

BROWARD MPO BOARD TRANSIT ACADEMY

# ELEMENTS & PRINCIPLES OF BUS RAPID TRANSIT

OCTOBER 12, 2023



<https://youtu.be/o3YFdQ3XCIU?si=j4wkf8P4mov0AWqK>

*Bus Rapid Transit, courtesy of MARTA, Atlanta*

# BUS RAPID TRANSIT IN BROWARD

## 76 MILES OF BRT SERVICE

- **NORTH/SOUTH**
  - **UNIVERSITY, SR7/441, POWERLINE**
- **EAST/WEST**
  - **COMMERCIAL, OAKLAND PARK, SUNRISE**
- **ANTICIPATED INVESTMENT: \$1.32B**
- **ANTICIPATED RIDERSHIP: 9.7 – 15.2 MILLION ANNUALLY**



# WHY CHOOSE BUS RAPID TRANSIT?

- BUS/RAIL HYBRID
- INTEGRATED, MODERN TRANSIT SYSTEM
- FASTER TRAVEL TIMES
- TRANSIT-ORIENTED SUSTAINABLE DEVELOPMENT
- REDUCED EMISSIONS
- COST-EFFECTIVE

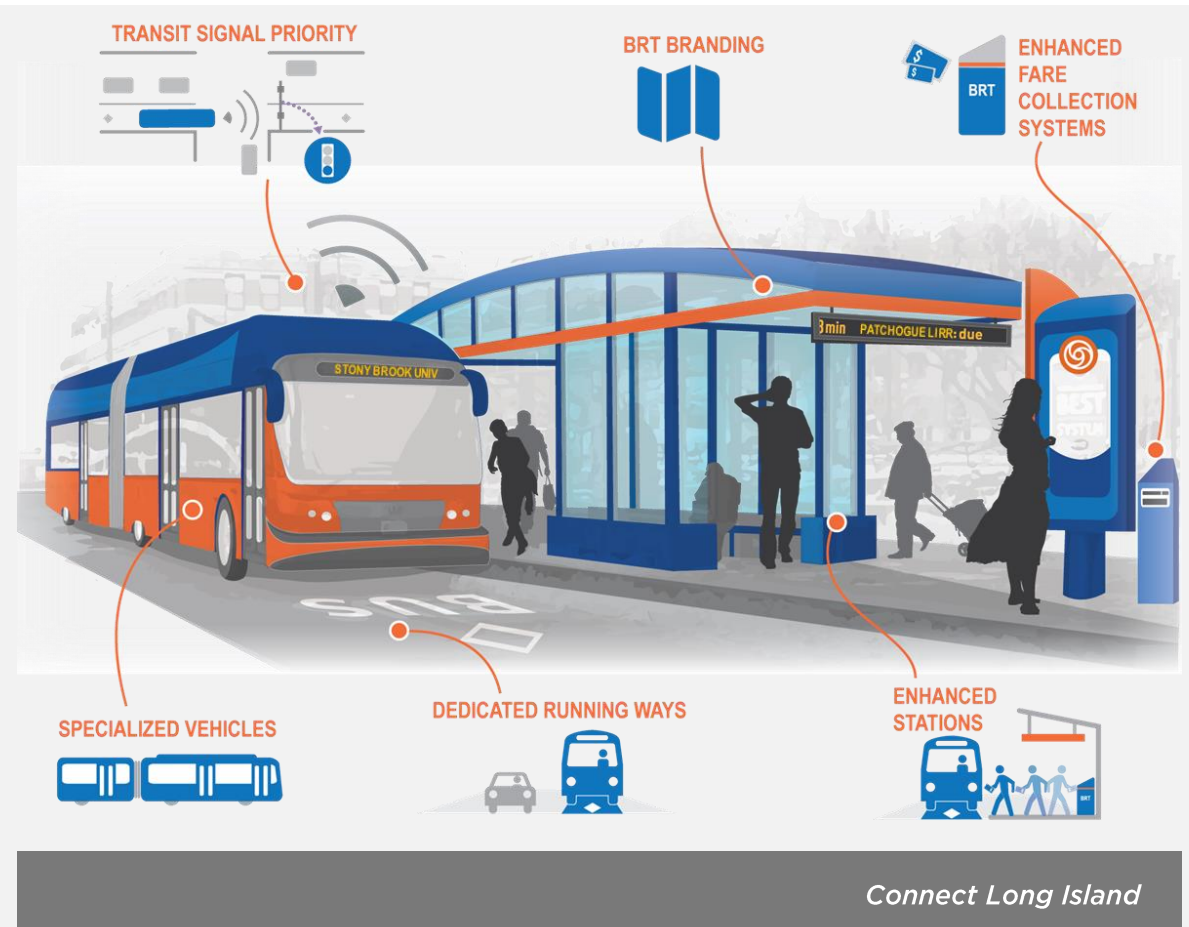
BRT  25 Miles'

LRT  3.6 Miles



# BASIC FEATURES OF BUS RAPID TRANSIT

- DEDICATED RIGHT OF WAY
- INTERSECTION TREATMENTS
- PLATFORM-LEVEL BOARDING
- OFF-BOARD FARE COLLECTION
- HIGH-CAPACITY VEHICLES
- QUALITY, DISTINCT STATIONS
- UNIQUE IDENTITY/BRAND
- VEHICLE, STATION SECURITY



# HOW IS BUS RAPID TRANSIT DIFFERENT FROM FIXED-ROUTE BUS?

- DOES NOT RUN IN MIXED TRAFFIC
- SIGNAL PRIORITY
- ALL DOOR BOARDING
- STATIONS, NOT STOPS
- ELEVATED PLATFORMS
- STATIONS SPACED FURTHER APART
- PASSENGER AMENITIES
- SHORTER HEADWAYS
- REAL-TIME ARRIVAL INFORMATION
- INTELLIGENT TRANSPORTATION SYSTEMS



# ELEMENTS OF GOLD STANDARD BUS RAPID TRANSIT



**GOLD**  
**ALBUQUERQUE**  
**REGIONAL TRANSIT**

- ✓ 10 miles
- ✓ 19 stations
- ✓ \$135 million
- ✓ Dedicated lanes
- ✓ Off-board ticketing
- ✓ signal prioritization
- ✓ 7-8 minute frequency

**SILVER**  
**CLEVELAND HEALTHLINE**

- ✓ 6.8 miles
- ✓ 59 stations
- ✓ 7-8 minute frequency during peak travel
- ✓ \$200 million
- ✓ Off-board ticketing
- ✗ Limited signal prioritization
- ✗ Some raised platforms
- ✗ Some dedicated lanes



**BRONZE**  
**PITTSBURGH DR. MARTIN**  
**LUTHER KING JR. EAST BUSWAY**

- ✓ 9.2 miles
- ✓ 10 stations
- ✓ 10-20 minute frequency
- ✓ \$540 million
- ✓ Dedicated lanes
- ✓ Connecting routes
- ✗ No off-board ticketing
- ✗ No signal prioritization
- ✗ No platform-level boarding

SOURCE: INSTITUTE FOR TRANSPORTATION AND DEVELOPMENT POLICY

- **THE SERVICE MUST RUN IN DEDICATED LANES THROUGHOUT THE ENTIRE SYSTEM**
- **MUST HAVE 10-MINUTE (OR LESS) HEADWAYS**
- **MUST HAVE OFF-BOARD TICKETING**

- **STATIONS MUST BE SAFE, WIDE, WEATHER-PROTECTED**
- **VEHICLES MUST BE SLEEK, STYLISH, AND HAVE PRIORITY**
- **STATIONS MUST HAVE LEVEL BOARDING**

Institute for Transportation and Development Policy

# SUCCESSFUL BUS RAPID TRANSIT SYSTEMS AVOID *BRT CREEP*

## BRT IS TOO EASY TO DOWNSCALE TO **SAVE MONEY**

- NO DEDICATED LANES
- BUILD STOPS, NOT PROMINENT STATIONS
- OMIT OFF-BOARD TICKETING
- NO SIGNAL PRIORITY
- INADEQUATE BRANDING

ALL CUTBACKS DEGRADE SERVICE, EXPERIENCE;  
**IMPACT RIDERSHIP**



# A BLUEPRINT FOR SUCCESS

- **OPERATIONS PLANNING**
  - DEMAND ANALYSIS, CORRIDOR/NETWORK DEVELOPMENT, SERVICE PLANNING
- **COMMUNICATIONS AND MARKETING**
  - STRATEGIC PLANNING, MARKETING, PUBLIC ENGAGEMENT
- **GOVERNANCE AND FINANCING**
  - PROJECT GOVERNANCE, FINANCING THE BRT CORRIDOR



Albuquerque Rapid Transit

# A BLUEPRINT FOR SUCCESS

- **INFRASTRUCTURE PLAN**
  - **ROADWAY AND STATION CONFIGURATIONS, ROADWAY DESIGN, INTERSECTIONS & SIGNALS, STATIONS, GARAGES**
- **TECHNOLOGY**
  - **FLEET, FARE SYSTEM, TRAFFIC SIGNAL CONTROLS**
- **CORRIDOR INTEGRATION**
  - **MULTIMODAL INTEGRATION, PEDESTRIAN CONNECTIONS, BICYCLE & MICROMOBILITY CONNECTIONS, TRANSPORTATION DEMAND MANAGEMENT STRATEGIES, EQUITABLE TRANSIT-ORIENTED COMMUNITIES**



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# QUESTIONS?

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