Southeast Florida Regional Climate Change Compact
Transportation Workshop
April 29, 2015
Today’s Presentation

- Introduction to SFRTA
- Regional Transportation Overview
- West Palm Beach Case Study
What is SFRTA?

• Created by the legislature in 2003, with the help of the business community.
• Operator of Tri-Rail since 1989.
• Primary Goals:
  – Bringing Federal transportation funds to South Florida.
  – Planning, building and operating premium rail transit service within the region.
Current Tri-Rail Service

- 72 mile system, 18 stations
- 50 trains per weekday
  - Peak- 20 & 30 minutes
  - Off Peak- 60 minutes
- Hourly weekend service since March 2013
-Primarily choice riders, suburban market
Tri-Rail ridership increased 140% from 2005 to 2014.
Common Goals

400 Cars = 8 Buses = 1 Commuter Train

Calculated using seating capacity for standard transit bus and a three-car Tri-Rail train set
Public Transportation is Green

A fully occupied train car is **fifteen times** more fuel efficient than a single occupant car.

Source: American Public Transportation Association Fact Book, 2013
Common Goals

Transit-Oriented Development (TOD) Is More Energy Efficient

<table>
<thead>
<tr>
<th></th>
<th>Millions of BTUs of CO² Used Per Year</th>
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</thead>
<tbody>
<tr>
<td>Conventional Suburban Development</td>
<td>132</td>
</tr>
<tr>
<td>Transit Oriented Development</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: US Environmental Protection Agency, 2011
## Common Challenge

Source: Southeast Florida Regional Climate Action Plan

<table>
<thead>
<tr>
<th>Sector</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Five Yr Avg</th>
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<tbody>
<tr>
<td>Residential</td>
<td>19,963,638</td>
<td>19,989,441</td>
<td>18,685,833</td>
<td>18,186,886</td>
<td>18,237,990</td>
<td>19,012,757</td>
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<tr>
<td>Commercial</td>
<td>17,884,892</td>
<td>18,212,352</td>
<td>17,356,620</td>
<td>17,314,930</td>
<td>17,083,809</td>
<td>17,570,521</td>
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<tr>
<td>Industrial</td>
<td>1,075,979</td>
<td>1,103,572</td>
<td>961,883</td>
<td>888,111</td>
<td>811,016</td>
<td>968,112</td>
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<tr>
<td>Transportation</td>
<td>30,793,879</td>
<td>30,853,046</td>
<td>30,373,200</td>
<td>29,300,926</td>
<td>28,784,969</td>
<td>30,021,204</td>
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<tr>
<td>Totals</td>
<td>69,718,390</td>
<td>70,158,412</td>
<td>67,377,537</td>
<td>65,690,854</td>
<td>64,917,785</td>
<td>67,572,596</td>
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</table>
SP-31(a) Improve connections among Tri-Rail and county transit service, municipal trolley and community shuttle bus services....
Over the past three years, monthly ridership has nearly doubled from approximately 45,000 to over 90,000.
SP-19  Focus transportation investments and service expansions on projects and strategies contributing to greenhouse gas emissions reductions and enhancing resilience to climate change.
Meeting the Expectations of Millennials

- Greater use of bicycles and shuttle buses to/from stations
  - Dedicated bicycle railcars
  - Bicycle lockers at stations
- Wi-Fi
  - Onboard
  - At stations
- Real-time information
  - Smartphone app
  - Website

Bike car now in use on Altamonte Commuter Express (ACE) system in California
Now Serving Miami International Airport

- New MIA service began on April 5, 2015
- Metrorail connection is operational
- MIA Mover is operational
- Amtrak service is the next step
• 2.74 mile, 10 station streetcar system.
• Multi-party partnership. SFRTA lead agency.
• Broward County will be the operator.
• Engineering plans are being developed for the first phase.
• 80+ miles of new commuter rail service on FEC Railway corridor
  – Downtown Miami to Jupiter
  – Fully integrated expansion of Tri-Rail

• 20 to 25 new stations linking dozens of municipalities and major destinations

• Will share existing and new tracks with FEC freight and the planned All Aboard Florida (AAF) inter-city service
  – Three co-located stations with AAF

• Strong ridership potential

• Extensive economic development

• Projected opening in FY 2020-21
• Improved travel times for the region’s residents, employees and visitors

• Tri-Rail Coastal Link travel times:
  - Palm Beach Gardens-WPB – 15 min
  - WPB-Downtown Delray Bch – 22 min
  - Boca Raton-Fort Lauderdale – 34 min
  - Fort Lauderdale-Hollywood – 14 min
  - FLL Airport-Downtown Miami – 45 min
  - Aventura-Downtown Miami – 29 min
  - Midtown-Downtown Miami – 7 min
TRCL and AAF Rail Projects

**Tri-Rail Coastal Link – Commuter Rail Service**

- **Commuter Passenger Rail**
  - 25+ round-trip trains per day
- **Commuters and local travelers**
- **Miami to Jupiter**
- **85 miles with potential for phased implementation**
- **Fully integrated extension of Tri-Rail system**
- **Station spacing at 2-5 miles**
- **Mix of public funding sources to be pursued**

**All Aboard Florida – Intercity Passenger Rail Service**

- **Inter-city Passenger Rail**
  - 16 round-trip trains per day
- **Tourists and regional travelers**
- **240 miles from Miami to Orlando**
- **3 Stations in Tri-County area**
- **Privately funded**

Ongoing coordination between the two projects
• Key east-west rail connections between Tri-Rail/CSX & FEC
  — Allow for an integrated freight & passenger rail network

• USDOT TIGER V grant award
  — Multi-agency public-private partnership
  — $47.2 M total cost
    ▪ TIGER- $13.7 M
    ▪ FDOT- $29 M
    ▪ CSX- $1 M
    ▪ FEC- $1 M
    ▪ SFRTA- $2.5 M
  — Opens opportunities for near-term Tri-Rail expansion

Fully funded rail connections

Iris- 2016

Northwood- 2018

UPD 7-15-19

Page 2 of 2
FEC and new Tri-Rail locomotive at USDOT TIGER Grant Award Ceremony – Sep 13, 2013
New Northern Layover Facility

• More efficient end-of-line location
• Adds greatly needed train storage capacity
  – Existing Tri-Rail system
  – Planned FEC Corridor Expansion
• Federal environmental clearance received in late 2013
• Key funding support from Palm Beach MPO
New Palm Beach County Tri-Rail Stations

• Strong local and MPO desire for two new stations (on existing line)
  – Palm Beach International Airport
  – Boca Town Center area
• Further analysis and approvals required
• Boca Town Center station is partially funded in TIP
Palm Beach MPO Support for SFRTA/Tri-Rail

- **Jupiter Tri-Rail Extension** (LRTP Cost Feasible Plan - $125M)
- **V.A. Medical Center Tri-Rail Extension** (LRTP Cost Feasible Plan - $63M)
- **Park & Ride Expansions** (LRTP Cost Feasible Plan - $10M, $15M)
- **New Palm Beach International Airport Station** (LRTP Cost Feasible Plan - $22M)
- **Full Tri-Rail Coastal Link Project** (LRTP Desires Plan)
- **New Northern Layover Facility** (TIP - $36M)
- **Park & Ride Expansion** (LRTP Cost Feasible Plan - $11M)
- **New Boca Town Center Area Station** (TIP - $18M)
Currently under design, construction to be completed by early 2016
Initiating Tri-Rail Downtown Miami Link

• Partnership with FEC Railroad
• 26 direct weekday trains to Downtown Miami
• Service as early as Dec 2016
• Discussions now taking place with elected officials and various agencies
Cross section of the proposed “MiamiCentral” Station in Downtown Miami
MiamiCentral Station & Transit Oriented Development

ONE MIAMICENTRAL
600,000 RSF (Office)
280 Residences
250 Hotel Rooms

TWO MIAMICENTRAL
190,000 RSF (Office)
10 Floors
300 Parking Spaces

THREE MIAMICENTRAL
90,000 RSF (Office)
35,000 RSF (Retail)
12 Floors
1,100 Parking Spaces

Luxury Residential Tower
30 Floors
350 Units
400 Parking Spaces

Urban Residential Tower
33 Floors
450 Units
400 Parking Spaces
Miami Opportunities

Source: Miami-Dade MPO’s Rail Convertability Study (2004)
# West Palm Beach Case Study

**Downtown West Palm Beach Historic Growth and Transit Patterns**  
Source: Treasure Coast Regional Planning Council  
April 2015

<table>
<thead>
<tr>
<th>Downtown Growth</th>
<th>2005</th>
<th>2014</th>
<th>DELTA</th>
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</thead>
<tbody>
<tr>
<td>Residential Units</td>
<td>3,772 dwelling units</td>
<td>6,444 dwelling units</td>
<td>+2,652 dwelling units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(+70%)</td>
</tr>
<tr>
<td>Non-Residential Square Footage</td>
<td>9,307,247 SF</td>
<td>10,128,464 SF</td>
<td>+821,217 Square Feet</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(+8%)</td>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Dixie Highway (Monroe – Belvedere)</td>
<td>21,348 Average Daily Trips</td>
<td>17,638 Average Daily Trips</td>
<td>-17.4 %</td>
</tr>
<tr>
<td>Dixie Highway (Belvedere-Okeechobee)</td>
<td>18,761 Average Daily Trips</td>
<td>16,559 Average Daily Trips</td>
<td>-11.7 %</td>
</tr>
<tr>
<td>Olive Avenue (Monroe – Belvedere)</td>
<td>8,907 Average Daily Trips</td>
<td>3,624 Average Daily Trips</td>
<td>-59.3 %</td>
</tr>
<tr>
<td>Olive Avenue (Belvedere-Okeechobee)</td>
<td>14,435 Average Daily Trips</td>
<td>3,100 Average Daily Trips</td>
<td>-77.9 %</td>
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</table>

<table>
<thead>
<tr>
<th>Delta Matrix</th>
<th>DELTA (2005-2013)</th>
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<tbody>
<tr>
<td>Residential Units</td>
<td>+70 %</td>
</tr>
<tr>
<td>Non-Residential SF</td>
<td>+8 %</td>
</tr>
<tr>
<td>Tri-Rail Ridership</td>
<td>+140 %</td>
</tr>
<tr>
<td>Palm Tran Ridership</td>
<td>+30 % (for key downtown Routes 1, 2, 31, 40, 43)</td>
</tr>
</tbody>
</table>
| Trolley Ridership         | 2014 - Yellow Line (Clematis-CityPlace) = 847,000 riders  
                          | 2014 - Green Line (Commuter Circulator) = 135,772 riders  
                          | TOTAL 2014 Ridership = 582,000 riders (+65% since 2005) |
Regional Climate Action Plan Goal

SP-21  Support effective planning and implementation of transit oriented developments....
SP-23(a) Identify potential future land use map and other comprehensive plan changes at the local level.
SP-22 Introduce a new activity-based regional travel demand forecast model to directly simulate individual trip making and mode choice behaviors.
SP-31(c) Develop planning strategies to address planning for the “First and Last Mile” of transit trips, which act as barriers for commuters....
This is not a Fluke

Miami-Dade MPO’s Strategies for Integration of Sustainability and the Transportation System saw similar results.
Takeaways

• New regional transit projects will help meet climate change goals
• Consistent transportation performance measures may help meet climate change goals.
• Land use changes combined with transit, bicycling and pedestrian facilities has a significant impact.
• Cities and Counties are key to maximizing the benefits of transit facilities.
• Keep at it - it it is a long term project.
**Market and Economic Analysis**

- **$1.4 Billion of Projected New Development Due to Tri-Rail Coastal Link**
  - $580 Million of new residential development
    - 5,500 new residential units
  - $850 Million of new commercial development
    - 8.3 Million square feet
  - $18 Million of new tax revenue

- **Other Projected Economic Benefits**
  - $630 Million of overall economic output
  - $250 Million of labor income
  - 28,000 new permanent jobs

*Source: Station Area Market & Economic Analysis Report, June 2013; SFRTA*
• Existing Tri-Rail Strengths
  – Reliable rail service with minimal freight impacts
  – Key market: long, inter-county work trips
  – Good access to airports
  – Plentiful park & ride access

• Existing Tri-Rail Constraints
  – No direct access to CBDs, denser residential areas and activity centers in eastern communities
  – Heavy reliance on connecting transit services
  – Economic development challenges due to industrial land uses and proximity to I-95

• Tri-Rail + TRCL = Stronger Connections
  – Directly connects Tri-Rail to CBDs and major activity centers
  – Connects Tri-Rail park-and-rides to walk-accessible FEC attractions
  – Connects to AAF, Metrorail, Metromover, WAVE Streetcar, and virtually every major bus route in the region
  – Connects established areas with economic development opportunities
The region’s **economic** core
- 1 million jobs
- 1.5 million people
- Multiple downtowns
- 3 international airports & 3 seaports
- Extensive rail, truck, and marine freight

The region’s **transportation** core
- 3 million trips per day comprise 17% of the region’s travel
- Ridership growing on existing transit services
- Roadways at capacity; limited opportunities for expansion
**Tri-Rail Downtown Miami Link**

**Project Elements & Costs**

- **Rail infrastructure**
  - Track & Signals
  - Grade crossing upgrades
    - Allowing for new Quiet Zones (on E-W segment)
  - Positive Train Control (PTC)

- **Corridor access fee**
  - Permanent perpetual easement
  - Iris Connection to Downtown Miami

- **MiamiCentral Station**
  - Tri-Rail section of the elevated station
  - Tri-Rail portion of shared station elements and supports

$19.3 Million

$1 Million

$48.6 Million
## Draft Funding Framework as of 3/23/15

<table>
<thead>
<tr>
<th>Entity</th>
<th>Cost</th>
<th>% of TIF</th>
<th>% of Overall Cost of Project</th>
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<tbody>
<tr>
<td>SEOPW CRA</td>
<td>$39,064,890</td>
<td>33.63%</td>
<td>56.68%</td>
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<tr>
<td>Omni CRA</td>
<td>$1,208,192</td>
<td>N/A</td>
<td>1.75%</td>
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<tr>
<td>City of Miami</td>
<td>$0</td>
<td>0.00%</td>
<td>0.00%</td>
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<tr>
<td><strong>Sub-Total for TIF Participants</strong></td>
<td>$40,273,082</td>
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<td><strong>58.43%</strong></td>
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<td>Miami-Dade County</td>
<td>$8,357,349</td>
<td>N/A</td>
<td>12.13%</td>
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<tr>
<td><em>Florida Department of Transportation (FDOT)</em></td>
<td>$17,190,000</td>
<td>N/A</td>
<td>24.94%</td>
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<td><em>Requested</em></td>
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<tr>
<td>South Florida Regional Transportation Authority (SFRTA)</td>
<td>$3,100,000</td>
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<td>4.50%</td>
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<tr>
<td><strong>Sub-Total Non-TIF Participants</strong></td>
<td>$28,647,349</td>
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<td><strong>41.57%</strong></td>
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<td><strong>Total</strong></td>
<td>$68,920,431</td>
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<td><strong>100.00%</strong></td>
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### Proposed Project Timeline

#### Tri-Rail Downtown Miami Link - Proposed Project Timeline

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<tr>
<th>Approvals/Agreements</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>Local Gov't</td>
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<tr>
<td>MPO</td>
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<tr>
<td>SFRTA</td>
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<td>FTA</td>
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<th>Project Phase</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Environmental/NEPA Analysis</td>
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<tr>
<td>Design/Build</td>
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<tr>
<td>Tri-Rail Train Testing</td>
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<tr>
<td>Tri-Rail Operations</td>
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<th>Related Components</th>
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<th>2016</th>
<th>2017</th>
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<td>AAF Track Construction</td>
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<tr>
<td>AAF Station Construction</td>
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<tr>
<td>AAF Train Testing</td>
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<tr>
<td>AAF Operations</td>
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<tr>
<td>Iris Connection Design</td>
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<tr>
<td>Iris Connection Procurement</td>
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<tr>
<td>Iris Connection Construction</td>
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- **CITT, City, CRA & County funding agreements with SFRTA**
- **TIP Adoption/Amendment & LRTP Amendment**
- **Agreements with local gov’ts and FEDI/AAF**
- **Sign/approve Letter of No Prejudice**
- **NEPA Approval-Categorical Exclusion**

**Led by SFRTA**
Tri-Rail Downtown Miami Link
and Other Rail Expansion Opportunities

Existing Tri-Rail
Proposed Tri-Rail
Downtown Miami Link
Future Tri-Rail Coastal Link
Potential Tri-Rail Kendall & East-West/Dolphin Ext.
Existing MDT Metrorail
Existing MDT Metromover

Golden Glades (State Road 9)
Opa-Locka
Tri-Rail/Metrorail Transfer
Hialeah Market
Miami Int’l Airport
Midtown/Wynwood/Design Dist.
Downtown Miami/Overtown
79th St/Upper Eastside
North Miami
North Miami Beach

To Aventura & Broward County
To Zoo Miami & Homestead