

Incorporating Sustainability into Individual Projects to Achieve Long-Term Goals Andy Rodgers, P.E. Program Administrator, Jacksonville Transportation Authority



# JTA Background

- 1955 Formed as the Jacksonville Expressway Authority (JEA)
   an independent agency of the State of Florida
- 1971 Began bus service and renamed the Jacksonville Transportation Authority (JTA)
- JTA provides bus, paratransit, ferry and Skyway services, and constructs transportation infrastructure including roads and bridges

## We Are JTA





# 875 Employees/Contractors 325 Vehicles 798 Service Area (in square miles)

# Jacksonville, Florida

#### Size:

- 884 square miles
- Largest city in contiguous U.S.

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## Population (2017):

- City of Jacksonville 892,000
- Metro area 1,631,000
- 12th most populous city in nation





- APTA Sustainability Commitment signed in 2013
- Sustainability Committee formed in 2014
  - Provided focused approach to sustainability-driven projects
- Earned APTA Silver-Level recognition in 2017





# **Removing Barriers**

#### Cultural acceptance

- CEO signed APTA sustainability commitment
- Formal committee formed to set priorities and formulate policies
- Sustainability added to mission statement
- Sustainability added as a strategic goal



# **Removing Barriers**

## Limited funding for competing priorities

- Adopted phasing of projects and initiatives to expedite final completion of long-term goals
- Limited technical expertise
  - Identified experienced and interested staff and consultants to lead early initiatives
  - Regulatory requirements
    - Recent legislation pushing for change and relaxing of restrictions on solar



# **Transformational Projects**

## **Key Capital Programs Driving Long-Term Goals**

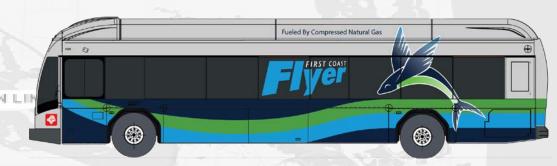
- First Coast Flyer Bus Rapid Transit
- Jacksonville Regional Transportation Center
- JTAMobilityWorks
- Ultimate Urban Circulator (U<sup>2</sup>C)
- Facility Improvements
- Bus Stop Improvements





# **First Coast Flyer**

- Four bus rapid transit corridors
- 80 stations
- Largest system in the SE United States
  - = 20 miles currently in service
  - 57 total miles when complete
- Sustainability measures
  - 100% CNG buses
  - CNG fueling station built through publicprivate partnership
  - 1st planned mobility hubs



Ocean Energy Netural Gas for Vehicles

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# Jacksonville Regional Transportation Center

### Phase I – Intercity Bus Terminal

- 9,600 square feet
- E Conditioned customer waiting area, 9 bus bays, café and Greyhound administrative offices
- Greyhound began operations in April 2018

## Sustainability measures

- LED lighting and daylighting
- Cool roof
- Waste diversion > 90%
- LEED certification pending





# Jacksonville Regional Transportation Center

- Phase II JTA Administration
   Building and Bus Transfer Facility
  - 60,000 square feet
  - Administrative offices, conditioned customer waiting area, 21 bus bays, lease space and public spaces
  - Completion in early 2020
- Sustainability measures
  - LED lighting and daylighting
  - Cool roof
  - Sustainability educational kiosk
  - LEED certification anticipated





# **JTAMobilityWorks**

- Program includes 13 roadway projects and improvements in 14 mobility corridors
  - Transit Enhancements
  - Complete Streets
    - > 1st program in Jacksonville
- Sustainability measures
  - ED roadway lighting
  - Quality of life improvements to ensure access by all modes of transportation







# Ultimate Urban Circulator (U<sup>2</sup>C)

- Proposed autonomous vehicle system
- Builds on existing JTA assets (Skyway system) to create a more accessible, versatile, world-class, demand responsive system that fully connects downtown Jacksonville with the vibrant urban neighborhoods
  - Conversion and expansion of existing system
- 2 year test track pilot underway
- Sustainability measures
  - Alternative vehicles with low emissions
  - Proposed solar section for autonomous avenue test track
  - Sustainability aspects to be driven into design



# **Facility Improvements**

- Myrtle Avenue Operations Campus Improvements
  - Upgrade exterior lighting to LED
  - Renovate and improve service station
- Sustainability measures
  - Formed design basis for new LED lighting standards to be used on all future projects
  - Solar hot water heating system for bus wash
  - New roof with solar panels
  - Potential LEED certification









# **Bus Stop Improvements**

- Program has more than doubled total number of ADA compliant stops since 2014
- Work includes construction of ADA compliant bus stop pads, installation of shelters and amenities and lighting enhancements
   Sustainability measures
  - Solar lighting retrofit of original shelters (now standard for all non-BRT shelters) Accessibility and quality of life - bus stop pads and amenities



# **Program Goals – Next Steps**

## Additional Committed Goals

Reduction of waste, electricity, and water

- Projects planned for solar installation and irrigation system upgrades
- Zero emission electric buses 1st in 2019
- Formal sustainability plan and annual report
- Bridge lighting upgrade
- Bike share program





- Identify long-term goals and develop strategies to accomplish them
  - **≡** Funding
  - Implementation
- Avoid "all or nothing" approach
- Identify phasing plans to increase opportunities
- Consider sustainability elements in design of every project
- Be creative







## **Thank You**

