposed for the Busway with Trail option. The station locations along the FEC corridor are listed below and are also included in Figure 12.

- 1. MIC station with parking garage
- 2. Flagler Street
- 3. SW 8th Street
- 4. SW 24th Street with surface parking
- 5. SW 40th Street with surface parking
- 6. SW 56th Street with surface parking
- 7. SW 72nd Street
- 8. Dadeland North with parking garage
- 9. Optional extension to Dadeland South with parking garage

Figure 10: Proposed Paths for Busway Option from Flagler Street to MIC

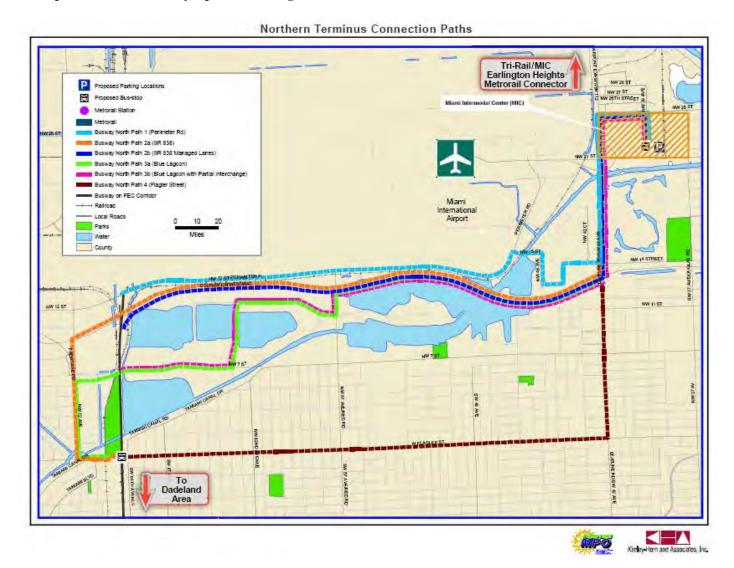
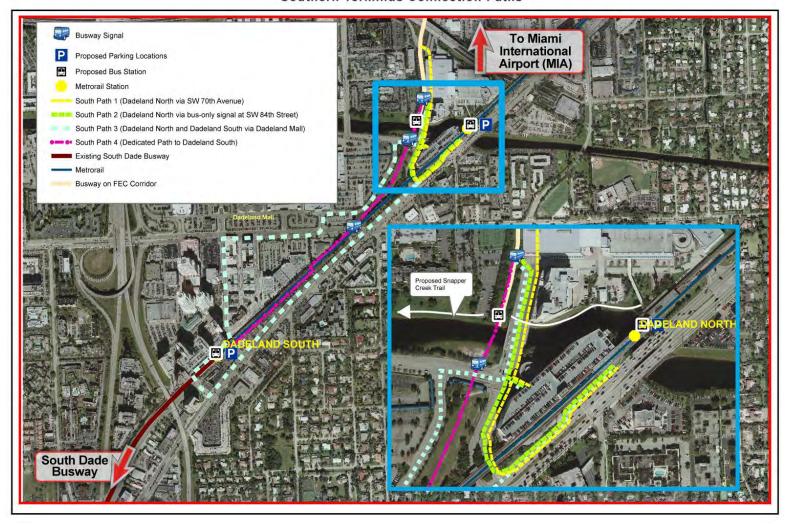


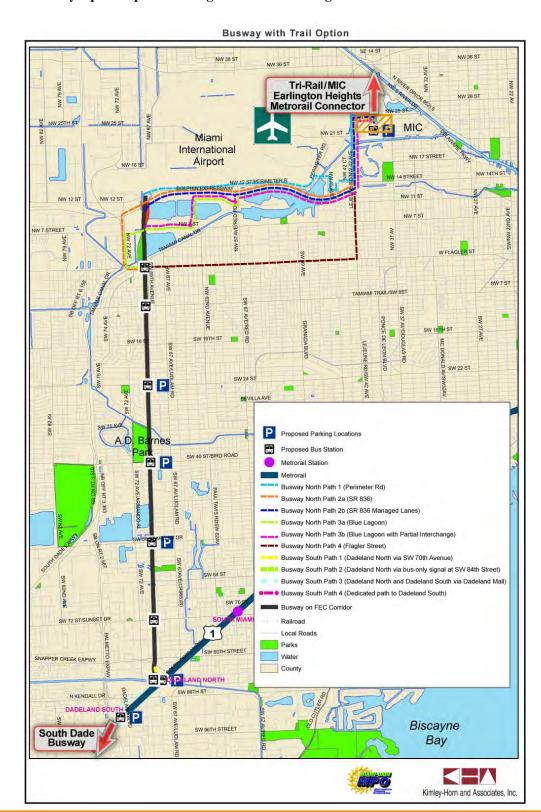
Figure 11: Proposed Paths for Busway Option at Dadeland

Southern Terminus Connection Paths



OM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)

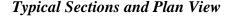
Figure 12: Busway Option Option showing Station and Parking Locations



FLORIDA EAST COAST (FEC)

TRANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



Typical cross sections for the busway with trail option are shown in Figures 13 and 14. The proposed busway with trail option consists of a dedicated busway with a signature multi-use trail that is 18 feet wide. The trail will be separated from the busway by a landscaped buffer.

The travel lanes for the busway would be 12 feet wide. Green space may be provided between the wheel tracks of the busway travel lanes to reduce impervious surface and enhance the aesthetics of the corridor. This technique has been successfully demonstrated in Eugene, Oregon.

Staggered bus-stops were proposed for this option. Connections to the proposed parking lots and stations will be designed based on the existing street connections near the proposed stations. Figure 15 shows a plan view of the busway with trail option at an intersection along with a staggered station for the northbound buses. Parking will be provided at identified stations. As shown in Figure 15, the trail users can use the proposed signalized busway intersection to cross the streets. A bicycle/pedestrian signal will be provided at all major street crossings. Mode-specific pavement markings can be provided along the 18-foot trail to properly separate bicyclists and pedestrians due to the expected high demand of users.

The order of magnitude of capital cost estimate for the busway with multi-use trail option is approximately \$35,000,000.

Advantages

- The busway option provides the most flexibility for transit service at a lower cost than the other transit options.
- The buses would utilize the FEC Ludlam Corridor right-of-way to avoid operating in mixed-traffic conditions on the local streets.
- The busway option has the potential to extend the existing South Dade Busway at Dadeland South Station and also to provide a one-seat busway ride from Florida City to the MIC.

FLORIDA EAST COAST (FEC) TRANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



- The busway option has the potential to extend the proposed Kendall Drive Bus Rapid Transit (BRT) project to the MIC via the FEC Ludlam Corridor.
- Trail users will experience safety enhancements at major intersections because signalized crossings are proposed for the trail/busway corridor.
- The busway option provides several options to connect to the MIC.
- Ridership modeling conducted for the CSX Corridor Evaluation Study showed significant ridership demand along the FEC Ludlam Corridor.
- The busway option accounts for a minimal additional signal delay on cross-streets.
- Countywide transit efficiency strategies, such as Transit Signal Priority (TSP), can also be applied at intersections to provide additional travel time benefits for buses.

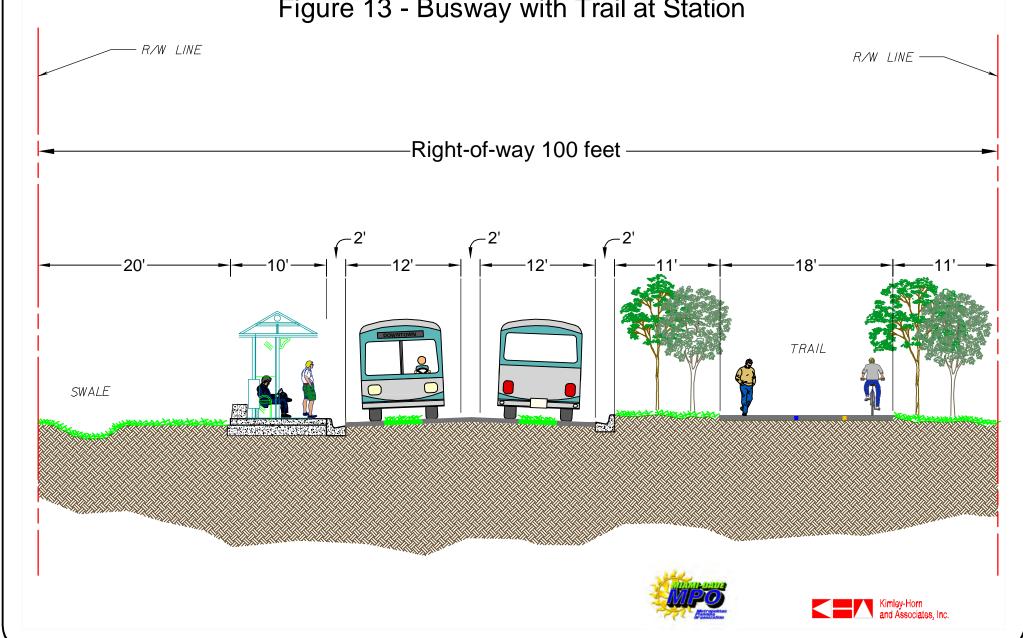
Disadvantages

- Adds a signalized intersection to major east-west arterials, although capacity analyses
 performed for this study indicated additional average delay per vehicle would be
 minimal.
- Slower travel speeds than rail alternatives.



FEC Ludlam Transit Connection Study

Figure 13 - Busway with Trail at Station



FEC Ludlam Transit Connection Study Figure 14 - Busway with Trail Typical Section - R/W LINE R/W LINE --Right-of-way 100 feet-----TRAIL SWALE

TRANSIT CONNECTION STUDY

Figure 15: Plan View for Busway with Trail at Station

Plan View for Busway Greenway with Trail at Station with Parking

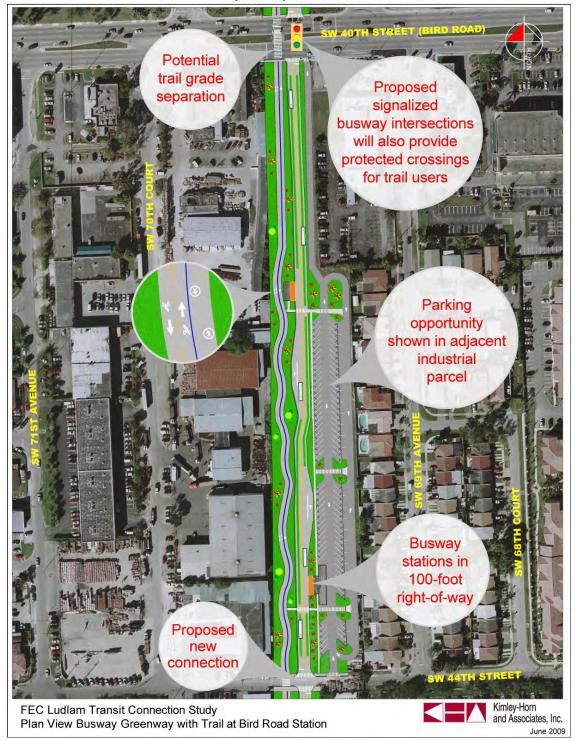




ROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)

Figure 16: Plan View for Busway with Trail at Station

Plan View for Busway Greenway with Trail at Bird Road Station



FLORIDA EAST COAST (FEC)

TRANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



Multi-use Trail with At-Grade Passenger Rail Option

This option would provide at-grade passenger rail service along the FEC Ludlam Corridor right-of-way from the MIC to the Dadeland North Metrorail station. The alignment is approximately seven (7) miles long with the distance between stations generally ranging from one-half mile to one mile. The northern terminus of the at-grade passenger rail option would be at the MIC and southern terminus would be at the Dadeland North Metrorail station.

- Since the passenger train operates at-grade, signal preemption gates would be an important part of this option for safety.
- The passenger trains may operate in exclusive right-of-way or in mixed traffic.
- The passenger trains can operate up to a maximum safe speed of 70 miles per hour.
 However, the average speed for light rail systems is significantly lower than the maximum attainable speed since most systems generally operate dense urban areas, in mixed traffic, or on the median of major thoroughfares and across major intersections.
- The close spacing of stations in some areas also contributes to lower average speed;
 however, it is expected that the at-grade passenger rail option would have a higher system speed than the busway option due to the absence of signal delay.
- Depending on the travel demand, a light rail system could be operated as a single-car
 train or a multiple-car train. The standard two-cab, or articulated Light Rail Transit
 (LRT) vehicle can comfortably accommodate up to 220 passengers including
 standees. LRT systems with a three-car train can comfortably carry up to 330
 passengers.

The proposed system would include all of the basic elements such as fixed infrastructure, all system-wide equipment, fixed equipment, and rolling stock. Fixed Infrastructure would include all trackway and track switches as well as passenger stations at selected locations along the corridor, and the maintenance and operations facility to support system operations. Pre-emption gates should be installed for crossings at all major roads. The at-grade passenger rail option for the FEC Ludlam Corridor is shown in Figure 17.



FLORIDA EAST COAST (FEC) RANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)

This option uses the existing South Florida Rail Corridor (SFRC) along Perimeter Road to connect to the MIC. Construction of a bicycle/pedestrian trail bridge over the Snapper Creek Canal at the Dadeland North Metrorail Station will help passengers for easy transfers from the train station to the Dadeland North Station.

Proposed Station Locations

Seven (7) stations were proposed for the at-grade rail with trail option. The station locations along the FEC corridor are listed below and are also shown in Figure 17.

- 1. MIC station with parking garage
- 2. Flagler Street
- 3. SW 8th Street
- 4. SW 24th Street with surface parking
- 5. SW 40th Street with surface parking
- 6. SW 56th Street with surface parking
- 7. Dadeland North with parking garage

Typical Section

Typical cross sections for the at-grade passenger rail with trail option are shown in Figures 18, 19 and 20. The proposed multi-use trail is 18 feet wide and can be separated from the at-grade passenger rail by a landscaped buffer. Pavement markings and striping can be used to separate the bicycle and pedestrian mode on a trail of this width.

Staggered stations or center platform stations can be provided for this option. Figure 18 shows the staggered station configuration, Figure 19 shows the center platform configuration, and Figure 20 shows a typical section of the at-grade passenger rail with trail option. The order of magnitude of capital cost estimate for this option is approximately \$250,000,000.

Advantages

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



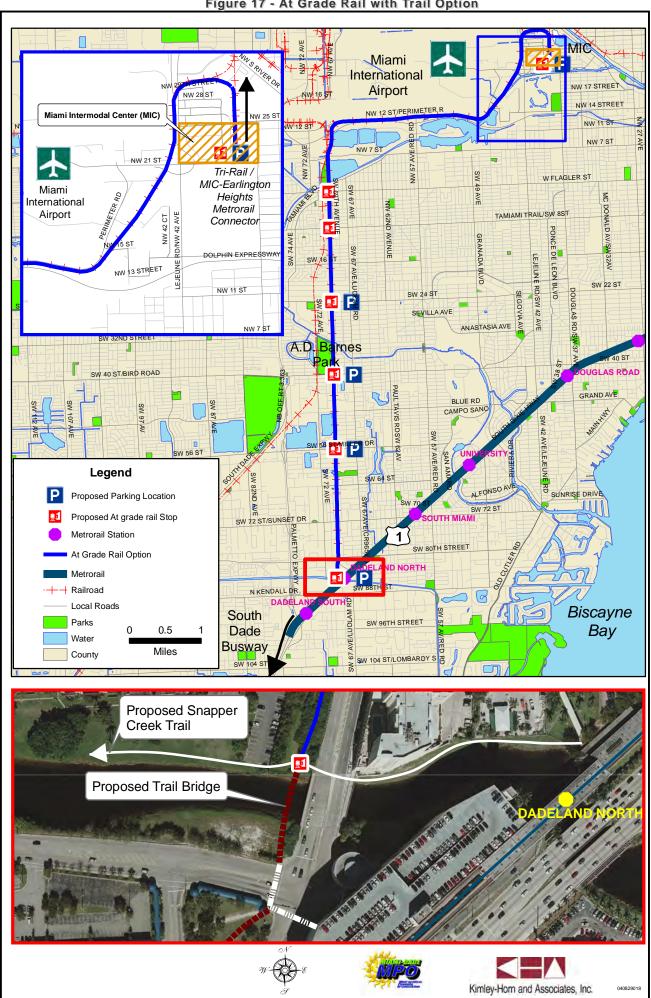
- The at-grade passenger rail option provides higher system travel speeds than the busway option.
- The at-grade passenger rail trains could utilize the FEC Ludlam Corridor right-of-way and then continue along Kendall Drive and the CSX Corridor to the Metro Zoo, as proposed by the Kendall Link Alternatives Analysis (AA) Study.
- Signal pre-emption gate technology would provide transit travel time benefits.
- The footprint width is essentially the same as the busway option.
- Can be connected to Dadeland North Station via proposed walkway.
- Can also be connected to the MIC in the north using the existing SFRC corridor.
- At-grade passenger rail option can be accommodated with Light Rail Transit (LRT)
 or Diesel Multiple Unit (DMU) technology.

Disadvantages

- Higher construction cost than the busway option.
- Rail transit inherently brings less flexibility of scheduling and route design.
- Pre-emption gates are not as useful for multi-use trail users as busway signals for crossing major intersections.
- Federal Railroad Administration (FRA) compliance would need to be achieved for mixed passenger and freight operations north of Oleander Junction.
- Impact on traffic operations during construction.

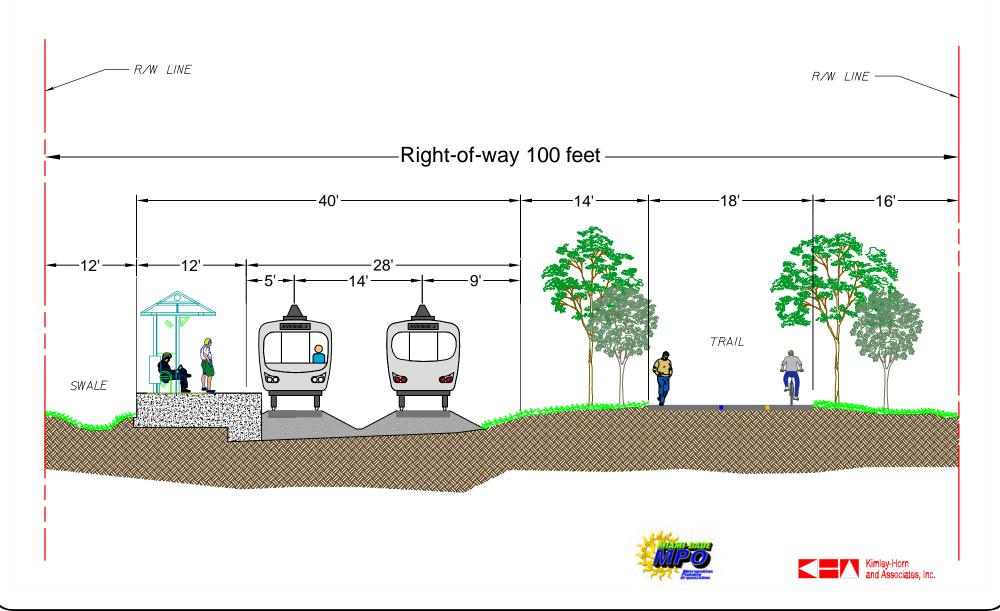


Figure 17 - At Grade Rail with Trail Option



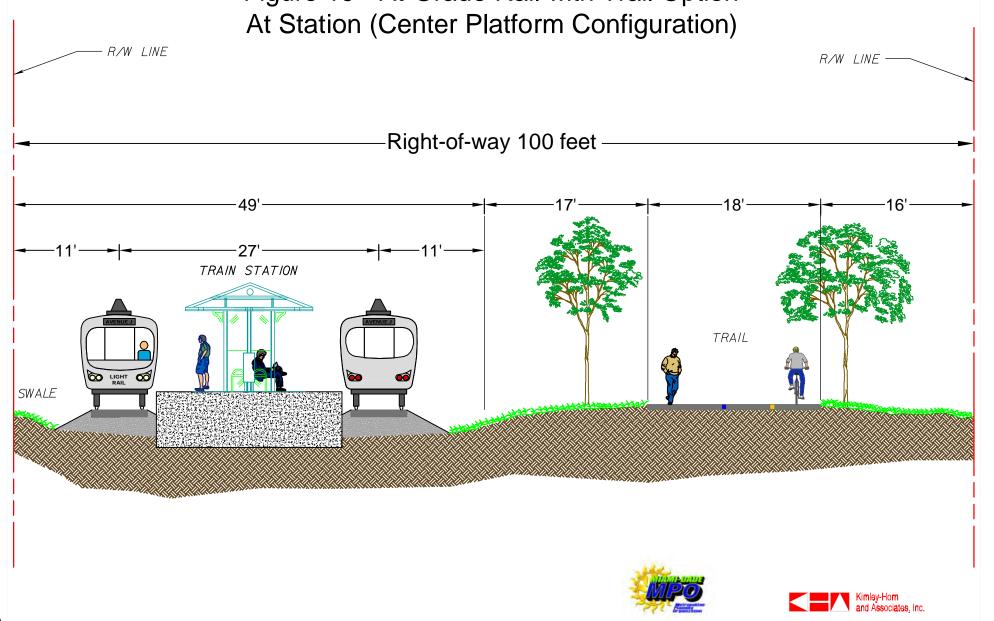
FEC Ludlam Transit Connection Study

Figure 18 - At-Grade Rail with Trail Option At Station (Staggered Configuration)



FEC Ludlam Transit Connection Study

Figure 19 - At-Grade Rail with Trail Option



FEC Ludlam Transit Connection Study Figure 20 - At-Grade Rail with Trail Option **Typical Section** - R/W LINE R/W LINE --Right-of-way 100 feet ————— TRAIL SWALE

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)

SUMMARY

The FEC Ludlam Transit Connection Study presented a planning level analysis for transit-with-trail options primarily on the FEC Ludlam Corridor between Miami International Airport (MIA) and the Dadeland North Metrorail Station. Based on the technical analysis conducted for this study, the following viable transit options were identified for the FEC Ludlam Corridor:

- Multi-use trail with busway option
- Multi-use trail with at-grade passenger rail option

During the course of the Miami-Dade MPO's FEC Ludlam Transit Connection Study, the Miami-Dade Park and Recreation Department (MDPR) initiated the *Ludlam Trail Design Guidelines* based on the purpose of advancing the trail-only option for the corridor. Items of related interest between the two studies for ongoing coordination as the corridor moves into later phases of development include the following.

- Maintaining a typical minimum 32-foot envelope for transit guideway purposes along the corridor, preferably on the east side of the corridor.
- Maintaining a typical minimum 40-foot area for transit stations.
- Intersection treatments.
- Provision of parking facilities where identified.
- Width of the multi-use trail.
- Lateral placement of the multi-use trail alignment within the right-of-way.

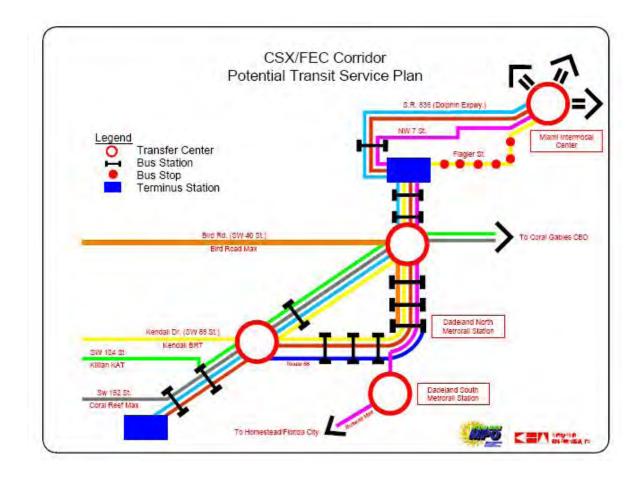
The busway option was found to be a viable option to provide transit service from MIA to the Dadeland North Metrorail Station for several reasons.

- The ability of right-of-way to accommodate the busway option.
- Relative flexibility of bus service.
- Opportunity to extend the South Dade Busway service.
- Lower implementation costs than other transit options.



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• Opportunity to provide signalized intersection crossings to enhance trail safety.



The at-grade rail option was also found to be similarly viable with a faster travel speed although at a higher cost, with less flexibility of routes and schedules, and less system-wide compatibility.

The analysis provided in this report identified transit options for operating on the FEC Ludlam Corridor right-of-way. However, the advancement of these possible options requires significant investment. Therefore potential funding sources need to be identified for implementation of any of these options. In addition, right-of-way ownership needs to be addressed before any public use is implemented as the majority of the corridor is not publicly owned.

MIAMI-DADE MPO

FLORIDA EAST COAST (FEC) TRANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



Phasing Plan

A phasing plan was developed for the recommended options to determine a timeline for implementation. The major tasks of each option and approximate implementation timeframe were identified. At this stage of the study, the busway with trail option and at-grade passenger rail with trail option are maintained as viable options. The table below shows the implementation plan for the busway with multi-use trail option and at-grade passenger rail with multi-use trail option.



FLORIDA EAST COAST (FEC) TRANSIT CONNECTION STUDY

FROM DADELAND NORTH METRORAIL STATION TO MIAMI INTERNATIONAL AIRPORT (MIA)



FEC Ludlam Transit Connection Implementation Plan – Busway with Trail Option

Time Frame	Activities
1 – 3 Years	Environmental Documentation
	Right-of-way Acquisition
	Refine Bus Transit Service Plan
4 – 6 Years	Order BRT vehicles
	Construction documents for trail, busway, stations, parking, and landscaping
7 – 10 Years	Construct busway and trail
	Construct park-and-ride lots and stations at proposed locations
	Construct partial interchange ramps at NW 7 th Street
	Construct partial interchange at S.R. 836 and managed lanes construction

$FEC\ Ludlam\ Transit\ Connection\ Implementation\ Plan-At\text{-}grade\ Passenger\ Rail\ with\ Trail\ Option$

Time Frame	Activities
1 – 3 Years	Environmental Documentation
	Alternatives Analysis
	Right-of-way Acquisition
4 – 6 Years	Coordination with FRA
	Construction documents for at-grade track and trail
	Order rolling stock
7 – 10 Years	Install signal pre-emption gates at intersections
	Construct track, switches, and trail
	Operate temporary express bus along SW 67 th Avenue to generate ridership
	Construct park-and -ride lots and stations at proposed stations



APPENDIX A PHOTO LOG



Picture 1: December 5, 2008 Intersection @ Flagler Street looking North



Picture 2: December 5, 2008 Intersection @ Flagler Street looking North



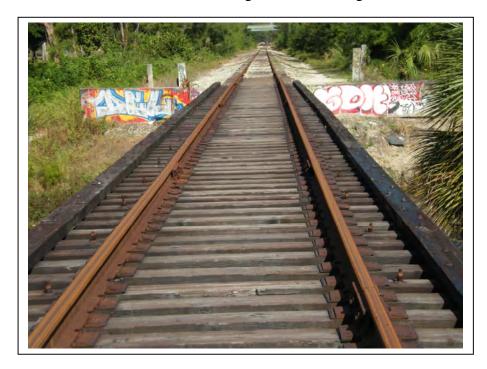
Picture 3: December 5, 2008 Intersection Flagler Street looking North



Picture 4: December 5, 2008 Intersection @ a Canal 537ft after Flagler Street looking North



Picture 5: December 5, 2008 Intersection @ a canal 534ft after Flagler Street looking Northeast



Picture 6: December 5, 2008 Intersection @ the canal 534ft after Flagler Street looking North



Picture 7: December 5, 2008 Intersection @ overhead bridge 2344ft after Flagler Street looking North



Picture 8: December 5, 2008 ROW, 1460ft after the canal looking Northeast



Picture 9: December 5, 2008 ROW, 1460ft after the canal looking Northwest



Picture 10: December 5, 2008 Intersection @ an overhead bridge 1810ft after the canal looking North



Picture 11: December 5, 2008 Intersection @ an overhead bridge,1810ft after the canal looking Northeast



Picture 12: December 5, 2008 Intersection @ an overhead bridge 1810ft after the canal looking Northwest



Picture 13: December 5, 2008 Intersection @ the overhead bridge looking West



Picture 14: December 5, 2008 Intersection at the overhead bridge looking East [Abutmentwall]



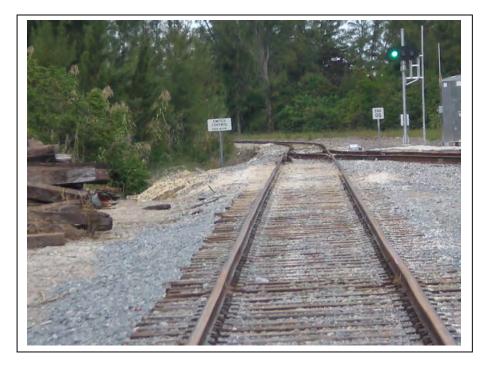
Picture 15: December 5, 2008 ROW126 ft from overhead bridge looking North



Picture 16: December 5, 2008 ROW 126 ft from overhead bridge looking Northeast



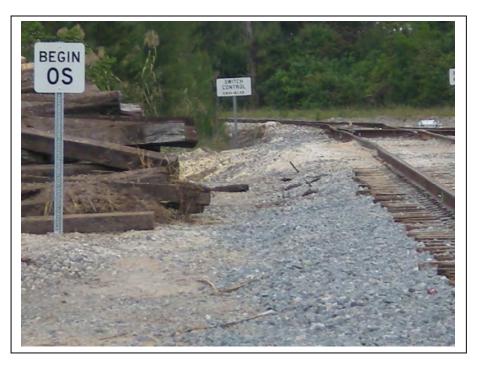
Picture 17: December 5, 2008 ROW 126 ft from overhead bridge looking Northwest



Picture 18: December 5, 2008 ROW 126 ft from overhead bridge showing rail links, looking North



Picture 19: December 5, 2008 ROW 126ft from overhead bridge looking Northeast



Picture 20: December 5, 2008 ROW 126ft after the overhead bridge ,looking Northwest



Picture 21: December 5, 2008 Closer look at the railinks,126ft after the overhead bridge looking North



Picture 22: December 5, 2008 ROW, 631ft after the bridge looking South



Picture 23: December 5, 2008 ROW,631ft after the bridge looking Northeast



Picture 24: December 5, 2008 ROW 631ft after the bridge looking Northwest



Picture 25: December 5, 2008 ROW showing a disused rail track 631ft after the bridge, looking northeast



Picture 26: December 5, 2008 ROW 500 ft from disused rail track, looking North



Picture 27: December 5, 2008 ROW, 500 ft from disused rail track looking Northeast



Picture 28: December 5, 2008 ROW, 500 ft from disused rail track looking Northwest



Picture 29: December 5, 2008 Railway Intersection with the $(2^{nd}, 3^{rd}, \& 4^{th} \text{ bridge})$ looking North



Picture 30: December 5, 2008 Railway Intersection with $(2^{nd}, 3^{rd}, \& 4^{th} \text{ bridge})$ looking Northeast



Picture 31: December 5, 2008 Railway Intersection with (2nd, 3rd, & 4th bridge) looking northwest



Picture 32: December 5, 2008 ROW @ the exit of 4th bridge approach looking North



Picture 33: December 5, 2008 ROW @ the exit of 4th bridge approach looking Northeast



Picture 34: December 5, 2008 ROW @ the exit of 4th bridge approach looking Northwest



Picture 35: December 5, 2008 ROW, 992ft after the 4th bridge, [showing dolphin/the airport access road] looking North



Picture 36: December 5, 2008 Closer look @ the ROW and airport road looking Northeast



Picture 37: December 5, 2008 Railway Intersection @ dolphin/airport access road looking Northwest



Picture 38: December 5, 2008 Dolphin access road/airport site



Picture 1: December 11, 2008 Intersection @ Flagler Street looking South



Picture 2: December 11, 2008 One bldg away from Intersection @ Flagler Street looking South



Picture 3: December 11, 2008 One bldg away from Intersection @ Flagler Street looking South



Picture 4: December 11, 2008 Intersection @SW 4 ST. looking South



Picture 5: December 11, 2008 Intersection @SW 4 ST. looking South



Picture 6: December 11, 2008 Intersection @SW 4 ST. looking South



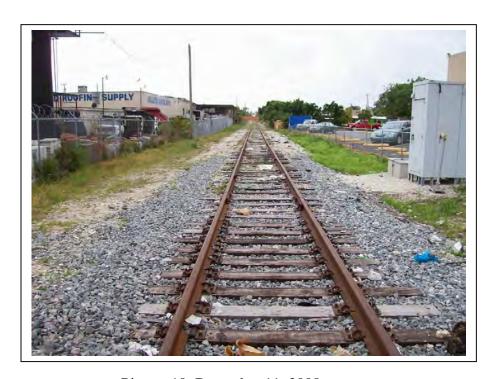
Picture 7: December 11, 2008 1 blodg away from Intersection @SW 4 ST looking South



Picture 8: December 11, 2008 1 bldg away from Intersection @SW 4 ST looking South



Picture 9: December 11 2008 1 bldg before Intersection @ SW 5 ST looking South



Picture 10: December 11, 2008 Intersection @ SW 8 ST. looking South



Picture 11: December 11, 2008 Railway Intersection @ SW 8 ST looking South



Picture 12: December 11, 2008 1 Blodg after Railway Intersection @ SW 8 ST looking South



Picture 13: December 11, 2008 1 Blodg after Railway Intersection @SW 8 ST. looking South



Picture 14: December 11, 2008 1 Blodg after Railway Intersection @ SW 8 ST .looking South



Picture 15: December 11, 2008 1 Blodg after Railway Intersection @ SW 8 ST looking south



Picture 16: December 11, 2008 3 bldg After Railway Intersection @SW 8 ST looking South



Picture 17: December 11, 2008 3Bldg after Railway Intersection @SW 8 ST looking South



Picture 18: December 11 2008 5th Bldg after Railway intersection @ SW 8th ST looking South



Picture 19: December 11, 2008 Railway Intersection @SW12 ST looking South



Picture 20: December 11 2008 2Bldgs after Railway Intersection @12 ST looking South



Picture 21: December 11 2008 4Bldgs after Railway Intersection @12 ST looking South



Picture 22: December 11 2008 4Bldgs after Railway Intersection @12 ST looking South



Picture 23 December 11 2008 4Bldgs after Railway Intersection @12 ST looking South



Picture 24 December 11 2008 Railway Intersection @ SW16 ST looking South



Picture 25: December 11, 2008 1 Bldg after Railway intersection @ SW 16 ST looking South East



Picture 26 December 11, 2008

2 Bldgs after Railway Intersection @SW 16ST looking South West



Picture 27: December 11, 2008 2 Bldgs after Railway Intersection @SW 16 ST looking south East



Picture 28: December 11, 2008 2 Bldgs after Railway Intersection@ SW16 ST looking South West



Picture 29: December 11, 2008 Railway Intersection @ SW 21 ST. looking South



Picture 30: December 11, 2008 Railway Intersection @ SW 22 ST looking South



Picture 31: December 11, 2008
Railway Intersection @ 24 ST looking South
{ROW Fenced off and in use as car park}



Picture 32: December 11, 2008 Railway Intersection @ SW 24 ST Looking South West



Picture 33 December 11, 2008 Railway Intersection @ SW 24 ST Looking South East



Picture 34 December 11, 2008
Railway Intersection @ SW 24 ST looking South
{ROW in use as car park}



Picture 1: December 12, 2008 Intersection @ SW48th Street looking North



Picture 2: December 12, 2008 Intersection @ SW48 Street looking south



Picture 3: December 12, 2008 Intersection @ SW52 Street looking North



Picture 4: December 12, 2008 Intersection @SW 52 ST. looking South



Picture 5: December 12, 2008 ROW by South Miami senior school fence looking South East



Picture 6: December 12, 2008 Intersection @SW 56 ST. looking North



Picture 7: December 12, 2008 Intersection @SW 56 ST looking South



Picture 8: December 12, 2008 Intersection @SW 60 ST looking North



Picture 9: December 12 2008 Intersection @ SW 60 ST looking South



Picture 10: December 12, 2008 Intersection @ SW 64 ST. looking North



Picture 11: December 12, 2008 Intersection @ SW 64 ST looking North



Picture 12: December 12, 2008 Intersection @ SW 72 ST looking North



Picture 13: December 12, 2008 Intersection @SW 72 ST. looking South



Picture 14: December 12, 2008 Intersection @ SW 72 ST .looking South East



Picture 15: December 12, 2008 Intersection @ SW 72 ST looking south West



Picture 16: December 12, 2008 Intersection @SW 80 ST looking North



Picture 17: December 12, 2008 Intersection @ SW 80 ST looking South



 $\begin{array}{c} \text{Picture 18: December 12 2008} \\ 5^{\text{th}} \text{ Block after Railway intersection @ SW 80 ST looking South East} \end{array}$



Picture 19: December 12, 2008 Intersection @SW 80 ST looking South West



Picture 20: December 12 2008 ROW @4th Bldg after24 St looking South West



Picture 21 December 12 2008 ROW @4th Bldg after 24th St looking South East



Picture 22: December 12 2008 ROW @4th Bldg after 24 Street looking Southwest [closer look at a company property causing obstructions, see pic.20 above]



Picture 23 December 12 2008 ROW @ 6th Bldg after 24th Street looking SouthEast



Picture 24 December 12 2008 Railway Intersection @ Water Way Drive looking South



Picture 25: December 12, 2008 Railway Intersection @Water Way Drive looking South West



Picture 26 December 12, 2008

Railway Intersection @Water Way Drive looking South West



Picture 27: December 12, 2008 Railway Intersection @Water Way Drive looking south East



Picture 28: December 12, 2008 ROW across a canal after Railway Intersection@ Water Way Drive looking South



Picture 29: December 12, 2008
Railway Intersection @ the canal looking South East



Picture 30: December 12, 2008 Railway Intersection @ the canal looking SW



Picture 31: December 12, 2008 ROW @1 Bldg after the canal looking North



Picture 32: December 12, 2008 ROW @ 1 Bldg after the canal Looking South



Picture 33 December 12, 2008 ROW @ 1 Bldg after the canal Looking South East



Picture 34 December 12, 2008 ROW @ 3 Bldg after the canal looking Southwest



Picture 35: December 12, 2008

ROW @ 4th Bldg after the canal looking South west



Picture 36: December 12, 2008 Railway Intersection @ SW 40 Street looking South



Picture 37: December 12, 2008 Railway Intersection @ 40 Street looking South east



Picture 38: December 12, 2008 Railway Intersection between @ 40Street looking Southwest



Picture 39: December 12, 2008 ROW @ 1st Bldg after Railway Intersection @ SW40 looking South



Picture 40: December 12, 2008 Railway Intersection @ SW44 Street looking North



Picture 41: December 12, 2008 Railway Intersection @ 44 Street looking North west



Picture 42: December 12, 2008 Railway Intersection @ SW 44 looking Northeast



Picture 43: December 12, 2008 Railway Intersection @ SW 44 street looking South

APPENDIX B Miami-Dade Property Appraiser Right-of-Way Information











mlamidade.gov

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Legend

Property Boundary

Selected Property

Street Highway Miami-Dade County

Water

Show Me:

Property Information

Search By:

Select Item 💌



Property Appraiser Tax Estimator

Summary Details:

30-3052-000-0030
REFERENCE ONLY

Property Information:

Primary Zone:	
CLUC:	
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0
Year Built:	0
Legal Description:	53 54 40 3.486 AC M/L 100FT SAL R/W ACROSS HIATUS LOT 2 S OF SEC 35-53-40 FORMERLY CSX TRANSPORTATION INC /COMPTROLLER/ DOT OR 14491-326 0390



My Home | Property Information | Property Taxes | My Neighborhood | Property Appraiser

Home | Using Our Site | About | Phone Directory | Privacy | Disclaimer



miamidadegov

Show Me:

Property Information 💌

Search By:

Select Item 💌

Text only

Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-3035-000-0021
Property:	
Mailing	MIAMI DADE COUNTY
Address:	AVIATION DEPARTMENT
	PO BOX 592075 MIAMI FL
	33159-2075

Property Information:

Primary Zone:	7300 INDUSTRIAL- HEAVY
CLUC:	0080 VACANT LAND- GOVERNMENTAL
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	o
Lot Size:	3 ACRES
Year Built:	0
Legal Description:	35 53 40 3.48 AC A STRIP OF LAND 100FT WIDE IN SE1/4 OF SEC PER OR 35-54



Property
Boundary

Selected
Property

Street

Highway

Miami-Dade
County

Water

Legend

Digital Orthophotography - 2007

_____ 177 ft

My Home | Property Information | Property Taxes | My Neighborhood | Property Appraiser





Legend

Property Boundary

Selected Property

Street Highway

Miami-Dade County Water

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Property Information

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Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-3052-000-0020
Property:	
Mailing Address:	FECRY
	ST AUGUSTINE FL COMPT

Property Information:

Primary Zone:	
CLUC:	0062 RAILROAD ASSESSMENT
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0
Year Built:	0
Legal Description:	53 54 40 1,998 AC STRIP ACROSS LOT 2 PER JUDGT 12- 26-24 & PARCEL PER D B 1066/19 LESS BEG 1298.06FTE & 95.21FTS OF NW COR OF E1/2 OF GOV LOT 2 N 62 DEG E 245.51FT M/L S 05 DEG W



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0 ——— 88 ft

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MIAMI-DADE

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Property Boundary

Selected Property

Street Highway Miami-Dade County

Water

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HISTORIAN CONTRACTOR	(20)
Property Information	100

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Summary Details:

Folio No.:	30-4002-000-0111	
Property:		
Mailing Address:	FECRYCO	
	COMPT	

Property Information:

Primary Zone:	
CLUC:	0062 RAILROAD ASSESSMENT
Beds/Baths;	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0
Year Built:	0
Legal Description:	2 54 40 12.12 AC FEC RR RAW 100FT STRIP ACROSS E1/2

Sale Information:

Sale O/R:	
Sale Date:	0/0
Sale Amount:	\$0



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_____ 200 ft

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Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-4002-000-0111	
Property:		
Mailing Address:	F E C RY CO	
The second of	COMPT	

Prope	ty miormation.
Primary Zone:	
CLUC:	0062 RAILROAD ASSESSMENT
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0
Year Built:	0
Legal Description:	2 54 40 12.12 AC FEC RR RAW 100FT STRIP ACROSS E1/2



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My Home

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Property Appraiser Tax Estimator

Summary Details:

Folio No.:	01-4002-002-1780
Property:	6901 W FLAGLER ST
Mailing Address:	L M KING INC
	6923 W FLAGLER ST
	MIAMI FL.
	33144-2846

Property Information:

Primary Zone:	6100 RESTRICTED COMMERCIAL
CLUC:	0011 RETAIL
Beds/Baths:	0/0
Floors:	2
Living Units:	0
Adj Sq Footage:	11,380
Lot Size:	13,433 SQ FT
Year Built:	1973
Legal Description:	2 54 40 .31 AC M/L PRINCESS PARK MANOR PB 50-18 TRACT C LOT SIZE 13433 SQUARE FEET CF 73R96565











Property Boundary Selected Property

Highway Miami-Dade County



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Summary Details:

Property Information:
ny Zone:
00062 RAILROAD

2 54 40 12.12 AC FEC RR R/W 100FT STRIP ACROSS E1/2

Folio No.: 30-400
Property:
Mailing F E C I
Address:

CLUC:

Beds/Baths:
Floors:
Living Units:
Adj Sq
Footage:
Lot Size:
Year Built:

Legal Description:

miamidade.gov Active tool: select

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Property Information

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Property Appraiser Tax Estimator

Summary Details:

Folio No.:	01-4002-019-0040
Property:	6991 SW 8 ST
Mailing Address:	CENTURY/EVERGLADES
	6991 SW 8 ST MIAMI FL 33144-4743

03	1777/70	
Property Information:		
Primary Zone:	6100 RESTRICTED COMMERCIAL	
CLUC:	0011 RETAIL	
Beds/Baths:	0/0	
Floors:	1	
Living Units:	0	
Adj Sq Footage:	19,166	
Lot Size:	71,240 SQ FT	
Year Built:	1999	
Legal Description:	EVERGLADES SUB PB 82-91 N300FT OF S659FT OF TRACT 'A' LOT SIZE IRREGULAR OR 18066-3515 0498 5 (3)	



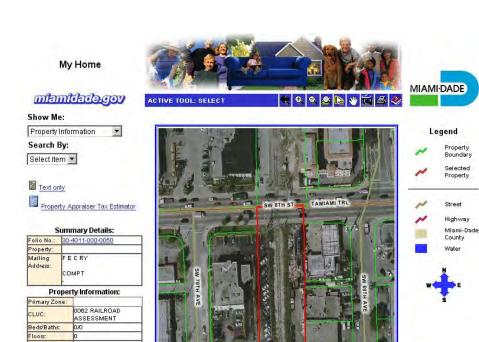


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Living Units: Adj Sq Footage: Lot Size: Year Built:

> Legal Description:

11 54 40 5.61 AC STRIP AS IN DB 352-120 STRIP AS IN DB 370-253 STRIP AS IN

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The aerial photography used by MDPA is not recent enough to illustrate the current use of the FEC right-of-way by Braman Honda for vehicle storage through a lease agreement with Flagler Development.









My Home



MIAMI-DADE

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Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-4014-000-0070	
Property:		
Mailing Address:	FEC RAILWAY CO	1
	PO BOX 1048 ST	
	AUGUSTINE FL	
	32085-	

Property Information:

Primary Zone:	
CLUC:	0062 RAILROAD ASSESSMENT
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0
Year Built:	0
Legal Description:	14 54 40 12.65 AC M/L BE6 SE COR OF SW1/4 OF SE1/4 TH W/182.3FT N1342.4FT E56.4FT N1345FT E20.5FT NLY2678.60FT TO THE N/L OF SEC W/78.7FT SLY5366FT M/L TO S/L OF SEC TO POBLESS BEG



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50 ft

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My Home

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Property Boundary

Selected Property

Street Highway

Miami-Dade County Water

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Property Information

Search By:

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Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-4014-000-0070	
Property:		
Mailing Address:	FEC RAILWAY CO	
	PO BOX 1048 ST	
	AUGUSTINE FL	
	32085-	

Property Information:

Primary Zone:	
CLUC:	0062 RAILROAD ASSESSMENT
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0
Year Built:	0
Legal Description:	14.54.40 12.65 AC M/L BEG SE COR OF SW1/4 OF SE1/4 TH W/182.3FT N/342.4FT E56.4FT N/345FT E20.5FT NLY2678.60FT TO THE N/L OF SEC W/78.7FT SLY5366FT M/L TO S/L OF SEC TO POBLESS BEG



Digital Orthophotography - 2007

0 _____ 50 ft

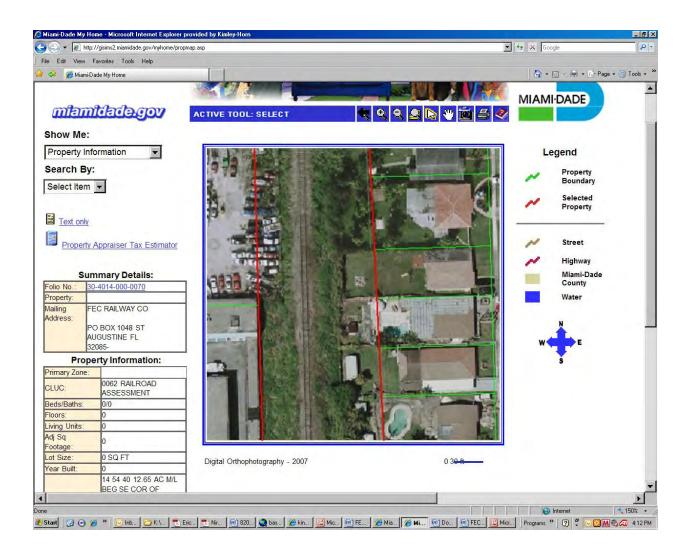
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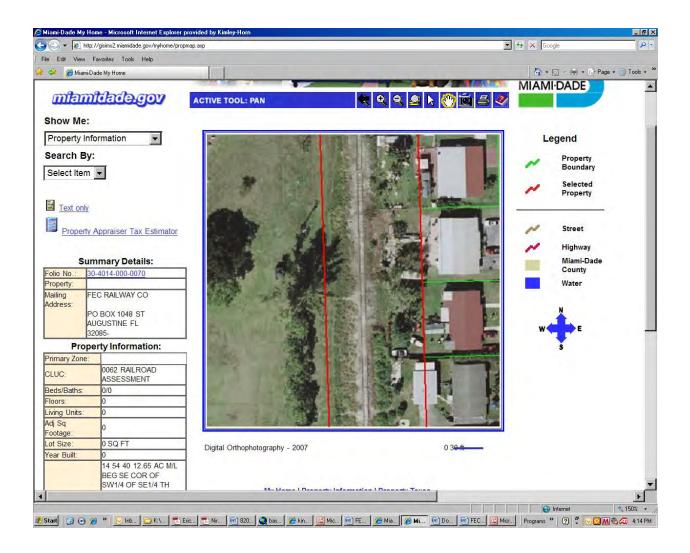
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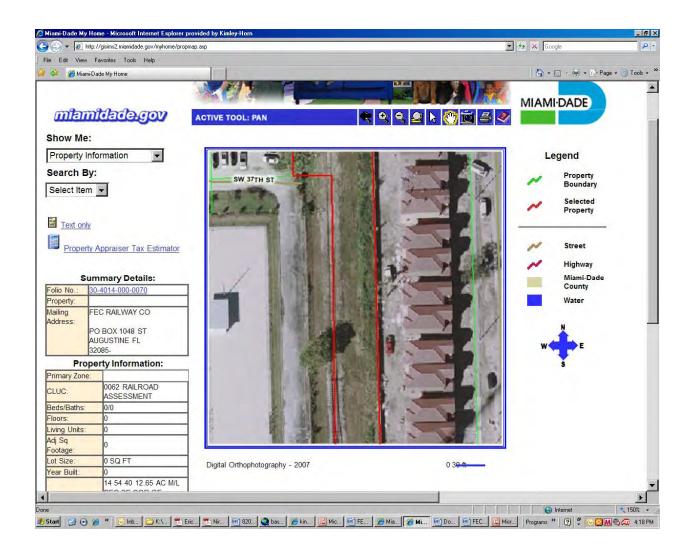
If you experience technical difficulties with the Property Information application, or wish to send us your comments, questions or suggestions

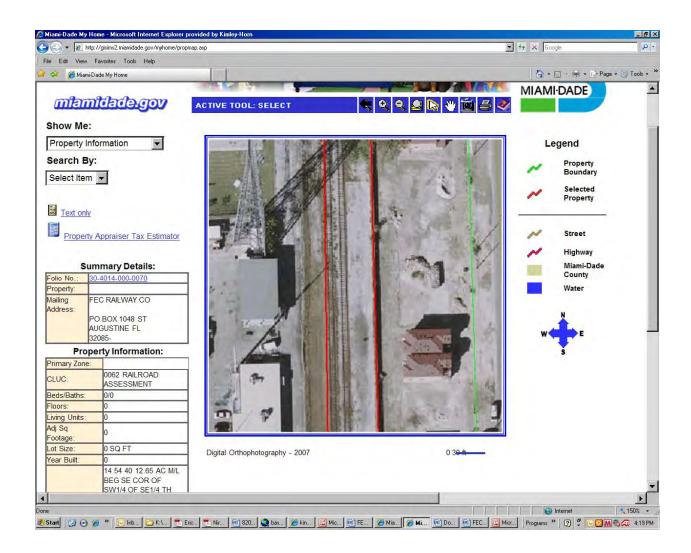


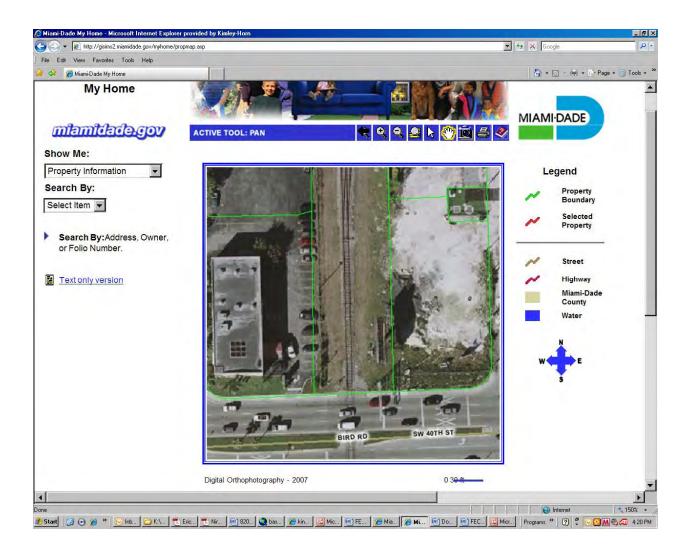


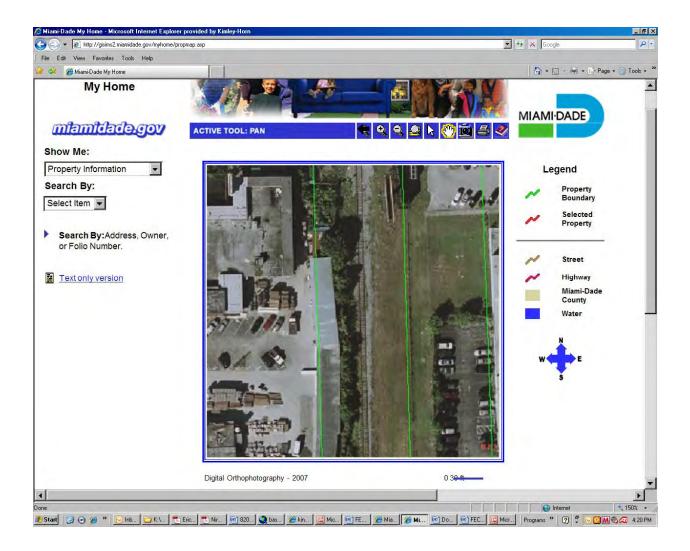


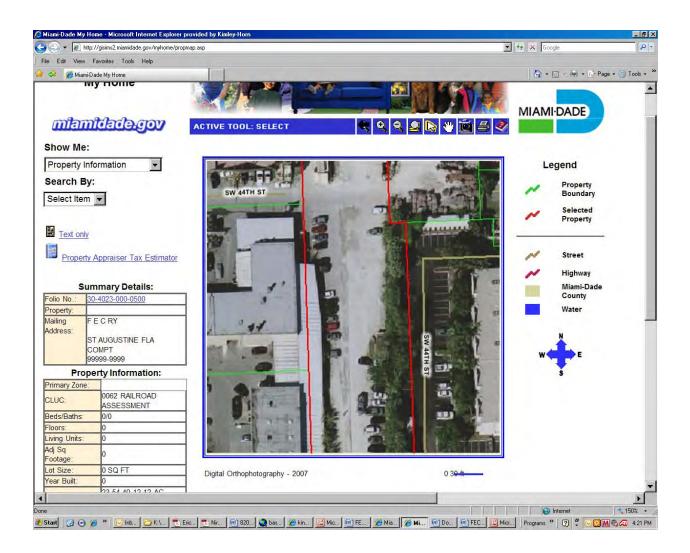


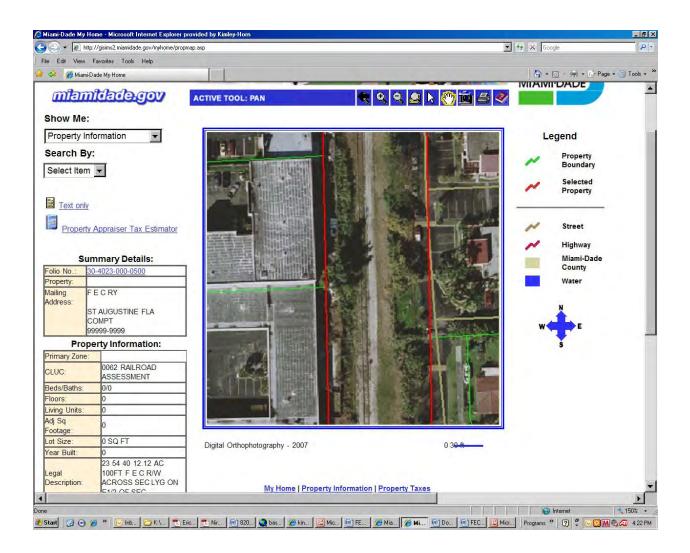




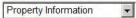












Search By:

Select Item -



Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-4035-000-1170	
Property:		
Mailing Address:	F E C RY % M O BAGLEY P O BOX 1048 ST AUGUSTINE FL 32085-	

Property Information:

Primary Zone:		
CLUC:	0062 RAILROAD ASSESSMENT	
Beds/Baths:	0/0	Ī
Floors:	0	
Living Units:	0	
Adj Sq Footage:	0	
Lot Size:	0 SQ FT	
Voor Built	0	



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0 100 #



Legend

Show Me:

Property Information

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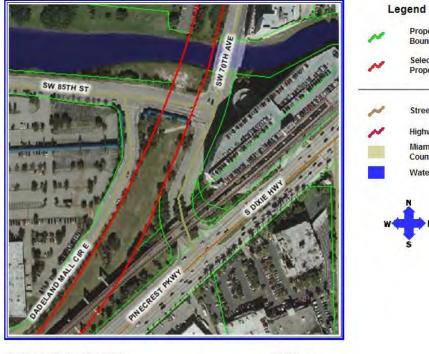
Property Appraiser Tax Estimator

Summary Details:

Folio No.:	30-4035-000-1430	
Property:		Т
Mailing Address:	FEC RR CO % M O BAGLEY P O BOX 1048 ST AUGUSTINE FL 32085-	

Property Information:

Primary Zone:	
CLUC:	0062 RAILROAD ASSESSMENT
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	0 SQ FT
N D 31	



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0 100 #

Property Boundar

Selected Property

Street Highway

Miami-D County Water