

# Exploring I-75's Transit Needs



## Transit Study Objective and Purpose

A transit component has been included in this Project Development and Environment (PD&E) Study. FDOT identified a transit alignment within the I-75 right-of-way in Broward County and evaluated various locations for a transit corridor in Miami-Dade County. The transit analysis limits are from the Miami-Dade Metrorail in Miami-Dade County to the proposed Central Broward East-West Transit system in Broward County (currently under the Project Development phase), a distance of approximately 22 miles.

Multiple transit corridors have been evaluated in Miami-Dade County between I-75 at the Florida Turnpike interchange to existing or future Miami-Dade Metrorail system. It was decided that the ultimate transit guideway envisioned in an earlier Master Plan would not be included in this near-term Project Development Study, however an envelope for the future guideway would be preserved wherever possible, within the Right of Way.

## Transit Technologies Evaluated

This I-75 PD&E Study evaluated different technologies for the transit corridor (guideway) along I-75. Three different technologies were considered. An overview of these technologies is presented below. Again, a technology will not be selected as part of the PD&E Study; rather a design "envelope" wide enough for any technology will be preserved.

### Bus Rapid Transit (Bottom Left)

Bus Rapid Transit (BRT) consists of buses operating on exclusive lanes that can be within the I-75 right-of-way. These lanes can either be located in the median of the freeway or to either side of the existing highway lanes (within the right-of-way). The potential BRT system would be similar to the South Dade Busway except that buses would be grade-separated from cross-street traffic at the interchanges.

#### *Bus Rapid Transit Characteristics*

*Vehicle length – 40 to 60-feet*

*Running way width – 30 to 45-feet*

*Operating speed – similar to adjacent highway, 55 to 70 mph*



### Light Rail Transit (Bottom Center)

Light Rail Transit (LRT) consists of trainsets operating on tracks and with an overhead electrical power system. Light rail is a flexible technology that can be located in city streets as well as exclusive rights-of-way such as what is being considered for I-75. LRT is the technology being considered for the Central Broward East-West Transit System.

### Heavy Rail Transit (Bottom Right)

Heavy Rail Transit (HRT) consists of electrically-powered vehicles operating on rails. Unlike light rail, heavy rail receives its electrical power from a "third rail" alongside the tracks, at ground level. HRT is the technology used by the existing Miami-Dade Metrorail System.

### Transit Station Areas

Transit station areas and Park and Ride lots were evaluated during this study. Stations will be located adjacent to the transit guideway. Stations would ultimately include parking, shelters, seating, wind protection, and other amenities.

### Phased Transit Implementation

The transit improvements will be phased into the I-75 corridor as ridership demand warrants. Phase I would include express buses sharing the median special use lanes (managed lanes), as well as Park and Ride facilities within the existing interchange areas in Broward County. Two Park and Ride lots are envisioned in Broward County for Phase I, one at the Griffin Road interchange and one at Pines Boulevard interchange.

Phase II for the transit improvements could include the actual transit guideway for the ultimate corridor technology within the I-75 right-of-way. Highway improvements will be designed to not preclude the provision of the future Phase II improvements, wherever possible within the existing Right of Way.

#### *Light Rail Transit Characteristics*

*Vehicle length – 50 to 80-feet with*

*2-4 cars per trainset*

*Running way width – 25 to 35-feet*

*Operating speed – up to 60 mph*



#### *Heavy Rail Transit Characteristics*

*Vehicle length – 40 to 70-feet with*

*2-10 cars per trainset*

*Running way width – 25 to 35-feet*

*Operating speed – 50-80 mph*

